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Page 1: Personal Details

Q1

Your name

Sharon Martin

Q2

Your organisation (leave blank if not applicable)

University of Wollongong

Q3

Are you making this submission on behalf of your organisation?

Yes, I am making this submission on behalf of my organisation**Q4**

Email address

sharonma@uow.edu.au

Q5

What best describes your interest in making a submission?

I work at an Australian university**Q6**

Submissions may be made public unless you request otherwise.

Respondent skipped this question**Q7**

What form of submission do you wish to make?

Provide my responses through the online survey

Page 2: Upload Response

Q8

Respondent skipped this question

Please upload your submission.

Page 3: ERA and/or EI choice

Q9

I want to answer questions on both ERA and EI

Please indicate whether you wish to answer questions on ERA and/or EI.

Page 4: ERA Policy /1

Q10

To what extent is ERA meeting its objectives to:

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.

Comment:

A small amount

It is unclear if industry, business, and the wider community refer to the ERA assessment. ERA 2018 and ERA 2015 showed significant national improvement in research excellence, however inflation-adjusted government funding to universities for R&D has declined substantially since 2015, suggesting that the Australian government perceptions of research excellence are not assured by the ERA assessment. The ERA evaluation is flawed to the extent that it is based on the ranking of units of assessment whereby 'the majority of outputs lie'. This discourages the mentoring, training, and development of early career researchers (not to mention HDRs), and limits the diversity of types of outputs and audiences that the research of excellent research departments speaks to. There are some concerns that the exercise still allows for institutions to 'game' the system, i.e., rearranging of publications into specific FOR codes to ensure the highest possible outcome. Those universities with sufficient funding are still able to improve their ERA rankings by bringing in high-ranking researchers from other universities, or scholars from overseas on part-time contracts. Overall this trading of scholars between universities does not lead to any meaningful improvement in research outcomes across Australia. To ensure ERA continues to remain relevant, we recommend that the ARC: 1. encourages researchers to publish important negative results and confirmatory results. 2. considers the Hong Kong Principles for Research Integrity as a contributor of research excellence (<https://www.wcrif.org/guidance/hong-kong-principles>).

Provide a national stocktake of discipline level areas of research strength and areas where there is opportunity for development in Australian higher education institutions.

Comment:

A moderate amount

The delay in the reporting i.e. by the time data are published and analysed, inhibits the ability to meaningfully act on any outcomes. In addition, the basic flaw of evaluating publications based on where 'the majority of outputs lie' skews the evaluation in such a way that no reasonable sense of a 'development pipeline' can be established from the results. There is little evidence that a result of 3 (world standard) or below is being taken as 'opportunity for development' by universities. Rather universities that – for logical reasons– seek to optimise their research funding are likely to divert it to maintaining 4 and 5 ratings, potentially leading to a narrowing of research to a select number of FOR codes. If we aim to maintain a broad spectrum of FOR codes then ERA is not providing that incentive.

Identify excellence across the full spectrum of research performance.

Comment:

A moderate amount

The ERA assessment measures excellence based on a narrow range of indicators and the notable differences in outcomes between citation-based disciplines and peer review disciplines suggests that the full spectrum of research performance is not adequately calibrated. Excellent research performance would benefit from the incorporation of 'responsible metrics' and minimise perverse incentives, such as a more sophisticated and nuanced approach to the contribution and limitations of quantitative indicators (<https://responsiblemetrics.org/about/>) and alignment with the Hong Kong Principles for assessing researchers (<https://www.wcrif.org/guidance/hong-kong-principles>).

Identify emerging research areas and opportunities for further development.

Comment:

A small amount

By the time ERA outcomes are released and digested by universities the research outputs are at least 2-8 years old and the exercise is therefore unlikely to identify emerging research areas in a timely fashion. Similarly, opportunities for development would be limited, given that results are often released more than halfway through the assessable period for the next ERA round. The need to meet assessment thresholds for evaluation would also likely prohibit the identification of emerging research areas and may mean the more cutting-edge disciplines are not properly supported.

Allow for comparisons of research in Australia, nationally and internationally, for all discipline areas.

Comment:

A small amount

It is possible to use ERA for national comparisons, however international comparisons are unlikely to be meaningful given that international peers can only be assessed based on outputs published under their by-line (whereas ERA uses a staff census date to identify eligible outputs) and fields of research can only be approximated for international peers as FORs are not manually assigned for international publications. In addition, schemes internationally work at different scales and to different logics (e.g. UK REF, New Zealand PBRF). Others still are seeking 'responsible metrics' (<https://responsiblemetrics.org/about/>). Hence the comparability is limited.

Q11

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

Disagree,

If you disagreed with the above statement, please explain your answer.:

As a university, we have internal and external stakeholders, including colleagues at other universities and business, community and government partners. ERA goes some way to provide a public research reputation to these stakeholders. However, the purpose and objectives of ERA are not always appropriate to the needs of all stakeholders. Stakeholders are only given access to the four-digit FOR code ratings (1-5) but this does not provide the fine-grained analysis of the narrative reports. The researchers themselves, as primary stakeholders, may gain from ERA, because excellence is rewarded, but those in need of more support may not be well served by ERA. The ERA system does not offer a means to improve weaker results, and rewarding the successful leads to equity issues across universities. Individual researchers are not given the chance to read the narrative reports, which are confidential, so the ERA exercise has little meaning for researchers other than those involved in leadership and does not provide a strong incentive to improve performance. In addition, to help ERA evaluations, some Universities are calculating citation profiles of journals and advising their researchers to avoid publishing in certain journals – these are generally journals that accept rigorous science but do not necessarily require significant impact (e.g. PLOS One, Science Advances etc.). These journals accept negative results and confirmatory results, but nevertheless require rigorous method and discussion. We should be encouraging researchers to publish important negative results as well as high impact research. The policy to avoid such journals stifles reporting of negative results and leads to publication bias. As a sector moving forward, we should also be encouraging pre-registration of clinical trials, open access, preprint server publication, publication of data and metadata supporting other publications. These priorities would minimise duplication of negative results, enable reproducibility of outcomes, improve accountability and research integrity, and perhaps even start to crack the outmoded publication model that our sector is so beholden to. The ERA objectives should be to provide universities with formative feedback to improve research support and performance, rather than a summative exercise to reward existing excellence only. We recommend that the ARC consider the Hong Kong Principles for Research Integrity as a contributor of research excellence. 1. Assess responsible research practices 2. Value complete reporting 3. Reward the practice of open science 4. Acknowledge a broad range of research activities 5. Recognise essential other tasks like peer review and mentoring

Q12

What impact has ERA had on:

the Australian university research sector as a whole

ERA has had a negative impact on the Australian university research sector overall. The assessment process has diverted university funds that could have directly supported research to operational support for the assessment. It has led to the significant downgrading of collegiality, the distraction of research energies, funding, and resources, to 'managing' performance to fit ERA demands. Research that requires time, experimental approaches, deep community engagement that are high risk and high reward, etc. are all under pressure because their timelines are not guaranteed or in sync with the production line approach nurtured by ERA's narrow metricisation of performance. While some collaboration within an institution may be fostered through ERA, it does pose significant implications for fostering national (and international) collaborations. ERA has been good for some universities, but making universities compete on an uneven playing field is not conducive to excellence, and widens the gap between city and regionally based universities (which may serve different purposes in their communities) yet are judged the same way.

individual universities

The ERA assessment has had unintended consequences within universities as each ERA assessment has required significant investment (in systems and personnel) and has required a large number of academics to take time away from research and teaching to participate in the exercise. In addition, ERA brings increased pressure on individual universities to ensure appropriate data capture and the need to provide significant human resources to enable reporting. This deepens inequities across institutions where some may be better positioned than others to provide this human capital.

researchers

The ERA assessment has had unintended consequences for researchers in that each ERA assessment has required a significant number of researchers to take time away from research and teaching to verify the data submitted and provide explanatory statements and documentation to support submissions. In addition, any benefits of the exercise are totally diminished compared to the effort involved.

Other?

nil

Q13

How do you, or your organisation use ERA outcomes?

ERA outcomes are advertised on university research webpages and mentioned alongside our global rankings results in student-facing marketing materials and webpages. The outcomes are advertised in media articles immediately following release and are referenced in annual reports and public-facing documents.

Q14

ERA outcomes are valuable to you or your organisation.

Disagree,

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

ERA has contributed to an increase in the quality of publications. Although, given the wide use of international league tables for institutional and subject rankings it is sometimes difficult to compare these to ERA outcomes. The potential five-year window for ERA also undermines its usefulness, given the annual international rankings. ERA outcomes are quoted in grant applications, job advertisements, and the like. As a rankings exercise, the chief value of ERA outcomes is an outward-facing measure of a discipline's profile. Their value for our actual practice of research is minimal. ERA does not acknowledge the role that institutional resources and the size of institutions plays in outcomes. This creates a false sense of what excellence is. We would not want to see a tiered approach to ERA assessment (e.g., one tier for Go8 universities, one for regionals), but factoring in the discrepancies between disciplines in terms of numbers of staff, financial resources, etc., would allow for a more realistic picture of research achievements. In addition, the exercise has created increased competition between institutions, with some larger or wealthier universities targeting recruitment of research talent or engaging editors from high quality journals in financial contracts, which could lead to a perceived conflict if staff from those institutions then have papers accepted in those journals at a higher rate. If the exercise was made cost-neutral, provided institutions and researchers with formative feedback, and provided funding for areas of need in addition to areas of excellence, it could enhance value to the organisation.

Q15

How else could ERA outcomes be used?

This question was not in the consultation paper.

Q16

The current methodology meets the objectives of ERA.

Agree,

Please explain your answer.:

The ERA methodology could be strengthened. It does provide a method for comparison between Australian universities. The methodology is not necessarily adequate for making international comparisons or comparisons between disciplines due to the limitations of citation and peer review methods.

Q17

What are the strengths and/or weaknesses of the overall ERA methodology?

Strengths

Initially ERA was an improvement because it counted quality as opposed to quantity, and introduced some much-needed standards for publication - such as ensuring journals had suitable blind refereeing and boards. The FOR codes are assigned carefully and provide a means to evaluate disciplines at an appropriate level as opposed to global rankings, which generally use very broad definitions.

Weaknesses

The weaknesses of the overall methodology include - Lack of transparency on the evaluation process - Lack of substantive feedback to enable improvement - Lack of nuance in assessing disciplines with diverse forms of excellence (e.g. mentoring, HDR experience, degree of collaboration, nationally-relevant research, pure and applied research) - Lack of training for assessors. - ERA requirements mean that there are many ways in which quality of an institution could be misrepresented or manipulated. We would support the use of attribution of research outputs by author affiliation, rather than staff eligibility at a census date.

Q18

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?

There are good reasons for the split between citation analysis vs peer review, and it does loosely reflect practices in different disciplines. However, there is a clear bias in citation analysis disciplines that ensures they receive higher ratings on average than peer review disciplines. The approach also poses problems for interdisciplinary research, problems that are faced in all research assessment exercises organised by discipline. In particular, despite rhetoric in favour of interdisciplinary, peer reviewers within discipline tend to strongly disfavour research not squarely within their own recognisable disciplinary boundaries and communities (this has been empirically demonstrated).

Q19

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

Neither agree nor disagree,

Please explain your answer:

The citation analysis may indicate the utility of a research output, but cannot assess whether citations are positive or negative, whether results can be replicated, whether the research was conducted ethically and with integrity, or whether the knowledge generated was of high value. For example, China has increased world citation averages in recent years so RCI are not good metrics. So much of the increase in ERA 5's is an artefact of global changes in publication baselines. In addition, the citation analysis methodology discourages researchers to publish important negative results as well as high impact research. To help ERA evaluations, some Universities are calculating citation profiles of journals and advising their researchers to avoid publishing in certain journals – these are generally journals that accept rigorous science but do not necessarily require significant impact (e.g. PLOS One, Science Advances etc.). These journals accept negative results and confirmatory results, but nevertheless require rigorous method and discussion. We should be encouraging researchers to publish important negative results as well as high impact research. The policy to avoid such journals stifles reporting of negative results and leads to publication bias. As a sector we should also be encouraging pre-registration of clinical trials, open access, preprint server publication, publication of data and metadata supporting other publications. These priorities would minimise duplication of negative results, enable reproducibility of outcomes, improve accountability and research integrity, and perhaps even start to crack the outmoded publication model that our sector is so beholden to. Furthermore, a mixed-methods approach should be considered for some citation-based disciplines to be peer-reviewed, e.g., psychology is a possible discipline that may be better assessed by a peer review narrative.

Q20

What are the strengths and/or weaknesses of the citation analysis methodology?

Strengths

A strength is that citations can be easily measured using modern publication databases. However, we note the need to include books/book chapters in the mix if citation analysis is to be used for HASS disciplines.

Weaknesses

Weaknesses include: - Relative Citation Impact is a normalised measure which tends to bias to higher values as sample sizes increase. - Citations do not sensitively measure the quality of the underlying research. - It can favour 'names' and militates against excellent young researchers. - The databases on which they rely are notoriously variable in their capture of citation for differing kinds of outputs. Reliance on any single database will inevitably reflect disciplines unevenly.

Q21

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

Yes,

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

The citation analysis methodology could be modified in the following ways: - By applying an auditing methodology (similar to the methods employed for peer review disciplines), the quality of research outputs could then be more accurately determined. - If there are still two separate methodologies (citation and peer review), several disciplines should be moved to citation analysis, including Economics, Commerce & Management, Information Sciences, and Education. - Citation is also becoming important in some fields (e.g., computer science) that are currently evaluated by the peer-review approach. Effectively integrating both approaches may lead to better evaluation. - Citation analysis is appropriate for STEM subjects, but its application to humanities and creative arts subjects assumes a false equivalence between very different kinds of research. The multi-authored research that is the standard in STEM is not the norm in the humanities and creative arts, and these areas will always erroneously look less productive by comparison with STEM in any assessment exercise that is geared towards quantitative analysis. - A mix of peer review processes and citations should be considered. Identifying research quality requires a mix of methods and this should be reflected in the approach taken by ERA in all disciplines. - Consider rating based on a smaller number of high quality publications rather than quantity.

Q22

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

Neither agree nor disagree,

Please explain your answer.:

The principles of the peer review methodology are sound. However, in practice, peer review disciplines are at a disadvantage to citation disciplines as they do not have complementary quantitative data and are subject to a more conservative form of assessment.

Q23

What are the strengths and/or weaknesses of the peer review methodology?

Strengths

The strengths of the peer review methodology include:
 - It requires academics to review research outputs in detail, providing a more accurate view of research quality. - It is a better option for disciplines that cannot rely on citations as a measure of impact. It allows for a more 'contextual' and considered assessment of quality of publications, such as standing of publisher, the ways the scholarship is reaching into new areas, using novel methodologies, etc.

Weaknesses

The weaknesses of peer review methodology include: - It is time-consuming for all academics involved. - It produces a more conservative assessment of excellence. - It is far more subjective than citation analysis. The results can be volatile and dependant on the individual assessors. - Panel composition must be well considered e.g. must have creative practitioners on relevant panels. - There is a lack of transparency in the peer-review process. Panel discussions should be minuted and published to allow academic rigor and scrutiny of the process. - Feedback is required. At the very least, information on which percentile band outputs fell into (similar to the feedback given to unsuccessful grants) would be useful. - The workload is unsustainable for reviewers on a time-consuming process. - There is a lack of support for reviewers (e.g. buyout of time) to undertake the work. - There is no training for assessors. Nor are assessors provided with any feedback after the process. - Assessors need professional development and mentoring on how to conduct the review from a discipline expert level.

Q24

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

Yes,

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

There is a clearly discernible discrepancy between the average ERA outcomes in peer-reviewed versus citation analysis disciplines. This reflects a number of factors including that most peer reviewers are inclined to compare research outputs (and research units) to their own rather than to world standard, and that most peer reviewers are from Go8 or other very highly-ranked universities; and also that researchers in Australia tend to think of "world standard" as being on a par with Australian/US/British/European institutions, whereas these are actually areas with particularly strong and well-funded university systems relative to the world standard. A "normalising" component based on either citations or journal centiles needs to be re-introduced and to play a significant role in the evaluation of peer-reviewed disciplines; alternatively, profiles that exemplify each tier from "well above" to "well below" need to be compiled and provided to peer-reviewers in helping to assess units of research. Assessment panels need to have adequate coverage across the range of disciplines being assessed.

Q25

The volume and activity indicators are still relevant to ERA.

Agree,

Please explain your answer.:

The quality of the outputs should be the key focus, above and beyond achieving a certain critical mass. However the volume threshold already ensures that only units with sufficient mass are reviewed. Moving forward, the recent expansion of four and six-digit FOR Codes will bring clarity to where research is to be classified, there is a significant issue for small to medium institutions to be able to reach historical thresholds. Three examples are in the 35: Commerce, Management, Tourism and services, 48: Law and Legal services and 45: Indigenous Studies. In these codes though the expansion assists in the classification of research and promotes research areas, without a significant reduction in the threshold limit there may be a number of Australian Universities unable to make submissions in their preferred codes. For example, ANZSRC 2008 did not seemingly value the diverse law research having only three four-digit codes but with Law's expansion in ANZSRC 2020, some universities may struggle to meet the historical threshold of 50 in their preferred code. In FOR 35 there is concern that the restructure of the four-digit FOR codes has created uneven splits between codes and disciplines that perhaps are counter-intuitive to the goals. Keeping the threshold at 50 would put pressure on quantity over quality. The production of quality journal articles by researchers in smaller institutions with traditionally less research income and support is important and should have a place in the assessment's structure.

Q26

The publishing profile indicator is still relevant to ERA.

Strongly disagree,

Please explain your answer.:

Given that this contextual indicator "has virtually no effect on the rating given to a unit of evaluation", it is unclear what value or function it has in the review process. A better test of quality would be to focus on a few chosen items for peer review and to replace this indicator with a citation profile to reflect the unit's level of influence in the discipline or field. If it remains, it should also include NTROs not just traditional outputs. To the extent that ERA ratings are associated with ABDC journal rankings, there is quite a lot of "measurement error". There are now journals ranked A* that do not have near the intellectual quality of the best journals in that group, or the best ones outside it (this could be assessed for example on how easy it would be for a lay person to read and usefully critique the published papers). If A* categorisation is done on citations and "impact", a feedback loop can set in where a subset of researchers cite each other's papers, raising "their" journal's citation count, attracting more authors and more citations, and in the end producing much "pop" research with an A* rating. The opposite happens with some higher-end journals. An example would be Quantitative Finance and Mathematical Finance, which by their own narrow and high standards have few readers and relatively few citations, yet publish work with typically high intellectual content.

Q27

The research income indicators are still relevant to ERA.

Agree,

Please explain your answer.:

While relevant, research income is not a sensitive indicator of quality, rather it provides resources for research activities that lead to quality outcomes and should not be evaluated itself as a measure of quality.

Q28

The applied measures are still relevant to ERA.

Patents

Comment:

Disagree

It is time consuming to gather data on Applied Measures and they have little influence on the overall results

Research commercialisation income

Comment:

Disagree

It is time consuming to gather data on Applied Measures and they have little influence on the overall results

Registered designs

Comment:

Disagree

It is time consuming to gather data on Applied Measures and they have little influence on the overall results

Plant breeder's rights

Comment:

Disagree

It is time consuming to gather data on Applied Measures and they have little influence on the overall results

NHMRC endorsed guidelines

Comment:

Disagree

It is time consuming to gather data on Applied Measures and they have little influence on the overall results. NHMRC endorsed guidelines may be useful indicators of quality in some cases – but they do not make sense as a measure of evaluation for all disciplines

Page 8: ERA Methodology /3

Q29

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

Neither agree nor disagree,

Please explain your answer.:

After four iterations of the ERA assessment, the 5 band rating provides continuity and a common reference point for discussing research performance. However, the 5-point ranking scale is difficult to operationalise due to different approaches to the definition of world standard. If the "world" is defined to be all universities in all nations then it would be expected that Australia would generally score 3 and above. But if the "world" was defined to be universities in nations with similar economic and educational systems, then Australia would fare less well. This rating scale gives clear information on the overall research quality of Australian universities, however, "World standard" should be more explicitly defined.

Q30

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 research excellence?

Yes,

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

The rating scale may need to change. It is likely that the assessment process itself needs to be evaluated and modified if there are concerns around 'grade inflation'. International comparisons may highlight if units of evaluation are at or above world standard. The citation world standard, for the Australian units, is not a very high benchmark anymore. With the expansion of FOR codes and rising Australian cite rates every code might get a five next time. But adding a score of 5* or 6 doesn't make sense. Better to give a FOR codes placement in a band i.e. in top 10%, 20% etc. of world cites for that discipline.

Q31

The ERA low volume threshold is appropriate.

Disagree,

Please explain your answer.:

The low volume threshold needs to be adjusted so that it is fair for peer review disciplines which traditionally have lower publication output than citation disciplines. The low-volume threshold is not appropriate for all disciplines. Recent changes in the FOR codes for Creative disciplines (splitting into specific disciplines on performance, music etc.) will result in smaller universities being unable to meet the threshold despite the high level of quality work. Any threshold will be somewhat arbitrary and it is possible for very small units to produce high quality outputs.

Q32

Are there ways in which the low volume threshold could be modified to improve the evaluation process?

The low volume threshold should be lower for peer review disciplines than citation disciplines. Alternatively, institutions could have the option to decide whether they wish to submit in a UOA with low publication volume – this would be helpful for emerging research areas.

Alternatively, the low volume threshold could be adjusted when there are 2 or more codes that are related and both have a moderate amount of outputs. This is particularly relevant for creative disciplines that have recently had the theory and practice codes separated.

Q33

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

By-line,

Please explain your answer.:

We strongly support the use of author by-line rather than a staff census data to more accurately reflect research supported by Australian universities and discourage the poaching of researchers for the benefit of ERA assessments. It would also simplify data collection given that data providers already perform this exercise for global rankings and could reproduce this for the ARC.

Q34

What are the limitations of a census date approach?

Limitations of a census date approach include:

- It encourages poaching and unfairly disadvantages smaller institutions that don't have significant recruitment budgets.
- It requires universities to identify all eligible publications by individual staff members, which makes data collection and verification onerous. It limits the time available to prepare submissions since publications aren't finalised until the census date. The rules around staff inclusions in the census can be confusing and take time to implement.
- Census date is not representative of actual research occurring within the institution during the reference period. Additionally, it means that the cohort of people generating the HERDC income does not match the people who have authored the publications.
- Vulnerability to gaming. A university is allowed to claim the outputs of honorary staff and staff who have not been given ongoing employment providing they were employed during the census period. This might be problematic during these precarious times.

Q35

Would a by-line approach address these limitations?

Yes,

Please explain your answer.:

If the harvesting of publications by by-line were also conducted by a third party (i.e. the citation data provider), it would save significant time and money and ensure that all universities were evaluated on an equal footing.

Q36

What are the limitations of a by-line approach?

Limitations of a by-line approach include:

- Some by-line variations may not be accurately picked up by citation providers.
- HASS disciplines may be disadvantaged, especially those that mainly produce Non-Traditional Research Outputs, since they often don't have an official by-line affiliation recorded.
- There could be complexities around which university deserves to be acknowledged in the by-line, as it will become difficult to judge if more researchers end up 'floating' between institutions.

Q37

ERA adequately captures and evaluates interdisciplinary research.

Disagree,

Please explain your answer.:

Both the use of FOR-based citation benchmarks and discipline-based evaluation panels means that interdisciplinary research will always face potential disadvantages in how it is evaluated. FOR codes do not encourage interdisciplinarity so ERA struggles with this too. It is also difficult to evaluate interdisciplinary research because disciplines are often assessed using different criteria for research quality. The assessment under FOR codes disables ERA's capacity to effectively capture interdisciplinary research and its value. The exercise creates a sense of competition across codes further disincentivising interdisciplinary research. In addition, with the new ANZSRC codes, there is now a further separation of FOR codes for creative practice and theory.

Q38

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

The current process encourages disciplines to silo their outputs into the largest disciplines for maximum results. This could be addressed by establishing an Interdisciplinary panel to evaluate interdisciplinary research that crosses major FOR Divisions.

Page 9: ERA Methodology /4

Q39

My institution would meet ERA low volume threshold in Indigenous studies at:

Two-digit	No
Four-digit	No

Q40

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

Other (please describe).:

With a peer review team involving Indigenous researchers, experts in the relevant fields and Indigenous community members. Institutions should be allowed to opt-in for assessment in particular codes, regardless of publication volume. Indigenous Studies most often entails very different ways of comprehending, understanding and being in the world from those deployed in other disciplines, most especially with regard to Australian Indigenous communities. The ERA approach is philosophically opposed at a fundamental level to the belief systems of the First Australians. A better approach evaluating Indigenous Studies would be to formulate an evaluation process that grew from the principles of Indigenous practice.

Q41

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

Advantages	It could help to ensure that Indigenous research receives the attention it deserves. With the significant increase in FOR codes for Indigenous research, there is a real risk that most institutions will not meet current low volume thresholds.
Disadvantages	Nil.

Page 10: ERA Process /1

Q42

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

Neither agree nor disagree,

Please explain your answer.:

Provided the data requirements are simplified (i.e. based on by-line, initial data provided by citation provider), an annual collection of data could help to distribute the resourcing burden across the years between assessments. However, we would not be in favour of an annual ERA assessment in its current format.

Q43

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

Advantages

Advantages: i. Minimises the peak workload ahead of ERA assessments and simplifies budgeting and resourcing. Could simplify submission processes if combined with use of by-lines and citation-provider data. ii. It would reduce the opportunity for game-playing. Universities would be held more accountable to the information they submitted, as major fluctuations from year to year could indicate that the data may be flawed. iii. Data could be more current – some publications from the most recent ERA assessment (2018) are almost 10 years old now, which is not a relevant indicator of current research performance.

Disadvantages

Disadvantages: i. Increases annual workloads. ii. The census date approach would need to change. iii. Increases the obsolescent nature of the exercise. iv. Citations need time to grow so the reference period will still need to be fairly wide.

Q44

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

Yes,

Please explain your answer.:

It would provide more context around the real research strength/capacity of a high-rating institution.

Q45

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

Agree

Q46

What would be the advantages and/or disadvantages of publishing research outputs with their assignment to specific disciplines?

Advantages

This would provide useful benchmarking data for universities that isn't otherwise available. It could also inform improvements to the coding of journals to disciplines.

Disadvantages

If a census based approach is still in use, this method could increase targeted poaching of staff by large institutions. The publication of specific disciplines may cause greater equity issues across universities.

Q47

What other data do you think the ARC should publish following an ERA round? (Note - in ERA 2018 metadata included: Research output title, Research output type, reference year, outlet, publisher, ISBN, ERA round, and Institution)

None.

Q48

Considering that EI is a new assessment, to what extent is EI meeting its objectives to:

encourage greater collaboration between universities and research end-users, such as industry, by assessing engagement and impact?

Comment:

A small amount

There is very strong support for encouraging end user collaboration. The engagement assessment provides little to no incentive to encourage greater collaboration since it uses income as the primary measure, which is a sufficient incentive on its own. The impact assessment has prompted some researchers to strengthen their relationships with key external end-users. However, in the case of early career researchers, secure employment with end-users has resulted in the loss of university researchers. This has led to the loss of key intellectual resources which ultimately results in the loss of open science and research for the public good.

provide clarity to the Government and the Australian public about how their investments in university research translate into tangible benefits beyond academia?

Comment:

Not at all

It is unclear if the EI assessment has had any impact on sectors outside of academia. The outcomes of the assessment were difficult to translate by universities let alone beyond academia. The outcomes did not send a clear message that led to any tangible benefits or ways to evaluate for further improvement. In addition, there has been little government investment or effort made to promote the results or the underlying research to the Australian public or integrate evidence into government policy. This is further compounded by the recent drops in research funding, particularly for industry engagement schemes such as Linkage Projects, suggesting that the Government is less willing to invest in research that translates into benefits beyond academia.

identify institutional processes and infrastructure that enable research engagement?

Comment:

A moderate amount

The exercise enabled the university to determine which programs had delivered enabling support for engagement.

promote greater support for the translation of research impact within institutions for the benefit of Australia beyond academia?

Comment:

A moderate amount

The EI assessment has required institutions to provide more resources towards training researchers to understand and plan for engagement activities and impact as well as research marketing. However, as the EI assessment also favours larger institutions with more budgets and resourcing available, if some funding was attached to the exercise then there would have likely been greater investment in the mechanisms identified as being successful drivers of impact and engagement.

identify the ways in which institutions currently translate research into impact?

Comment:

A moderate amount

The EI assessment did focus greater institutional attention on identifying the mechanisms of research translation.

Page 12: EI Policy /2

Q49

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

Disagree,

Please explain your answer.:

It is not clear if the EI objectives are appropriate for the stakeholder as the definition of 'stakeholders' is too vague here. In order to ensure future needs are met for each stakeholder, the stakeholder should be identified to provide necessary clarity and robust evaluation regarding their specific needs.

Q50

What impact has EI had on:

the Australian university research sector as a whole

There have been a number of impacts felt by the Australian university sector: Economic- The EI took a toll on smaller universities who do not benefit from assessments that do not take into account the benefits larger universities have due to economies of scale. Cultural- The EI has added another layer of complexity to the university sector and encourages competition, with universities competing against each other in yet another rating/ranking exercise, by which they can 'cherry-pick' best results for marketing and promotion to potential students. Societal- the results of the EI were difficult to interpret as the context was absent, such as the assessment process and all results not being available across the sector. This lack of transparency and rigor has stifled sector-wide improvement and hence does not seem to have made the required deep and sustained impact within or beyond academia.

Individual Universities

There have been a number of impacts felt by individual universities: Economic- EI required additional resources and also diverted existing resources previously focussed on generating future research engagement and impact to the reporting of historical achievements, with little benefit aside from the chance to score a "high" rating. Knowledge- EI has improved the university's awareness of, and the language around, impact and engagement.

Researchers

There have been a number of impacts felt by researchers: Economic- EI required additional resources and also diverted existing resources previously focussed on generating future research engagement and impact, no direct economic benefit is occurring. Knowledge- EI has improved some researchers' awareness of, and the language around, impact and engagement. However, it has added another layer of complexity and administration for researchers. They were required to increase hours to provide assessment for internal processes and devote time to upskilling and training. It has required a shift in focus and has alienated a number of academics, whilst giving a forum for promotion to others. In a climate where there are increasing time pressures and yet an expectation that researchers do everything, clarity around what really matters and the timing of activities is needed.

Other sectors outside of academia?

It is unclear that EI had any impact on sectors outside of academia. One of the key objectives of EI is to “provide clarity to the Government and Australian public about how their investments in university research translate into tangible benefits beyond academia”, but there has been little government investment or effort made to promote the results or the underlying research to the Australian public. As there is a time lag, the EI outcomes demonstrate results significantly delayed from the actual impact described in any case study. Therefore its evaluation may not be meaningful to sectors beyond academia, such as industry, who may have already ‘moved on’ and funders whose funding has already been expended. Research marketing already provides real-time insights to the progress of research for the Australian public.

Q51

How do you, or your organisation, use EI outcomes?

Outcomes are used in marketing materials and will be somewhat used to inform our strategy for the next submission.

Q52

The EI outcomes are valuable to you or your organisation.

Neither agree nor disagree,

Please explain your answer.:

The EI outcomes have proven of very little value to our organisation to date. As we were not able to predict the outcomes with any confidence and upon evaluation of the outcomes were also not able to interpret the outcomes with any certainty. Good results appeared to be highly correlated with case studies that were prepared by professional writers meaning the assessment was really a measure of how much an institution invested in the submission, not their actual research engagement or impact. There is currently significant subjectivity in the outcomes. A clearer assessment matrix would lead to more consistent outcomes. The definitions used in the assessment need some work to allow for greater differentiation. Lack of transparency and exclusion from the assessment process has been detrimental to the utility and value of the outcomes. In addition, the format of the EI 2018 National Report was not easily accessible to use or re-use the data. The EI methodology also required access to information dating back over a long period where that data was not recorded, and so the outcomes tended to reflect those areas where records were serendipitously kept or could be recovered, for example, because a key researcher happened to remain at the same institution for a long time. Whilst clearly important to Government mandate and direction on industry-led research and impact, the time for impact to occur is highly variable. In addition, the EI methodology remains at odds with slower-burn and fundamental-research disciplines such as pure mathematics, physics, etc., and so it is of little value to parts of the organisation that work in these areas. In regards to NTROs, the exercise is useful as it acknowledges that stories, artworks, disseminate information and knowledge in ways different to a scholarly article but arguably of equal value. In this sense being able to note impact and engagement gives value to non-traditional research outcomes.

Q53

How else could EI outcomes be used?

Outcomes could be used to inform the government, they could be used as an indicator demonstrating that investing in universities and education more broadly, is critical to Australia's future in both the short and long term.

Q54

The current Engagement definition is appropriate.

Disagree,

If you don't agree, what are your suggested amendments to the Engagement definition?:

The engagement definition should be amended to include other end-users (e.g., next-users) and updated to reflect current discourse and academic research i.e.:

Engagement: Research engagement is the activities and interactions between researchers and research next-users, for the mutually beneficial creation and sharing of knowledge, technologies, methods, and/or resources. The EI guidance should also be expanded to clarify and provide examples, such as the UK's REF guidance documentation. The EI panel criteria and working methods should also be made available as is done for the UK's REF. Panel minutes and feedback should also be provided to institutions to ensure correct interpretation of the definition.

Q55

The current Impact definition is appropriate.

Disagree,

If you don't agree, what are your suggested amendments to the Impact definition?:

The impact definition should be amended to include other end-users and updated to reflect current discourse and academic research i.e.: Impact: Research impact is the verifiable contribution that research makes to knowledge, the economy, society, environment, or culture. The EI guidance should also be expanded to clarify and provide examples, such as the UK's REF guidance documentation. The EI panel criteria and working methods should also be made available as is done for the UK's REF. Panel minutes and feedback should also be provided to institutions to ensure correct interpretation of the definition.

Q56

The current end-user definition is appropriate.

Disagree,

If you don't agree, what are your suggested amendments to the end-user definition?:

The definition of end-user should be amended to include other knowledge holders and beneficiaries within academia. i.e.: Research next-user: A research next-user is an individual, community, or organisation that will directly use or directly benefit from the output, outcome, or result of the research. Examples of research next-users include governments, businesses, non-governmental organisations, communities, and community organisations. Panel minutes and feedback should also be provided to institutions to ensure correct interpretation of the definition.

Q57

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.

The growth of 'research on research', research in education and teaching, and the very nature of incremental change in research should be grounds for the consideration of including universities (and affiliates/subsidiaries/controlled entities) and research organisation as end-users, as legitimate beneficiaries of the impact of research.

These excluded organisations are frequently involved in the translation of research into real-world outcomes and their exclusion distorts the picture of how impact is achieved. This also generates a disincentive to engaging with organisations such as CSIRO and ANSTO that are intended to generate impact.

Q58**No**

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

Page 14: EI Methodology /1

Q59

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

No,

Please explain your answer.:

Two-digit FOR codes allow universities to assign responsibilities to align with other Government reporting e.g. ABS and ERA. However, if impact is to be truly meaningful it should be viewed with a design-thinking approach, i.e. who is the primary intended audience? If this is the Commonwealth Government then FORs may not be the most appropriate unit for assessment.

Q60

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

Yes,

Please explain your answer.:

There are other ways to classify units of assessment, such as: SEO codes- however then it wouldn't be possible to correlate with ERA results, which is useful to view the full breadth of research activity for a FOR with non-academic impact (EI) and academic quality (ERA). UN SDGs- align with ASX150 companies and global targets. Domains of impact- e.g. PESTLE or beneficiary-based: society, knowledge, environment, culture, and economic domains. Then the number of case studies submitted could be standardised e.g. 1-10 per domain (self-determined) with a minimum number required per researcher FTE. Impact summaries could be de-identified and reviewed by a consumer panel separate from the evidence component.

Q61

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

Fewer units of assessment,

How many, and why?:

The number of Units of Assessment (UoAs) is not a determinant of impact, significance or reach. The number is not as integral as the materiality of the classification system used. As currently there is no support for resourcing provided to undertake the EI assessment, there is no appetite to create more UoAs, and fewer units would allow a more sustainable approach at the university level. However if resourcing was provided, then there would certainly be an increased desire for more case studies under the UoAs to allow better representation of impactful research, and a more nuanced and diverse impact assessment.

Q62

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

Disagree**Q63**

If you disagree, how should eligibility for assessment in EI be determined?

Depending on the UoA utilised, institutions should choose whether they wish to be assessed in a discipline or not. The type and kinds of outputs submitted to ERA are also tied to different audience needs, so their inter-dependence is not consistent. See the response to 4.12 for further clarification.

Q64

The low-volume threshold is set at the appropriate level.

Disagree,

Please explain your answer.:

Volume thresholds are an arbitrary measure of research engagement and impact. Universities should be able to decide which codes to submit in based on their long-term strategic goals.

Page 15: EI Methodology /2

Q65

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

Disagree,

Please explain your answer.:

The engagement metrics do not align with the engagement definition and provide no context to the nature or extent of the engagement.

Q66

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

Strongly disagree,

Please explain your answer.:

Cash support is not a suitable surrogate measure of meaningful research engagement. It embeds systemic disadvantage and undermines the value of engagement which occurs in many diverse ways. Utilising a fiscal approach creates biased results favourable to larger universities hence also systematically undermines the diversity and values of the Australian higher education system. Universities must serve the Australian community at all socio-economic levels, not just commercial enterprises. This data should not form part of the EI assessment, and its requirement creates duplication as this information is already provided via HERDC reporting to Government.

Q67

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

Strongly disagree,

Please explain your answer.:

Research commercialisation income is not a suitable surrogate measure of meaningful research engagement. It embeds systemic disadvantage and undermines the value of engagement which occurs in many diverse ways. Utilising a fiscal approach creates biased results favourable to larger universities hence also systematically undermines the diversity and values of the Australian higher education system. Universities must serve the Australian community at all socio-economic levels, not just commercial enterprises. This data should not form part of the EI assessment, and its requirement creates duplication as this information is already provided via HERDC reporting to Government.

Q68

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

Yes,

If you answered 'Yes', please outline the metrics. If you answered 'No', please explain your answer.:

ARC needs to undertake research to identify the forms of 'responsible' and 'ethical metrics' being considered in other national systems such as the United Kingdom's REF. There is also the argument that metrics and indicators should be optional, and the emphasis should be placed on the narrative that should contextualise the nature and the extent of the engagement.

Q69

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

Please specify the metrics.:

Volume of projects/hours with community or not for profit organisations to recognise meaningful engagement that cannot be captured using funding metrics.

Q70

Should any of the current engagement metrics be redesigned?

Yes,

If you answered 'Yes', which ones and how?:

All metrics which are purely financial in nature should be removed. Number of partnerships is a more sensitive measure of breadth of engagement than simply the total dollar value.

Q71

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

Disagree,

Please explain your answer.:

Co-supervision of HDR students should not be made an engagement indicator in future rounds of EI. This would create another source of duplication of information as this data is reported in TCSI to Government. It also creates inequities across disciplines and favours larger Universities who have a larger capacity for this indicator.

Q72

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

Patents

Comment:

No

No, although these could be used as evidence to support impact but are not valid engagement indicators.

Research commercialisation income

Comment:

No

No, although these could be used as evidence to support impact but are not valid engagement indicators.

Registered designs

Comment:

No

No, although these could be used as evidence to support impact but are not valid engagement indicators.

Plant breeder's rights

Comment:

No

No, although these could be used as evidence to support impact but are not valid engagement indicators.

NHMRC endorsed guidelines

Comment:

No

No, although these could be used as evidence to support impact but are not valid engagement indicators.

Q73

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

Disagree,

Please explain your answer.:

The suitability of the narrative approach for describing and assessing research engagement is difficult to confirm when our University was not involved in panel assessment and did not receive feedback on the assessment process. In addition, the engagement narrative could be viewed as a subset of a pathway to impact or approach to impact, giving the intention, context, and ability to communicate and draw together the conceptual frameworks around the research. In this light, the engagement and approach to impact narratives are insufficiently distinct to provide suitability for assessment, they should be combined into one.

Q74

If you disagree with the narrative approach, what alternative approach could be used to replace the narrative? If you are suggesting indicators, please be specific.

See response 4.24 above for suggested alternatives.

Q75

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

Disagree,

Please explain your answer.:

There is diverse research occurring within any discipline and it is impossible to capture everything in one representative case study that reflects institutional engagement. The sufficiency of the submission is difficult to confirm when our University was not involved in the panel assessment and did not receive feedback from on the assessment process. Due to the burden on researchers and institutions, we would not support increasing the number of submissions.

Q76

The engagement narrative needs to be longer.

Neither agree nor disagree,

Please explain your answer.:

See response 4.24 above for an explanation of potential opportunities.

Q77

Additional evidence is needed within the narrative.

Disagree,

If you agree, what evidence should be provided?:

A balance has to be struck between the number of cases, their development and evidence, and the substantial costs incurred in gathering evidence, constructing narratives, and developing case studies. The impost for the 2018 round was very substantial. In the current context of the crisis facing the sector, it is not conceivable that universities will have the resources available to participate without significant streamlining of the assessment obligations.

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Q78

The narrative approach is suitable for describing and assessing Impact.

Agree,

Please explain your answer.:

The suitability of the narrative approach for describing and assessing impact is difficult to confirm when our University was not involved in panel assessment and did not receive feedback on the assessment process. The provision by the ARC of panel feedback on all impact narratives, high/low/medium, would enable thorough evaluation and ensure rigor of the process and hence suitability. It is clear that EI will continue to play an important role in the ongoing translation of funded research into policy, industry etc. In its first iteration, it was evident that researchers struggled in viewing their research in this way and articulating impact in a narrative format, it is a new genre of writing for many academics - clear feedback from the ARC, guidance and best practice examples are required and would prove greatly beneficial.

Q79

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

Nil

Q80

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

Disagree,

Please explain your answer.:

There is diverse research occurring within any discipline and it is impossible to capture everything in one representative case study that reflects institutional impact. The sufficiency of the submission is difficult to confirm when our University was not involved in the panel assessment and did not receive feedback from the assessment process. Due to the burden on researchers and institutions, we would not support increasing the number of submissions unless additional resourcing was made available.

Q81

The impact narrative needs to be longer.

Neither agree nor disagree,

Please explain your answer.:

The length of the Impact narrative seems sufficient.

Q82

There is need for additional evidence to be provided within the impact narrative.

Neither agree nor disagree,

If you answered 'Yes', what evidence should be provided?:

The need for additional evidence within the narrative is difficult to determine as we did not receive feedback from the assessment panel. To reduce the administrative burden the provision of evidence need not be made into a requirement for all such narratives.

Q83

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

No,

Please explain your answer.:

The term 'measure' can be problematic in different disciplines. It is best to distance any evaluation or assessment of impact from any measurements to ensure it is inclusive and indicative of all disciplines. Any 'measures' can be used as evidence of reach of impact.

Q84

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

Respondent skipped this question

Page 18: EI Methodology /5

Q85

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

Disagree,

Please explain your answer.:

The suitability of the narrative approach for describing and assessing research approach to impact is difficult to confirm as we did not receive feedback from the assessment panel. We were surprised that in some areas where we were able to demonstrate clear financial support throughout the narrative from the ARC and University, it performed poorer than the narrative where this support was much more patchy and difficult to demonstrate. In addition, the engagement narrative could be viewed as a subset of a pathway to impact or approach to impact, giving the intention, context and ability to communicate and draw together the conceptual frameworks around the research. In this light, the engagement and approach to impact narratives are insufficiently distinct to provide suitability for assessment, they should be combined into one.

Q86

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

See response to 4.33 for suggested alternative.

Q87

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

Strongly disagree,

Please explain your answer.:

There is diverse research occurring within any discipline and it is impossible to capture everything in one representative case study that reflects all activities within that discipline. It is unclear why approach to impact needs to be assessed separately from impact. Due to the burden on researchers and institutions, we would not support increasing the number of submissions.

Q88

The approach to impact narrative needs to be longer.

Neither agree nor disagree,

Please explain your answer.:

The length of the Approach to Impact narrative seems sufficient.

Q89

There is a need for additional evidence to be provided.

Neither agree nor disagree,

Please explain your answer.:

The need for additional evidence within the narrative is difficult to scrutinise as we did not receive feedback from the assessment panel. To reduce administrative burden the provision of evidence need not be made into a requirement for all such narratives.

Q90

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

Yes,

Please explain your answer.:

This would reduce administrative burden and since the two aspects go well together. The approach to impact can be viewed as the context and what was done to support engagement activities and pathways to impact. Hence engagement is a subset of Approach or Pathway to Impact.

Page 19: EI Methodology /6

Q91

The engagement rating scale is suitable for assessing research engagement.

Strongly disagree,

Please explain your answer.:

The scale is too simplistic. It does not provide enough detail to distinguish or facilitate any level of improvement or refinement. There was no transparency as to how this was interpreted and used at the panel level so is difficult to scrutinise its suitability when used for assessment.

Q92

The descriptors for the engagement rating scale are suitable.

Strongly disagree,

Please explain your answer.:

In the 2018 round, at an institutional and researcher level there was a real lack of clarity around how to interpret the rating scale. There was no transparency as to how this was interpreted and used at the panel level so is difficult to scrutinise its suitability when used for assessment.

Q93

The impact rating scale is suitable for assessing impact.

Strongly disagree,

Please explain your answer.:

The scale is too simplistic. It does not provide enough detail to distinguish or facilitate any level of improvement or refinement e.g. the difference between high and medium is the word "highly". There was no transparency as to how this was interpreted and used at the panel level so is difficult to scrutinise its suitability when used for assessment.

Q94

The descriptors for the impact rating scale are suitable.

Strongly disagree,

Please explain answer.:

In the 2018 round, at an institutional and researcher level, there was a real lack of clarity around how to interpret the rating scale. It does not provide enough detail to distinguish or facilitate any level of improvement or refinement e.g. the difference between high and medium is the word "highly". There was no transparency as to how this was interpreted and used at the panel level so is difficult to scrutinise its suitability when used for assessment

Q95

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

Strongly disagree,

Please explain your answer.:

The scale is too simplistic. It does not provide enough detail to distinguish or facilitate any level of improvement or refinement e.g. the difference between high and medium is the word "highly". There was no transparency as to how this was interpreted and used at the panel level so is difficult to scrutinise its suitability when used for assessment.

Q96

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

Strongly disagree,

Please explain your answer.:

In the 2018 round, at an institutional and researcher level, there was a real lack of clarity around how to interpret the rating scale. It does not provide enough detail to distinguish or facilitate any level of improvement or refinement e.g. the difference between high and medium is the word "highly". There was no transparency as to how this was interpreted and used at the panel level so is difficult to scrutinise its suitability when used for assessment.

Page 20: EI Methodology /7

Q97

Should EI continue to include an interdisciplinary impact study in addition to the two-digit Field of Research impact studies?

Yes,

Please explain your answer.:

This is dependent on any considerations regarding the UoA, however, much of the impacts of research occur through the result of their interdisciplinary teams, and as such the addition of this case study enables universities to describe impact which may not neatly fit within the constraints of the 2-digit FoR code. It would be of benefit if the classification, interpretation, and guidance of 'interdisciplinary' was described by the ARC to a greater extent. We would also suggest that the interdisciplinary case study have no limit on the number of FORs assigned to the case study to truly accommodate interdisciplinary research.

Q98

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,

Please explain your answer.:

The low-volume threshold, specifically in this research area, is not an indicator of quality. The option to opt-in if the threshold is not met is a sensible approach.

Q99

Should the unit of assessment for Aboriginal and Torres Strait Islander research include engagement in the next round of EI?

Yes,

Please explain your answer.:

Engagement should be included but not in its current form, a wide range of Indigenous knowledge holders should be consulted on this.

Page 21: Overarching Issues Common to ERA and EI

Q100

How often should ERA occur?

Other (please specify and explain your answer).:

Our response to this question is dependent on whether the data requirements are significantly simplified (i.e. based on by-line, initial data provided by citation provider) or not. If the data requirements are significantly simplified then an annual collection would help to distribute the resourcing burden across the years between assessments. Universities would also be held more accountable for the information they submitted, as major fluctuations from year to year could indicate that the data may not be reliable. However, a shorter timeframe may not allow for sufficient citation analysis to be used. If the data requirements are not significantly simplified then every 5 years would be more sensible. This would allow units a sufficient cycle to produce high-quality work and to get it published in top-quality venues – e.g. in journal or with major presses that have long lag times. A longer assessment period would also help reduce effort per assessment. Longer assessment periods also better reflect the way excellence actually happens (i.e. not quickly).

Q101

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?

The impact of a longer assessment cycle on the value of ERA would be as follows:

- There would be more time for citations to grow, however, the underlying research outputs would be quite old and ERA results would not be indicative of current institutional research performance
- It would lessen the propensity to 'game' by reduction of artificial 'churn' of staff associated with ERA-driven head-hunting.
- It would allow collegiality and high risk, high return research ideas to flourish in the absence of a three-year cycle which narrows the willingness to enable development and a willingness to fail.
- It would make it difficult to monitor historical disciplinary performance as the staffing profile within an institution would change significantly over an assessment cycle greater than three years (e.g. ERA 2023 results will not be comparable with ERA 2018).
- Disciplines at an institution are locked to an outcome for longer with potentially negative consequences and little means of changing it.

Page 22: Overarching Issues Common to ERA and EI
Q102

How often should the EI assessment occur?

Other (please specify and explain your answer):

Engagement and, especially, impact takes years to develop and mature. This would give more time for research to be taken up by end-users between assessments.

Q103

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?

The impact of a longer assessment cycle on the value of EI results during the intervening years, would be as follows:

- A propensity for the research impact to have greater reach and significance as engagement and impact takes time
 - It would make it difficult to monitor historical disciplinary performance as the staffing profile within an institution would change significantly over an assessment cycle greater than three years
 - Disciplines at an institution are locked into an outcome for longer with potentially negative consequences and little means of changing it.
-

Page 23: Overarching Issues Common to both ERA and EI
Q104

ERA and EI should be combined into the one assessment.

Disagree,

Please explain your answer.:

ERA and EI assessments evaluate very different things that should not be confused. Any duplication between the two assessments and reporting already provided to the Government should be removed.

Q105

What would be the advantages and/or disadvantages of ERA and EI being combined into the one assessment.

Advantages

No advantages.

Disadvantages

Disadvantages: a. Universities are not currently sufficiently resourced to handle such a significant increase in workload on an irregular basis. b. To combine may well simply miss the diversity of forms of excellence in research

Q106

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

Yes,

Please explain your answer.:

For ERA, the ARC should provide the data to universities which would then be verified or adjusted, as needed. For EI, a longer impact period, particularly for disciplines with a longer research pipeline, would lead to more detailed and nuanced results. A move to regard contributions in theoretical disciplines that lead to impact in less theoretical disciplines (for example, from mathematics into physics or engineering) would better reflect how long-term deep impact is achieved for the benefit of society. In addition, funding could be provided to universities to fund the costs of participation in both assessments.

Page 24: Overarching Issues Common to Both ERA and EI

Q107

In your view, what data sources could ERA utilise?

ERA could use the following data sources:

- Publications could be harvested from Scopus/Web of Science/ORCID (for NTROs), with utilisation of machine learning to classify FORs at an article level
- Staff data could be taken from HEIMS
- Income could be taken from HERDC
- Data from the ABS Survey of Research and Experimental Development could also be utilised

The ARC could then provide the 'packets' of information to institutions, which universities could verify and adjust the data as necessary.

Q108

In your view, what are the most time consuming elements of the ERA submission?

The most time-consuming elements of an ERA submission are:

- Reading all outputs to ensure correct 4-digit FOR code is assigned
- Assigning FOR codes to research outputs
- Selecting an appropriate peer review sample
- Writing Explanatory Statements
- Coordinating all the internal responses to the various consultations (e.g. journal list, FOR Code review, ERA/EI review, etc.)
- Training staff on 'performing for ERA'
- Gathering and assessing publications/NTROs
- Lack of centralised information available - the assembling of data ties up research offices, library staff, finance officers, individual researchers, Associate Deans Research and Discipline champions
- Coordinating the ARC assessor nominations process

Q109

Are there efficiencies that could be introduced?

Yes,

Please describe.:

ERA currently requires a range of time-consuming and complex tasks that impose a significant workload burden on staff, which is compensated or recognised quite variably across the sector. In order to make the process more efficient and equitable, the following could be introduced: - Lowering thresholds. Lowering thresholds would also have the benefit of enabling the inclusion of some FOR codes that may now not meet the threshold at some institutions after the current revision of FOR codes. - Remove researcher eligibility at a staff census date and determine research outputs (income and publications) based on author affiliation/institutional by-line. - Remove Applied measures from ERA - Remove conferences from ERA assessment in all disciplines except Information Sciences and Engineering - See response to 5.7 for further suggestions

Page 25: Overarching Issues Common to Both ERA and EI

Q110

In your view, what are the most time consuming elements of the EI submission?

The most time-consuming elements of the EI submission are:

- Identifying potential research for inclusion as case studies
- Formulation of the narrative and writing/editing case studies
- Collection and collation of data
- Discovery and collection of evidence
- Determining which case studies to include
- Strategic decisions around which FOR codes to submit research that spans multiple disciplines
- Coordinating ARC assessor nominations process, and identifying external stakeholders to nominate as assessors, and then delicately trying to manage the relationships when they are not chosen
- Rapidly up-skilling researchers to write about research in an unfamiliar format (narrative) using definitions and language and evidences which were not contemplated at the outset of the research

Q111

Are there efficiencies that could be introduced?

Yes,

Please describe.:

Combine "Approach to Impact" and "Engagement" as part of the Impact assessment and have just one rating per UoA.

Page 26: Overarching Issues Common to Both ERA and EI

Q112

ORCID iDs should be mandatory for ERA.

Neither agree nor disagree,

Please explain your answer.:

Whilst the university is a strong supporter of ORCID, the use of ORCID relies on individuals and introduces complex dependencies that may inhibit the process of conducting a university-wide assessment.

Q113

What are the advantages and/or disadvantages of mandatory ORCID iDs?

Advantages

Advantages: -Aligns with institutional support for ORCID rollout; - Provides an incentive for keeping ORCIDs up-to-date; -Simplifies identification of staff on publications and data harvesting process

Disadvantages

Disadvantages: - Data quality relies on each individual staff member; - Access to ORCID data managed at an individual level, which could complicate the harvesting process; - Completeness relies on 100% uptake amongst academics; - Would not align with a by-line based assessment (continues incentive for poaching); - Wouldn't remove the burden of FOR-coding of outputs or verification processes; - ORCID is imperfect. It doesn't work for books and book chapters, it is bad for non-English language scholarship and for non-traditional outputs. Difficult to input data.

Q114

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

Neither agree nor disagree,

Please explain your answer.:

Whilst the university is a strong supporter of ORCID as a universal identifier for staff, the burden to ensure data quality and completeness would remain. The requirements for verifying data and correcting errors would change to managing at an individual level, which could possibly be more complex and labour intensive. It also does not address 'gaming' in the system.

Q115

What are the advantages and/or disadvantages of automatic harvesting of output data using ORCID iDs?

Advantages

Advantages: - In theory, a list of ORCIDs is easier for institutions to maintain than a set of thousands of research outputs.

Disadvantages

Disadvantages: - ORCID records are not scrutinised or verified. Automatic harvesting from ORCID would also include many ineligible outputs; - ORCID research output types don't align with existing ERA types; - This is reliant on researchers either having a public ORCID record or managing 'trusted parties' settings to allow ingestion of publication data into RMS; - When writing ARC grant applications this year, the reliance on ORCID made the process more time-consuming compared with the previous system of manually inputting research outputs. Especially for more prolific or established researchers.

Q116

DOIs should be mandatory for ERA.

Neither agree nor disagree,

Please explain your answer.:

They should be included where they are available.

Q117

What are the advantages and/or disadvantages of mandatory DOIs?

Advantages

Advantage: Makes it easier to identify a research output

Disadvantages

Disadvantage: DOIs are only available for electronic resources, this does not include all output types such as books and book chapters.

Page 27: Overarching Issues Common to Both ERA and EI

Q118

Are there other 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,

Please explain your answer.:

Ways to collect data to reduce cost and burden to participating universities could include: • The ARC could adopt the process used by all of the major global rankings agencies by using data sourced from the commercial publication data providers with an option for universities to submit supplementary information (for NTROs and non-indexed items). • The ARC or data providers could use a programmatic method to assign FOR codes (based on journal lists or article keywords) and allow universities to apply minor corrections. This would reduce the burden on universities and ensure that the data are more closely aligned with the global benchmarks used to determine 'world standard' • Utilise software such as 'overton.io' for policy impacts.

Q119

What are the advantages and/or disadvantages?

Advantages

No Advantages.

Disadvantages

Disadvantages: - Accurate harvesting based on ORCID relies on a number of factors: □ Academics keeping their ORCIDS up-to-date and accurate □ Academics having an ORCID (and not multiple ORCIDs) □ Academics making their outputs publicly readable in ORCID (institutions have no oversight of this due to privacy) □ Academics publishing using their ORCIDs (they are not helpful for NTROs)

Page 28: Additional Comments

Q120

Please provide any additional comments:

Both ERA and EI are resource-intensive exercises – we have concerns about how institutions and organisations will be placed to manage these assessments in light of COVID-related reductions in staffing and finances. If ERA and EI are run together then there are significant workload implications. ERA/EI will need to clearly demonstrate the benefit and value of effort expended, particularly as there is a significant amount of subjectivity in the EI process that is hard to reconcile.

All universities should be represented or have observers on EI panels, otherwise minutes should be made available to ensure outcomes are not biased, and enable capacity building and ongoing improvements and refinements at all institutions. This is vital to ensure integrity and robustness in the review process, as the review is a competitive evaluation, transparency is fundamental.

AMc Note - 21/10/2020 - 'Please do not publish my submission' unchecked as per email advice
