

**South Australian Productivity Commission
Draft Report SAPC Inquiry into Research and Development in South Australia
Response from the University of South Australia**

The University of South Australia endorses the SAPC findings, highlighting the need to think broadly, systemically and from a design to evaluation perspective in building research and development capacity in South Australia.

The University expresses its support for a combination of **options two** and **three** to foster the improvement of research and development outcomes: an independent advisory body and a strategic committee of senior officials. This will help to mitigate against policy churn, which was identified as an issue in the report, strengthen connected capacity, and ensure that a broader range of perspectives are considered than those currently at play in existing bodies.

This body should prioritise the attraction, development and retention of talent, as well as continue existing—excellent work—on supporting large research infrastructure bids. The report could have noted, for example, that SA's consistent approach to support for national critical research infrastructure through the NCRIS and LIEF schemes has provided clarity and certainty that are absent in many other state or territory settings. This has led to infrastructure provisions that ought to be advertised and celebrated (**Information Request 5.2**). It should also focus on evaluation and performance, although caution should be sounded about the adoption of an inflexible or bureaucratic range of measures which become ends in themselves.

The remit of the advisory body should be broader than STEMM, given that business skills are often a strong determinant of research and development outcomes from pre-seed through to scale and to regeneration. Moreover, the advisory body should recognize the connection between research and graduate recruitment by local industries as a R&D system health barometer.

The report offers a range of relatively traditional measures of research excellence, which suggests a focus on productivity within universities. These should be considered carefully. Some disciplines are well covered by journal paper indices, but others such as the creative research are least indexed, at around 25%. This will mean that 1% and 10% publication results will be more or less valid, depending on the discipline. It is also important to note that high citation rates and category one funding outcomes are very heavily skewed towards males. Publication standing and funding outcomes could therefore be shaped by demographic factors as well as the presence or absence of good ideas. We need to ensure that measures suggested here do not contradict other work in the sector, such as the SAGE Athena SWAN, to redress systemic gender inequity in STEMM.

Non-traditional research outputs such as policy and industry reports, as well as books and creative works ought to be considered, as these can point to broader translational outcomes and forms of engagement and communication. Moreover, the report is all but silent on the research and development capability of Aboriginal Australians and their communities, corporations and organisations. Nor is there discussion on the capability and participation of regional, rural and remote communities in innovation, including for example, new directions in forest management at Mount Gambier and the Innovation and Collaboration Centre's small business accelerator at Whyalla.

These points highlight that research and development capability is not just a matter of productivity within institutions. In line with the Australian Government, we support the move to recognise and to amplify industry partnerships. We also hold that research productivity measures should recognise diverse capabilities to ensure research and development is seen as a whole of population opportunity.

A broader view of research and development would support the inclusion of innovation or enterprise measures beyond that of patents. Patents are an indicator, but it is important to drill down and to see where they are filed and whether they are renewed in order to gain a sense of translational intensity. We also recommend funds raised at pre-seed, seed, series A and series B be tracked, as this will highlight both VC investment and—as we suspect—a gap in movement from seed to series A. We recommend this as a potential area of support (**Information Request 3.1**).

Connecting translational measures to sectors and precinct origin will provide a starting point for better identifying areas of strength, and just as importantly, how a startup, scaleup and regeneration ecosystem might be better coordinated and sustained (**Information Request 5.2**).

The South Australian Government can play a role in advertising PhD activities, but we hold that the funding would be much better used in directly supporting these activities within the innovation and enterprise ecosystem. Examples might include subsidies or other incentives to promote research and research related qualifications in targeted areas within industry (**Information Request 6.1**).

Finally, the cultural gap between universities and industry should not be underestimated. The opportunity sits in the translation of industry requirements to University based outcomes through initiatives such as the planned Enterprise Partnership Hub as UniSA. This will provide a one stop shop for university services. Similarly, industry should be educated on international approaches to research and innovation ranking, which provide frameworks for evaluation which are beyond State Government control (**Information Request 6.2/3**).

For further information contact:

Adrienne Nieuwenhuis
Director: Office of the Vice Chancellor
University of South Australia
Adrienne.nieuwenhuis@unisa.edu.au