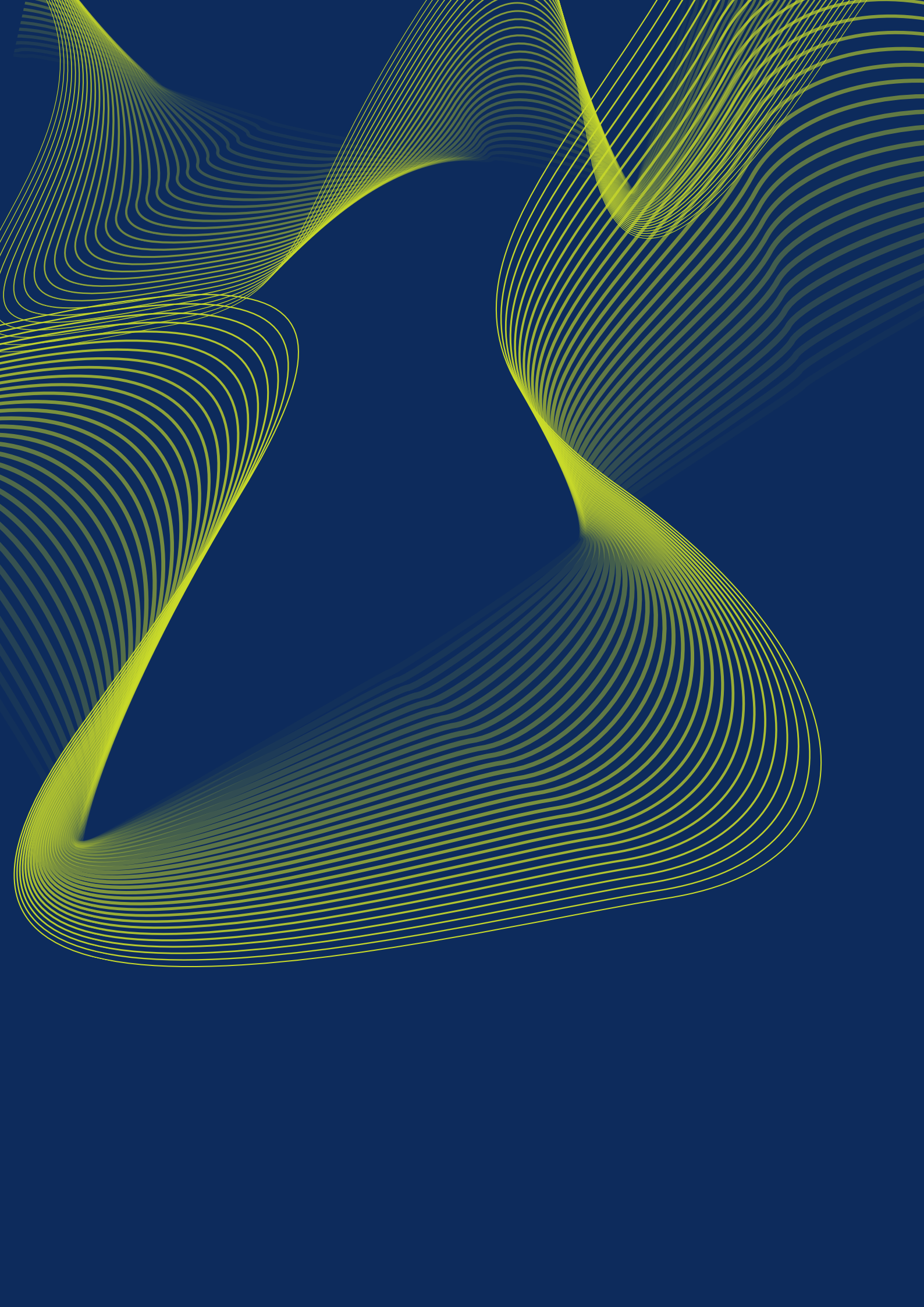


An evaluation of the impact component of the Australian Research Council's 2018 Engagement and Impact Assessment

Findings and observations

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Executive summary

The objective of this evaluation was to review the impact component of the Engagement and Impact (EI) assessment undertaken by the Australian Research Council (ARC) in 2018. The EI assessment was a companion piece to the Excellence in Research Australia (ERA), which primarily uses metrics to assess the quality of research undertaken in Australian universities. The aim of the EI assessment was to include, for the first time, an examination of the broader contribution that Australian research makes to society. The EI assessment 2018 methodology employed expert review - by researchers and research end-users - of narrative studies and supporting quantitative information. A total of 637 impact submissions were evaluated, where university research had led to highly significant impacts beyond the realm of academic research. Mixed academic-end user panels assessed research impact and the institution's approach to impact based on qualitative case studies that detailed the impact, the research associated with the impact, and the approach to impact for each Unit of Assessment (UoA). Each UoA received two ratings—one for impact and one for approach to impact. The findings of the 2018 EI assessment were published in February 2019.¹

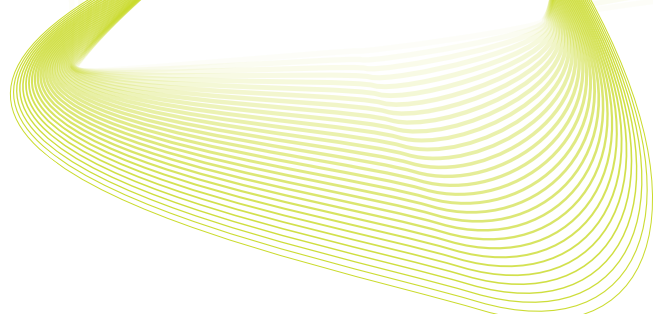
The evaluation of the EI assessment adopted a mixed methods approach involving 35 interviews with people from universities, review panels, experts, as well as five background interviews with the ARC, and a survey of 97 people from universities and panels.

Key findings

The data from these sources were coded and synthesised leading to a number of observations that were structured around four key themes, leading us to report 11 key findings.

Theme 1: The overall approach adopted by the ARC was appropriate in meeting the objectives of the EI assessment

1. **University representatives found both parts of the assessment (impact and approach to impact) appropriate, although larger institutions were less positive, particularly about approach to impact.** 73% of university representatives responding to the survey felt the impact component of EI was entirely or mostly appropriate. By contrast, 60% viewed the approach to impact component as entirely or mostly appropriate. Large institutions were less positive; 56% found the impact assessment appropriate and only 11% found the approach to impact assessment appropriate.
2. **Panel members felt the objectives had broadly been met, although a minority felt this not to be the case for the approach to impact.** 93% of panel members responding to the survey reported that the EI objectives had been fully or mostly met. By contrast, 78% reported that the objectives of the approach to impact component had been met, with a minority (20%) believing that this element had not been successful.
3. **Experts felt the objectives of the EI assessment had been partially met.** From the interviews it was evident that experts were broadly supportive of the EI 2018



approach, although they were more sceptical than panel members and university representatives. They identified some factors that limited the appropriateness of the overall approach, including highly selective and variable submissions that cannot provide comprehensive or specific details on return on investments, as well as, more fundamentally, the lack of incentivisation or learning mechanisms through systematic feedback from panels at the ARC.

Theme 2: HEIs saw benefits from EI 2018 but experienced the exercise as a substantial burden

4. **HEIs saw benefits from the assessment of impact as part of EI 2018.** Four key benefits were identified from the interview and survey data: a) the ability to showcase the value of research, b) the stimulation of broader strategic thinking about impact, c) the ability to understand impact, and d) the opportunity to embed a culture of impact. These benefits were spread across university size and mission-group, without any discernible pattern between the groups. It should be noted that university representatives provided fewer benefits than challenges, and many were eager to stress that the burdens outweighed the benefits.
5. **The assessment of impact as part of EI 2018 was a significant new burden for HEIs.** It was evident from the interviews that, despite variation in approaches to EI 2018, the exercise was perceived as a significant burden for the majority of HEIs: a) the majority of institutions perceived completing the process to be very burdensome, b) the perceived burden of the process depended on the resource capacity and the existing strategies of the institution and c) strategies ranged from entirely to moderately centrally driven.

Theme 3: The operationalisation of EI 2018 resulted in a range of challenges for universities and panel members

6. **HEIs were able to identify and articulate impact, but challenges arose around understanding guidelines, articulating the approach to impact and evidencing impact.** From the interviews, it was clear that HEIs were able to identify and articulate their research impact but nevertheless identified a number of challenges including understanding the guidelines; evidencing impact; and lack of understanding and feedback on how the submissions were assessed. This was confirmed by the survey respondents, who reported challenges around the requirements for evidencing impact (64% viewed as very or somewhat challenging) and the specified time reference periods (53%). However, the survey data also highlighted areas that worked well, such as the narrative approach (which 76% viewed as very or somewhat helpful), the EI conceptualisation of impact (72%) and the impact study template (75%).
7. **Panel members identified a range of strengths, but felt the biggest limitations were weak incentivisation, one case study per FoR code and the inability to verify claims.** The interview analysis highlighted the strong support panel members had for EI 2018, which was confirmed by the survey respondents, with 95% considering the submission requirements appropriate for the impact assessment and 85% for the assessment of the approach to impact. However,

interviewees did identify a number of limitations that could be addressed in future iterations of EI assessment including the inability of the panels to verify impact claims, the lack of financial reward/incentives and the biases created by limiting the assessment to one case study per FOR code.

8. There were a range of strengths identified by experts, but areas to be addressed included weak incentivisation and weak outcomes of the evaluation.

Like panel members, the experts were supportive of EI 2018 and identified a number of strengths including the narrative approach, the light touch assessment and support for a dedicated Indigenous panel. However, like the university representatives and the panel members, they were concerned about the trade-offs between a light touch design, the inevitable burden to universities in making submissions and the lack of financial incentives. Some questioned whether the current design would deliver significant change in the way research was translated into societal impact in Australian universities.

Theme 4: Evaluation participants identified a number of additional ways to improve future EI rounds

9. HEIs need more clarity and guidance from the ARC on content and expectations.

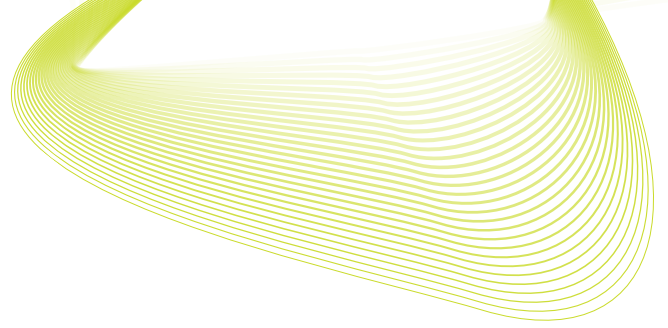
There was a very strong message from university representatives that the ARC should provide more clarity and guidance to institutions. The lack of previous examples or precedents was acknowledged as a big challenge, and the ARC had not been forthcoming enough with details on what constituted good impact or approach to impact submissions, despite the novelty of the exercise. This view was supported in part by panel members and experts, who agreed that the guidelines for both the universities and the panellists needed more clarity in order to calibrate their interpretation of impact and approach to impact.

10. The ARC to make the assessment strategy fairer and more flexible.

The university interview respondents were concerned that the assessment methodology was not flexible or comprehensive enough to fully assess impact. The most salient point was that the case-study ratios were unfair and too rigid, since they did not account for differences in FoR size and income and did not allow for emphasis of research speciality within an institution, which tended to disadvantage smaller universities. This view was supported by panel members and experts who felt that the number of case studies per FOR should be increased (i.e. scaled with the institution's size or volume of research per FoR) to provide a meaningful representation of a university's impact.

11. The ARC to re-evaluate the role of the institution in delivering impact and the overall purpose of the exercise.

All the stakeholder groups that were interviewed or surveyed as part of this evaluation stressed the need for the ARC to be clear about the long-term goals of the exercise. There were some concerns that the current format was perceived to be inappropriate for comparison between universities. Instead, some respondents hoped that the exercise would become an opportunity for institutions to learn from and to cast their research in the best light, with the over-arching goals of promoting positive behaviour change and representing the value of research to government.



Concluding reflections

There is no question that, overall, interview and survey respondents from all stakeholder groups were positive on the development and implementation of EI 2018, with no suggestion that it should be abandoned. However, the single most important tension that arose from the evaluation is the need to achieve an appropriate balance in relation to three key aspects of the assessment: (i) the number of impact cases studies submitted per FoR code, (ii) the burden of the exercise; and (iii) the current lack of financial reward to universities arising from the EI assessment. Thus, calls for the number of case studies to be increased need to be carefully managed with concerns about the burden of the assessment, which would increase if the number of case studies increases. We believe that the absence of a financial incentive (i.e. linking favourable impact performance to some form of remuneration to universities) may reduce any significant and sustained impact on behaviour in Australian universities. It is this tension that merits further consideration in any future iterations of the EI assessment.

Chapter 1: Introduction

1.1 Origins and aims of this report

In December 2015, as part of its National Innovation and Science Agenda (NISA), the Government announced the development of an Engagement and Impact (EI) assessment for Australian universities.² The EI assessment examined how universities were translating their research into economic, environmental, social, cultural and other benefits. EI 2018 aimed to encourage greater collaboration between universities and research end-users, such as industry, by assessing engagement and impact. The EI 2018 assessment was a companion exercise to Excellence in Research for Australia (ERA) 2018, and data collected for ERA 2018 formed part of the EI 2018 assessment.

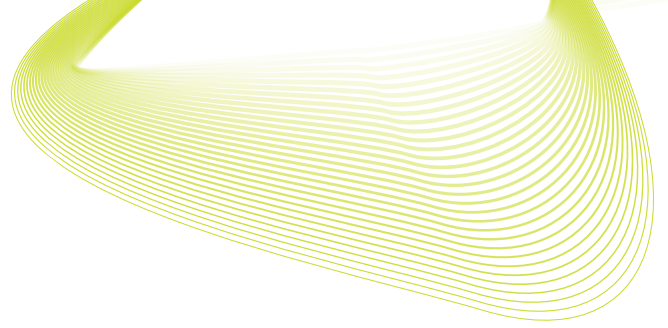
The objectives of the EI assessment were to:

- ♦ **provide clarity** to the Government and public about how their investments in university research translate into tangible benefits beyond academia
- ♦ **identify institutional processes and infrastructure** that enable research engagement
- ♦ **promote greater support** for the translation of research impact within institutions for the benefit of Australia beyond academia
- ♦ **identify** the ways in which institutions currently translate research into impact

The Australian Research Council (ARC), which oversees both ERA and EI assessment, is currently undertaking a review. The goals of the review are to:

- ♦ **simplify and streamline** the programs
- ♦ take advantage of recent developments in **technology and big data**
- ♦ ensure the programs continue to reflect world's **best practice**
- ♦ **respond to the ongoing needs** of the university sector, government and the public for a robust evaluation of Australian university research quality, impact and engagement

Our research team has had a long-standing interest in the various methodologies for evaluating research quality, utilisation and societal benefit, in particular, the ARC EI approach, and how the sector understood and embraced it. Australia developed a unique approach to sector-wide and metric-informed evaluation of research quality (ERA), and subsequently embarked on a new model for evaluating extramural engagement and research impact. Whilst some models assume an intrinsic level of required community engagement to realise beneficial outcomes, the ARC approach made the engagement 'step' more explicit in its framework, alongside the assessment of impact itself. Notwithstanding, the ARC specifically focused on the impact component of their proposed review, designed to feed into the broader review of both ERA and EI. A selective panel tender process was undertaken by the ARC. Our team, from the University of Melbourne, King's College London and the University



of York, was selected to evaluate how well and to what extent the *impact component* of the 2018 EI methodology addressed the overall objectives of the EI assessment. Our approach involved a mix of key informant interviews and a survey of relevant stakeholders.

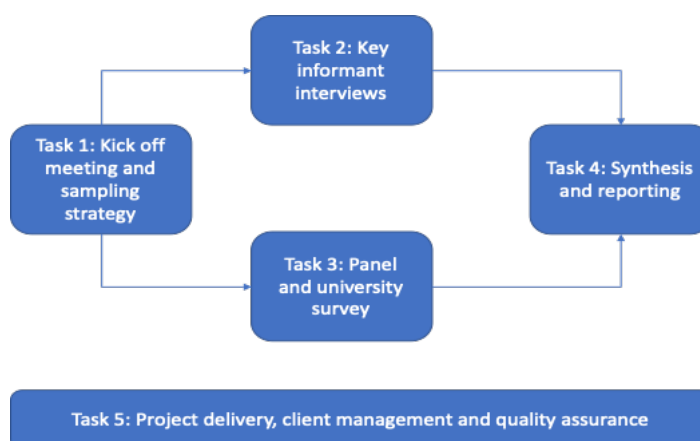
The ARC identified several questions for the evaluation to address:

- ♦ To what extent, and in what ways, is EI **changing behaviours** in universities?
- ♦ Did the impact and approach to impact assessments meet the relevant **objectives** of EI 2018?
- ♦ What are the **university mechanisms and broader contextual factors** that facilitate impact?
- ♦ Is the **methodology** for assessing impact and approach to impact appropriate and how could it be improved?
- ♦ What are the **timelines** between the research and the realisation of societal benefit, and how do these timelines vary according to the area of research?
- ♦ Do the **submission requirements** for impact and approach to impact facilitate meaningful assessment of impact and approach to impact?
- ♦ Is a **narrative approach** sufficient for assessing impact and approach to impact?
- ♦ Are **the rating scales** for impact and approach to impact appropriate?
- ♦ How can the assessment of impact be **simplified or streamlined**?

1.2 Methodology overview

To address these questions, the evaluation employed a mixed method design that involved key informant interviews and surveys with relevant stakeholder communities, as set out in the project schema in Figure 1 and described in further detail below. It was originally scheduled to run between March 2020 and July 2020, but because of the disruption around COVID-19, the fieldwork was conducted over an extended period between April 27th and July 31st 2020.

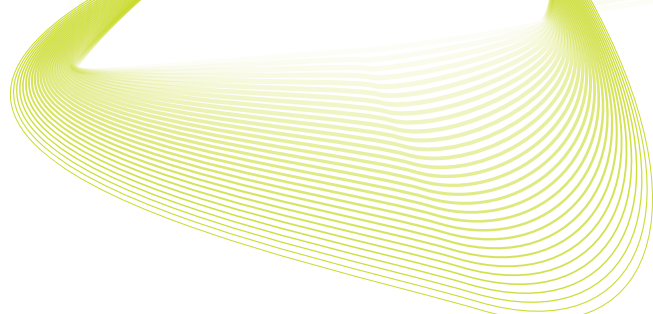
FIGURE 1: PROJECT SCHEMA



Task 1: Sampling strategy for key informant interviews

Task 1 involved formulating the sampling strategy for key informant interviews, which were developed in conjunction with the ARC in April 2020. Task 2 involved key informant interviews, for which a sample of 12 of 40 (30%) Australian universities that participated in the EI assessment were selected. To minimise bias and its perception, the University of Melbourne was excluded from the sampling frame, and a selection framework was developed based on the following protocol (more detail is provided in Appendix A).

- ♦ **Geography:** Two universities from New South Wales (NSW), Victoria (VIC) and Queensland (QLD), and at least one from Western Australia (WA) and one from South Australia (SA). Tasmania (TAS) and the Northern Territory (NT) had one university each and these were automatically selected. Australian Capital Territory (ACT) had two universities, and one was selected.
- ♦ **Mission Groups:** Four universities from the Group of Eight (G8), two universities from each of the other three mission groups (Australian Technology Network, ATN; Innovative Research Universities, IRU; and Regional Universities Network, RUN), and two universities from the unaffiliated group.
- ♦ **Size:** At least three universities from each of the three size groups – small, medium, large. The size groups were based on the average of the cumulative number of FTEs and the Apportioned Outputs that were submitted to ERA. The ‘large’ group included those universities that accounted for the top 50%, the



‘medium’ group the next 30%, and the ‘small’ group the final 20%. This resulted in eight universities in the large group, 11 in the medium and 21 in the small.

Task 2: Key informant interviews

The purpose of the interviews was to gain detailed insight into the appropriateness of and experience with the EI process, according to a range of different perspectives. The interviews were semi-structured; a separate protocol guided discussions with each of the groups (see Appendix B), but the participants were also relatively free to steer the discussion. Each interview took place over Zoom. The duration ranged between 15 and 75 minutes. They were led by two researchers, who each completed 20 interviews with an even split across the four categories. Each interview was audio recorded and manually transcribed, after verbal consent was obtained. A total of 35 interviews were conducted across the following three groups:

- ♦ **University representatives** (n=12) - based on the random selection protocol described above
- ♦ **Panel members** (n=15) - the Chair and Deputy Chair of each of the five panels from EI 2018 (n=10), and an end-user from each panel nominated by the respective Chair (n=5)
- ♦ **International experts** (n=8) - an academic and a non-academic with relevant expertise from four different regions (UK, Australia, EU, and North America), based on the research team’s collective knowledge and judgement

Five additional interviews were also conducted with ARC employees, including a range of seniority and perspectives, to provide context around the evaluation.

Task 3: Panel and University Survey

Two different surveys were completed by the following groups:

- ♦ **University representatives** – each of the 40 universities who participated in EI 2018 were invited via email to complete the survey. The invitation was sent to two different recipients per institution (n=80); current DVCR³ and Research Office contact (with the EI Liaison officer Cc’d). The response rate was 74% (59/80), with responses judged to be from the DVCR or equivalent perspective, and from the non-DVCR perspective. Only one institution did not complete.
- ♦ **Panel members** – each of the individual panel members who participated in EI 2018 were invited via email to complete the survey (n=51). The overall response rate was 75% (38/51), with the breakdown by panel as follows:
 - ♦ Aboriginal and Torres Strait Islander Research: 3/5
 - ♦ Creative Arts and Humanities: 6/12
 - ♦ Health and Life Sciences: 10/11

- ♦ Science and Technology: 9/10
- ♦ Social Sciences: 10/13

The surveys were out in the field for a total of five weeks, with reminders sent out via email after three weeks. The duration was approximately 30 minutes. The survey software used was Qualtrics, and the protocol contained a mix of multiple choice and free-text questions (see Appendix C).

Task 4: Data synthesis and reporting

To integrate the different data sources, the impressions of each research team member were identified and synthesised to form an initial top-down analysis. The interview data were then analysed to form a bottom up analysis of qualitative insights. A coding tree was developed and refined, for use with the qualitative analysis software Dedoose.⁴ Coding was completed by two coders, with a consistency check conducted by a third team member. The most salient examples of each coding category were synthesised into themes. Separately, the survey data was analysed using exports from the software Qualtrics. Charts were created directly from the multiple-choice data, while free-text responses were clustered and coded to themes using a bottom-up approach. There were two primary analysts for the survey data, with checks from the research team. The initial themes arising from the interview analysis were then cross tabulated with the survey data to identify areas of consistency and difference. The bottom-up and top-down analysis were compared and synthesised in the development of the report.

1.3 The structure of this report

The report is structured around four chapters for the four key themes arising from the interview and survey data:

1. The overall approach adopted by the ARC was appropriate in meeting the objectives of the EI assessment
2. HEIs saw benefits from EI 2018 but experienced the exercise as a substantial burden
3. The operationalisation of EI 2018 resulted in a range of challenges for universities and panel members
4. Evaluation participants identified a number of ways to improve future EI rounds

In the final chapter we draw out some of the observations that resonate with our experience of research impact assessment and therefore provide a more personal reflection of the EI process and the future directions.

Chapter 2: The overall approach adopted by the ARC was appropriate in meeting the objectives of the EI assessment

This section provides an overview of the perceived appropriateness of EI 2018 in meeting its objectives. It provides detail about the following three key findings:

- 1. University representatives found both parts of the assessment (impact and approach to impact) appropriate, although larger institutions were less positive, particularly about approach to impact.
- 2. Panel members felt the objectives had broadly been met, although a minority felt this not to be the case for the approach to impact.
- 3. Experts felt the objectives of the EI assessment had been partially met.

2.1 University representatives found both parts of the assessment appropriate, although larger institutions were less positive, particularly about approach to impact

From the analysis of survey data, university representatives found the impact and approach to impact assessments appropriate. As shown in Figure 2, 73% of respondents felt the impact component was entirely or mostly appropriate. By contrast, as shown in Figure 3, 60% viewed the approach to impact component as entirely or mostly appropriate. Large institutions were less positive: 56% found the impact assessment appropriate and only 11% found the approach to impact assessment appropriate. However, the small number of respondents from large institutions (n = 9) needs to be taken into account when interpreting these findings.

FIGURE 2: UNIVERSITY REPRESENTATIVE SURVEY: APPROPRIATENESS OF IMPACT COMPONENT

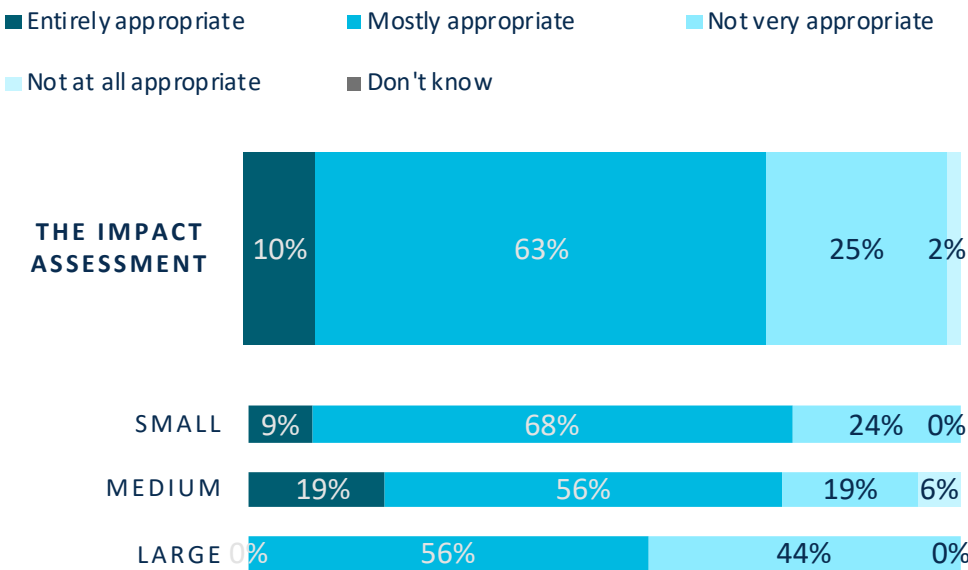
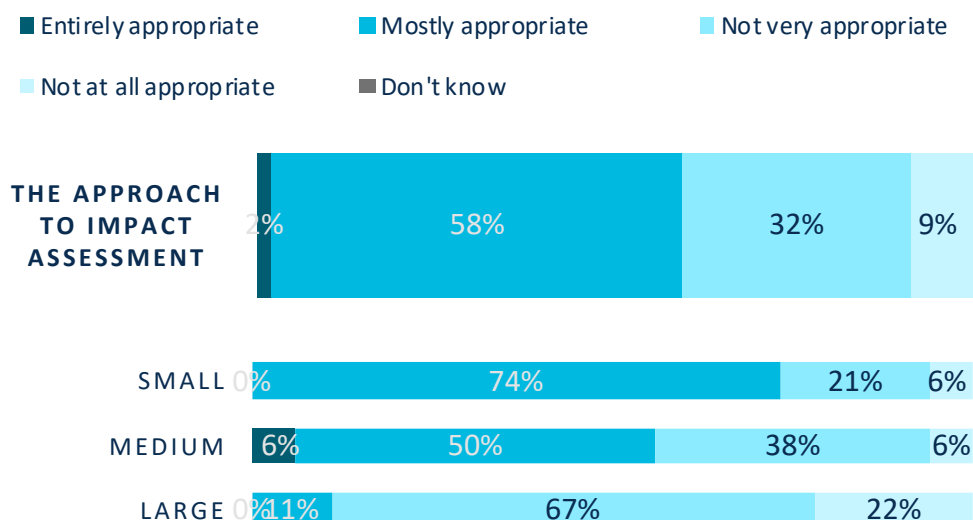


FIGURE 3: UNIVERSITY REPRESENTATIVE SURVEY: APPROPRIATENESS OF APPROACH TO IMPACT



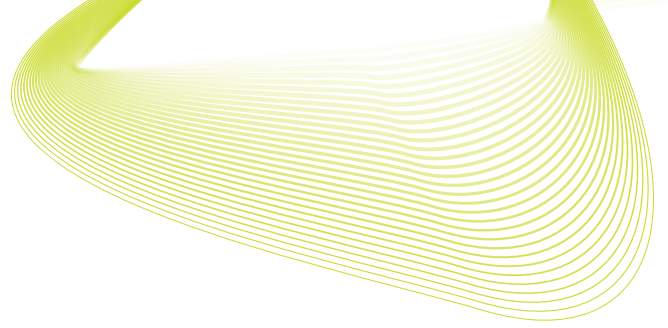
However, there were a number of areas where EI 2018 was less likely to have met its objectives. The key informant interviews and survey data showed a range of issues that hindered the impact component in achieving its goals. University representatives identified the limit of one case study per Field of Research (FoR),⁵ the requirement to provide evidence retrospectively, and the restricted assessment timeframes as the most significant issues. Specifically, one case study per FoR was seen as not able to capture the breadth or depth of impact, as well as being unable to represent the whole institution. As one respondent from a small university noted:

We're a smaller university, yet the way the process looked at one case study per FoR code wasn't changed. The ratio of assessments that we might be putting in might actually be very high compared to a big university who puts in a similar number. That was a continual question mark. We thought there should be a different way of thinking about it which reflects the big differences across universities.

University representatives also highlighted the challenges in providing evidence. They found the collection of information about past activities difficult (as this kind of assessment was not anticipated at the point they were taking place) and considered the types of evidence that were permitted to be too restrictive (e.g. wishing to submit URLs and other supporting materials). This was compounded by timeframes and reference periods that were seen as not always appropriate. One respondent from a small university stated:

A challenge in identifying the university's structure for impact was to retrospectively go back and work out what were the inputs at what time, and what were the relevant investments. There was a certain artificiality to the retrospective path analysis. That will be an ongoing problem.

Related comments related to the restrictive word limit and unclear requirements for evidence.



For the approach to impact component, university representatives identified the separation of general and specific support for research and translation activities, and the question of linking them in the assessment, as the major issue. The most common reason that approach to impact was not considered appropriate was the difficulty separating the institution's *general* support for research and translation from *specific* support for one project. Further, approach to impact was seen as not always aligning with the impact component in terms of level (specific vs general) and only allowed description of university mechanisms which contributed to impact (rather than more generally). This was compounded by lack of clarity (compared to impact) around what was required and how it would be assessed. For example, one representative from a small university noted:

Articulating impact wasn't too bad, but it was challenging to articulate our approach to impact... We need more clarity on what is approach to impact – general organisational support, factoring into strategic plans, other actions. We need clearer expectations.

University representatives also reported that it was sometimes difficult to separate the role of the researcher from that of the institution in facilitating impact, and difficult to retrospectively collect information on university processes.

Overall, however, university representatives were reasonably supportive of the EI 2018 approach and in particular found the impact assessment appropriate for the goals of the exercise. However, they identified several issues that detracted from the suitability of both the impact and approach to impact elements.

2.2 Panel members felt the objectives had broadly been met, although a minority felt this not to be the case for the approach to impact

From the analysis of key informant interviews, panel members felt the objectives of the EI assessment had been broadly met. The findings are summarised in Table 1. In terms of the **first objective**, to identify how institutions translate research into impact, they felt EI 2018 was reasonably good for understanding the types of impact that were being created. They celebrated the many stories of wider societal benefit that emerged. However, panel members reported that the exercise was not as helpful for understanding how institutions facilitate those benefits. For example, one panel member noted:

The universities often talked about their generic approach, not related directly to the case study. We needed to know more about the concrete steps of how you support people e.g. patent support, IP protection, seeding funding to feed into linkage, buying equipment, bringing companies and translators onto campus etc. Unfortunately, most universities did not do a good enough job with this.

For the **second objective**, to provide clarity about how research investment translates into tangible benefits beyond academia, panel members felt it was reasonably good at showing very broad-brush value of investments, but not good for showing specific returns on investment or the link from investment to impact. One respondent noted:

The data set that came out of it I'm sure was extremely valuable as some sort of indication that was relevant, in some way, to engagement and impact. But whether it was sufficient or broad enough in scope to really address those questions of accountability for public investment is another question all together.

In terms of the **third objective**, to promote greater support for the translation of research impact within institutions, panel members felt it was reasonably good for promoting a general culture of impact, but that it suffered from a lack of meaningful incentives. They reported that process was legitimising, even with some universities already being on a path towards greater and more intentional impact. For example, one respondent stated:

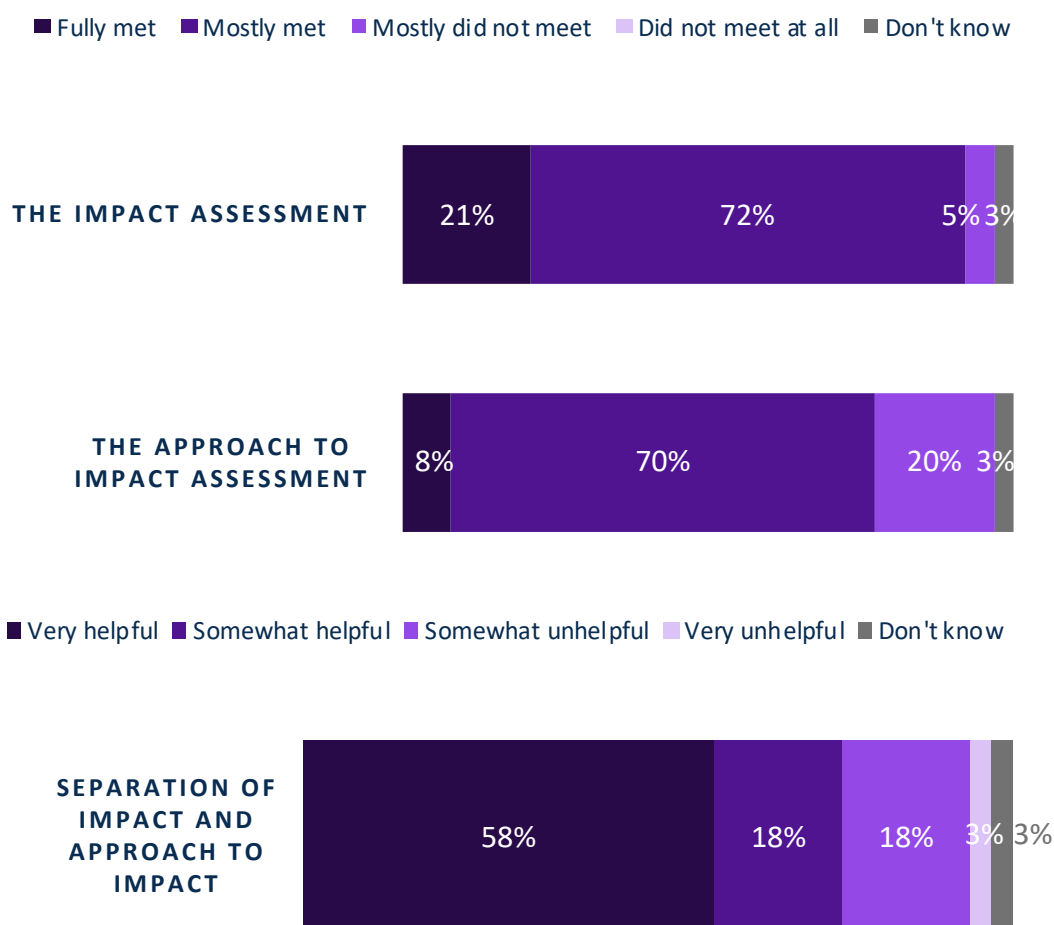
I think it broadly aligned, particularly with the third objective. Anecdotally, it has affected actions in universities. At [X university], they introduced governance, leadership, and engagement. It really promoted a sense in which people were appointed as engagement or impact leaders, and resources flowed. It was awesome. You could release resources under that mandate. And I do seem to see this across the Australian system, it has been legitimised.

TABLE 1: KEY INFORMANT INTERVIEWS: PANEL VIEWS ON THE EXTENT TO WHICH OBJECTIVES WERE MET

OBJECTIVE	DESCRIPTION	OUTCOME
Identify how institutions translate research into impact	<ul style="list-style-type: none"> - Good for understanding impact - Not so good for understanding how institutions facilitate impact (given lack of understanding about approach to impact amongst HEIs) 	Objective partially met
Clarity about how research investment translates into tangible benefits beyond academia	<ul style="list-style-type: none"> - Reasonably good for showing very broad-brush value of investments and giving some sense of post-hoc accountability - Insufficient number of case studies or inadequate scope to really address this goal 	Objective partially met
Promote greater support for the translation of research impact within institutions	<ul style="list-style-type: none"> - Reasonably good for promoting general culture of impact, but suffered from a lack of meaningful incentives - Universities are already on this path, but the process was legitimising and a good first step 	Objective mostly met (as a first step)

These observations are supported by the survey data, shown in Figure 4. Considering impact and approach to impact in turn, the data showed that panel members felt the objectives of the impact component had been achieved, with 93% reporting that they had been fully or mostly met. By contrast, 78% reported that the objectives of the approach to impact component had been met, with a minority (20%) believing that this element had not been successful.

FIGURE 4: PANEL MEMBER SURVEY: VIEWS ON APPROPRIATENESS OF EI ELEMENTS



In addition, panel members found the separation of impact and approach to impact to be helpful. Sixty-five percent of respondents commented further on their response, and of the 13 specifically referring to the value of separating these elements, the majority noted its usefulness in highlighting cases where the two might not be aligned (e.g. impact without institutional support or processes that have not yet led to impact). Several noted that approach to impact should be valuable in driving changes in practice or encouraging institutions to support translation. Six respondents commented that the separation of the two elements was not always clear or that clearer guidance was needed on the content of each.

The survey data also shows that panel members were able to identify several strengths of EI 2018, including the appropriateness of the approach. The key areas highlighted in their free-text responses were: the appropriateness of methodology and submission requirements (e.g. clear, concise, well structured, focused) (26%); that the exercise promoted impact or encouraged institutions to focus on it (21%); that approach to impact encouraged institutions to reflect on their own practices and the support they provide (18%); that EI allowed universities to showcase the value of their research (18%); and that it demonstrated accountability for research investment and value for tax-payers and society (18%). Panel members also reported that EI allowed recognition of diverse, non-traditional research impact (15%); that splitting impact

and approach highlighted key differences and areas for institutions to support (13%); and that the narrative approach worked well (13%). Other comments noted: that it raised the profile of impact/demonstrated intent; that it was comprehensive, thorough and impartial; that the exercise required evidence of impact; and that the process was effective in its structure (of discussion and consensus) and panel composition.

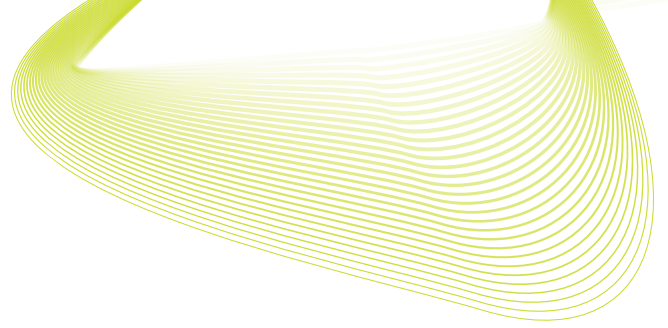
However, like university representatives, there were a number of areas where panel members felt EI 2018 was less able to meet its objectives. Panel members identified the provision of evidence by universities, the inability of the panels to validate evidence, and a lack of understanding of the approach to impact as major issues. On [objective 1](#), to provide clarity about how research investment translates into tangible benefits beyond academia, six respondents noted limitations in the provision of evidence for impact claims, or inability of the panel to validate them, one suggesting that commercialisation claims should be assessed independently. On [objective 2](#), to identify the ways in which institutions currently translate research into impact, eight respondents commented that the approach to impact section sometimes appeared to have been misunderstood, many noting that it tended to describe general, 'business as usual' activities without making explicit connections to impact. Other comments included: the lack of representativeness due to one case study per FoR; some confusion over definitions (impact according to different stakeholders, impact vs translation mechanisms); variable quality of submissions; and confusion over links between impact and approach to impact. On objective 3, to promote greater support for the translation of research impact within institutions, only one respondent commented specifically on this objective, but noted that it is too soon to judge whether this has been achieved.

Thus, overall, panel members were supportive of the EI 2018 approach and in particular found the separation of impact and approach to impact helpful. However, they identified several major issues including the provision and validation of evidence and a lack of understanding of approach to impact amongst universities.

2.3 Experts felt the objectives of the EI assessment had been partially met, with room for improvement

From the analysis of key informant interviews, experts also felt the objectives of the EI assessment had partially been met. The findings are summarised in Table 2. In terms of the [first objective](#), to identify how institutions translate research into impact, experts felt the approach was moderately appropriate but did not allow full identification of the range of impacts, given the highly selective design (one case per FoR) that was potentially biased towards types of impact that are easier to measure. They noted that other obstacles included the variable quality of submissions and difficulty analysing the narratives in a methodical way. For example, one expert noted:

The objective in terms of understanding what is going on, that could be realised by creating awareness and exploring what types of impact is out there. But, it's still a small number of cases for each institution, and there would be a big variety. In a way, it can give some really valuable information, but I can't see how such a small number of cases can really reflect on what's going on in an individual institution.



For the **second objective**, to provide clarity about how research investment translates into tangible benefits beyond academia, experts felt it was reasonably good for showing the broad-brush value of investments but was constrained by the limited number of case studies. They reported that it was not helpful for showing specific returns on investment or directly linking investment to impact. One expert noted:

Part of the difficulty of it is the idea that it's system wide, meaning the sample is so small that it can't possibly, in a statistical sense, be meaningfully representing the activity that's actually being supported inside the universities, and the actual impacts that are going on.

In terms of the **third objective**, to promote greater support for the translation of research impact within institutions, experts felt the approach was limited by weak incentivisation, given there was no funding mechanism and poor promotion and use of outcomes by the ARC (which detracted from a potential reputational mechanism). They reported that the method was inappropriate for learning due to the small amount of feedback to universities and the three-point rating system. As one expert noted:

In terms of incentivising, again I'd say it is partially achieving that objective. Although some of the reasons for that are not to do with the impact evaluation itself, but more the way in which it feeds into funding and decisions.

Thus, overall, experts were broadly supportive of the EI 2018 approach, although were more sceptical than panel members. They identified some factors that limited the appropriateness of the overall approach, including highly selective and variable submissions that cannot provide comprehensive or specific details on return on investments, as well as, more fundamentally, the lack of incentivisation or learning mechanisms.

TABLE 2: KEY INFORMANT INTERVIEWS: EXPERT VIEWS ON EXTENT TO WHICH OBJECTIVES WERE MET

OBJECTIVE	DESCRIPTION	OUTCOME
Identify how institutions translate research into impact	<ul style="list-style-type: none"> - Did not allow full identification of range of impacts as highly selective and potentially biased towards some types of impact - Variable quality of submissions and difficulty analysing the narratives in a methodical way 	Objective partially met
Clarity about how research investment translates into tangible benefits beyond academia	<ul style="list-style-type: none"> - Reasonably good for showing broad value of investments but limited by number of cases - Not good for showing specific returns on investment or linking investment to impact 	Objective partially met
Promote greater support for the translation of research impact within institutions	<ul style="list-style-type: none"> - Weak incentivisation to change as no funding and poor promotion and use of outcomes - Method inappropriate for learning due to small amount of feedback and limited rating scale 	Objective partially met

Chapter 3: HEIs saw benefits from EI 2018, but experienced the exercise as a substantial burden

This section provides an overview of the benefits and burdens experienced by HEIs in preparing impact submissions for EI 2018. It provides detail about the following two key findings:

- HEIs saw some benefits from the assessment of impact as part of EI 2018
- The assessment of impact as part of EI 2018 was a significant new burden for HEIs

3.1 HEIs saw some benefits from the assessment of impact as part of EI 2018.

University representatives identified a [number of benefits](#) resulting from their involvement in EI 2018. This was evident from analysis of interview data. Four key benefits were identified: a) the ability to showcase the value of research; b) the stimulation of broader strategic thinking about impact; c) the ability to understand impact; and d) the opportunity to embed a culture of impact. These benefits were spread across university size and mission-group, without any discernible pattern between the groups. It should also be noted, however, that university representatives provided fewer benefits than challenges, and many were eager to stress that the burdens outweighed the benefits.

The most salient benefit identified by interview respondents was that the exercise allowed universities to [showcase the value of their research](#). Some noted that the exercise was legitimising and enjoyable for individual researchers, and others highlighted the use of stories in marketing materials and the reputational boost that success in EI had brought. As one respondent noted:

The benefit is, because you had the exercise, you went to the trouble of collecting many stories in many different areas. You can repurpose those stories for various uses, if you want to emphasise your track record in particular areas and exemplify the impact that you've had.

The other main identified benefit was the [stimulation of broader strategic thinking about impact](#). Respondents noted that it provided an opportunity to reflect on wider strategy at the faculty or HEI level, such as shifting resources or priorities to focus more on impact. One respondent told us:

It has changed our strategic thinking across the university. The exercise very clearly did feed back into revision of our research impact strategy – that's been a benefit. We invested in a couple of positions over 12 months to help dig up some of the data at the university. Now we've got it in a system, and we have much easier access to some of this historical data for future exercises.

Another benefit described by the interview respondents was an improved [ability to understand impact](#). Respondents described the value of being able to identify

and document the impacts arising from the research they or their faculty had been involved in. As one respondent noted:

We decided to use the submission as a little bit of a fact-finding mission too. We felt that we weren't quite mature enough, but, when there was still a good story to tell, we submitted. It was a very informative process for us.

To a lesser extent, respondents also saw EI 2018 as an opportunity to embed a culture of impact. HEI representatives noted that the exercise facilitated meaningful conversations around the role of universities in society and allowed for impact to be built in at every stage of the research process. One respondent asserted that:

It was also a question of generating the impact culture from the word go and making people understand that we need to do research which creates impact, and how do we document it.

These findings were supported by the survey data. The main benefit identified by survey respondents was an **increased awareness** of the importance or value of impact/engagement and the need for institutional focus on it (~50%). Other benefits included that the exercise helped researchers and institutions **understand what impact is** and how their research benefits society (~30%) and that it created a **resource for promotional activities**, which facilitated showcasing impact to wider stakeholders (~30%). The identification and recognition of high impact projects and the individuals involved (~25%) was also seen as a benefit, with some respondents highlighting that this was particularly valuable in non-STEM disciplines. The exercise was also seen as enabling more strategic approaches to impact, both in planning of individual projects and institutional mechanisms to support impact (~25%). Participants also commented that the exercise encouraged improvements to data collection processes and tools around impact, highlighted existing strengths and weaknesses in the institution, and in a few cases, facilitated internal relationships in the institution. Three (of 59) respondents indicated that there were no benefits.

University representatives also perceived that EI 2018 had contributed to **changes in behaviour within universities**. From the interview analysis, it was clear that the extent of change varied across institutions. Some reported substantial change, such as building specific impact strategies, while others reported more modest change, such as stimulating conversations and raising awareness and improving data systems and training. Some respondents indicated that there had been limited or no change because the universities were continuing practices that were already aligned with the goals of EI 2018 around impact.

These findings were supported by the survey data. As shown in Figure 5, a majority (93%) reported some change, of which nearly all (91%) was seen as positive. Figure 6 shows that those who reported a greater change in behaviour were also more likely to view this change most positively.

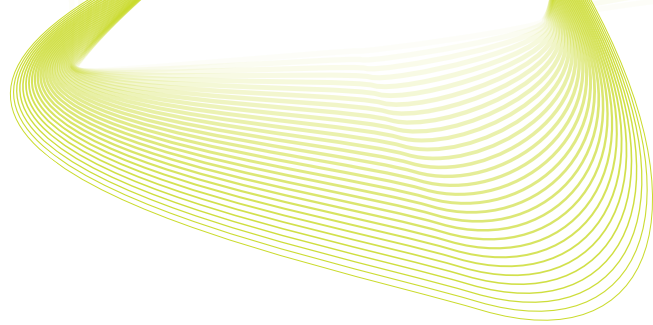


FIGURE 5: UNIVERSITY REPRESENTATIVE SURVEY: PROPORTION OF BEHAVIOUR CHANGE AND RELATIVE POSITIVITY/NEGATIVITY

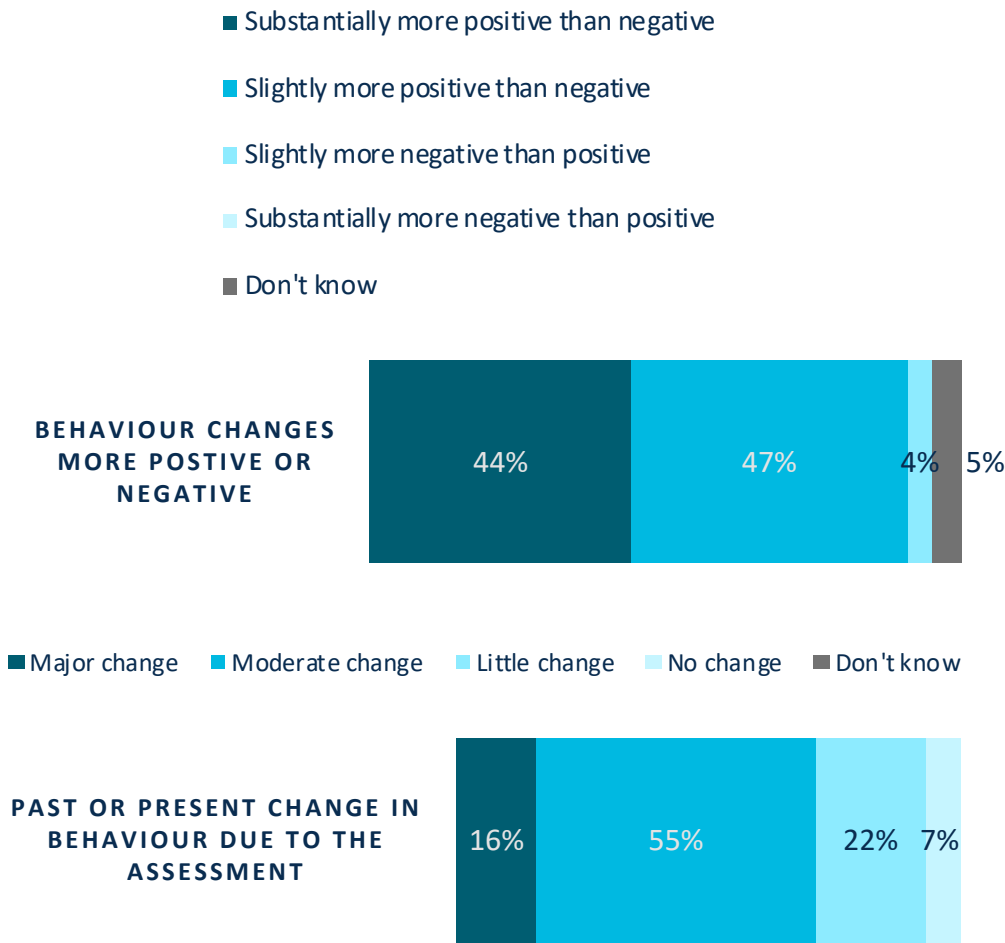


FIGURE 6: UNIVERSITY REPRESENTATIVE SURVEY: SCALE OF CHANGE BY POSITIVE OR NEGATIVE

		Positive/negative				
		Substantially more negative than positive	Slightly more negative than positive	Slightly more positive than negative	Substantially more positive than negative	Don't know
Scale of change	No noticeable change in behaviour	0	1	0	0	3
	Little change in behaviour	0	0	7	5	0
	Moderate change in behaviour	0	1	18	13	0
	Major change in behaviour	0	0	2	7	0

Positive changes noted by survey respondents included greater awareness of and focus on impact outside academia at institution level, as well as in planning and conducting research. Most respondents referred to these changes in terms of there now being more explicit discussion of impact, conversations across the institution and greater understanding of impact, but around one-third of respondents also identified more concrete changes. These focused around **training and support** (e.g. institutional practices introduced to support researchers throughout the impact pathway, and provision of staff training on impact), **incentivisation and rewards** (e.g. internal recognition of impact as an aspect of 'research excellence', embedding impact into academic promotion criteria/performance reviews, creating prizes), and **staffing and strategy** (e.g. incorporating impact into university strategy documents, changes in leadership and funding structures to support the linkage of research to impact alongside research excellence, recruitment of dedicated engagement and impact support staff, introduction of EI academic champions). Another reported change was the use of impact to promote the university to prospective students.

Less positive comments included the fact that awareness remains patchy, as shown in Figure 7. Only ten university respondents noted challenges relating to behaviour change, but these included that **culture change takes time** and strategy documents incorporating impact are intended to be long-term plans, and that impact can depend on individuals, but there is **little support available centrally** and a **lack of incentives or competing demands**. Four institutions reported already having an institutional impact strategy or impact as part of their core mission, and so reported little change in behaviour due specifically to the assessment.

In addition, the survey data indicated that panel members felt their views on the assessment of impact had changed as a result of being part of EI 2018. The most frequent response was to now have a **greater understanding and/or awareness of the importance of impact** (of different kinds) and/or its assessment (6 respondents). Four respondents noted some concerns about the process: that flexibility is needed to understand variation across disciplines, rather than evaluating in silos; that the process

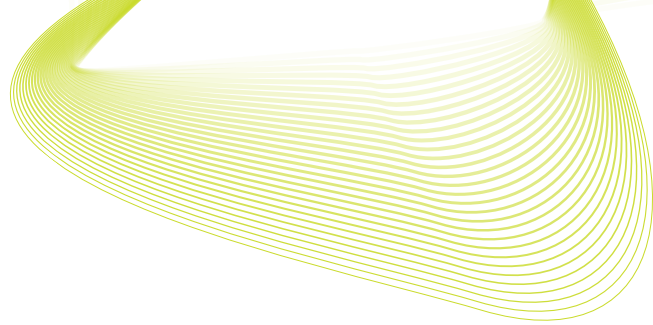
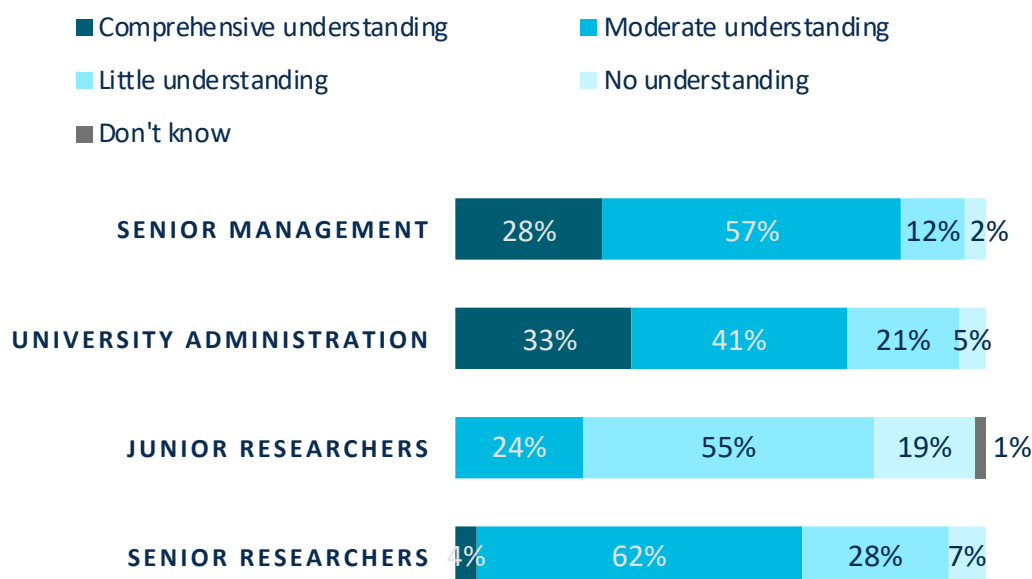


FIGURE 7: UNIVERSITY REPRESENTATIVE SURVEY: UNDERSTANDING OF IMPACT ACROSS HEI STAFF



was cumbersome, threatening impartiality if assessors take shortcuts; that researchers still rely on blunt instruments and believe they have delivered impact; and a concern that the process was partly rewarding writing skills. Three respondents also noted surprise that there had not been more **follow-up or publicity** around the results (e.g. used for advocacy around value of research). 50% of respondents recorded 'no' or did not respond.

There were thus a number of advantages of taking part in EI 2018 identified by universities and panel members, but many respondents were eager to express the difficulties and resource requirements of participation.

3.2 The assessment of impact as part of EI 2018 was a significant new burden for HEIs

It was evident that despite variation in approaches to EI 2018, the exercise was perceived as a significant burden for the majority of HEIs. Three key insights were identified: a) the majority of institutions perceived completing the process to be very burdensome; b) the perceived burden of the process depended on the resource capacity and the existing strategies of the institution; and c) strategies ranged from entirely to moderately centrally driven.

From the interviews with HEI representatives, it was clear that **the majority of institutions perceived completing the process to be very burdensome**. The typical cost estimation was between \$500-600,000, although most did not conduct a formal analysis. The cost was consistently considered to be lower than the cost of completing ERA, but also too high relative to the perceived value of the process outcomes. For example, one respondent from a medium sized university reported:

The burden and effort for us compared to the actual outcome and result, which is based on something that I think is not as robust as it could be, makes me wonder if it

was all worthwhile. Commensurate to what we were trying to do and get out of it, we put too much energy into it.

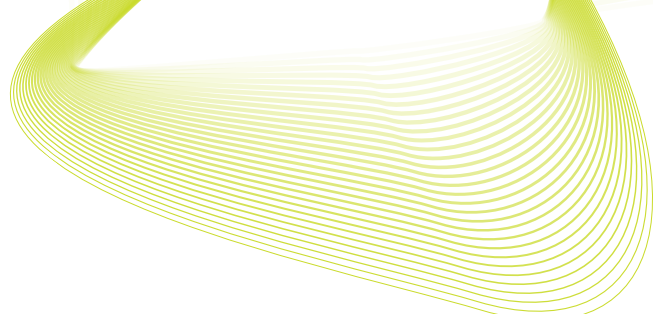
The majority of institutions engaged external professionals to help complete their submission and dedicated existing staff to oversee the process and contribute in different ways. Therefore, the process was generally judged to be very expensive in terms of salaries, time, and lost opportunity.

A key qualification from HEI respondents was that **the perceived burden of the process depended on the resource capacity and the existing strategies of the institution**. There was a perception that EI was biased towards larger institutions who could allocate the necessary resources and spread burden more widely. As one respondent from a medium sized university noted:

It was definitely biased to larger institutions also because they usually have deeper pockets. We facilitated the entire process with existing staff, whereas I know that others hired external media teams or consultants.

However, strategy also seemed to play an important part. Some universities may have invested substantial resources into the process, but still did not necessarily have the right understanding or systems to ensure good results, or the right people to implement changes. For institutions who were more sceptical of the value of the process, had poorer planning or understanding, or decided to make the process very centralised, the perceived burden seemed very high for the specific staff members coordinated the process. For example, if universities had not focussed on impact in the lead up to EI and had poorer existing data systems of relevant information, it was more time-consuming and complicated to track down the required information. In contrast, other universities had already invested resources in their impact strategy, and had more developed staff understanding and data systems, and thus found the process less burdensome. The nature of burden was also influenced by the timing of the exercise occurring immediately after ERA. In smaller institutions, it was usually the same staff completing both exercises since burden was less easily distributed, meaning these staff members were more likely perceive the burden as greater.

HEI respondents reported that **strategies around the impact component of EI 2018 ranged from ‘entirely’ to ‘moderately’ centrally driven**. A minority of institutions allocated central staff to complete all aspects of the submission in a top-down manner, whereby academics were interviewed to gather information and the best impact cases were selected and written by central staff. However, the majority of institutions opted for a moderately centralised approach, in that the process of discovering potential impact stories tended to be fairly bottom-up, while the review process was more centralised. Typically, academic leads for specific FoRs identified two to four impact stories that were built up and reviewed by a steering committee, who then made a final selection. Across these cases, sometimes academic leads were also tasked to produce the final impact statement after feedback, but usually the writing phase was also mostly centralised. The use of staff time was described as an opportunity cost by some institutions, as one respondent from a medium sized university reported:



The opportunity cost is the big issue, of [an individual]'s team and the academics, who, instead of getting impact, are spending their time completing this exercise. They are usually the rainmakers by delivering impact or finding the next impact. We couldn't even quantify the cost of that if we wanted to in terms of grants, reputation etc.

Institutions also varied in whether they engaged end-users to assist in identifying the best-case studies to submit, with the majority not reporting that they did so. Most institutions hired external professionals to help complete their submissions, sometimes only early in the process to consult on strategy, sometimes on a need-to basis, and sometimes as new staff members to assist in data collection and writing. In the two cases reported by interviewees where professional writers were hired, they were deemed not to be valuable. Finally, a few used the pilot to test different strategies so that they could learn from the different types of feedback and tailor their final submission.

Thus, overall, universities appreciated the opportunities for establishing or developing intentional goals around impact, but experienced the exercise as onerous, especially where there were fewer available resources or minimal existing strategic focus.

3.3 Additional comments

The survey data also provides broader context for many of the comments made by respondents. In a closing open-question, survey respondents were broadly positive about the assessment (impact and approach to impact). Unprompted, around **one fifth of university respondents gave overall positive comments**, for example, that it was important, well run and a good learning opportunity. Panel members were not asked specifically about the benefits (and burdens) of EI 2018 or their overall views on its value, but the **process seemed generally to be well regarded**. Criticisms and suggestions tended to relate to issues previously mentioned, especially the burden, desire for more feedback and transparency, and issues around limited incentives and benefits for institutions. In both university and panel surveys, several respondents noted that they would like to comment on the **engagement** component (which was not a focus for this project), which they found more problematic. No respondent suggested not continuing with the assessment, with criticisms or suggestions in this section framed more as improvements towards a more effective future exercise (which were generally captured in earlier questions as well).

Chapter 4: The operationalisation of EI 2018 resulted in a range of challenges for universities and panel members

Respondents raised a number of issues relating to the implementation of EI 2018. This chapter discusses the following key findings:

1. HEIs were able to identify and articulate impact, but challenges arose around understanding guidelines, articulating approach to impact and evidencing impact
2. Panel members identified a range of strengths, but felt the biggest limitations were weak incentivisation, one case study per FoR code and inability to verify claims
3. There were a range of strengths identified by experts, but areas to be addressed included weak incentivisation and weak outcomes of the evaluation

4.1 HEIs were able to identify and articulate impact, but challenges arose around understanding guidelines, articulating approach to impact and evidencing impact

From the interviews, it was clear that HEIs believed that they were able to identify and articulate their research impact reasonably well (although determining the veracity of these claims fell to the panels). However, respondents identified a number of challenges, summarised in Table 3. Key amongst these, was a **lack of clarity and exemplars in the guidance** that made the submission process difficult. One respondent noted that ‘the standard of evidence for impact was not clearly set out in the guidance’. Another asserted:

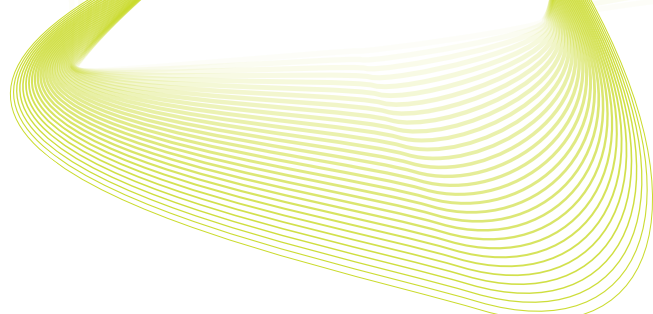
They were clearly enough defined, but it would have helped to have some examples in some cases. We couldn't refer to precedents of how things should look.

In particular, universities reported **confusion around the concept of approach to impact**. They reported not knowing what they were trying to collect or having to try to find data that they did not have. Several respondents indicated that greater guidance from the ARC was required. One respondent noted:

Articulating impact wasn't too bad, but it was challenging to articulate our approach to impact...We need more clarity on what is approach to impact -general organisational support, factoring into strategic plans, other actions. We need clearer expectations from the ARC.

A related challenge was the separation of engagement and approach to impact, which respondents described as ‘so meshed together...the split was a bit artificial’.

Respondents noted **difficulties around providing evidence of university impact**. There was broad support for the narrative approach but concern that results might reflect quality of writing skills rather than underlying impact. As one respondent noted:



It is too descriptive at the moment. We need more guidance on numbers that we need to collect. I worry that smaller universities who don't have the expertise or money to engage top quality case writers will be disadvantaged if it is too descriptive.

Another respondent reflected that 'more clarity and guidance of content over style' would be helpful in reducing the advantages of having more skilful writers.

A related challenge was around the **time lag and retrospective design** of the exercise. This was impacted by the lack of warning and insufficient data systems for collecting relevant information. Collecting adequate information about impact with government agencies was particularly difficult. One respondent commented:

To find supporting evidence for that was hard. A good example is an exhibition that travelled around or was well received. If we had known that we would have to collect information about impact then perhaps we would have done an exit survey on the attendees. We didn't get the opportunity to do that. Being retrospective made it quite difficult. We don't tend to collect data unless there is an economic purpose to collecting it. A lot of the data we needed for impact; we hadn't collected because we didn't get any money for reporting it to government.

Some disciplines were seen as more **difficult to evidence**. Respondents noted that they ensured they would be under the ERA threshold for some disciplines, such as philosophy, to avoid having to submit an impact case study. This is in contrast to subjects like medicine, where respondents reported having a range of impact stories to choose from.

The challenges around evidence were related to the **use of FOR codes**, which was one of the most prevalent perceived challenges reported by respondents across institution sizes. Using FOR codes was seen to unfairly advantage larger universities and was also seen to produce difficulties evidencing impact across disciplines. As one respondent from a medium size university reported:

Whereas, if you have a much bigger university, and you're only choosing a small number of examples from your FoR codes, you're actually sampling from a much bigger population of academics. The burden is not as concentrated, and you have more choice on the basis of not burdening the same academics. So, there is inherent bias with your ability to sample. The other side of this is, we have FoR codes where we could have put forward multiple excellent cases, and others where we are much thinner.

Many respondents stated a preference for using Socio-economic Objective (SEO) codes⁶, which were viewed as closer to actual impact and to community expectations than FoR.

Data submission was also an area of concern, with specific challenges around **case study templates**, the research window and the impact window. Some participants reported struggling with the word limit and set structure for case study templates. For example, one respondent noted:

There was no provision for providing an evidence base other than you discursively putting it into the limited number of words. I think we should have been able to have URLs to reports or ministers' media releases or whatever. It troubled me, trying to demonstrate impact in 1000 words, who is to say that this is not made up. It's not verified. How is the panel going to arrive at the right judgement?... You have to be able to substantiate your claims, like in the UK system, and not just dependent on some words. You weren't allowed URLs, diagrams, or embedded text. There was not the capacity to demonstrate the evidence in a meaningful way.

These issues were seen as restricting the evidence that could be included and reducing confidence in the assessment.

There were also mixed views on the [assessment timeframes](#), with participants reporting that adhering to specified impact and research periods was challenging. As one respondent described:

We struggled to find suitable impact stories that fitted within those specific timeframes. Also, different areas take different time periods to have impact, sometimes up to 20 years, whereas others are much quicker. That made it difficult. We ended up not being able to report some quite good impact that didn't fall in those bounds. We spent a lot of time trying to get impact stories that fit within the timeframe. Chemistry was one in particular that we had trouble with.

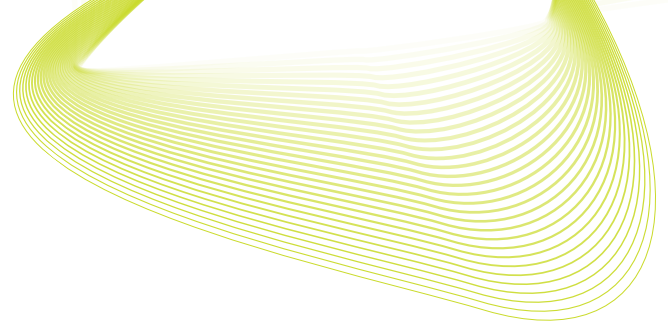
Participants also noted that these issues were especially difficult for some disciplines and types of research.

Universities were also concerned about assessment outcomes, specifically the panel assessment, inadequate feedback on submissions, unclear value of the results and a weak mechanism that fails to incentivise impact. The first of these relates to misgivings about [how panels make decisions](#) and a desire for more transparency about panel expertise and processes. One respondent stated:

We need more clarity and assurance on how the claims of impact are being tested. If that distrust grows before the next round, we will get to a place where people are resistant to the process and providing information towards case studies.

This perception was compounded by a desire for [more comprehensive feedback](#) from the ARC. Several respondents complained that they had not received any feedback beyond low, medium or high ratings. One respondent stated:

We need more feedback and clearer guidelines on how to improve and what was wrong with our submissions. It would be good to know who got which ratings and why, especially with the approach to impact. We weren't able to make a judgement on why something got a higher rating. Feedback would help us understand this whole process better in terms of what corresponded to the higher ratings. We haven't benefitted from that potential learning opportunity, despite spending so much time and effort providing the case studies. We got nothing back.



Participants reported that a lack of feedback impacted their ability to improve in future rounds.

A key issue was the **unclear value of the results**, where HEIs described a feeling that a highly burdensome exercise was conducted for nebulous outcomes with limited external interest and low consequence. As an interviewee noted:

I don't think the ARC really understood the burden that it put on universities. Especially since I don't know how the results have been used. I don't know if government is taking notice of it, or if industry or the end-users or the community cares about it. Lay people would not have heard of this. If people don't get it and it's not making a difference or impact – what's the point?

A related but more fundamental criticism concerned the perception of a **weak overall mechanism** that did not adequately provide an incentive structure. One participant described the motivational challenges involved in the assessment:

It wasn't tied to a driver like funding as it is in the UK REF, which is notable. It will be interesting to see how that works going forward, will they gradually introduce it? Certainly, at that motivational level, there was a lot of questioning into what we were doing it for. Having a driver will make a difference in terms of achieving the institutional change and culture change that the ARC want and achieving the overall objectives. Overall, the incentives to the institutions were never really well-defined. I think, because of that, it existed as a big question mark in peoples' minds. Clarifying that is really important.

Often drawing comparisons with the UK impact assessment, participants felt that without having funding attached, EI provided no driver for real change.

Analysis of survey data supported the insights gained from the interviews. Survey respondents highlighted a **lack of readily available data/evidence**, due to the retrospective nature and necessary processes not being in place at the time the impact occurred (~70% of respondents). **Unfamiliarity with (or lack of understanding of) impact** or the requirements of the exercise (~40%) and the **time and resource burden of the exercise** particularly given demands of ERA and short lead time (~30%) were also seen as challenges. Respondents also pointed to a **lack of internal engagement**, particularly due to the absence of incentives (~20%), and **difficulties in identifying case studies** that met the requirements of the assessment (~20%). Other challenges included a lack of appropriate skills in-house, staff mobility and a lack of institutional memory, and challenges in particular disciplines. Only one respondent reported no challenges.

TABLE 3: KEY INFORMANT INTERVIEWS: CHALLENGES IDENTIFIED BY HEIS

ELEMENT	DESCRIPTION
Understanding guidelines	- Lack of clarity and examples in the guidance
	- Confusion around approach to impact
	- Confusion around the separation between engagement and approach to impact
Evidencing impact	- Support for narrative approach, but concern around effect of writing skills
	- Difficulties around time lag and retrospective design
	- Difficulties articulating evidence for some disciplines
	- Negative view on use of FOR code (unfair, prefer SEO)
Data submission	- Concern around case study templates
	- Concern around research window
	- Concern around impact window
Assessment outcomes	- Concern around panel assessment
	- Inadequate feedback on submissions
	- Unclear value of the results
	- Weak mechanism that does not incentivise impact

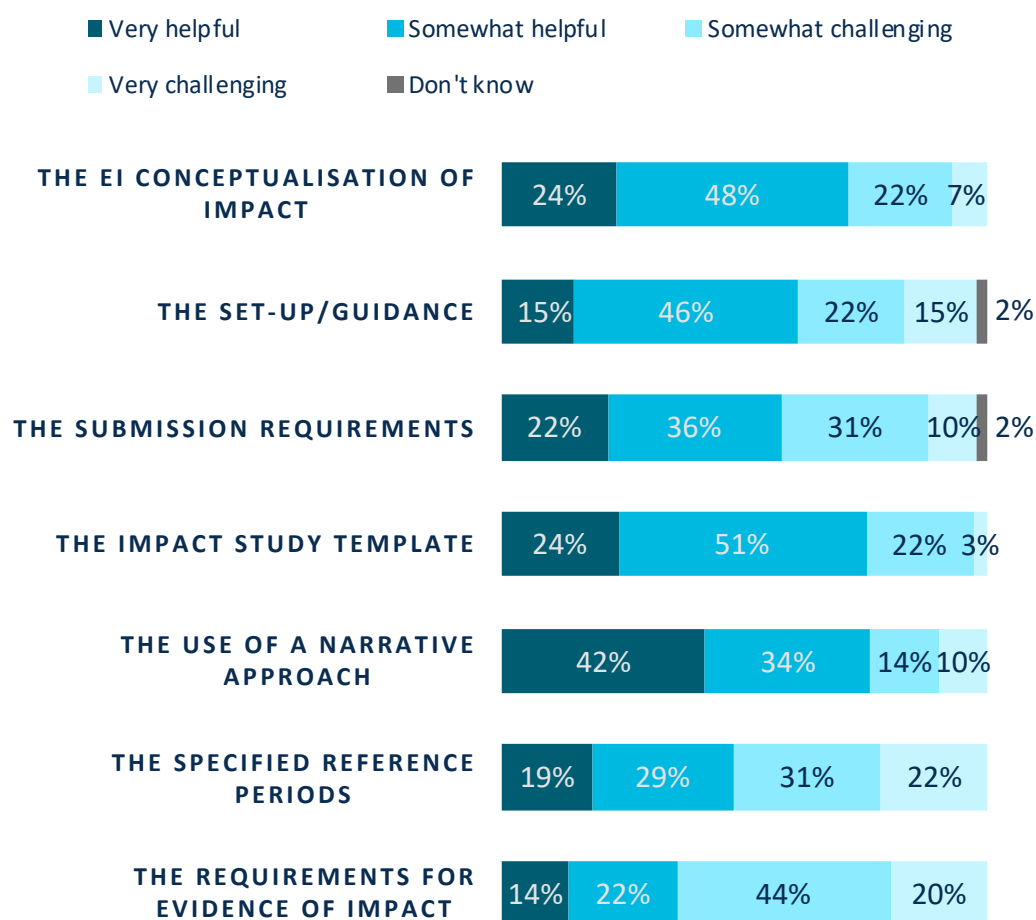
Figure 8 illustrates the proportion of respondents who considered specific elements of the assessment to be helpful or challenging. As shown, the most challenging elements were the requirements for HEIs were around the requirements for evidencing impact (64% viewed as very or somewhat challenging) and the specified time periods (53%). However, the data also highlighted areas that worked well. The most helpful elements were the narrative approach (76% viewed as very or somewhat helpful), the EI conceptualisation of impact (72%) and, interestingly, given the above concerns around word limits, the impact study template (75%).

Thus, the operationalisation of EI 2018 resulted in a range of challenges for universities, ranging from issues that might relate to the first run of the assessment, to procedural matters that could be adjusted in future rounds and to more fundamental critiques of the overall structure of EI.

4.2 Panel members identified a range of strengths, but felt the biggest limitations were weak incentivisation, one case study per FoR code and inability to verify claims

The interview analysis highlighted the strong support panel members had for EI 2018. They identified a range of strengths, summarised in Table 4. Many highlighted aspects of the design. In particular, there was strong support for a [narrative approach](#) and for the [separate rating of approach to impact](#), which they saw as valuable for making universities self-reflect and for encouraging identification and development of causal pathways. There was also support for [flexibility of submissions](#) (e.g. the ability to add extra indicators) and support for the dedicated Indigenous panel. The

FIGURE 8: UNIVERSITY REPRESENTATIVE SURVEY: ELEMENTS SEEN AS HELPFUL OR CHALLENGING



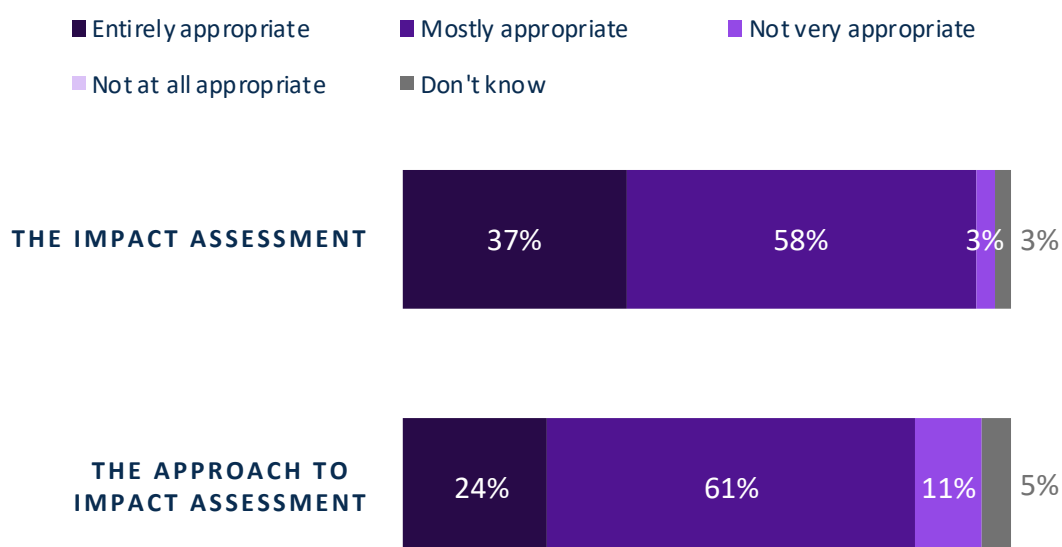
clear and consistent submission structure was also seen as a strength. Respondents also highlighted panel operations, reporting that end-users brought valuable perspectives and that the objective scoring process of individual panel members completing separate ratings ahead of a group discussion and consensus worked well. Panel members were eager to note the excellent support they received from the ARC. They believed that EI 2018 galvanised a focus on impact instead of academic prestige and improved understanding of the current barriers to impact, and future possibilities linking academia to the commercial sector.

The survey data support the findings from the interview data. Panel members felt they had enough information to facilitate meaningful assessment and that the rating scales were appropriate. As shown in Figure 9, the vast majority considered the submission requirements appropriate for the impact assessment and the approach to impact assessment. Figure 10 shows that three-quarters of respondents considered the rating scales appropriate for impact compared with two-thirds for approach to impact.

TABLE 4: KEY INFORMANT INTERVIEWS: PANEL VIEWS ON OVERALL STRENGTHS

ELEMENT	DESCRIPTION
Design	- Narrative approach
	- Separate rating of approach to impact
	- Flexibility of submissions
	- Dedicated Indigenous panel
Assessment	- Clear and consistent submission structure
	- End-users brought valuable perspectives
Panel operations	- Scoring process (separate rating before group discussion)
	- Excellent support from the ARC
Outcomes	- Galvanised focus on impact instead of academic prestige
	- Improved understanding of barriers to impact and future opportunities

FIGURE 9: PANEL MEMBER SURVEY: APPROPRIATENESS OF SUBMISSION REQUIREMENTS



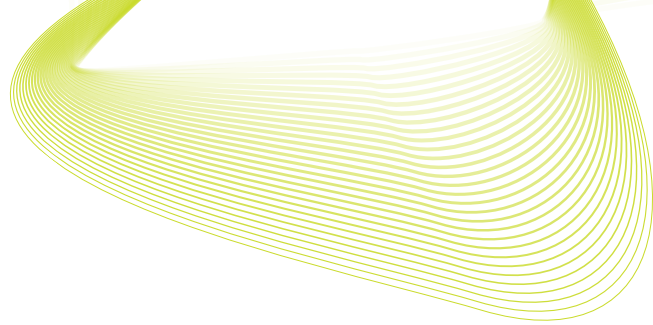
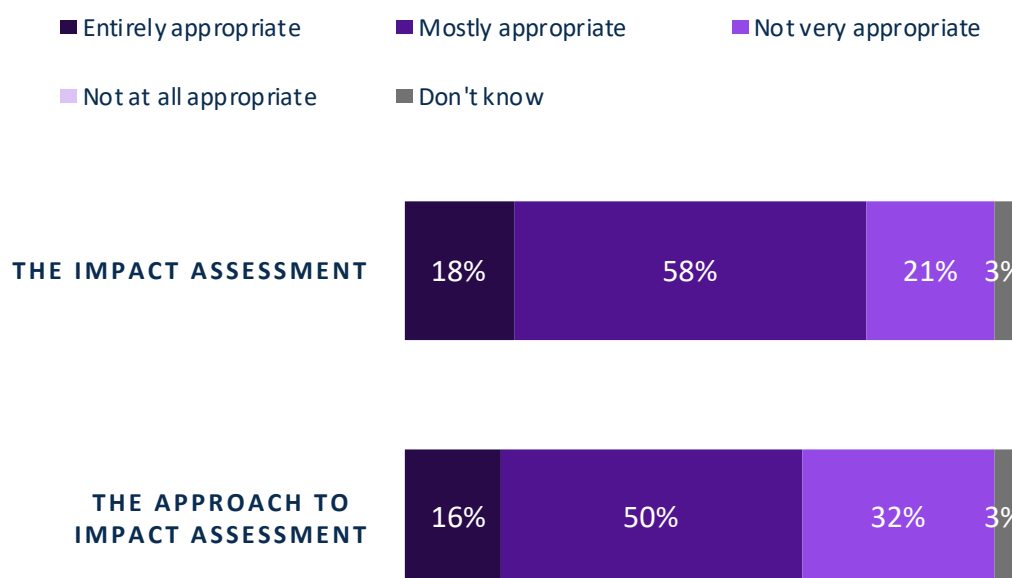


FIGURE 10: PANEL MEMBER SURVEY: APPROPRIATENESS OF RATING SCALE



Despite the overwhelmingly positive reception from panel members, they did identify a number of key limitations with the assessment, summarised in Table 5. During interviews, panel members reported a range of areas where improved clarity would be of benefit. They reported difficulty in developing and calibrating what was meant by impact (where the definition was not fine-grained enough). Similarly, they felt that the criteria for good approach to impact was not adequately provided in the guidelines, which accompanied a lack of clarity around ‘end user’ and ‘research’.

Respondents also noted that the assessment’s lack of incentives was a key limitation. They agreed with the HEIs in their view that there were no strong drivers of change. Whilst they acknowledged the prestige or reputation element was important, it was no substitute for a financial incentive. Thus, they commented that there was little to encourage universities to prioritise impact and to facilitate behaviour change. This was compounded by generally weak outcomes, where the value, meaning, and use of results was unclear. The overall view was that in absence of a funding mechanism, there should be greater focus on prestige or reputation as a driver of change.

In terms of the assessment design, panel members felt that the case study ratio was not representative and biased by UoA size. They also noted difficulty accounting for differences across disciplines in terms of ease of demonstrating impact. There was some support for further use of quantitative indicators, although strong support for the narrative approach. Some respondents viewed the rating scale as not providing enough differentiation between high and low performers.

Panel members also shared the concern around inability to verify claims and a lack of supporting documentation. They described a need for further support for end-users on the panels (e.g. help understanding academic language). The assessment process was also seen as too compartmentalised in terms of time, with many reporting that submissions should be viewable to all panel members throughout the process. Panel members reported a difficulty or unwillingness on the part of universities to

correctly allocate Indigenous research to the Aboriginal and Torres Strait Islander panel. Relatedly, a few interviewees highlighted some tension arising from cross-panel operations, where members of the Indigenous panel participated in discussions of Indigenous research being assessed by other panels.

Thus, panel members greatly enjoyed their involvement in EI 2018 and praised the strengths of the exercise but highlighted a number of limitations that could be addressed in future rounds.

TABLE 5: KEY INFORMANT INTERVIEWS: PANEL MEMBERS' VIEWS ON OVERALL LIMITATIONS

ELEMENT	DESCRIPTION
Clarity	- Difficulty in developing and calibrating what was meant by impact
	- Criteria for approach to impact not adequately provided in the guidelines
	- Lack of clarity around some terms including 'end user' and 'research'
Mechanisms	- Weak incentivisation: no effective funding or prestige drivers
	- Weak outcomes: unclear value, meaning, and use of results
	- Case study ratio not representative and biased by UoA size
Design	- Difficulty accounting for differences across disciplines
	- Some support for further use of quantitative indicators
	- Rating scale not differentiating enough
Panel operations	- Concern around inability to verify claims and lack of documentation
	- Need for further support for end-users e.g. with academic language
	- Problems correctly allocating Indigenous research to Aboriginal and Torres Strait Islander panel
	- Assessment process too time-compartmentalised
	- Cross-panel operations with the Indigenous panel not thought through

4.3 There were a range of strengths identified by experts, but areas to be addressed included weak incentivisation and weak outcomes of the evaluation

Like panel members, experts were supportive of EI 2018, with key strengths identified from interviews summarised in Table 6. Experts were strongly supportive of the narrative approach and the holistic design. They felt that the assessment was able to capture a broad range of impacts, while making allowances for impact of different scales, and recognising non-STEM impacts. Relatedly, they strongly supported the flexibility of submissions, such as the ability to add extra indicators. A key identified strength was the light-touch nature of the assessment. There was also strong support for the dedicated Indigenous panel.

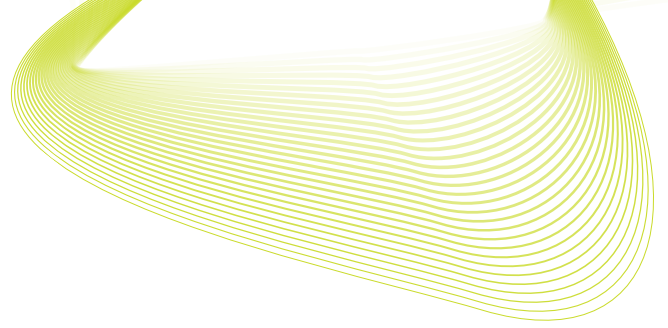


TABLE 6: KEY INFORMANT INTERVIEWS: EXPERT VIEWS ON OVERALL STRENGTHS

ELEMENT	DESCRIPTION
Design	- Strong support for narrative approach supplemented by metrics
	- Support for light-touch holistic design: capturing broad range of impact, allowances for impact of different scales, and recognition of non-STEM impacts
	- Support for flexibility of submissions, e.g. ability to add extra indicators
	- Support for dedicated Indigenous panel

However, there were a range of limitations that were also identified, summarised in Table 7, many of which echoed those expressed by panel members and university representatives. These included weak incentivisation and weak outcomes, with a prevailing view that the trade-off of the light touch design was that the financial and reputational consequences were not strong enough to elicit meaningful change. The case study ratio was also viewed as problematic, as was the unevenness across disciplines in terms of ease of demonstrating impact. Experts also identified a number of limitations that were not highlighted by other groups. One key one was that there was an inappropriate assumption of linear flow between research investment and impact. The perceived immaturity of the sector's relationship with engagement and impact was also seen as a limitation.

TABLE 7: KEY INFORMANT INTERVIEWS: EXPERT VIEWS ON OVERALL LIMITATIONS

ELEMENT	DESCRIPTION
Mechanisms	- Weak incentivisation: no effective drivers of prestige or funding for universities to take it seriously and to elicit behaviour change
	- Weak outcomes: poor value, meaning, and use of results
	- Case study ratio not representative and biased by UoA size
Design	- Difficulty accounting for differences across disciplines
	- Inappropriate assumption of linearity between investment and impact
Context	- Immaturity of sector's relationship with engagement and impact

Thus, like panel members, experts praised many strengths of the exercise but also identified a number of areas for future work.

Chapter 5: Evaluation participants identified a number of additional ways to improve future EI rounds

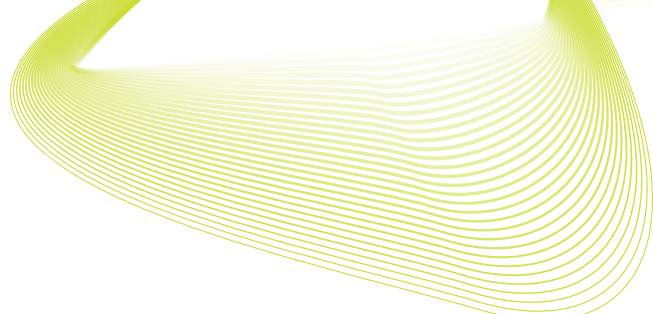
Looking ahead to potential future rounds of EI, there are a number of areas that could be addressed and issues that could be resolved to improve the exercise. This chapter discusses the following key findings:

1. HEIs need more clarity and guidance from the ARC on content and expectations
2. The ARC to make assessment strategy fairer and more flexible
3. The ARC to re-evaluate the role of the institution in delivering impact and the overall purpose of the exercise

5.1 HEIs need more clarity and guidance from the ARC on content and expectations

From the interviews and survey with university representatives, there was a very strong message that the ARC should provide **more clarity and guidance to institutions**. Many expressed that the lack of previous examples or precedents was a big challenge, and that the ARC was not forthcoming enough with details on what constituted good impact or approach to impact, despite the novelty of the exercise. In particular, institutions were eager for more specifics on the definition of impact with respect to education, and what information corresponded to higher ratings in the approach to impact section. Solutions mainly emphasised thorough feedback on past submissions in order to facilitate learning and understand ratings, and information sessions to better publicise the process and purpose of the exercise, perhaps featuring panel members who could be asked about their methods. The general sense was that the process was opaque and confusing, and so failed to be a learning opportunity, resulting in frustration at the effort involved. There were further individual points that related to a need for more clarity. The most pertinent of these included that maintaining a positive dialogue should be an important aim between rounds to try and ensure some progress in understanding, that the ARC guidelines should have been released earlier to give universities more time to prepare, and that the ARC needed to provide more assurance on how they were testing the impact claims in order to avoid growing distrust of the process. This aligns with the views of survey respondents, who also suggested that the ARC provide more training, support or learning opportunities (six respondents), and that the guidance is released further in advance of the submission deadline (11 survey respondents).

From the interviews with panel members and experts as well as the survey with panel members, it was reported that the guidelines for both the universities and the panellists needed **more clarity** in order to calibrate both sides on their interpretation of impact and approach to impact. On the submission side, there was a strong perception that the universities were not given enough fine-grained detail to provide the information that the panels were looking for. In particular, many respondents emphasised that more parameters were needed to define what constitutes good approach to impact. It was agreed that a big challenge was the lack of detailed



examples available, and that it would be useful for the ARC to publish all the previous case studies, with thorough feedback for the next round. In terms of the assessment, panel members voiced a need for more training and guidance. The main examples concerned being able to more accurately distinguish between the different ratings, differentiate between research or consulting, and interpret potentially misleading engagement metrics. In addition, more support for end-users in terms of navigating academic language and anchoring their interpretation of claims in relation to the norm was deemed important. Finally, regarding the Aboriginal and Torres Strait Islander panel, a small number of interviewees expressed that more clarity on the process of flagging content as Indigenous was needed, as well as more effort to include more community end-user perspectives to help panellists determine benefit.

5.2 The ARC to make assessment strategy fairer and more flexible

The university interview respondents' general attitude was that the assessment **did not provide a fair, flexible, or comprehensive enough method** to meaningfully assess impact. The most salient point was that the case-study ratios were unfair and too rigid, since they did not account for differences in FoR size and income, and did not allow for emphasis of research speciality within an institution, which tended to disadvantage smaller universities. One solution that was offered was a system in which institutions could choose to submit up to four case studies per FoR code, with a total boundary of 24, and no minimum. There were numerous other concerns about the assessment methodology, although the specifics were not consistent across institutions. For example, in terms of fairness, one institution argued that the research end-users should be directly asked about impact instead of the university constructing a story, while another argued for more metrics to be developed in order to make the process less reliant on the descriptive narratives. In terms of flexibility, one institution mentioned that the research timeframe was too restrictive, others called for a recategorisation of impact in terms of its outcome by socio-economic code to better respect the cross-discipline nature of impact. In terms of comprehensiveness, one institution believed that the ARC needed to rethink their assessment of patent portfolios, while another argued for more scope in reporting the impact stories, as well as better recognition of how impact can occur through academics' roles on committees. Finally, in terms of the design, one institution argued that approach to impact should be divorced from the specific case study, and that institutions should be judged instead on their current practices. Another considered that the assessment could be streamlined by combining the approach to impact and engagement sections into one that included both institutional approach to engagement and activities.

Panel members and experts suggested improvements to enable a **more rigorous and effective assessment of impact**. The main points regarding the methodology were:

1. Increase the number of case studies per FoR in order to provide a meaningful representation of a university's impact;
2. Reconceptualise the categorisation of impact in terms of outcome-based measures, like SEO codes, rather than by discipline;

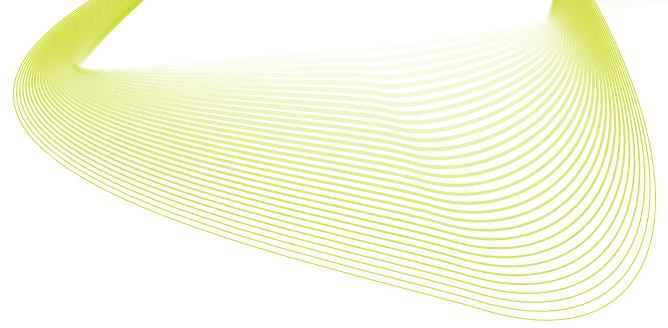
3. Review the alignment between the engagement and approach to impact sections, and potentially combine them;
4. Increase the number of end-users on the panels to better judge real impact;
5. Conduct a more systematic analysis of the narrative data in order to make the outcomes more comparable and reportable.

Other suggestions related to the rating scale, but with interview and survey respondents split on whether to retain the three-point scale or increase to a four or five-point scale to provide sufficient differentiation between results. Another suggestion related to the scope for describing impact, with mixed views on the desirability of adding quantitative indicators of impact to the assessment.

Panel member survey data suggested two key methodological changes that were not mentioned by interviewees. The first was better verification of impact claims (e.g. statements from end users or an audit of a sample) (six respondents). The second was improved clarity around different types and scales of impact, with guidance on how to assess (e.g. local vs international, impacts which are harder to measure in concrete terms) (six respondents). The survey data also highlighted substantial variation in views on how the components of the assessment might be restructured. 13 respondents suggested changes to the structure, ranging from removing the engagement assessment, removing approach to impact, combining impact and engagement, combining the impact and approach to impact components, and combining approach to impact and engagement.

5.3 The ARC to re-evaluate the role of the institution in delivering impact and the overall purpose of the exercise

Amongst interview participants, there was a desire for greater articulation of the role of the institution in delivering impact and more clarity around the purpose of the EI assessment. Some universities suggested more high-level improvements to EI, broadly related to [re-evaluating the role that institutions play in creating impact and the overall purpose of the exercise](#). In terms of the relationship between institutions and impact, one institution had a very strong view that universities do not themselves deliver impact, but instead create the basis for impact, which is then actually implemented by external partners. Therefore, they argued that universities should be assessed on their ability to engage and create connections in the ‘value chain’, and specifically encouraged the ARC to learn from the ‘pathways to impact framework’ that CSIRO uses. Similarly, another institution expressed that impact needed to be reconsidered in this scheme to emphasise a demand-driven approach whereby research is more collaborative with the end-user and impact is implicit in the project conception, as opposed to an afterthought. Otherwise, various institutions conveyed a desire for the ARC to be more explicit on the overall point of the exercise. It was considered that the current format was inappropriate to allow for comparison between universities, yet that had still occurred, meaning the exercise felt like a ‘public audit’. Instead, some hoped that the exercise would become an opportunity for institutions to learn from and to cast their research in the best light, with the over-arching goals



of prompting positive behaviour change and representing the value of research to government. Therefore, one institution proffered that the exercise should be run by a more objective body, like the Chief Scientist's Office, who was in a better position to both challenge and support the sector and the government. Finally, one sentiment that seemed to capture the prevailing view was an admission that the only way to improve the process is to create more work, which the sector is not prepared to do unless there is money attached to the assessment.

Panel members and experts that were interviewed felt that **delineating the long-term goals of the exercise and aligning the methodology** with these goals is an important area for development. If the ultimate goal is to improve impact and engagement related practices in institutions, rather than conducting a rigorous assessment, then publishing comprehensive and transparent guidance and feedback, and perhaps not using a rating scale at all, may better facilitate learning. Similarly, if the goal is just to discover and provide government ministers with impact stories, then methodological improvements to provide a more rigorous assessment, like a more nuanced rating scale, are perhaps unnecessary. Instead, if the ultimate goal is to assess impact meaningfully, then the exercise needs more scope as well as more incentives for the universities to fulfil the extra scope in a serious manner. Such incentivisation could be an attachment to funding or full publication of results. However, the issue is that this change would require the underlying methodology to be more robust. Finally, an important improvement is better promotion and communication of the value of the exercise to government, institutions, and industry by the ARC.

5.4 Specific improvements by group

Specific suggested improvements made by universities, panel members, and experts in interviews are provided in Table 8, Table 9 and Table 10, respectively.

TABLE 8: KEY INFORMANT INTERVIEWS: HEI SUGGESTED IMPROVEMENTS

ELEMENT	DESCRIPTION
Clarity	- Provide clearer guidelines, with specific exemplars of good case studies and well-defined criteria for impact and approach to impact
	- Provide widely available information on the purpose of the exercise (e.g. webinars or information sessions)
	- Adjust case study ratios to allow for a more comprehensive and fairer picture of impact
Assessment	- Consider merging engagement and approach to impact
	- Reconsider use of FoR codes
	- Remove time frames for research and impact
Purpose	- Clarify universities' role in impact and the non-linear nature of the impact process
	- Specify the goals of assessment and align strategy with actionable methodology

TABLE 9: KEY INFORMANT INTERVIEWS: PANEL SUGGESTED IMPROVEMENTS

ELEMENT	DESCRIPTION
Clarity	- Calibrate understanding of different parameters and indicators of impact between researchers and assessors
	- Clearer, more fine-grained guidance and support to institutions on what panels are looking for, including examples and thorough feedback. In particular, specifically defined parameters of what constitutes good approach to impact
	- More clarity for assessors on the criteria for and distinction between ratings
	- More guidance for end-users on academic language and normal benchmarks
Assessment	- More training for panels on interpreting indicators and definitions
	- A more differentiating scoring system e.g. a five-point scale or assessment based on a combination of measures
	- More scope to explain impacts in the submissions and allow for different types of impact across disciplines
	- More securely capture what impacts are good for Indigenous communities and clarify how universities flag their submissions as Indigenous
Purpose	- More representation of good end-users on the panels
	- Create political space for results and communicate exercise better to stakeholders
	- Clarify aims of the exercise to make sure the assessment is fit for purpose
	- Make more rigorous by increasing incentivisation

TABLE 10: KEY INFORMANT INTERVIEWS: EXPERT SUGGESTED IMPROVEMENTS

ELEMENT	DESCRIPTION
Clarity	- Provide a clearer definition of 'impact', draw more from guidance of best practice impact evaluation, offer further guidance on how universities can improve
	- The ARC to publish all the case studies for incentivisation and as a learning resource
	- Reconsider alignment between engagement and approach to impact
Assessment	- Explicitly factor in equity, diversity, and inclusion, and give specific thought to interdisciplinary cases
	- Increase number of case studies per FoR to give more comprehensive view and to increase incentivisation
	- More systematic analysis of qualitative information. Collect and present information in the narratives in a more useful manner e.g. categorised
	- Potentially develop supporting qualitative measures, such as surveys, or a database of aggregate indicators
Purpose	- Make the process more conducive to learning e.g. remove rating system, analyse rich narrative data better, and release all case studies to demonstrate counter-factual and clarify existing systemic issues without assessment
	- Increase incentivisation to elicit behaviour change (but need more robust methodology in order to implement)
	- More clarity from the ARC needed on the overall goal of the exercise and better communication of the purpose and value to stakeholders

Chapter 6: Concluding observations and reflections

In this final section, we attempt to be a little more expansive in our overview of the rich dataset of comments and suggestions for impact evaluation by the ARC. Some of this commentary takes us beyond the formally contracted terms of reference, and while we are acutely aware of the context of this evaluation and how it is nested within a much broader ARC review of ERA and EI in Australia, we hope our constructively conceived comments will be helpful.

There is no question that, overall, interview and survey respondents – from all stakeholder groups – were positive on the development and implementation of EI 2018, with no suggestion that it should be abandoned. In actual fact, a number of interesting and, in some cases, well-argued suggestions were made to strengthen and refine the methodological approach for future iterations of the EI assessment. Of those noted in Section 5.2, we believe the following deserve additional commentary on their importance and/or feasibility:

1. **Increase the number of case studies per FoR in order to provide a broader and more representative view of a university's impact.** We agree with this recommendation, but as expanded on below the actual number of case studies per FoR is a trade-off between burden and incentives.
2. **Reconceptualise the categorisation of impact in terms of outcome-based measures, like SEO codes, rather than by discipline.** We do not believe that the ANZSRC SEO codes will assist in either the explanation or evaluation of impact. It is an organising framework to describe types of R&D activity to be categorised according to the intended purpose or outcome of the research, rather than the processes or techniques used in order to achieve this objective. Furthermore, evaluating impact according to the area of society affected would appear to limit the need for accountability (and the burden of the exercise) to only those fields which can most readily demonstrate/evidence impact. A comprehensive assessment of the national research base needs to be just that – an exercise which demonstrates impact and accountability across all areas of research activity. Indeed, any coding framework for research is inherently inadequate for capturing the huge diversity of research aims and outcomes. For example, evaluation of the UK REF impact case studies illustrated the diversity of impact with over 4000 unique translation pathways identified when impact topics were related to underpinning research. This would suggest that – to be fair to the diversity of all disciplines – a number in the order of 4000 metrics would be needed, which clearly is unfeasible. Additionally, Goodhart's Law is worth recalling: "Once a social or economic indicator is made a target for the purpose of conducting social or economic policy, then it will lose the information content that would qualify it to play such a role"⁷.
3. **Review the alignment between the engagement and approach to impact sections, and potentially combine them.** We believe this idea has merit and should be considered as part of the current ARC Review of Engagement.
4. **Increase the number of end-users on the panels to better judge real impact.** Given the extremely positive experience of end-users as contributors to the panel deliberations, and the ability to recruit high-quality individuals from

vastly different sectors and with diverse backgrounds, increasing both the end-user number and their proportional representation on evaluation panels seems an excellent idea. This has both internal utility and added beneficial external perception of the importance of community participation in evaluating the value return of research.

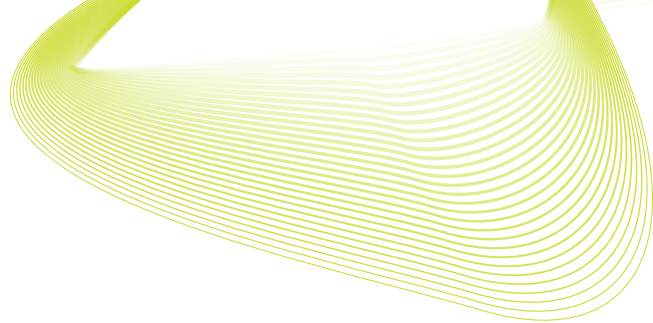
5. **Conduct a more systematic analysis of the narrative data in order to make the outcomes more comparable and reportable.** We believe that greater incentivisation is required to create meaningful change around impact in the sector. In the absence of a financial reward, full publication of results in a way that facilitates comparative insights between universities may be useful in increasing the reputational consequences of the assessment. It is notable that since EI 2018, Times Higher Education have introduced impact rankings, in which Australian universities did particularly well. Thus, EI may help Australian universities make better submissions in future Times Higher Education rankings. In addition, although impact is becoming more salient in the higher education sector, wider cultural shifts take time, and it is likely that EI will gain status as the maturity of the impact space grows, which in turn will translate into greater reputational consequences for impactful universities.

For us, the most important tension is the need to achieve an appropriate balance in relation to three key aspects of the assessment: (i) the number of impact cases studies submitted per FoR code, (ii) the burden of the exercise; and (iii) the current lack of financial reward to universities arising from the EI assessment. Thus, calls for the number of case studies to increase need to be carefully managed with concerns about the burden of the assessment, which would increase if the number of case studies increases. We believe that the absence of a financial incentive, linking favourable Impact performance to some form of remuneration to universities, is likely to undermine any significant and sustained impact on behaviour in Australian universities. However, if such incentives were to be provided, a fairer system would need to be robust, reliable and allow a broader submission of impacts beyond the current one case study per FoR, which in itself would increase the burden. It is this tension that needs to be addressed in any future iterations of the EI assessment.

In saying this we fully acknowledge that the financial incentive issue needs to be seen in the context of the whole ERA/EI framework, and therefore, the current ARC review. ERA does not have a financial motivator either. We assume the broader review will take into account the Commonwealth Government's overarching research and public investment return policy (current and possible future versions of it), just as it did with the 2015 National Innovation and Science Agenda, which led to the EI assessment in the first place.

There are a number of limitations to the current study, for example, we would have liked to have conducted further interviews and analysed the submitted EI 2018 impact cases. Nevertheless, we have a high degree of confidence that the method that was employed produced a robust set of inferences. Integrating the key informant interviews and survey responses demonstrated substantial overlap between data sources, with greater depth provided by interviews and greater breadth offered by surveys. As such, we are confident that this study has produced reliable conclusions.

References



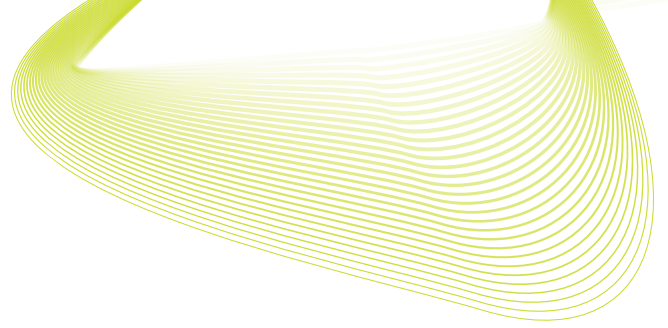
1. <https://dataportal.arc.gov.au/EI/NationalReport/2018/>
2. <https://dataportal.arc.gov.au/EI/NationalReport/2018/>
3. Deputy Vice Chancellor Research or equivalent.
4. <https://www.dedoose.com>
5. The Field of Research (FOR) is part of the Australian and New Zealand Standard Research Classification system that is used by the ARC in both ERA and EI assessments.
6. The SEO codes are part of the Australian and New Zealand Standard Research Classification that also uses the FOR codes.
7. Goodhart, Charles (1975). "Problems of Monetary Management: The U.K. Experience". Papers in Monetary Economics. 1. Sydney: Reserve Bank of Australia.

Appendix A

University selection process

For the key informant interviews, we identified a sample of 12 out of the 40 Australian universities that participated in the EI assessment. To avoid bias, or perceived bias, in selecting universities, we created a framework based on the following ‘protocol’:

1. We wanted to select 12 universities that adhered as closely as possible to the following representative criteria:
 - ♦ **Geography:** Two universities from New South Wales (NSW), Victoria (VIC) and Queensland (QLD), and at least one from Western Australian (WA) and one from South Australia (SA). Tasmania (TAS) and the Northern Territory (NT) only had one university each and these were automatically selected. The Australian Capital Territory (ACT) had two universities and we decided to only select one of them.
 - ♦ **Mission Groups:** Four universities from the Group of Eight (G8), two universities from each of the other three mission groups (Australian Technology Network, ATN; Innovative Research Universities, IRU; and Regional Universities Network, RUN), and two universities from the unaffiliated group.
 - ♦ **Size:** At least three universities from each of the three size groups – small, medium, large. The size groups were based on the average of the cumulative number of FTEs and the Apportioned Outputs that were submitted to ERA. The ‘large’ group included those universities that accounted for the top 50%, the ‘medium’ group the next 30%, and the ‘small’ group the final 20%. As illustrated in Table 1, this meant that there were eight universities in the large group, 11 in the medium and 21 in the small.
2. Each of the 40 universities that participated in the EI assessment was allocated a random number and ordered from the highest to lowest. That is, Murdoch University was top of the list with a random number of 0.989 and Griffith University the bottom with 0.014 (see Table 2). The University of Melbourne was excluded at this stage as it is the contracting authority for this evaluation and thus there could be a perceived conflict of interest.
3. The universities were then ordered alphabetically by state (based on their three-digit code). That is, each state group was ranked by the random number from highest to lowest. For example, for NSW, the top three universities were the University of New England, Western Sydney University and the University of New South Wales. Those universities ranked 1st and 2nd for NSW, VIC, and QLD, those ranked 1st for WA, SA and ACT, and the two universities from TAS and NT were shaded in green (see Table 2). For NSW, VIC and QLD, those universities who ranked 3rd and below were excluded at this stage along with the second ranking ACT university (shaded red in Table 2). Southern Cross University was excluded at this stage as it was located in two states.

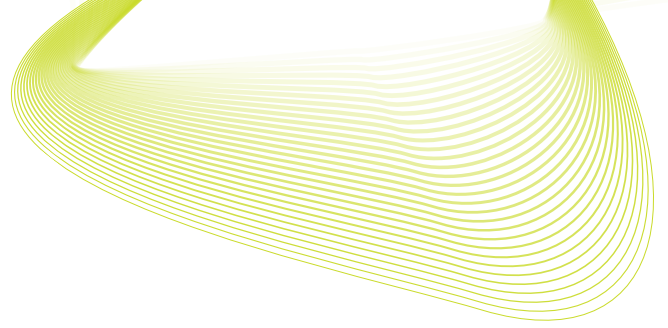


4. The universities were then ordered alphabetically by mission group. Within any mission group, those universities that had already been highest ranked by state (i.e. shaded green) were initially selected (n=11) and those shaded red were rejected (n=24). However, as illustrated in Table 2, this meant that no ATN universities were shaded green, and two were shaded red, with two unshaded. The G8 universities only had two (of the four needed) shaded green. The IRU group had too many universities shaded green (five instead of the needed two out of seven), whilst the RUN and the unaffiliated group both had two shaded green and needed no further adjustment.
5. Adjustments were therefore made to the ATN, G8 and IRU mission groups as follows:
 - The University of South Australia and Curtin University were initially included for the ATN (shaded yellow), but the University of South Australia was then excluded as we already had a university from SA (the University of Adelaide) which was needed to fulfil the quota for the G8 group. The University of South Australia is therefore stricken through in Table 2 and replaced by RMIT (from VIC), whilst excluding another VIC university (La Trobe) from the oversubscribed IRU group. This left RMIT and Curtin as the two ATN universities.
 - The University of Western Australia was initially included for the G8, as at this stage it was unshaded. Western Sydney University was also initially included based on its ranking by random number. However, since it belonged to the still oversubscribed IRU group, it was replaced with the University of New South Wales, since this was the next highest ranking G8 university also from NSW. This adjustment meant that the Australian National University, the University of Adelaide, the University of Western Australia and the University of New South Wales were the four G8 universities.
 - At this stage, no further adjustment was needed for the other mission groups: the two IRU universities were Charles Darwin University and James Cook University; the two RUN universities were the University of New England and Central Queensland University; and the two unaffiliated universities were the University of Tasmania and Deakin University.
6. This process left 12 universities highlighted in light green on the left-hand column in Table 2 that were initially approached to participate in the evaluation. That is (by their representative criteria which are also summarised in Table 3):
 - The Australian National University (ACT, G8, Large)
 - The University of New England (NSW, RUN, Small)
 - Charles Darwin University (NT, IRU, Small)
 - James Cook University (QLD, IRU, Small)
 - Central Queensland University (QLD, RUN, Small)
 - The University of Adelaide (SA, G8, Large)
 - University of Tasmania (TAS, Unaffiliated, Medium)
 - RMIT University (VIC, ATN, Medium)

- ♦ Deakin University (VIC, Unaffiliated, Medium)
- ♦ Curtin University (WA, ATN, Medium)
- ♦ The University of Western Australia (WA, G8, Large)
- ♦ The University of New South Wales (NSW, G8, Large)

TABLE 1: ALLOCATION OF UNIVERSITIES INTO SIZE GROUPS

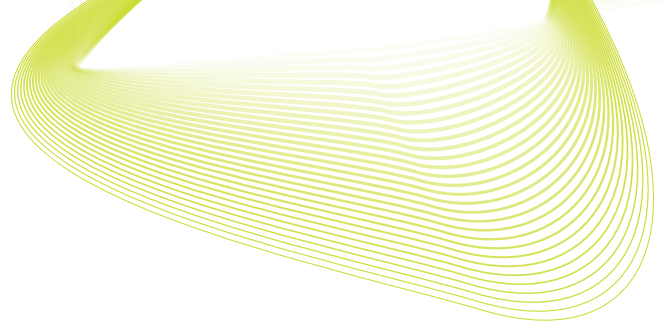
Institution Name	Code	Affil.	State	Loc.	Size (FTE) (ERA 2018)	Size (Appportioned Outputs)(ERA 2018)	FTE dist.	Size dist.	Avg dist.	Cumulative avg	Size grp
University of Melbourne	MEL	G8	VIC	Urban	2587	51808	6%	8%	7%	7%	Large
University of New South Wales	NSW	G8	NSW	Urban	2622	51736	6%	8%	7%	15%	Large
University of Sydney	SYD	G8	NSW	Urban	2801	49939	7%	8%	7%	22%	Large
Monash University	MON	G8	VIC	Urban	2906	46307	7%	7%	7%	29%	Large
University of Queensland	QLD	G8	QLD	Urban	3106	45737	8%	7%	7%	37%	Large
Australian National University	ANU	G8	ACT	Urban	1580	27084	4%	4%	4%	41%	Large
University of Western Australia	UWA	G8	WA	Urban	1299	26595	3%	4%	4%	44%	Large
University of Adelaide	ADE	G8	SA	Urban	1425	22596	4%	4%	4%	48%	Large
Queensland University of Technology	QUT	None	QLD	Urban	1252	20033	3%	3%	3%	51%	Medium
Griffith University	GRF	IRU	QLD	Urban	1203	19227	3%	3%	3%	54%	Medium
Curtin University	CUT	ATN	WA	Urban	1175	19147	3%	3%	3%	57%	Medium
Macquarie University	MCU	None	NSW	Urban	1139	18529	3%	3%	3%	60%	Medium
University of Technology Sydney	UTS	ATN	NSW	Urban	1146	18361	3%	3%	3%	63%	Medium
RMIT University	RMT	ATN	VIC	Urban	1249	18252	3%	3%	3%	66%	Medium
University of Newcastle	NEW	None	NSW	Urban	1231	15328	3%	2%	3%	68%	Medium
Deakin University	DKN	None	VIC	Urban	1264	14766	3%	2%	3%	71%	Medium
University of Tasmania	TAS	None	TAS	Urban	1017	13892	3%	2%	2%	74%	Medium
University of Wollongong	WOL	None	NSW	Urban	973	13823	2%	2%	2%	76%	Medium
Western Sydney University	WSU	IRU	NSW	Urban	889	13178	2%	2%	2%	78%	Medium
University of South Australia	USA	ATN	SA	Urban	915	13105	2%	2%	2%	80%	Small
La Trobe University	LTU	IRU	VIC	Urban	1102	12521	3%	2%	2%	82%	Small
Flinders University	FLN	IRU	SA	Urban	775	11511	2%	2%	2%	84%	Small



Swinburne University of Technology	SWN	None	VIC	Urban	698	11318	2%	2%	2%	86%	Small
James Cook University	JCU	IRU	QLD	Urban	622	9889	2%	2%	2%	88%	Small
Australian Catholic University	ACU	None	VIC	Urban	394	7291	1%	1%	1%	89%	Small
Charles Sturt University	CSU	RUN	VIC	Regional	472	7104	1%	1%	1%	90%	Small
Murdoch University	MUR	IRU	WA	Urban	453	6460	1%	1%	1%	91%	Small
Edith Cowan University	ECU	None	WA	Urban	464	5871	1%	1%	1%	92%	Small
Victoria University	VIC	None	VIC	Urban	529	5393	1%	1%	1%	93%	Small
The University of New England	UNE	RUN	NSW	Regional	464	5085	1%	1%	1%	94%	Small
University of Southern Queensland	USQ	RUN	QLD	Regional	541	4416	1%	1%	1%	95%	Small
University of Canberra	CAN	None	ACT	Urban	322	4243	1%	1%	1%	96%	Small
University of the Sunshine Coast	USC	RUN	QLD	Regional	376	4013	1%	1%	1%	97%	Small
Central Queensland University	CQU	RUN	QLD	Regional	296	3951	1%	1%	1%	97%	Small
Charles Darwin University	CDU	IRU	NT	Urban	287	3463	1%	1%	1%	98%	Small
Southern Cross University	SCU	RUN	QLD, NSW	Regional	213	3435	1%	1%	1%	98%	Small
Federation University Australia	FED	RUN	VIC	Regional	279	3093	1%	0%	1%	99%	Small
Bond University	BON	None	QLD	Urban	192	2235	0%	0%	0%	99%	Small
The University of Notre Dame Australia	NDA	None	WA	Urban	299	1921	1%	0%	1%	100%	Small
University of Divinity	DIV	None	VIC	Urban	55	551	0%	0%	0%	100%	Small

**TABLE 2: SELECTION
FRAMEWORK FOR
UNIVERSITIES**

Institution Name (Current)	Institution Code	Random Number	State	Affiliation	Size
Murdoch University	MUR	0.989	WA	IRU	Small
The University of Melbourne	MEL	0.982	VIC	G8	Large
James Cook University	JCU	0.975	QLD	IRU	Small
La Trobe University	LTU	0.968	VIC	IRU	Medium
Central Queensland University	CQU	0.955	QLD	RUN	Small
The University of New England	UNE	0.935	NSW	RUN	Small
Deakin University	DKN	0.922	VIC	Unaffiliated	Medium
Federation University Australia	FED	0.869	VIC	RUN	Small
The University of Adelaide	ADE	0.848	SA	G8	Large
Curtin University	CUT	0.827	WA	ATN	Medium
Flinders University	FLN	0.820	SA	IRU	Small
Western Sydney University	WSU	0.808	NSW	IRU	Small
Southern Cross University	SCU	0.691	QLD, NSW	RUN	Small
University of the Sunshine Coast	USC	0.687	QLD	RUN	Small
University of Southern Queensland	USQ	0.660	QLD	RUN	Small
The University of New South Wales	NSW	0.654	NSW	G8	Large
University of Divinity	DIV	0.651	VIC	Unaffiliated	Small
The University of Sydney	SYD	0.634	NSW	G8	Large
The Australian National University	ANU	0.622	ACT	G8	Large
Monash University	MON	0.575	VIC	G8	Large
University of Canberra	CAN	0.501	ACT	Unaffiliated	Small
University of Technology Sydney	UTS	0.490	NSW	ATN	Medium
University of Wollongong	WOL	0.475	NSW	Unaffiliated	Medium
University of Tasmania	TAS	0.437	TAS	Unaffiliated	Medium
Charles Darwin University	CDU	0.407	NT	IRU	Small
Edith Cowan University	ECU	0.377	WA	Unaffiliated	Small
Macquarie University	MQU	0.361	NSW	Unaffiliated	Medium
Australian Catholic University	ACU	0.339	VIC	Unaffiliated	Small
The University of Western Australia	UWA	0.331	WA	G8	Large
Queensland University of Technology	QUT	0.316	QLD	Unaffiliated	Medium
The University of Queensland	QLD	0.315	QLD	G8	Large
Bond University	BON	0.282	QLD	Unaffiliated	Small
The University of Newcastle	NEW	0.250	NSW	Unaffiliated	Medium
Charles Sturt University	CSU	0.201	VIC	RUN	Small



Swinburne University of Technology	SWN	0.155	VIC	Unaffiliated	Small
Victoria University	VIC	0.093	VIC	Unaffiliated	Small
University of South Australia	USA	0.078	SA	ATN	Small
The University of Notre Dame Australia	NDA	0.053	WA	Unaffiliated	Small
RMIT University	RMT	0.029	VIC	ATN	Medium
Griffith University	GRF	0.014	QLD	IRU	Medium

**TABLE 3: FINAL LIST OF
UNIVERSITIES SELECTED
BY CRITERIA**

Criteria	State	Institution code
State	ACT	ANU
	NSW	UNE, NSW
	NT	CDU
	QLD	JCU, CQU
	SA	ADE
	TAS	TAS
	VIC	RMT, DKN
	WA	CUT, UWA
Mission Group	ATN	RMT, CUT
	G8	ANU, ADE, UWA, NSW
	IRU	CDU, JCU
	RUN	UNE, CQU
	Unaffiliated	TAS, DKN
Size	Large	ANU, ADE, UWA, NSW
	Medium	TAS, RMT, DKN, CUT
	Small	UNE, CDU, JCU, CQU

Appendix B

Key informant interview protocols

- i. Introduction
- ii. Interview protocol for panel members (n=15)
- iii. Interview protocol for university representatives (n=12)
- iv. Interview protocol for (5) ARC staff and (8) international experts (n=13)

Introduction

Background

The inaugural Engagement and Impact Assessment took place in 2018 as a companion exercise to Excellence in Research for Australia (ERA). EI 2018 sought to assess how well researchers are engaging with end-users of research and show how universities are translating their research into economic, social, environmental, cultural and other impacts.

The ARC is currently reviewing the EI 2018 assessment to ensure that it meets its objectives in future EI rounds, as part of a government review of university performance evaluation (i.e. ERA & EI).

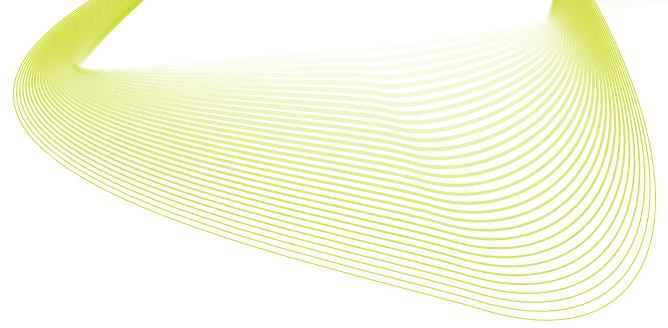
As part of the review, the ARC has commissioned us to complete analytical work on the impact component of the EI 2018 assessment. The project's objectives are to more deeply understand:

- ♦ research impact beyond academia and the factors which create it
- ♦ how well and to what extent the impact component of the 2018 EI methodology addresses the overall objectives of the EI assessment

Your participation is completely voluntary, and you are – of course – under no obligation to discuss anything that you don't feel comfortable sharing with us.

We will keep all the information you provide during the discussion confidential. It will be combined with that collected from our other interviews in the study and presented collectively in a final report for the ARC. Any references to examples will be anonymous – and if for any reason this isn't possible, we will ask your permission before including anything which might identify you or your institution.

With your permission, we will audio record our conversation to make sure we don't miss anything important. The recordings will be used only by members the project team and will be destroyed following the completion of the report.



Objectives

The objectives of EI 2018 around impact were to:

- provide clarity about how research investment translates into tangible benefits beyond academia
- identify the ways in which institutions currently translate research into impact
- promote greater support for the translation of research impact within institutions

Methodology (if further detail is necessary)

The methodology was developed following consultation with university and industry stakeholders through a Steering Committee, working groups and a pilot study in 2017.

The assessment was conducted by panels comprising a mix of distinguished academic researchers and highly experienced research end-users. There were five assessment panels: a) Social Sciences, b) Creative Arts and Humanities, c) Science and Technology, d) Health and Life Sciences and e) Aboriginal and Torres Strait Islander Research.

The impact submission took the form of qualitative studies, which described a) the impact that resulted from research, and b) the ways in which institutions facilitated the translation of the research into impact (approach to impact). The engagement submission included an engagement narrative and engagement indicator data, which were assessed holistically.

There were three separate ratings per unit of assessment - two for impact (with the approach to impact and the impact example rated separately) and one for engagement. EI 2018 used a three-point rating scale for the engagement and impact ratings: high, medium and low.

Results

Refer to ARC website for EI outcomes etc.: <https://www.arc.gov.au/engagement-and-impact-assessment>

Interview protocol for panel members

1. Introduction

- 1.1. [Intro: purpose of review, purpose of interview, data protection and confidentiality]
- 1.2. [Brief reminder of objectives and methodology of EI 2018]
- 1.3. Tell me briefly about your role on the panel [also, for end-users especially, they should describe their current and relevant previous professional roles]

2. Overall impressions of the process
 - 2.1. What are your overall or summary views on the EI 2018 conceptualisation of impact?
 - 2.2. Prompting questions around definition of ‘impact’ and ‘approach to impact’, activities included etc.
3. Meeting objectives
 - 3.1. Was the information in the impact study (impact narrative, associated research and approach to impact narrative) sufficient for you to make an assessment of impact and approach to impact?
 - 3.2. To what extent, and in what ways, did the assessment of impact align with the objectives of EI 2018 to ensure accountability for research investment, identify how impact is being realised, and promote greater support for creating impact?
 - 3.3. To what extent, and in what ways, did the assessment of approach to impact facilitate the objectives of EI 2018 to ensure accountability for research investment, identify how impact is being realised, and promote greater support for creating impact?
4. Methodology
 - 4.1. What were the strengths of the methodology used for assessing impact and approach to impact?
 - 4.2. What were the weaknesses of the methodology used, and how could it be improved?
 - 4.3. Ask for comment on the panel role, its composition, size and workload, sufficiency of specific expertise to assess submissions, end-user vs academic perspectives and their value, etc.
 - 4.4. Prompting questions around use of rating scales, impact study template, use of a narrative approach and potential future use of technology, big data, quantitative indicators, sitting in on meetings across panels
 - 4.5. Were issues related to it being the first run of EI?
5. Submission requirements
 - 5.1. Did the submission requirements facilitate meaningful assessment of impact and approach to impact? Can they be improved? Can they be simplified or streamlined?
 - 5.2. Prompting questions around setup/guidance around the EI assessment process, requirements for evidence of impact, submission requirements and timelines between research and the realisation of societal benefit etc.
6. Other/wind up
 - 6.1 Any other insights/comments?



Interview protocol for university representatives

1. Introduction

- 1.1. [Intro: purpose of review, purpose of interview, data protection and confidentiality]
- 1.2. [Brief reminder of objectives and methodology of EI 2018]
- 1.3. Tell me briefly about your role in EI 2018

2. Overall process

- 2.1. What were your overall impressions of the process [we'll get into more detail shortly]
- 2.2. What was your institutional strategy for identifying and selecting your case studies?
- 2.3. How appropriate was the process of assessing impact and approach to impact?
- 2.4. Prompting questions around case studies development, selection and use, as well as changes in broader processes around capturing research impact or engaging end users

3. Benefits

- 3.1. What have been the most significant benefits in identifying and describing your institution's impact? How do these differ by discipline?
- 3.2. Were there any new insights about impact or opportunities to pursue further impact which arose out of the submission process?
- 3.3. Prompting questions around the benefits of engaging research user organisations in the impact submission process

4. Burdens

- 4.1. What was the nature of the resource requirements for the preparation of impact submissions? How do these differ by discipline?
- 4.2. Did you ever estimate the cost of preparing impact submission? If so, how and what did you find? If not, do you have a sense of how much effort you put in (in days)? Did this differ by discipline, and if so how?
- 4.3. Prompting questions around time and financial costs and relative role of academics versus central/support staff/external actors

5. Challenges

- 5.1. What have been the most significant challenges in identifying and describing your institutions impact? How do these differ by discipline?
- 5.2. Do you have suggestions for improvements or changes to address these challenges?
- 5.3. Were issues related to it being the first run of EI?

6. Overall changes

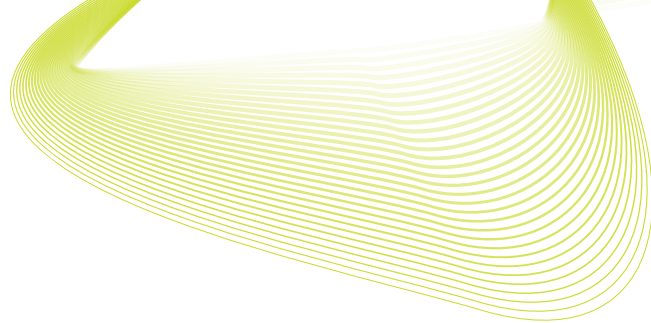
- 6.1. To what extent, and in what ways, is EI changing behaviours in your university?
- 6.2. Ask specifically about extent of awareness outside chancellery down to researcher level, and even down to grad students etc. (and discipline)

- 7. Other/wind up
 - 7.1 Any other insights/comments?

Interview protocol for international experts and ARC representatives

- 1. Introduction
 - 1.1. [Intro: purpose of review, purpose of interview, data protection and confidentiality]
 - 1.2. [Brief reminder of objectives and methodology of EI 2018]
 - 1.3. Tell me briefly about your interest in evaluation and impact/your role at ARC
- 2. Overall impressions
 - 2.1. What are your overall impressions of the ARC EI process (based on the two-pager)?
- 3. Objectives
 - 3.1. How appropriate is the general EI approach for achieving the EI objectives (to promote research impact) to ensure accountability for research investment, identify ways impact is currently being realised, and promote greater support for creating impact?
 - 3.2. Prompting questions around the separation of engagement from impact
 - 3.3. To what extent, and in what ways, does the EI methodology and process align with its objectives?
 - 3.4. Prompting questions around approach to impact and impact
- 4. EI approach to impact
 - 4.1. Thinking about what we know about impact more broadly (mechanisms, policies, contextual factors that facilitate impact) ...
 - 4.1.1. To what extent and in what ways can the EI approach be improved?
 - 4.1.2. Are there key learnings to be applied from other approaches to impact?
 - 4.2. Prompting questions around quantitative, experimental and statistical approaches, theory of change or logic driven approaches, systems and pathway analysis or evidence synthesis
- 5. Other/wind up
 - 5.1 Any other insights/comments?

Appendix C



Survey protocols

- i. University representatives survey
- ii. Panel members survey

University representatives survey

Start

Thank you for agreeing to participate in this survey on universities' experiences of the Australian Research Council's 2018 Engagement and Impact Assessment. We very much appreciate you taking the time to contribute.

Introduction

The inaugural Engagement and Impact Assessment took place in 2018 as a companion exercise to Excellence in Research for Australia (ERA). EI 2018 sought to assess how well researchers are engaging with end-users of research and show how universities are translating their research into economic, social, environmental, cultural and other impacts. A more detailed summary of the EI 2018 approach is available here: www.arc.gov.au > Engagement & Impact

The ARC is currently reviewing the EI 2018 assessment to ensure that it meets its objectives in future EI rounds, as part of a government review of university performance evaluation (i.e. ERA & EI). As part of the review, the ARC has commissioned us – a team from the University of Melbourne, King's College London and the University of York – to complete analytical work, specifically focused on the impact component of the EI 2018 assessment. The project's objectives are to more deeply understand:

- research impact beyond academia and the factors which create it, as illustrated in the 2018 inaugural EI round
- how well and to what extent the impact component of the 2018 EI methodology addresses the overall objectives of the EI assessment

In addition to this survey, we are also conducting interviews with a sample of university representatives, panel members, international experts and ARC staff, as well as asking each participating university to complete a survey similar to this one.

Your participation is completely voluntary, and you are, of course, under no obligation to answer questions that you don't feel comfortable with or suitably qualified to comment on.

We will keep all the information you provide confidential. It will be combined with our other survey and interview responses and presented collectively in a final report for the ARC. Any references to examples will be anonymous – and if for any reason this isn't possible, we will ask your permission before including anything which might identify you or your organisation.

Respondent Information

Please provide your name and the name of your institution.

Please briefly state your role(s) in the Engagement and Impact submission for your institution.

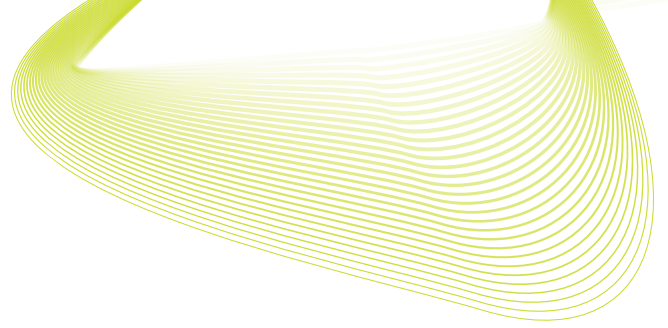
Impact Submissions

The impact submission process of EI 2018 consisted of three stages; data submission by institutions to the ARC ICT system (the System to Evaluate the Excellence of Research (SEER)), data integrity checking by the ARC in communication with institutions, and certification.

Impact submissions included one Fields of Research (FoR) impact study for each Unit of Assessment (UoA) (except two for FoR 11: Medical and Health Sciences), one optional interdisciplinary impact study, and one optional Aboriginal and Torres Strait Islander research impact study. There was a low volume threshold for UoAs based on weighted apportioned outputs below which institutions could opt-in.

For each impact study, institutions were asked to provide qualitative details of the specific impact of the research and the associated research (Part A- Impact), how the institution facilitated the realisation of the impact (Part B – Approach to Impact), and any quantitative indicators of impact not already captured, such as jobs created and returns on investment (Part C – Additional Impact Indicator Information). The ARC provided content guidance and impact study templates on SEER for institutions to populate, which are detailed below:

- The template for Part A- Impact included: a summary of the impact (maximum 800 characters) in the form of a clear description of the specific impact of the research for the general community, a list of up to 10 beneficiaries related to the impact study, a list of countries in which the impact occurred, and a narrative of the details of the impact (maximum 6000 characters) that clearly outlined the contribution that the research made beyond academia. This section included: who or what has benefitted from the results of the research (e.g. research end-users, beneficiaries from industry, the community, or government); how the research made a social, economic, cultural, and/or environmental impact; the extent of the impact as represented by tangible evidence within the reference period rather than expected or aspirational outcomes (e.g. cost-benefit analysis or adoption of public policy that lead to changes in behaviour); and the dates and time period in which the impact occurred. Finally, Part A included a brief description of the associated research (maximum 1500 characters) that led to the impact presented for the UoA.
- The template for Part B- Approach to Impact included: a summary of the approaches to impact for achieving the impact described in Part A (maximum 800 characters) and a narrative of the details of approach to impact (maximum 6000 characters). This section included details such as: the support provided by the institution to affect positive impact; how that support was implemented by the research area; how researchers interacted with research end-users; evidence of reviewing impact processes and outcomes during the reference period; evidence



of how mechanisms of translation were integrated into research practices; and human resources and financial policies, initiatives and strategies that aided the realisation of impact.

The ARC collected submission data for EI 2018 for the following reference periods retrospectively up to December 2016: Impact study – 6 years, and Associated research – 15 years. While a reference period was not specified for approach to impact, the approach had to be retrospective and within the context of the impact study.

1. Overall, to what extent do you think each part of the impact submission was appropriate for the meaningful assessment of impact for your institution?

a) Impact assessment

- Entirely appropriate
- Mostly appropriate
- Not very appropriate
- Not at all appropriate
- Don't know

(i) Please explain briefly why

b) Approach to impact assessment

- Entirely appropriate
- Mostly appropriate
- Not very appropriate
- Not at all appropriate
- Don't know

(i) Please explain briefly why

2. To what extent was each of the following aspects challenging or helpful in developing your impact submission?

a) EI 2018 conceptualisation of impact (definition, activities included, etc.)

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

b) Set-up/guidance around the EI assessment process

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

c) Submission requirements

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

d) Impact study template

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

e) Use of a narrative approach

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

f) Timeframe for the realisation of societal impacts from associated research (specified reference periods)

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

g) Requirements for evidence of impact

- Very helpful
- Somewhat helpful
- Somewhat challenging
- Very challenging
- Don't know / not applicable

3. For any aspects identified as challenging above, do you expect this to remain the case in the next round of EI assessment, or did difficulties relate to EI 2018 being the first exercise of its kind?

Please provide any additional comments on the development of your impact submission.

Overall Benefits and Challenges

4. What do you think were the main benefits for your institution of developing your impact submission? Please briefly describe up to three benefits.

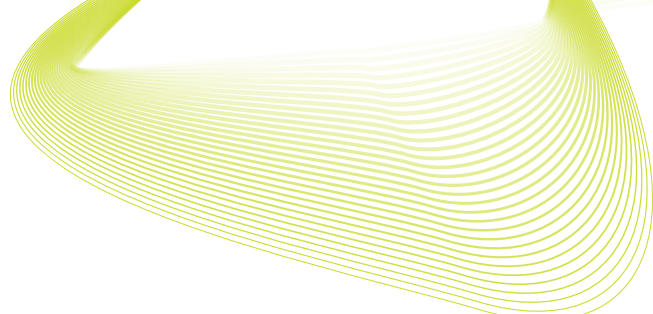
5. What do you think were the main challenges for your institution of developing your impact submission? Please briefly describe up to three challenges.

6. How could the process be improved? Please briefly describe up to three suggested improvements.

Staff Understanding

7. To what extent do you think the following groups of staff in your institution understood the aims and process of EI 2018?

- a) Senior management
- Comprehensive understanding

- 
- Moderate understanding
 - Little understanding
 - No understanding
 - Don't know
 - b) University administration
 - Comprehensive understanding
 - Moderate understanding
 - Little understanding
 - No understanding
 - Don't know
 - c) Junior researchers
 - Comprehensive understanding
 - Moderate understanding
 - Little understanding
 - No understanding
 - Don't know
 - d) Senior researchers
 - Comprehensive understanding
 - Moderate understanding
 - Little understanding
 - No understanding
 - Don't know

Behaviour and Culture Change

One of the objectives of EI 2018 was to promote greater support for the translation of research impact within institutions.

Behaviours related to the provision of support by institutions to affect positive impact may include (i) reviewing impact processes and outcomes; (ii) integrating mechanisms of translation into research practices; and (iii) developing and implementing human resources or financial policies, initiatives and strategies to facilitate the realisation of the impact.

Research assessment processes can also change expectations, behaviours, and working practices more widely, both positively and negatively, and sometimes in unforeseen ways. These changes might vary in different parts of an institution.

8. a) Do you think that assessment of engagement and impact has changed (or is changing) behaviours in your institution?

- Major change in behaviour
- Moderate change in behaviour
- Little change in behaviour
- No noticeable change in behaviour
- Don't know

b) If so, in what ways? Please specify (to the extent possible) whose behaviours are changing and why.

c) Overall, do you think these changes are more positive or more negative?

- Substantially more positive than negative
- Slightly more positive than negative
- Slightly more negative than positive
- Substantially more negative than positive
- Don't know

Further Considerations

9. Since the completion of EI 2018, have any views about the evaluation or impact more generally changed within your institution? If so, in what ways?

10. Are there any other final insights or comments that you would like to make?

Panel members survey

Start

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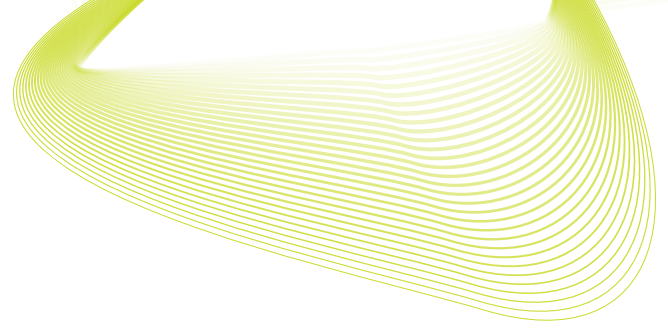
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In addition to this survey, we are also conducting interviews with a sample of university representatives, panel members, international experts and ARC staff, as well as asking each participating university to complete a survey similar to this one.



Your participation is completely voluntary, and you are, of course, under no obligation to answer questions that you don't feel comfortable with or suitably qualified to comment on.

We will keep all the information you provide confidential. It will be combined with our other survey and interview responses and presented collectively in a final report for the ARC. Any references to examples will be anonymous – and if for any reason this isn't possible, we will ask your permission before including anything which might identify you or your organisation.

Respondent Information

Please provide your name and the name of your organisation in the form below.

Objectives of EI 2018

The objectives of EI 2018 around impact were to:

- provide clarity about how research investment translates into tangible benefits beyond academia
- identify the ways in which institutions currently translate research into impact
- promote greater support for the translation of research impact within institutions

The impact submission took the form of qualitative case studies, which described a) the impact that resulted from research (Impact assessment), and b) the ways in which institutions facilitated the translation of the research into impact (Approach to Impact assessment).

1. To what extent do you think that the following parts of the impact submission met the objectives of EI 2018? Please select one response for each.

- a) Impact assessment
 - Fully met
 - Mostly met
 - Mostly did not meet
 - Did not meet at all
 - Don't know
- b) Approach to impact assessment
 - Fully met
 - Mostly met
 - Mostly did not meet
 - Did not meet at all
 - Don't know

2. If you think that any of the objectives were not met, please explain which one(s) and the factors that you think prevented this.

3. How helpful or unhelpful for a meaningful assessment was the separate rating of impact and approach to impact?

- Very helpful
- Somewhat helpful
- Somewhat unhelpful
- Very unhelpful
- Don't know

4. Do you have any further comments on the separation of impact and approach to impact?

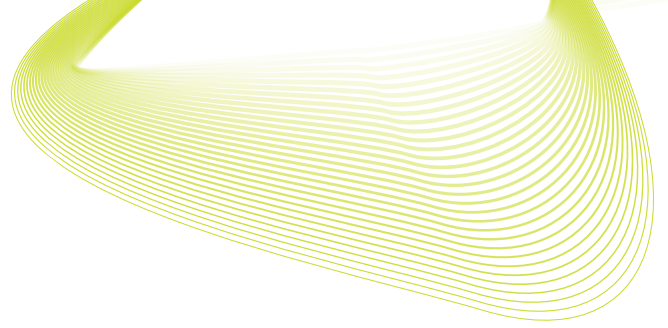
Submission Requirements

The impact submission process of EI 2018 consisted of three stages; data submission by institutions to the ARC ICT system (the System to Evaluate the Excellence of Research (SEER)), data integrity checking by the ARC in communication with institutions, and certification.

Impact submissions included one Fields of Research (FoR) impact study for each Unit of Assessment (UoA) (except two for FoR 11: Medical and Health Sciences), one optional interdisciplinary impact study, and one optional Aboriginal and Torres Strait Islander research impact study. There was a low volume threshold for UoAs based on weighted apportioned outputs below which institutions could opt-in.

For each impact study, institutions were asked to provide qualitative details of the specific impact of the research and the associated research (Part A- Impact), how the institution facilitated the realisation of the impact (Part B – Approach to Impact), and any quantitative indicators of impact not already captured, such as jobs created and returns on investment (Part C – Additional Impact Indicator Information). The ARC provided content guidance and impact study templates on SEER for institutions to populate, which are detailed below:

- The template for Part A- Impact included: a summary of the impact (maximum 800 characters) in the form of a clear description of the specific impact of the research for the general community, a list of up to 10 beneficiaries related to the impact study, a list of countries in which the impact occurred, and a narrative of the details of the impact (maximum 6000 characters) that clearly outlined the contribution that the research made beyond academia. This section included: who or what has benefitted from the results of the research (e.g. research end-users, beneficiaries from industry, the community, or government); how the research made a social, economic, cultural, and/or environmental impact; the extent of the impact as represented by tangible evidence within the reference period rather than expected or aspirational outcomes (e.g. cost-benefit analysis or adoption of public policy that lead to changes in behaviour); and the dates and time period in which the impact occurred. Finally, Part A included a brief description of the associated research (maximum 1500 characters) that led to the impact presented for the UoA.
- The template for Part B- Approach to Impact included: a summary of the approaches to impact for achieving the impact described in Part A (maximum 800 characters) and a narrative of the details of approach to impact (maximum 6000 characters). This section included details such as: the support provided by



the institution to affect positive impact; how that support was implemented by the research area; how researchers interacted with research end-users; evidence of reviewing impact processes and outcomes during the reference period; evidence of how mechanisms of translation were integrated into research practices; and human resources and financial policies, initiatives and strategies that aided the realisation of impact.

The ARC collected submission data for EI 2018 for the following reference periods retrospectively up to December 2016: Impact study – 6 years, and Associated research – 15 years. While a reference period was not specified for approach to impact, the approach had to be retrospective and within the context of the impact study.

5. Do you think that the submission requirements for the following parts of the impact submission were appropriate to facilitate the meaningful assessment of impact?

a) Impact assessment

- Entirely appropriate
- Mostly appropriate
- Not very appropriate
- Not at all appropriate
- Don't know

b) Approach to impact assessment

- Entirely appropriate
- Mostly appropriate
- Not very appropriate
- Not at all appropriate
- Don't know

6. Would you suggest any adjustments to the submission requirements?

Rating Scales

The two parts of the impact submission were rated on the scale set out below.

Rating	Impact	Approach to Impact
High	<ul style="list-style-type: none">• The impact has made a highly significant contribution beyond academia.• A clear link between the associated research and the impact was demonstrated.	<ul style="list-style-type: none">• Mechanisms to encourage the translation of research into impacts beyond academia are highly effective and well-integrated.• Mechanisms for translating research facilitated the impact described.
Medium	<ul style="list-style-type: none">• The impact has made a significant contribution beyond academia.• A clear link between the associated research and the impact was demonstrated.	<ul style="list-style-type: none">• Mechanisms to encourage the translation of research into impacts beyond academia are effective and integrated.• Mechanisms for translating research facilitated the impact described.
Low	<ul style="list-style-type: none">• The impact has made little or no contribution beyond academia.	<ul style="list-style-type: none">• Mechanisms to encourage the translation of research into impacts beyond academia are not effective and integrated.• The mechanisms for translation did not facilitate the impact described.

7. Did you find the rating scales used for the following parts of the impact submission appropriate for a meaningful assessment?

a) Impact assessment

- Entirely appropriate
- Mostly appropriate
- Not very appropriate
- Not at all appropriate
- Don't know

b) Approach to impact assessment

- Entirely appropriate
- Mostly appropriate
- Not very appropriate
- Not at all appropriate
- Don't know

8. Would you suggest any adjustments to the rating scales used?

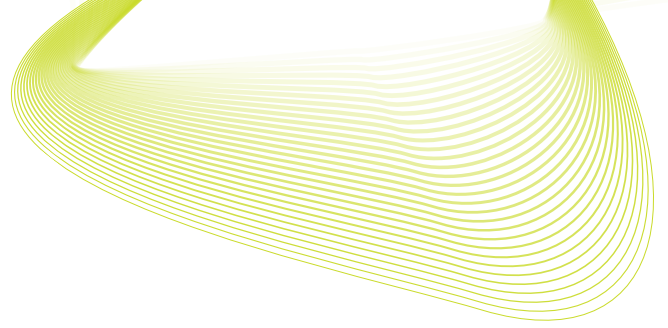
Overall Strengths and Weaknesses of EI 2018

9. What do you think were the main strengths of the impact and approach to impact assessments? Please briefly describe up to three strengths.

10. How could the methodology be improved? Please briefly describe up to three suggested improvements.

Further Considerations

11. Since the completion of EI 2018, have any of your views about the evaluation or impact more generally changed? If so, in what ways?



12. For the challenging aspects of the EI process, do you expect this to remain the case for the next round of EI assessment, or did difficulties relate to EI 2018 being the first exercise of its kind?

13. Are there any other final insights or comments that you would like to make?

Appendix B

Information for international experts

EI 2018: review of impact component

Introduction

The Engagement and Impact Assessment (EI 2018) took place in 2018, as a companion exercise to the Excellence in Research for Australia (ERA), Australia's national research evaluation framework. EI 2018 sought to assess how well researchers are engaging with end-users of research and show how universities are translating research into economic, social, environmental, cultural and other impacts.

The outcomes of EI are comprehensively documented and publicly available on the ARC website: www.arc.gov.au > Engagement & Impact

The Australian Research Council (ARC) is currently reviewing the EI 2018 assessment to ensure that it meets its objectives in future EI rounds, as part of a government review of university performance evaluation (i.e. ERA & EI). As part of the review, the ARC has commissioned an analytical project on the impact component of EI 2018. The aims of the project are to more deeply understand:

- ♦ research impact beyond academia and the factors which create it
- ♦ how well and to what extent the impact component of the EI 2018 methodology addresses the overall objectives of the EI assessment

To meet these aims, the project team seeks to gain insights into:

- ♦ the mechanisms that facilitate impact and broader contextual factors that facilitate impact
- ♦ the appropriateness of the EI approach and methodology for achieving the EI objectives
- ♦ whether there are key learnings that can be applied from other approaches to impact

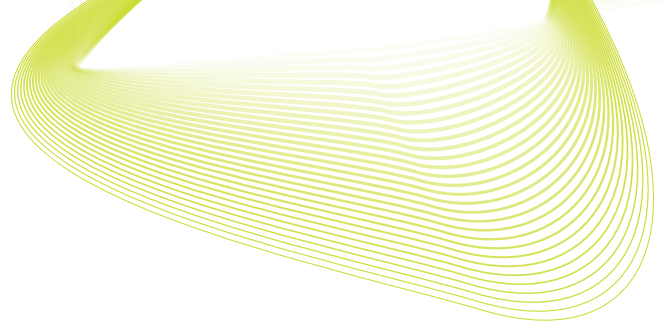
Details of EI 2018

Objectives and overall methodology

The objectives of EI 2018 were to:

- ♦ provide clarity about how research investment translates into tangible benefits beyond academia
- ♦ identify the ways in which institutions currently translate research into impact
- ♦ promote greater support for the translation of research impact within institutions

identify institutional processes and infrastructure that enable research engagement



The assessment was conducted by panels comprising a mix of distinguished academic researchers and highly experienced research end-users. There were five assessment panels for EI 2018: a) Social Sciences; b) Creative Arts and Humanities; c) Science and Technology; d) Health and Life Sciences and; d) Aboriginal and Torres Strait Islander Research.

The impact submission took the form of qualitative case studies, which described a) the impact that resulted from research, and b) the ways in which institutions facilitated the translation of the research into impact (approach to impact). The engagement submission included an engagement narrative and engagement indicator data, which was assessed holistically. There were three separate ratings per unit of assessment - one for engagement and two for impact (approach to impact and impact were rated separately). EI 2018 used a three-point rating scale: high, medium and low.

Impact assessment methodology

The impact component of the assessment was designed to assess “**the contribution that research has made to the economy, society, environment or culture, beyond the contribution to academic research**”, and the ways in which universities have facilitated the translation of research into impact. Institutions that reached a threshold of outputs for each field of study submitted a single impact study and could opt-in for those areas that did not reach the threshold. Interdisciplinary and Aboriginal and Torres Strait Islander research impact studies were opt-in. Equally, under certain conditions, a university could opt-out of the impact assessment for a particular field of study.

The impact studies included two main sections:

- Impact - details on the impact and the associated research that lead to the impact. Specifically, who or what benefitted from the results of the research, and evidence on the extent of the impact.
- Approach to impact - details on how the institution facilitated the realisation of the impact. Specifically, the mechanisms and strategies the institution had in place to support translating the associated research into the impact described in the studies.

In addition to the above, the impact study required details of the research associated with the impact.

The reference period for the impact study was 1 January 2011–31 December 2016 (six years), and the reference period for the associated research was 1 January 2002–31 December 2016 (15 years). A reference period was not specified for approach to impact.

Guidance on content of impact narrative

Guidance was given to universities that the description of the impact should be driven by explicit evidence, for example cost-benefit analysis, or adoption of public policy that led to changes in behaviour. Institutions were advised not to focus on expected outcomes, but rather choose an example for which they could provide tangible

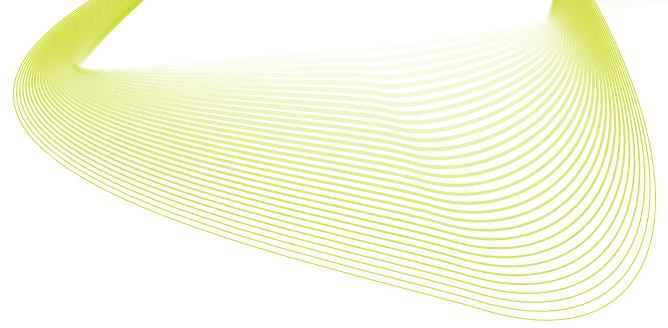
evidence within the reference period. Each impact study required a 150-word summary of the impact, used to convey research impact to the general community.

In the approach to impact, institutions were advised to explain their role in facilitating the delivery of impact. Descriptions of institutional support could include general information, but also information about mechanisms that relate to the specific impact examples. Institutions were encouraged to select impact examples that involved collaboration with other universities. Although there was no set period for approach to impact, it was to be retrospective and within the context of the research and impact.

Narrative impact templates

Institutions submitted the content for the impact studies via a web form. The template contained three primary elements, summarised here, with asterisks indicating required fields:

- ♦ **Details:** title*, field of study*, relevant codes*, keywords*, sensitivities, Aboriginal and Torres Strait Islander research*, science & research priorities* (i.e. relevance to specified national priorities)
- ♦ **Part A – Impact:** summary of impact*, beneficiaries*, countries in which the impact occurred, details of the impact*, associated research*, field of associated research*, references*
- ♦ **Part B – Approach to Impact:** summary of the approaches to impact*, approach to impact*
- ♦ **(Optional) Part C - Additional impact indicator information:** indicator name, data, description



Ratings

The assessments for impact and approach to impact were holistic and based on all the material provided in the impact study. The rating scales are shown here:

Rating	Impact	Approach to Impact
High	The impact has made a highly significant contribution beyond academia. A clear link between the associated research and the impact was demonstrated.	Mechanisms to encourage the translation of research into impacts beyond academia are highly effective and well-integrated. Mechanisms for translating research facilitated the impact described.
Medium	The impact has made a significant contribution beyond academia. A clear link between the associated research and the impact was demonstrated.	Mechanisms to encourage the translation of research into impacts beyond academia are effective and integrated. Mechanisms for translating research facilitated the impact described.
Low	The impact has made little or no contribution beyond academia.	Mechanisms to encourage the translation of research into impacts beyond academia are not effective and integrated. The mechanisms for translation did not facilitate the impact described.

Results

The total number of units of assessment evaluated for impact and approach to impact was 637.

For impact, 277 (43%) attained a rating of high and 284 (44%) attained a rating of medium. Overall, 88 per cent were rated as high or medium for impact. The areas with the highest percentage of units rated 'high' were agricultural & veterinary sciences (78%), law & legal studies (72%) and engineering (69%).

For approach to impact, 159 (25%) attained a rating of high and 325 (51%) received a rating of medium. Overall, 76% were rated as high or medium for approach to impact. The areas of study with the highest percentage of units of assessment rated 'high' were built environment and design (58%), agricultural, veterinary sciences (57%) and technology (45%).

