



COOPERATIVE RESEARCH CENTRES
ASSOCIATION

ERA EI Review

October 2020



Cooperative Research Centres Association

For further inquiries contact:

Dr Tony Peacock

Chief Executive Officer

CRC Association

Unit 2/13 Napier Close Deakin ACT 2600

02 6260 3988

www.crca.asn.au

Thank you for the opportunity to provide comments on the Excellence in Research Australia and the Engagement and Impact initiatives, as administered by the Australian Research Council.

The Cooperative Research Centres Association (CRC Association) represents all the Cooperative Research Centres (CRCs) and a range of other members such as CRC-Projects and around 30 of Australia's universities. The views of our members vary considerably, and, because of the diversity of our members, we do not present our comments here as a consensus view. Rather, we seek to provide a perspective principally from the point of view of operating a CRC in the Australian innovation system. Our response below is directed to the influence that ERA and EI has in the bidding, operations, and outcomes of CRCs.

At the outset, we observe that all CRC's aspire to deliver excellent research and high levels of economic impact. However, we also observe that few CRCs find the ARC's measures of ERA and EI to be relevant or useful to their decision making in their pursuit of research excellence, engagement and impact.

We offer our comments against each of the Terms of Reference for the Review.

TOR 1. The purpose and value of research evaluation, including how it can further contribute to the

Government's science, research and innovation agendas

To a CRC, ERA scores contribute very little to the choice of research organisations participating in a bid, its operations, or the quality or impact of outcomes. We say this for several reasons:

The current ERA and EI systems only cover Australia's universities.

- When considering which organisations to involve in a CRC, bidders consider a wider range of participants than just Australian universities. The choice of research providers also includes all of Australia's national science agencies such as CSIRO, AIMS, ANSTO, GeoScience Australia, and many more. State Government agencies are also important contributors with high-quality research available from agricultural and environmental departments, hospitals and many others. Medical research institutes are frequent participants in CRCs but are not covered by the ERA or EI process. Research services are also sought from private providers and international organisations, none of which are referenced in the ERA or EI processes.

ERA and EI assessments are retrospective and significantly lagged.

- An assessment of the past quality or past impact is of very limited value. Investment decisions are not based on this type of information. In our experience, industry parties do not choose their university collaboration partners on the basis of the ERA or EI scores. At best a university's ERA /EI score may be referenced anecdotally, but they are never included in the decision process.

The scale of measurement is not fit for purpose.

- CRCs are much more interested in individual researchers and their lab group than in a

Department or a university. Additionally, CRCs consider many more factors than the researcher's publication record. For instance, their ability to collaborate effectively with industry is hugely important. Generally, industry is not particularly concerned about where publications appear, only that they are credible. It has become increasingly easy to find an individual's record of achievement online. These days CRCs use tools such as Google Scholar (which is globally relevant) to assess whether an individual has the necessary expertise a CRC is looking for. The researcher's record of collaboration, supervision, and willingness to work on practical problems will be of equal importance.

- High performing individuals exist in poorly rated Departments and low performing individuals exist in highly rated Departments. CRCs focus first on finding the most suitable individuals and their next consideration is the attitude of the university to collaboration (in terms of in-kind, cash contributions, IP policy, speed of executing documents), none of which is captured in the ERA or EI metrics. For CRCs, university departments are irrelevant.

TOR 2. The extent to which ERA and EI are meeting their objectives to improve research quality and encourage university research engagement and impact outside of academia

We believe there is a welcome trend in Australian academia to seek to productively engage and collaborate with industry. Many universities are encouraging staff to do so, removing barriers to engagement, and inviting industry to look more closely at their offerings.

A general challenge that universities have described in developing case studies was how to demonstrate causal linkages and attribute impact to the source research. The CRC Association is pleased, but not surprised, that so many of the case studies presented in the EI process are associated with CRCs, as CRCs are designed to create impact and have been delivering demonstrable benefits for 30 years. The surprising aspect is that CRC activity ranks so highly on economic impact, despite the fact that much of the work is not particularly highly cited or previously recognised within the universities. To the extent that this is the case, we conclude the EI process has encouraged more academics to become more interested in industry research, which is a desirable outcome.

Having said that, we judge that the changes to the rewards available via the University Block Grants have had a much greater impact in encouraging academics to seek out industry collaboration. Meanwhile, the CRC-Projects, only introduced in 2016, have led many more industry participants to seek out collaborators within the universities.

In other words, we think financial incentives for engagement trump recognition in a national assessment in their ability to modify researcher and industry behaviour.

TOR 3. The effects of both ERA and EI on the Australian university research sector, whether positive or negative, intended or unintended

Getting universities to concentrate on impacts has been a positive development in Australia in recent years. As mentioned, we believe the financial incentives to do so are the main driver of this change, but EI has contributed as well.

Our main concerns about both the ERA and the EI processes are (1) the cost of implementing them and (2) the tendency to game them.

It is distressing to the CRC Association how much resources a university must allocate to the ERA process. Since 2008 both Government and Business expenditure on R&D in Australia has plummeted, with the rise in Higher Education expenditure on R&D not coming anywhere close to making up the difference. From the impact of COVID-19, we expect HEERD will fall even further in the years to come.

We don't know the exact cost of data collection at each university, but we are concerned that it is very high. Because the total expenditure on data collection is dispersed across all the universities, we believe it is not given enough consideration and is greatly underestimated.

We know that academics are considerably occupied by data collection when it is happening, with the attention of senior researchers in particular often being significantly diverted, and we know that there are people dedicated to the task. It would not surprise us if it was the equivalent of 20 FTEs for each university. At that rate, each ERA exercise costs the nation something in the order of \$100,000,000.

Given that R&D generally returns an average of 3:1, we believe the ERA exercise needs to return in excess of \$300,000,000 to the nation each time it is conducted. We simply can't see that it has delivered that level of benefit in the past, and we certainly don't see repeated ERAs delivering more than that level of benefit in the future.

Our view is that most of the gains of the ERA were realised with its first iteration. We can see no argument that justifies conducting the exercise more frequently than once per decade and, even then, great caution should be taken before proceeding. The costs are real, even though they are borne across the universities, and the benefits are largely amorphous and intangible. Is it worth 20 postdoctoral positions at almost every university in the country to conduct an ERA?

TOR 4. Opportunities to streamline the ERA and EI processes to reduce the reporting burden on the research sector (as recommended by the House of Representatives Report, Australian Government Funding Arrangements for non-NHMRC Research) noting the guiding principles of ERA and EI are: robust and reliable methodologies and applicability of the methodologies across disciplines

Why does the guiding principle have to include applicability across disciplines?

Disciplines are different. We judge good engineers on the basis that they build bridges that do not fall down. We judge poets on their use of language. We hope the best medical researchers find new methods to keep us well. The CRC Association contends that it is not necessary to have a common methodology for judging the quality of performance in each discipline. We have no problem with simply comparing peer groups, rather than trying to compare everyone. If a metric must be constructed to compare apples with oranges, its veracity and utility are automatically compromised by the need to bridge the differences between the two.

The need for common methodology is a construct of those conducting the ERA and EI. It is not something the users of the ERA or EI need or want. By adopting this principle, the ERA is condemned to having to develop its own methodology to find common ground. This adds cost and complexity to the entire exercise.

We believe discipline-specific information would be far more useful to the recipient of the information and would significantly reduce the data collection burden on universities. Compare

engineers with engineers, historians with historians and poets with poets. Once you do that, much more meaningful measures will emerge that are probably already accepted in each discipline and more relevant for international comparisons and benchmarking. Putting everyone through the same hoops doesn't produce a more robust result in our view.

Others are better placed to comment on the methodologies and data sources under discussion in the further Terms of Reference.