

DRAFT FOR FEEDBACK

Response to ARC Consultation ERA EI Review

Questions in the Consultation Paper

Section 3 Excellence in Research for Australia

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.

*Government – Now in its 5th cycle (2023) ERA provides the Government with **a large amount** of longitudinal data on the excellence of research in Australian Higher Education (HE). Industry, business and the wider community – **a small amount**. Apart from well-informed industry partners, we are not aware of any evidence that suggests that ERA is well recognised or serves any meaningful purpose outside of Government, research organisations and HE.*

- 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.

***A large amount** – bearing in mind that the ‘stocktake’ is at the four-digit level, ERA provides sufficient information to assess and inform development opportunities.*

- 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.

***A large amount** – although there are limitations in using the four-digit fields of research. Scholars within each field are aware of the strengths within their field at a more granular level. The abundance of 4/5 ratings in ERA 2018 has reduced the utility of ERA for others to identify excellence at the highest level.*

- 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.

Not at all. *Institutions would tend to use more nuanced means than ERA to assess emerging areas of strength.*

- 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.

A large amount nationally. A moderate amount internationally and this is especially the case in peer review disciplines.

- 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.

Neither agree or disagree. *ERA provides a snapshot in time and therefore should only be considered one source or reference for Government and HE stakeholders, albeit an important one. If ERA is to meet the future needs of industry and community stakeholders then the Government would need to conduct quite a serious education and marketing campaign as most members of the public would regard it as something equivalent to university rankings and therefore dismiss the outcomes.*

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

Continue to develop ERA as an evaluation framework that gives government, industry, business and the wider community an understanding of the excellent research conducted in Australian higher education institutions. Government also needs to take a stronger role to properly educate, inform and disseminate and incentivise industry partnerships and private investment.

- Q3.3 What impacts has ERA had on:

- a. the Australian university research sector as a whole

*ERA has played an essential role in **developing a culture of research excellence** in Australia and assisting the sector to understand how it benchmarks against the world. It has also provided useful benchmarking, robust data collection and integrated comprehensive dataset not available before.*

- b. individual universities

*Likewise, **ERA has complemented other data sources to inform decisions** at the local level around investment in research, strategic recruitment, performance management and promotion, formation of partnerships, and research communications.*

c. researchers

*ERA has always been about assessment of research strengths in the institution, unlike the UK REF. Griffith University therefore has **never attempted to make ERA ‘personal’** in that our submission is developed by research leaders from each assessable field. In saying this, researchers can and do use ERA to promote their membership of a high rating Field of Research for various means.*

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

*We use ERA advisedly for the purposes described in Q3.3b but it would **rarely, if ever, be used as the sole point of reference for analysis.***

Q3.5 ERA outcomes are beneficial to you/your organisation. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.

***Strongly agree** – ERA outcomes have redefined how this institution perceives itself as a research university and it continues to play an important role in building institutional reputation.*

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

*Better comparability among institutions could be easily achieved by **making the volume of outputs available** enabling better understanding and analysis. Better feedback from the peer review disciplines would make ERA more valuable and transparent.*

ERA methodology

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

***Neither agree or disagree.** Not Objective 1 because it seems no one is translating methodology and ERA data to assure stakeholders. Not objective 4 as this is not explicit in the methodology, not even mentioned in the ERA report; what is an emerging field area of research? good quality but low volume? Objective 5 yes for comparison within Australia but peer review does not have a significant international component. Current methodology meets some of the objectives but could be updated and improved. The citation analysis is very good, the peer review could improve, and citation analysis could be incorporated to peer review fields of research as*

normalised citation impact is now widely used in all disciplines, indexed journals in HASS have increased, international standards would apply, could be complementary to peer review.

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

*The **citation analysis works well**, working with data provider during preparation of submission gives robust dataset, transparent citation data, it is an informative analysis. Indicators work well, some applied measures not relevant or informative.*

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

*The **peer review could be more international** or complemented by normalised citation impact (ranking systems are based on citations for both sciences and HASS), more diverse panels. The methodology makes it overly demanding on universities, staff time and resources.*

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?

Any criticisms aside, it would be challenging to nominate a superior approach without rendering ERA less efficient.

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.

***Agree.** However, the low volume threshold should be higher (100 weighted outputs would be acceptable). A higher low volume threshold would improve comparability issue between fields and institutions (e.g. 10 highly cited papers out of a total 200 outputs compared to say 55 outputs).*

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

*It is universal, objective, **bibliometrics** is a known science, transparent.*

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

*Apart from the need to increase the low volume threshold, the **analysis is good**.*

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

No need to modify the methodology as such.

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.

***Neither agree nor disagree.** There is no question that the peer review method is more appropriate for certain types of outputs and disciplines not covered by citation analysis. Nonetheless, peer review could be improved by looking at options like being more selective (similar to UK) or adding a complementary citation analysis, making it more international, also by having more diverse panels.*

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

*The top 30% approach is **fit-for-purpose** and efficient.*

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

*Quite obviously **the burden on peer reviewers in an ERA year** is immense as is the burden on the ERA advisers within universities selecting the top 30% outputs. These are often the same group of people. It is not as objective as should be as Australia's system and especially in some fields is extremely insular, perceptions and personal views may play part at least in some fields. There is no feedback coming out of the evaluations, the process is seen as obscure.*

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

***Yes.** Australia could potentially move to a 'top five' peer review outputs for each submitted researcher method (similar to the UK) and restrict ERA only to those academic researchers with a research component in their academic profile. Removal of adjunct staff members, teaching focussed and professional staff with only the occasional scholarly outputs would reduce much of the noise in the evaluation. This also applies to citation analysis 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.

Agree. *If the ERA objective is to conduct a national stocktake then these indicators make for a more complete collection. It is doubtful that the indicators taken in isolation make any meaningful difference to the ratings yet as a collection they should assist in differentiating performance, and interpretation of performance, at the very top end.*

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.

Strongly agree. *The universities themselves find this indicator particularly useful when writing the explanatory statements as must the panel members when applying these to the ratings.*

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.

Strongly agree. *The income indicators have been valuable in assisting with borderline decisions over the successive ERA cycles and align well with research outputs indicators to identify excellence.*

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.

Neither agree nor disagree. *Marginal benefit.*

b. Research commercialisation income. Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.

Neither agree nor disagree. *Better aligned with the EI exercise.*

c. Registered designs. Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.

Neither agree nor disagree. *Very small volume and specific to be relevant.*

d. Plant breeder's rights. Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.

Disagree. *Never used.*

e. NHMRC endorsed idelines. Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.

Neither agree nor disagree. *Marginal benefit.*

Response to Q3.22 (a-e)

Neither agree nor disagree. These are of marginal benefit in determining ratings and are more purposefully used in the Engagement and Impact exercise.

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.

Agree. But there needs to be differentiation within the 5 rating.

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.

Yes. It is proposed to use a 5* rating to identify world-leading excellence.

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.

Strongly disagree. A minimum of 50 outputs is too low.

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

It is proposed that a low volume threshold of 100 weighted research outputs applied to all UoE is more adequate not only from the analysis point of view but more representative of activity associated with excellent research.

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.

Griffith supports the by-line method as a way to ensure that only work carried out at the university is included, also from the mechanical point of view, capturing and processing only

outputs with the Griffith affiliation is straight forward and removes extra work required to collect and verify non-Griffith outputs.

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

Census date approach provides a snapshot of current activity and allow forward looking planning but when staff are appointed relatively close to the staff census date 1) outputs not produced at the institution are submitted and 2) there's too much attention on the staff census date at institutions for appointing or authorising leave etc due to the pressure of the staff census date.

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

Yes. *Only outputs with a by-line to be submitted makes good sense and is easier to manage.*

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

Outputs eligibility based on by-line should work well, *except that becomes disadvantageous when there is a proportion of FTE not contributing with outputs (recently appointed wouldn't have outputs to contribute). Also, the current by-line approach allows outputs produced by casuals, adjuncts and non-research staff into the submission. It would be ideal if the by-line approach could be the main output eligibility criteria but still have a staff census date that allows identifying staff movement or FTE growth, while filtering staff eligibility (to exclude adjuncts, casuals and non-research staff even if they publish with the by-line).*

ERA interdisciplinary research and new topics

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

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

Neither agree nor disagree. *The ERA methodology is not well suited to the evaluation of interdisciplinary research however the best compromise is allowing outputs, income and other indicators to be split across three Field of Research. On balance this should be retained.*

ERA and Indigenous research

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.

***Possibly** in Health, Law and Studies in Human Society.*

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

No.

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)

***b.** – combining low-volume disciplines into single units of evaluation.*

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

Combining into one UoE provides a great opportunity to assess the overall institutional strength in Indigenous research but carries to obvious disadvantage of assessing and determining a single rating across disciplines. Option c could provide a workable compromise, but the low volume threshold will create a challenge. Also, Health and wellbeing would have to be incorporated or added as another unit of evaluation.

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.

***Disagree.** This would suggest a return to old HERDC submission when outputs were included (quantity over quality). Difficult to assess quality on an annual basis.*

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

*The advantage is that it would **allow for rolling ERA cycles** if this were the intent however an annual collection in isolation would provide no advantage (i.e. no proper analysis possible, more time consuming, more demanding and less meaningful).*

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.

***Yes.** Griffith has remained consistent in its feedback provided to the ARC over several ERA cycles that publishing volume gives a much better understanding of the strength of the UoE beyond the rating (e.g. a rating of 5 based on 500 outputs is a vastly different 5 if based on 56 outputs for instance. Publishing the volume and increasing the low volume threshold would be helpful for interpretation of ratings.*

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.

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

***Disagree.** What would be the advantages? No advantages, can't see reason for it.*

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

***None,** just volume for each UoE, ERA is an institutional submission, not individual.*

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.

A small amount. *Universities were already well down the pathway of engagement with industry and other end-users and it is unlikely that this exercise has contributed much to advancing what was already happening.*

By contrast the changes to the Research Block Grant formula providing equal weighting to non-ACG income provided universities with the incentive to give greater attention to industry and end-user engagement.

- 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.

A moderate amount – Government.

A small amount or not at all – Australian public. *There is no evidence at this early stage that the EI assessment has had any discernible impact on the perceptions of the Australian public of how investments in university research translate into tangible benefits beyond academia. In fact the public perception is more hostile than ever due to the politicised focus on a small number of grant outcomes.*

- 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.

A small amount. The EI exercise itself is very contrived and this objective could easily be met through by provision of a short explanatory statement for each Field of Research.

- 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.

A moderate amount. *The EI assessment has been helpful in drawing the attention of institutions to the provision of support for translational research that has impact in mind. As answered under a. this was happening already but the EI exercise has been moderately, but unmistakably helpful.*

- 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.

Not at all.

This is work in progress, there is mechanism identified for translation of research to impact in a number of projects.

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.

Neither agree or disagree.

Objective 1 in particular seems not appropriate as government nor general public seem to have clarity of the relevance and benefits of universities research, and industry which plays an essential role in not only embedding impact outside academia into universities but also in translating academic research are not specifically targeted or motivated to be part of the exercise.

Q4.3 What impact has EI had on:

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

*The exercise has provided some support internally for introducing a **broader impact agenda**, expanding strategies and initiatives and adding support.*

b. Individual universities. Please describe.

It has been demanding at institution level, both implementing an impact agenda and investing the resources in this assessment exercise.

c. researchers. Please describe.

Slow engagement, for some it is an advantageous shift and have been exploiting impact of their research, for many seen as burden and more pressure. For many there's strong need for support and additional resourcing.

d. other sectors outside of academia? Please describe.

No impact visible. Partners or end users and stakeholders (apart from several close partners) are not impacted in any way by the exercise; however, medium or low ratings could potentially have negative impact on relationships with partners, that's an adverse and undesirable consequence of the exercise.

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

EI outcomes are not promoted at Griffith, the general message regarding EI has been that regardless of the outcomes of government assessments Griffith will continue to expand and disseminate the social, economic and environmental impacts of our research.

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.

Disagree. *The outcomes are not necessarily valuable to the organisation. EI outcomes (ratings) are not used at Griffith to drive institutional behaviour and decision-making. While a 'high' rating could be meaningful and seen as recognition at individual level (impact study or example of engagement), Griffith does not promote EI outcomes as these are simply not representative of entire disciplines. Also there could be adverse implications for those not rated high.*

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

To give a more positive outlook and emphasise the significance of Australian universities research, advances and benefits can be global, positioning not only the institutions but the whole country at the forefront in many fields. Government should disseminate and promote amongst private industry, find mechanisms to make the exercise more usable and help expanding national and international beneficiaries and incentivise industry funding.

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.

Strongly Agree.

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.

Agree.

Q4.9 The current end-user definition is appropriate. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.

Agree.

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

None.

- 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.

*Based on EI 2018 experience **determining what was end-user contribution was very difficult** in those instances where the user of the research was an institution or organisation difficult to classify as research or education provider.*

- Q4.10 Are there other key terms that need to be formally defined? Yes/No. If you answered 'Yes', please explain your answer.

No.

El methodology

- 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.

Yes. *Broad enough, recognisable, linked to academic impact.*

- Q4.12 Are there other ways to classify units of assessment in EI, for example, SEO codes? Yes/No. Please explain your answer.

No. *SEO codes are useful but on the whole it is better to align the ERA and EI coding around Fields of Research.*

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.

Same as 2018, *flexibility for universities to submit based on 1) low threshold volume and 2) characteristics of the FoR at the institution.*

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.

Strongly agree.

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.

Strongly agree. *The EI low-volume threshold should remain at 150 outputs.*

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.

Agree.

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.

Neither agree nor disagree. *It is one indicator of engagement that might be representative of the strong partnerships or relationships with industry, but, in many fields the HERDC data is not representative of engagement activity, history, strong partnerships forged over the years. There are specific examples in both STEM and HASS disciplines in which income is not best indicator of strong engagement.*

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

Disagree. *Research commercialisation income is not necessarily an indicator of research engagement, in some cases may be related to impact but it is specific to particular research programs. For most areas the amount of research commercialisation income would not be representative of strong long term partnerships and engagement of communities and in general research end users.*

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.

Yes. *Industry engagement of HDR candidates*

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

No.

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

Yes. *'cash support from research end-users'. End user definition needs better clarity. It was a very manual process reviewing all projects. EI could find a more streamlined way of obtaining this information using existing data already provided by universities during ERA.*

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.

Agree. *It is appropriate indicator of research engagement and could encourage institutions to increase but both institutions, candidates and industry need support from government to establish, manage and facilitate.*

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.

No. *Not necessarily related to engagement, more related to impact but not always. Could stay in ERA.*

b. Research commercialisation income. Yes/No. Please explain your answer.

No. *Not necessarily related to engagement, in some areas could be more related to impact but not always. Could stay in ERA as informative in specific cases.*

c. Registered designs. Yes/No. Please explain your answer.

No. *Possibly related to impact but not always. Could stay in ERA.*

d. Plant breeder's rights. Yes/No. Please explain your answer.

No. *Stay in ERA or remove, too specific and not widely applicable.*

e. NHMRC endorsed guidelines. Yes/No. Please explain your answer.

No. *Stay in ERA.*

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.

Strongly agree. *The engagement narrative was one of the most valuable parts of the entire exercise and could be replicated within impact to replace the time consuming and expensive case study approach.*

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.

Agree. *for most broad disciplines however an exception could be made for some (e.g. Studies in Human Society).*

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

Disagree.

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.

Neither agree nor disagree. *EI is a challenging process and harder to tie down than ERA. Therefore it should be left to individual institutions to craft their narratives based on the dashboard indicators and other evidence – rather than being too prescriptive.*

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.

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.

Strongly agree. *No indicator or metric has been shown to be universally suitable to assess impact. Griffith endorses the Portfolio approach to Impact which shifts the emphasis to a collection of case examples that illustrates impact in its various forms rather than one isolated case study.*

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.

Disagree. *One is not sufficient to capture impact in a whole discipline and all groups of research.*

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

Neither agree or disagree.

Not necessarily, in the current format of the submission length is appropriate but under a new format (Portfolio approach) that is more inclusive and comprehensive it might need to be longer in terms of word count.

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.

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

Neither agree or disagree.

No particular type of evidence is identified as needed, and there should be no limitation to types of demonstrable evidence according to the research and discipline.

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.

No.

There are no quantitative indicators of impact identified locally, and experience overseas has not found appropriate quantitative metrics.

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.

Agree

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.

Neither agree or disagree

Approach should not relate only to the impact case study but should be similar to the engagement narrative, for the discipline in general, in the form of a summary.

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.

Disagree

As it is, it should be shorter, or same length as engagement narrative to be more comprehensive not about just one impact study.

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.

Disagree

It will add to the burden of finding evidence.

Q4.37 Would there be benefit in combining engagement and approach to impact? Yes/No. Please explain your answer.

Yes. It will simplify the submission and also fundamentally makes sense, engagement activities are part of the institutional approach and the pathways to impact.

EI 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.

Disagree

The rating as such is not very meaningful, outcomes of the assessment are not useful and rating a whole suite of activities as 'low' can be damaging and have the adverse effect of inhibiting further engagement with end users.

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.

Agree

They add right context that should be reflected in ratings.

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.

Disagree

The rating is not meaningful and cannot be used in any way.

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.

Agree

They add right context that should be reflected in ratings.

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.

Disagree

No need for separate rating for approach, either combine with impact or preferably with engagement.

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.

Neither agree or disagree

The descriptors add the right context but could be combined into other sections.

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.

Yes. *As long as it is an opt-in.*

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.

Yes – very few universities will reach the 150 weighted outputs threshold so an option to opt in makes sense.

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.

Yes

Engagement at the two-digit level would provide a good overview of activity not captured before.

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.

*In a perfect world making use of global data and technology ERA could be a rolling exercise in which data are added each year and ratings reflect the updated data. Realistically **every three or five years** is more reasonable and provides institutions with the time to advance their research strategies and produce demonstrable results.*

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.

*Universities still rely on the 2018 ERA results and will do so right up until 2023. The ERA results and benchmarks **are incredibly useful for planning** although lose their value over time suggesting five years should be the maximum interval between rounds.*

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

*UK practice shows that six year intervals are effective and for that reason we suggest that **five years should be the minimum**.*

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.

*There would be no impact as **each EI assessment is independent of the previous one** and this is especially the case for Impact studies.*

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.

Strongly disagree. *The ERA/EI burden is usually carried by the same team/s in the research support services areas and this extends to the academic leaders who also lead preparations within the disciplines. For many universities the EI process was compromised due to the emphasis on ERA – EI should therefore be treated separately.*

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.

*In the future it is realistic to plan for automated harvesting of outputs and this would represent a major streamlining. In the meantime the credibility of ERA would be enhanced along with streamlining by **adopting a by-line rule** specifying that an institution can only submit outputs carrying its by-line. Collection of outputs produced elsewhere comes at a major cost and undermines the credibility of the exercise.*

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

*For indexed research outputs both Elsevier **Scopus** and **Clarivate Web of Science** are comprehensive, inclusive, universal. The support and experience with Clarivate Analytics as data provider in ERA 2018 was exceptional. Non traditional research outputs and research income will need to be provided by the institution.*

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

Allocating outputs and income to FoR codes and building the submission to comply with very complex business rules is most time consuming. In fact a whole online platform for multiple users has to be created to be able to prepare the submission.

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

Yes. Global data providers could provide the data for citation analysis agree with ARC and institutions on journal list and journal FoR, and assign FoR codes to each output. Universities would verify FoR assignment. Perhaps a central ARC system to prepare the submission instead of each university building or paying for one. A central system may streamline the uploading of

material for peer review, also time consuming. The writing 2 -digit FoR Explanatory Statements is also time demanding for many staff at different levels and the value is not clear.

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

Without any doubt the writing of impact studies is very time consuming. The preparation of the income indicators recalculating what is end user contribution is also demanding and manual.

Are there efficiencies that could be introduced? Please describe.

Yes, removal of the Approach to Impact section would create vast efficiencies – this section adds very little value. Reuse data already submitted in ERA with no recalculation of end user contribution.

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.

Agree. *This measure will not take us to automated harvesting by 2023 but will place universities in a state of readiness for the following ERA.*

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.

Agree. *This is the way of the future but the sector first needs to agree on the key parameters around what is to be harvested and this is unlikely to be achievable by 2022 (ERA 2023 preparation period).*

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

Neither agree nor disagree. *In the ideal world all outputs have a digital identifier but this would only make significant difference if systems are appropriate to share and review. A central system perhaps? Unsure if absence of DOI is strong reason to exclude the output from the submission.*

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.

***Yes.** The data collection itself would be far less burdensome if the rule was that only outputs carrying the institutional by-line can be counted. This would make the entire ERA process more straight forward and transparent and avoid the double counting of outputs by different universities.*