

Charles Darwin University

Excellence in Research for Australia and Engagement and Impact Review

ERA policy

Value of ERA

<p>Q3.1 To what extent is ERA meeting its objectives to:</p> <p>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.</p>	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>The ERA methodology and outcomes is well respected by government and the Higher Education Industry as providing a rigorous framework to evaluate Australia's research excellence. More could be done, however, to ascertain whether this framework is meaningful for industry and the wider community.</p>
<p>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.</p>	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>Particularly as the number of ERA rounds increase, the availability of longitudinal data provides a rich data source which can be used to see trends and emerging areas and opportunities for development.</p>
<p>c. Identify excellence across the full spectrum of research performance.</p>	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>The citation and peer review methodologies are robust and can adequately identify excellence across all disciplines.</p>
<p>d. Identify emerging research areas and opportunities for further development.</p>	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>Particularly as the number of ERA rounds increase, the availability of longitudinal data provides a rich data source which can be used to see trends and emerging areas and opportunities</p>

	for development. The time lag in reporting periods, however, may not provide information which is sufficiently current or forward looking for decision-makers.
e. Allow for comparisons of research in Australia, nationally and internationally, for all discipline areas.	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>The current rating scale is accessible and clearly enables the comparison to international standards.</p>
Q3.2 The ERA objectives are appropriate for meeting the future needs of its stakeholders.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>More could be done to respond to the ongoing needs of the public for a robust and transparent evaluation.</p> <p>a. If you disagreed with the previous statement, what should the primary purpose of ERA be going forward? <i>Please explain your answer.</i></p>
Q3.3 What impacts has ERA had on: a. the Australian university research sector as a whole	ERA has enabled an objective comparison of Australia's research to worldwide standard in a disciplinary-specific and appropriate fashion. The ACIL Allen Consulting, Benefits Realisation Review of Excellence in Research for Australia (2013) as well as other analyses of the longitudinal national ERA data suggests that over time the quality of Australia's research undertaken in Higher Education institutions has improved, relative to world standards. In keeping with the Heisenberg principle, the simple act of measuring the nation's research, has fundamentally changed; and improved it, as a result.
b. individual universities	ERA forces universities to critically consider its disciplinary make-up and provides institutions a benchmark upon which it can compare its performance (both nationally and internationally).
c. researchers	For researchers from well-performing disciplines/institutions, it can create a sense of pride and validation of their work. However, it can be demotivating for hard-working and successful researchers who are part of a

	disciplinary group that, overall, doesn't compare well with the national and international standards.
d. Other?	The process of ERA and EI assessments are of importance for the accountability of Australian universities to all sectors, including the community. There is a greater expectation of 'return on investment' for (partially) publicly funded institutions and ERA enables universities to not only be accountable, but to celebrate the success of the essential research undertaken.
Q3.4 How do you use ERA outcomes?	<p>There is an important application of these metrics in internal reviews and strategic planning of institutional commitments to research platforms and research areas of significance, and institutional investments in research support.</p> <p>Occasionally they are also included on marketing material and used in other forms to promote the University. This may be used for diverse instances ranging from grant or tender applications or student recruitment content.</p>
Q3.5 ERA outcomes are beneficial to you/your organisation.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>ERA outcomes do create a sense of pride for well performing disciplines and an objective differentiation between the performance of different parts of the University. Although somewhat indirect and delayed, the analysis of ERA outcomes can show how investment in research capacity in certain disciplines leads to positive outcomes over time. There is an important application of these metrics in internal reviews and strategic planning of institutional commitments to research platforms and research areas of significance, and institutional investments in research support.</p> <p>It is also used in business or marketing contexts as an independent evaluation of the quality and impact of research.</p> <p>The outcome also allows the assessment of the effectiveness of investment in developing individual researcher's specific areas of research.</p>

Q3.6 Do you have any suggestions for enhancing ERA's value to you/your organisation?	<p><i>Please explain your answer.</i></p> <p>Perhaps an ERA 4 or 5 rated disciplines can be provided a 'digital badge' which can be used for marketing or promotional purposes (e.g. on websites etc.).</p>
ERA methodology	
ERA methodology at a glance	
Q3.7 The current methodology meets the objectives of ERA.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The current methodology mostly meets the objectives, however, reliance on purely peer review has the potential to introduce bias.</p>
Q3.8 What are the strengths of the overall methodology?	<p><i>Please describe.</i></p> <p>The inherent value of ERA is that it ensures an equitable benchmark across the assessment of research in every Australian University. The peer review methodology minimises the potential for (inter)disciplinary bias.</p>
Q3.9 What are the weaknesses of the overall methodology?	<p><i>Please describe.</i></p> <p>It is undeniable that the current ERA methodology is workload heavy, for both the ARC and Australian universities. In addition, there is a lack of a central repository of Australian research publications which is a lost opportunity.</p>
Citation analysis methodology	
Q3.10 The citation analysis methodology for evaluating the quality of research is appropriate.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p>
Q3.11 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?	<p>Extending citation analysis to some/most peer review disciplines would be beneficial. There are significantly fewer books and book chapters and conference papers than there were a decade ago. So, even if citation analyses were not comprehensive, it would be representative of the outputs of the discipline. Given this, perhaps peer reviewing only non-indexed items would be advantageous.</p>

	<p>Currently, books, book chapters, conference papers, and reports are only counted in the institutional volume, not assessed in citation-based disciplines.</p> <p>We propose a mixed method, which split the peer review/citation methodology on publication category, rather than discipline. This would be less labour intensive and still result in a robust analysis of the output of the discipline.</p>
Q3.12 What are the strengths of the citation analysis methodology?	<p><i>Please describe.</i></p> <p>The strengths of citation analyses are that they are unbiased and not labour intensive. Normalising the data for each discipline eliminates the idiosyncrasies in citation behaviour for each discipline.</p>
Q3.13 What are the weaknesses of the citation analysis methodology?	<p>First, it is a weakness that not all outputs are measured by citation analysis, although we understand why this is the current process. Second, the use of a single tool (Scopus) is also a weakness as the tool is not comprehensive. It would be better to use multiple tools such as Scopus, Web of Science, Google Scholar and anything else which would collectively provide comprehensive coverage.</p> <p>We propose a mixed method, which split the peer review/citation methodology on publication category, rather than discipline. This would be less labour intensive and still result in a robust analysis of the output of the discipline.</p>
Q3.14 Can the citation analysis methodology be modified to improve the evaluation process while still adhering to the ERA Indicator Principles?	<p>Yes/No. a. If you answered 'Yes', please describe how the methodology could be improved.</p> <p>If there was a national repository, the government could source metrics data from multiple sources to add to the value of the repository.</p> <p>We propose a mixed method, which split the peer review/citation methodology on publication category, rather than discipline. This would be less labour intensive and still result in a robust analysis of the output of the discipline.</p>

Peer review methodology	
<p>Q3.15 The peer review methodology for evaluating the quality of research is appropriate.</p>	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Extending citation analysis to some/most peer review disciplines would be beneficial. There are significantly fewer books and book chapters and conference papers than there were a decade ago. So, even if citation analyses were not comprehensive, it would be representative of the outputs of the discipline. Given this, perhaps peer reviewing only non-indexed items would be advantageous.</p> <p>Currently, books, book chapters, conference papers, and reports are only counted in the institutional volume, not assessed in citation-based disciplines.</p> <p>We propose a mixed method, which split the peer review/citation methodology on publication category, rather than discipline. This would be less labour intensive and still result in a robust analysis of the output of the discipline.</p>
<p>Q3.16 What are the strengths of the peer review methodology?</p>	<p><i>Please describe.</i></p> <p>It is inherently more flexible as it is not reliant on the availability of online citation metrics. This is particularly important for the assessment of non-traditional research outputs.</p>
<p>Q3.17 What are the weaknesses of the peer review methodology?</p>	<p><i>Please describe.</i></p> <p>The peer review methodology is very labour intensive. Also, as with any assessment which relies on individuals' expertise, there are undoubtedly underlying biases in favour or against certain outputs which align (or not) with assessors' approach/methodology and/or results.</p> <p>In addition, the Go8 is over-represented in ERA 5 peer review disciplines.</p>
<p>Q3.18 Can the peer review methodology be modified to improve the evaluation process while still adhering to the ERA Indicator Principles?</p>	<p>Yes/No. a. If you answered 'Yes', please describe how the peer review methodology could be improved.</p>

	<p>Peer-review is not based on absolute standards but on fragmentary knowledge and biases of the panel. The fewer fields that use peer review the lesser the opportunity for bias.</p> <p>In addition, the methodology may benefit from more international peer reviewers (e.g. 40% of total).</p>
Contextual indicators	
Q3.19 The volume and activity indicators are still relevant to ERA.	<p>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</p> <p>We don't have particular insight into whether this information provides helpful context to expert evaluators.</p>
Q3.20 The publishing profile indicator is still relevant to ERA.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>We don't have particular insight into whether this information provides helpful context to expert evaluators.</p>
Q3.21 The research income indicators are still relevant to ERA.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>We don't have particular insight into whether this information provides helpful context to expert evaluators.</p>
Q3.22 The applied measures are still relevant to ERA: a. Patents.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>This applied measure is more appropriately assessed in the context of EI rather than ERA.</p>
b. Research commercialisation income.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>This applied measure is more appropriately assessed in the context of EI rather than ERA.</p>

c. Registered designs.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>This applied measure is more appropriately assed in the context of EI rather than ERA.</p>
d. Plant breeder's rights.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>This applied measure is more appropriately assed in the context of EI rather than ERA.</p>
e. NHMRC endorsed guidelines.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>This applied measure is more appropriately assed in the context of EI rather than ERA.</p>
ERA rating scale	
Q3.23 The five-band ERA rating scale is suitable for assessing research excellence.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The five-band rating scale is easily understood and corresponds to the specific ERA objectives: to ascertain whether research undertaken in Australian Higher Education institutions is excellent, compared to international standards.</p>
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?	<p><i>Yes/No.</i> a. If you answered, 'Yes', please explain how the rating scale can be modified to identify excellence.</p> <p>The ERA objective was to ensure Australian research is above world standard. If the ERA outcomes suggest that Australian research is above (or well above) world standard, then the objective is achieved.</p> <p>There is no need for further 'ranking' of the universities as it is not a specific ERA objective and there are other engines for this purpose.</p>

ERA low-volume threshold	
Q3.25 The ERA low-volume threshold is appropriate.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The current low-volume threshold is appropriate and should remain. Increasing the threshold risks excluding small regional and remote universities who do not have the scale or student base to sustain the breadth and depth of expertise than larger universities can.</p> <p>Charles Darwin University has a strategy of concentration as opposed to diversification, which is in alignment with the ARC's emphasis on excellence, rather than quantity.</p>
Q3.26 Are there ways in which the low-volume threshold could be modified to improve the evaluation process?	<p><i>Please describe.</i></p> <p>If it were necessary to change the thresholds, we would suggest that if a Higher Education Institution has more than 100 publications in a particular discipline, then it would be required to submit an ERA assessment. Between 50 and 100, however, would be only be assessed if the Higher Education Institution chose to submit.</p>
ERA staff census date	
Q3.27 What is the more appropriate method for universities to claim research outputs—staff census date or by-line?	<p><i>Please explain your answer.</i></p> <p>Census date – census date is a more appropriate method as it captures the University's current capacity and potential.</p> <p>In contrast, the by-line method is backward looking and does not represent a current picture of research at the institution.</p> <p>We strongly argue that research of all affiliates (including honorary researchers and clinical/medical staff) must be included in the University's ERA.</p>
Q3.28 What are the limitations of a census date approach?	<p><i>Please describe.</i></p> <p>It captures the staffing profile of one moment in time.</p>

Q3.29 Would a by-line approach address these limitations?	<p>Yes/No. Please explain your answer.</p> <p>Yes, but it doesn't outweigh the shortcomings of the by-line approach.</p>
Q3.30 What are the limitations of a by-line approach?	<p><i>Please describe.</i></p> <p>In contrast, the by-line method is backward looking and does not represent a current picture of research at the institution.</p>
ERA interdisciplinary research and new topics	
Q3.31 ERA adequately captures and evaluates interdisciplinary research.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Interdisciplinary research is fundamentally difficult to assess as, by its nature, there is limited expertise at the intersection, and experts in the mainstream disciplines have disciplinary biases.</p>
a. If you disagreed with the previous statement, how could interdisciplinary research best be accommodated?	<p><i>Please describe.</i></p> <p>-</p>
ERA and Indigenous research	
Q3.32 My institution would meet ERA low-volume threshold in Indigenous studies at: a. Two-digit?	<p>Yes/No. If you answered 'yes', please list which ones.</p> <p>FOR 45</p>
b. Four-digit?	<p>Yes/No. If you answered 'yes', please list which ones.</p> <p>4504 Aboriginal and Torres Strait Islander health and wellbeing</p>
Q3.33 In ERA, the best approach for evaluating Indigenous Studies is (choose one):	<p><i>a. Using established ERA methodology i.e. the low-volume threshold would apply to the Indigenous Studies discipline and all its specific disciplines.</i></p> <p>We would suggest, however, that there is an opportunity to 'opt-in' for 'low volume' disciplines.</p> <p>At this point in time, it is still unclear what is a 'low-volume discipline'. The other options</p>

	<p>presented are problematic in that panel members' expertise may become less relevant with insufficient depth if multiple disciplines are combined.</p> <p>b. <i>For Aboriginal and Torres Strait Islander studies by combining low-volume disciplines into single units of evaluation</i></p> <p>c. <i>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)</i></p> <p>d. <i>Other. Please describe.</i></p>
Q3.34 What would be the advantages and/or disadvantages of your preferred approach for evaluating Indigenous studies in ERA?	<p><i>Please describe</i></p> <p>At this point in time, it is still unclear what is a 'low-volume discipline'. The other options presented are problematic in that panel members' expertise may become less relevant with insufficient depth if multiple disciplines are combined.</p> <p>.</p>
ERA process	
Collection of ERA data	
Q3.35 ERA should move to an annual collection of data from universities.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>If institutions already have an institutional repository then annual collection would be fine.</p> <p>If there is no institutional repository, then annual data collection would increase the workload for all universities.</p>
Q3.36 What would be the advantages and/or disadvantages of an annual data collection?	<p><i>Please describe.</i></p> <p>The advantages are that it would enable the institution to strategize in a timelier way. Annual data collection would provide more regular information back to the institution on performance which would in turn inform planning, training, communication, the strategic institutional approach and goal setting. Overlap</p>

	<p>of the monitoring period across years would still be required for the annual collection of data to be effective.</p> <p>The disadvantages are that a move to annual collection would require changes to systems, workflows, and the allocation of staffing resources.</p>
Publication of ERA data	
Q3.37 In future ERA rounds, should the volume of outputs submitted for each unit of evaluation be included in the National Report?	<p>a. Yes, <i>Please explain your answer.</i></p> <p>b. No, <i>Please explain your answer.</i></p> <p>Neither agree nor disagree. Charles Darwin University's research output is focussed in areas of relevance to Northern Australia and our neighbouring region. We have concentration rather than diversification of expertise.</p>
Q3.38 In future ERA rounds, research outputs should be published with their assignment to specific disciplines following completion of the round.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The assignment of outputs to specific disciplines is a complex and time-consuming activity. Each institution undertakes this activity in a slightly different way and has a different (and valid) rationale behind disciplinary assignment. Publishing this data would begin a lot of conversations around institutions' rationales that may detract from the main objectives of ERA.</p>
a. What would be the advantages?	<p><i>Please explain your answer.</i></p> <p>The main advantage would be transparency (but without an opportunity to explain or provide a rationale).</p>
b. What would be the disadvantages?	<p><i>Please explain your answer.</i></p> <p>There does not appear to be any value-add to publishing this information. It would cause another distracting discussion that would consume resources and not be equitable across Higher Education institutions.</p>
Q3.39 What other data do you think the ARC should publish following an ERA round?	<i>Please describe.</i>

	If there was a national repository of research outputs, there would be no need to further publish research outputs data.
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?	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>We believe it is too early to comment on whether the EI assessment is fully able to meet its objectives. We would expect greater influence of this assessment in future years.</p>
b. provide clarity to the Government and the Australian public about how their investments in university research translate into tangible benefits beyond academia?	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>Presumably the ARC has gained some understanding of the current impact of the research undertaken by Australian universities outside of academia. However, it critical to acknowledge that impact can come many years after the research was undertaken and publications were produced</p> <p>At this point, there is no visibility whether the Commonwealth and State Governments and decision makers are aware of the outcomes and value of this assessment.</p> <p>In time, we believe that the Australian public will become more aware of the value of Australian research and EI could play an important part in that awareness raising. This may take, however, many years.</p>
c. identify institutional processes and infrastructure that enable research engagement?	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>As part of the assessment, universities were forced to articulate their approach to engagement and impact, thereby, had to analyse activities and identify what processes and infrastructure were in place.</p>

d. promote greater support for the translation of research impact within institutions for the benefit of Australia beyond academia?	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>EI is helping to create awareness amongst researchers about planning for engagement and impact which is ultimately positive for the end users of research.</p> <p>The danger is that the focus becomes on reporting rather than showcasing or promoting research engagement and impact to the broader community.</p>
e. identify the ways in which institutions currently translate research into impact?	<p><i>A very large amount; A large amount; A moderate amount; A small amount; Not at all. Please explain your answer.</i></p> <p>We believe this is still early in this process, it will be a long-term change to factor research translation into our strategic planning and implementation, however, we are hopeful it will happen.</p>
Q4.2 The EI objectives are appropriate for the future needs of its stakeholders.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Should read 'translate research into impact' not 'translate research impact'.</p> <p>To date, there is limited to no understanding of what EI is beyond academia – this exercise needs much more relevance to end users and the general public.</p>
Q4.3 What impact has EI had on: a. the Australian university sector as a whole?	<p><i>Please describe.</i></p> <p>The EI process has helped focus attention and highlight the importance of engagement and impact. This is important for institutions like Charles Darwin University which excels in applied research which has a positive impact on its end-users. The assessment has helped to balance the pure focus on excellence and, we believe, will ultimately make the research outcomes of universities more accessible to external stakeholders.</p>
a. Individual universities.	<p><i>Please describe.</i></p>

	<p>It should be noted, however, that the assessment did have significant workload implications.</p> <p>In addition, it did highlight the importance of applied research with impact beyond academia</p>
b. Researchers	<p><i>Please describe.</i></p> <p>The first EI had limited impact on most of the University's researchers apart from those directly involved in the development of the impact narratives.</p> <p>Research administrators are beginning to use this exercise to engage with researchers about the importance of research engagement and impact. At Charles Darwin University, this is often well received as we undertake a lot of applied research in conjunction with end-users.</p>
c. other sectors outside of academia?	<p><i>Please describe.</i></p> <p>At this stage, we believe there was little impact of EI outside of academia, but we hope with time this will ultimately make Australian research outcomes more accessible.</p>
Q4.4 How do you, or your organisation, use EI outcomes?	<p><i>Please describe.</i></p> <p>We are beginning to use it for business development and generating new business relationships. We have used the outcomes on some limited promotional material.</p> <p>Such material can be used to articulate the University's areas of research excellence and impact to foreign institutions in the course of developing partnerships, which includes research collaboration.</p>
Q4.5 The EI outcomes are valuable to you or your organisation.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Yes, Charles Darwin University fared well on the EI assessment and we are beginning to use it for business development and generating new business relationships. We have used the outcomes on some limited promotional material.</p> <p>Such material can be used to articulate the University's areas of research excellence and</p>

	<p>impact to foreign institutions in the course of developing partnerships, which includes research collaboration.</p> <p>However, the outcomes are not yet to the extent that we would like to benefit from the exercise.</p>
Q4.6 How else could EI outcomes be used?	<p><i>Please describe.</i></p> <p>In addition, if EI outcomes were utilised to inform policy decisions at the Commonwealth level it would have greater impact on the relevance to end-users and benefits outside academia.</p>
EI definitions	
Q4.7 The current Engagement definition is appropriate.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.</i> a. If you don't agree, what are your suggested amendments to the Engagement definition? <i>Please describe.</i></p> <p>Now that one round is complete, some examples would be good on what represents best practice for impact, and approach to impact.</p>
Q4.8 The current Impact definition is appropriate.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.</i> a. If you don't agree, what are your suggested amendments to the Impact definition? <i>Please describe.</i></p> <p>Now that one round is complete, some examples would be good on what represents best practice for impact, and approach to impact would be helpful.</p>
Q4.9 The current end-user definition is appropriate.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.</i></p>
a. If you don't agree, what are your suggested amendments to the end-user definition?	<p><i>Please describe.</i></p> <p>-</p>
b. Are there any end-user categories excluded in the current definition of research end-user that you think should be included?	<p><i>Please explain your answer.</i></p> <p>We believe that higher education providers should not be excluded from the definition of end-users. Research outcomes may benefit or influence a University's practice, for example, research into higher education or Vocational Education and Training should not be excluded.</p>

Q4.10 Are there other key terms that need to be formally defined?	<p>Yes/No. If you answered 'Yes', please explain your answer.</p> <p>'Indigenous research' is already defined, but can be interpreted in a number of ways that do not lead to a consistent application of the definition.</p>
EI methodology	
Unit of assessment	
Q4.11 Are the two-digit Field of Research codes the most appropriate method to define units of assessment for Engagement and Impact?	<p>Yes/No. Please explain your answer.</p> <p>The number of assessed impact and engagement narratives/indicators per discipline was appropriate but if SEO or Industry/sector codes were used then the scope of the assessment becomes more relevant for the end users.</p>
Q4.12 Are there other ways to classify units of assessment in EI, for example, SEO codes?	<p>Yes/No. Please explain your answer.</p> <p>If SEO or Industry/sector codes were used then the scope of the assessment becomes more relevant for the end users.</p>
Selectiveness of EI	
Q4.13 Should there be more or fewer units of assessment per university?	<p>More units of assessment; The same number as in EI 2018; Fewer units of assessment. a. How many and why? Please explain your answer.</p> <p>The number of assessed impact and engagement narratives/indicators per discipline was appropriate.</p>
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.	<p>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.</p>
a. If you disagree, how should eligibility for assessment in EI be determined?	<p>Please explain your answer.</p> <p>-</p>
Q4.15 The low volume threshold is set at the appropriate level.	<p>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</p>

	If it were necessary to change the ERA thresholds, we would suggest that an opt-in approach would be appropriate for sub-threshold disciplines.
Engagement indicators	
Q4.16 Overall, the engagement indicator suite for the assessment of research engagement is suitable.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree.</i> <i>Please explain your answer.</i></p> <p>We believe that engagement metrics can be very discipline specific and they should be assessed only for that discipline.</p> <p>For example, cash support from research end-users and research commercialisation income are poor proxies for engagement, particularly in Indigenous communities. There is a clear need for per capita metrics which would be more appropriate proxy measures.</p>
Q4.17 The cash support from research end-users indicator using HERDC data is appropriate for the assessment of research engagement?	<p><i>Strongly agree; agree; neither agree nor disagree; disagree; strongly disagree.</i> <i>Please explain your answer.</i></p> <p>Cash support from research end-users and research commercialisation income are poor proxies for engagement, particularly in Indigenous communities. There is a clear need for per capita metrics which would be more appropriate proxy measures.</p>
Q4.18 The research commercialisation income is appropriate for the assessment of research engagement.	<p><i>Strongly agree; agree; neither agree nor disagree; disagree; strongly disagree.</i> <i>Please explain your answer</i></p> <p>Cash support from research end-users and research commercialisation income are poor proxies for engagement, particularly in Indigenous communities. There is a clear need for per capita metrics which would be more appropriate proxy measures.</p>
Q4.19 Are there additional metrics that would be appropriate across many or all disciplines?	<p><i>Yes/No. If you answered 'Yes', please outline the metrics. If you answered 'No', please explain your answer.</i></p> <p>We believe that engagement metrics can be very discipline specific and they should be assessed only for that discipline.</p>

Q4.20 Are there alternative metrics that would be appropriate across many or all disciplines?	<p><i>Yes/No. Please specify the metrics.</i></p> <p>We believe that engagement metrics can be very discipline specific and they should be assessed only for that discipline.</p>
Q4.21 Should any of the current Engagement metrics be redesigned?	<p><i>Yes/No. If you answered 'Yes', which ones and how?</i></p> <p>We believe that engagement metrics can be very discipline specific and they should be assessed only for that discipline.</p> <p>For example, cash support from research end-users and research commercialisation income are poor proxies for engagement, particularly in Indigenous communities. There is a clear need for per capita metrics which would be more appropriate proxy measures.</p>
Q4.22 The co-supervision of HDR students should be made an engagement indicator in future rounds of EI.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>In certain disciplines and sectors this would be appropriate and would provide some insight into the relationship between the University and external, including international, stakeholders. For some disciplines and sectors, it would not be appropriate.</p>
Q4.23 In your opinion, are any of the ERA applied measures appropriate indicators of research engagement in EI?	<i>Yes/No. Please explain your answer.</i>
a. Patents.	It is a more appropriate measure of EI, however, it is discipline specific.
b. Research commercialisation income.	<i>Yes/No. Please explain your answer.</i> It is a more appropriate measure of EI, however, it is discipline specific.
c. Registered designs.	<i>Yes/No. Please explain your answer.</i> It is a more appropriate measure of EI, however, it is discipline specific.
d. Plant breeder's rights.	<i>Yes/No. Please explain your answer.</i> It is a more appropriate measure of EI, however, it is discipline specific.

e. NHMRC endorsed guidelines.	Yes/No. Please explain your answer. It is a more appropriate measure of EI, however, it is discipline specific.
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. The narrative can provide important context to supplement the indicators and is flexible enough to provide Institutions scope to explain their particular circumstances in sufficient detail to be assessed. a. If you disagree, what alternative approach could be used to replace the narrative? <i>Please explain your answer. If you are suggesting indicators, please be specific.</i>
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. A single narrative cannot be representative of engagement across the entire discipline. Flexibility and greater breadth of coverage could be achieved via multiple vignettes or a portfolio of examples. An alternative could be a 2-digit level portfolio consolidated summary of engagement across an industry or sector.
Q4.26 The engagement narrative needs to be longer.	Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer. We believe that the EI narratives could be shortened, but only if there was the ability to link to external information and existing resources via, for example, URLs.
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? <i>Please describe.</i>

	It would be advantageous to allow linking to external information and existing resources via, for example, URLs.
Impact narrative	
Q4.28 The narrative approach is suitable for describing and assessing impact.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The Impact narrative can most appropriately explain the complexity and richness of the impact of the research undertaken. This approach is flexible enough to provide Institutions scope to explain their particular circumstances in sufficient detail to be assessed.</p> <p>a. If you disagree, what alternative approach could be used to replace the narrative? <i>Please explain your answer. If you are suggesting indicators, please be specific.</i></p>
Q4.29 One impact study per broad discipline is sufficient for capturing the research impact within that discipline.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>A single case study cannot be representative of the whole field. Flexibility and greater breadth of coverage could be achieved via multiple vignettes or a portfolio of examples.</p> <p>An alternative could be a 2-digit level portfolio summary of impact across an industry or sector. i.e. based on SEO rather than FOR codes. This consolidated approach would be more accessible for end users from particular industry sectors.</p>
Q4.30 The impact narrative needs to be longer.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>We believe that the EI narratives could be shortened, but only if there was the ability to link to external information and existing resources via, for example, URLs.</p>
Q4.31 There is a need for additional evidence to be provided within the narrative.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your</i></p>

	<p><i>answer. a. If yes, what evidence should be provided? Please explain your answer.</i></p> <p>There should be the ability to provide additional information, context, and evidence via linking to external information and existing resources.</p>
Q4.32 In your opinion, are there quantitative indicators that could be used to measure the impact of research outside of academia?	<p><i>Yes/No. Please explain your answer.</i></p> <p>There may be indicators for specific fields, like clinical study outcomes, however they would not be across the board and would be very field-specific.</p>
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.	<p><i>Please list and describe.</i></p> <p>.</p>
Approach to impact Narrative	
Q4.33 The narrative approach is suitable for describing and assessing approach to impact.	<p><i>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.</i></p> <p>Although we agree that the narrative approach is most appropriate, the approach to impact was certainly the weakest element of EI. We found it very difficult to identify differences in approach and attributing their impact.</p> <p>Given this, and the large workload, perhaps the same outcome could be gained by including EI as a component of ERA where universities have to articulate their approach to impact in terms of how they provide an environment for researchers to ensure maximum benefit of their research.</p>
Q4.34 One approach to impact narrative per broad discipline is sufficient for capturing the activities within that discipline.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>We strongly believe that one impact narrative per broad discipline is sufficient. Alternatively, there could be one motherhood statement for the organisation with specific comments for each broad discipline.</p>

Q4.35 The approach to impact narrative needs to be longer.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Clarity on what is expected to be included and examples from EI2018 would be useful.</p>
Q4.36 There is a need for additional evidence to be provided.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Clarity on what is expected to be included and examples from EI2018 would be useful.</p>
Q4.37 Would there be benefit in combining engagement and approach to impact?	<p><i>Yes/No. Please explain your answer.</i></p> <p>In some fields there is very close relationship between engagement and approach to impact. Engagement is not always about metrics, it can be about relationships, which is often the approach to impact. This is particularly the case for engagement with Indigenous communities.</p>
EI rating scales	
Q4.38 The engagement rating scale is suitable for assessing research engagement.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The rating scale and descriptions need to remain accessible for stakeholders outside academia.</p> <p>There has been a suggestion that there should be alignment between the EI rating scale and ERA. A rated assessment similar to ERA on a 1 to 5 scale may not indicate anything to an end user and it is unclear what the benefit would be. It is better to retain the current approach with clarity of what constitutes each level of rating.</p> <p>The main deficiency of the exercise was that there was not sufficient feedback provided to universities to be able to understand how to improve.</p>
Q4.39 The descriptors for the engagement rating scale are suitable.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p>

	<p>The rating scale and descriptions need to remain accessible for stakeholders outside academia.</p> <p>There has been a suggestion that there should be alignment between the EI rating scale and ERA. A rated assessment similar to ERA on a 1 to 5 scale may not indicate anything to an end user and it is unclear what the benefit would be. It is better to retain current approach with clarity of what constitutes each level of rating.</p> <p>The main deficiency of the exercise was that there was not sufficient feedback provided to universities to be able to understand how to improve.</p>
Q4.40 The impact rating scale is suitable for assessing impact.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The rating scale and descriptions need to remain accessible for stakeholders outside academia.</p> <p>There has been a suggestion that there should be alignment between the EI rating scale and ERA. A rated assessment similar to ERA on a 1 to 5 scale may not indicate anything to an end user and it is unclear what the benefit would be. It is better to retain the current approach with clarity of what constitutes each level of rating.</p> <p>The main deficiency of the exercise was that there was not sufficient feedback provided to universities to be able to understand how to improve.</p>
Q4.41 The descriptors for the impact rating scale are suitable.	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The rating scale and descriptions need to remain accessible for stakeholders outside academia.</p> <p>There has been a suggestion that there should be alignment between the EI rating scale and ERA. A rated assessment similar to ERA on a 1 to 5 scale may not indicate anything to an end user and it is unclear what the benefit would be. It is better to retain current approach with clarity of what constitutes each level of rating.</p>

	<p>The main deficiency of the exercise was that there was not sufficient feedback provided to universities to be able to understand how to improve.</p>
<p>Q4.42 The approach to impact rating scale is suitable for assessing approach to impact.</p>	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The rating scale and descriptions need to remain accessible for stakeholders outside academia.</p> <p>There has been a suggestion that there should be alignment between the EI rating scale and ERA. A rated assessment similar to ERA on a 1 to 5 scale may not indicate anything to an end user and it is unclear what the benefit would be. It is better to retain current approach with clarity of what constitutes each level of rating.</p> <p>The main deficiency of the exercise was that there was not sufficient feedback provided to universities to be able to understand how to improve.</p>
<p>Q4.43 The descriptions for the approach to impact rating scale are suitable.</p>	<p><i>Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>The rating scale and descriptions need to remain accessible for stakeholders outside academia.</p> <p>There has been a suggestion that there should be alignment between the EI rating scale and ERA. A rated assessment similar to ERA on a 1 to 5 scale may not indicate anything to an end user and it is unclear what the benefit would be. It is better to retain current approach with clarity of what constitutes each level of rating.</p> <p>The main deficiency of the exercise was that there was not sufficient feedback provided to universities to be able to understand how to improve.</p>

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?	<p><i>Yes/No. Please explain your answer.</i></p> <p>The inclusion of the two broad disciplines that could be assigned to the impact is sufficient. However, an opt-in interdisciplinary case study may be important for some universities.</p>
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?	<p><i>Yes/No. Please explain your answer.</i></p> <p>It is difficult to respond definitively without knowing the low-volume threshold, however, this appears to be a sensible approach.</p>
Q4.46 Should the unit of assessment for Aboriginal and Torres Strait Islander research include engagement in EI 2024?	<p><i>Yes/No. Please explain your answer.</i></p> <p>Engagement is very similar to approach to impact in much indigenous research, particularly outside medical research. It is not useful to base engagement on financial and other quantitative metrics in this context.</p>
Section 5—Overarching Issues Common to both ERA and EI	
Frequency of ERA and EI	
Q5.1 How often should ERA occur?	<p><i>Every three years; Every five years; Other, please specify. Please explain your answer.</i></p> <p>We believe that three years is the best balance between currency and workload. If, for example, the assessment occurred every five years, it would take a long time to recover from a low rating. Also, pragmatically, a longer cycle would be associated with loss of corporate knowledge about ERA/EI processes and implications. It becomes less useful for Institutions understanding and reflecting changes.</p> <p>Annual would be appropriate if there was a significant consolidation of data, for example, in a national repository but argue that universities need to retain the opportunity to curate data.</p>

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?	<p><i>Please explain your answer.</i></p> <p>A longer cycle becomes less useful for Institutions' understanding and reflecting changes and would mean that it would take a long time to recover from a low rating. It would also be associated with loss of corporate knowledge about ERA/EI processes and implications.</p>
Q5.3 How often should the EI assessment occur?	<p><i>Every three years; Every five years; Other, please specify. Please explain your answer.</i></p> <p>Ideally, every four or five years consolidating the previous two ABS submissions. This is because EI is more sector-based and appropriate to assess impact.</p>
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?	<p><i>Please explain your answer.</i></p> <p>Engagement is an ongoing process which will require continuous support from University leadership, strategies and plans. In addition, impact often takes a longer timeframe for certain areas like medical and health research or to fully assess the impact of research on the environment. We argue, therefore, that the impact of longer assessment cycle is expected to be more fruitful and beneficial for decision makers.</p> <p>A single case study cannot be representative of the whole field. Flexibility and greater breadth of coverage could be achieved via multiple vignettes or a portfolio of examples.</p> <p>An alternative could be a 2-digit level portfolio summary of impact across an industry or sector.</p>
Streamlining and simplifying ERA and EI	
Q5.5 ERA and EI should be combined into the one assessment.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>ERA and EI are measuring separate phenomena and need specific focus. Combining the two risks blurring the purpose and importance of each one.</p>

	<p>a. What would be the advantages and/or disadvantages. <i>Please explain your answer.</i></p> <p>Both assessments have workload and resources needs to be spread out and the work towards ERA provides valuable insights and inputs towards EI.</p> <p>Given the lack of usefulness of the EI exercise as it is and the large workload, perhaps the same outcome could be gained by including EI as a component of ERA where universities have to articulate their approach to impact in terms of how they provide an environment for researchers to ensure maximum benefit of their research.</p>
Q5.6 Are there other ways to streamline the processes to reduce the cost to universities of participating in ERA and EI?	<p>Yes/No. <i>Please explain your answer.</i></p> <p>In the sector there have been a number of recent suggestions regarding the automation of the ERA process, for example, the use of ORCID, for allocations by the citation provider etc. We believe, however, that these suggestions still require significant refinement before they can be useful. In addition, universities always need the opportunity to curate.</p> <p>Instead of these, there should be a national repository of Australian research outputs – it should contain all researchers affiliated with Australian Higher Education Providers and their outputs; coding could be centralised and standardised (potentially, for example, through Scopus); and universities would nominate their ‘researchers’ and then be asked to validate their publications data/codings/apportionments. The data would be publicly available.</p> <p>Such a service (even if paid), would save a significant amount of time and money.</p>
Q5.7 In your view, what data sources could ERA utilise?	<p>There should be a national repository of Australian research outputs. It should contain all researchers affiliated with Australian Higher Education Providers and their outputs; coding could be centralised and standardised (potentially, for example, through Scopus); and universities would nominate their ‘researchers’ and then be asked to validate their publications</p>

	<p>data/codings/apportionments. The data would be publicly available.</p> <p>More thought is needed, however, about distinguishing peer reviewed work from other types of output and how to best accommodate alternative metrics.</p> <p>It would be preferable to expand to as many relevant data sources as are available including Scopus, Web of Science, google Scholar and other sources which capture Open Access publications.</p> <p>Efficiencies could be achieved with better integration i.e. via application programming interfaces (APIs) between university systems and the ARC.</p>
Q5.8 In your view, what are the most time-consuming elements of an ERA submission?	<ol style="list-style-type: none"> 1. Promoting shared understanding of the importance and significance of the process 2. Confirming the Field of research coding and apportionments 3. Checking the publications data and sourcing peer review copies, ensuring the representative sample percentage
a. Are there efficiencies that could be introduced?	<p>Yes/No. Please describe.</p> <p>In the sector there have been a number of recent suggestions regarding the automation of the ERA process, for example, the use of ORCIDs, FoR allocations by the citation provider etc. We believe, however, that these suggestions still require significant refinement before they can be useful. In addition, universities always need the opportunity to curate.</p> <p>Instead of these, there should be a national repository of Australian research outputs – it should contain all researchers affiliated with Australian Higher Education Providers and their outputs; coding could be centralised and standardised (potentially, for example, through Scopus); and universities would nominate their ‘researchers’ and then be asked to validate their publications data/codings/apportionments. The data would be publicly available.</p> <p>Such a service (even if paid), would save a significant amount of time and money.</p>

Q5.9 In your view what are the most time-consuming elements of an EI submission?	<p><i>Please describe.</i></p> <ol style="list-style-type: none"> 1. Writing the narrative case studies 2. Promoting shared understanding of the importance and significance of the process 3. Identifying appropriate narratives and case studies to represent the relevant impact 4. With EI2018 there was lack of clarity on what was expected with the 'approach to impact' which meant a longer time was spent articulating it.
a. Are there efficiencies that could be introduced?	<p>Yes/No. <i>Please describe.</i></p> <p>An alternative could be a 2-digit level portfolio summary of impact across an industry or sector would be more insightful and efficient.</p>
Utilising technological advances and pre-existing data sources	
Q5.10 ORCID iDs should be mandatory for ERA.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Disagree This data is not currently used for anything in ERA</p>
a. What are the advantages and/or disadvantages?	<p><i>Please explain your answer.</i></p> <p>Currently, there are a number of shortcomings when it comes to ORCID data. First, it is not verified and there are limited document types. In addition, automation with ORCID is still being developed and refined.</p>
Q5.11 The automatic harvesting of output data using ORCID iDs would streamline a university's submission process.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p> <p>Currently, ORCID data it would require more verification.</p>
a. What are the advantages and/or disadvantages?	<p><i>Please explain your answer</i></p> <p>It is not verified data so would require additional processes to ensure it is correct.</p>
Q5.12 DOIs should be mandatory for ERA.	<p><i>Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.</i></p>

	At this stage, we cannot see the advantages of DOIs for ERA.
a. What are the advantages or disadvantages?	<i>Please explain your answer.</i> Currently, this data is not used for anything within ERA so we cannot see the advantages.
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?	<i>Yes/No. Please explain your answer.</i> There should be a national repository of Australian research outputs – it should contain all researchers affiliated with Australian Higher Education Providers and their outputs; coding could be centralised and standardised (potentially, for example, through Scopus); and universities would nominate their ‘researchers’ and then be asked to validate their publications data/codings/apportionments. The data would be publicly available.
a. What are the advantages and/or disadvantages?	<i>Please explain your answer.</i> Such a service (even if paid), would save a significant amount of time and money.

Additional comments:

Charles Darwin University is a highly networked, multi-disciplinary institution with depth of research expertise closely tied to the needs of the Northern Territory and the Territory’s immediate region: Timor-Leste, Eastern Indonesia and the Arafura Sea. Although one of the smallest universities in Australia, we have recognised excellence in Indigenous and tropical health, environmental science and public policy. CDU aims to maintain and extend our national and international research partnerships to ensure that our research generates impact that offers benefits to the communities we serve. CDU researchers work closely with Aboriginal knowledge authorities on collaborative research to explore Aboriginal knowledge, workforce, government as well as language practices regularly applying these processes to support changes in policy development, implementation and education programs.

Charles Darwin University is the 4th biggest contributor to ‘Indigenous research’ publications in Australia and New Zealand. Approximately one quarter of CDU research publications significantly relate to Indigenous peoples, nations, communities, place, culture and/or knowledges and half of CDU’s ‘Indigenous research’ publications are freely available through open access.

CDU’s size, applied research, research concentration and intensity and remote location mean that its perspective is unique amongst Australian universities. To summarise, our main issues we would like to reiterate include:

1. It is imperative that the low-volume threshold for ERA should remain unchanged. Increasing the threshold risks smaller universities' results not being assessed, despite their excellence and contribution to the discipline
2. Affiliates, honours, adjuncts, and medical/clinical staff constitute an important component of Australia's research outputs so should be included in ERA and EI
3. We would like to see a Sector (SEO) based approach to Engagement and Impact, as opposed to FOR code. This would make the results more accessible for end-users from a particular industry sector.

Open Access:

The proposed review is completely silent about how the ERA will assist Australia to participate in and benefit from the global drive to greater openness in research. Openness assists with a range of quality factors and impact. Promoting and rewarding openness in research publication will provide more clarity to the Government and the Australian public about how their investments in university research translate into tangible benefits beyond academia and promote more engagement.

Stronger guidance around openness in publication would assist academics retaining rights in their own work and should drive the cost of both publication and ongoing access down. Ultimately that should mean a greater proportion of research funding going to new research and greater impact.