

**South Australian Productivity Commission  
Issues Paper: Research and Development Inquiry  
Responses from the University of South Australia**

The University of South Australia thanks the SA Productivity Commission for the opportunity to contribute to the review of research and development (R&D) in South Australia.

R&D plays a critical role in shaping the productivity and prosperity of the South Australian economy and community. State policies **(5.2)** have identified the key sectors that will play a role in shaping that future. The University of South Australia works in partnership with business and community to develop both sector-specific, and cross-sector research ideas, as well as opportunities for translation, and business scaling and regeneration.

The far-reaching impacts of COVID-19 have highlighted the success of major players in the R&D space—the universities, and SAHMRI and SA Health—in bringing their different forms of expertise to the solution of problems such as PPE testing. COVID-19 also highlights the opportunity for SA to plan further for sovereign capability and supply. This is a far-reaching opportunity which might encourage us to think about a range of initiatives, from micro-advanced manufacturing capability to the provision of secure terrestrial and spatial system information infrastructure. A strategy for sovereign capability would therefore be timely, and SA has a strong basis to achieve this.

The University's research and enterprise portfolio has **metrics (5.1)** which are used to monitor the quality and volume of ideas (research outputs), scaling (research group size and succession planning through PhD training) and the growth and regeneration of enterprises (translation and commercialization; partner scale). These are used to monitor individual and group engagement in research and translation and commercialization activities. There are also Australian (ERA, ERA Impact and Engagement) and international metrics such as various forms of ranking. The University encourages the SAPC to consider metrics at different levels, as well as national and international measures. The University also has arrangements for commercialization and translation through UniSA Ventures, including revenue and IP arrangements.

**Translation (5.1)** and commercialization are encouraged by prioritization, mechanisms for access and partnership—whether that be through funding or industry partnerships—and an ecosystem that identifies talent, supports it to scale, and provides opportunities for existing businesses to make productivity shifts. The efficacy of each and all of these might be further enhanced in South Australia via mechanisms such as a clearer startup ecosystem strategy that connects the precincts and identifies and remediates segment gaps; support for scaleups to access or attain funding at or just post series B; promotion of the State's R&D assets; and development of further adjacency start, scale up and regeneration opportunities flowing from the State's strong track record in defense R&D and commitment to scale up of innovation in space and spatial systems. The broader challenge for SA and Australia is funding these mechanisms in an Australia policy system **(5.2)** in which universities self-fund over half of their research activities.

It also requires a holistic understanding and commitment to the R&D and education translation spectrum. Businesses often start partnerships to address **labour force (5.3)** skill shortages, and joint R&D endeavours flow from there. Structures and policy settings **(5.2)** at state and Australian level often divide education provision from R&D. The convergence of these two sits at the base of the program-based structure at the University of South Australia. Moreover, it requires an eye to growing as well as to attracting **talent (5.4)**, including the talent of Aboriginal and Torres Strait Islander peoples, women, and persons from diverse backgrounds. Large-scale cooperative initiatives such as the SmartSat CRC provide an outstanding basis to grow both talent and product pipelines in areas that meet the needs of sectors such as space and defence.

SA possesses globally competitive research **infrastructure (5.6)**. The SA Chief Scientist has shown significant leadership in coordinating major research infrastructure bids, as well as CRC bids. This is an excellent base from which to grow a sovereign capability infrastructure strategy that uses investment to lean the economy towards



innovation and scaling. This base might also connect up with the 'open research' trend of university research to ensure that business and community is aware of—and has mechanisms to work with universities—to access that infrastructure.

In 2018, Local and **State Government (5.2 and 5.10)** provided \$9.1 M funding for UniSA research activities. More recently the SA Government made financial contributions to three successful NCRIS bids (BioPlatforms; ANNF; Microscopy Australia) and it is a financial partner in the SmartSat CRC and in a range of other University research projects.

These examples reflect the point that the scale of the population of SA fosters **collaboration (5.11)**. On the medium to micro scale, precincts do provide a strategic opportunity, but convergent opportunities that play to the State's existing economic strengths should be further encouraged. An example of best practice collaboration between higher education institutions and businesses is the Future Industries Accelerator, which has supported over 200 companies in SA from 2016-2020. Full details of the outcomes until 2019 have been provided in reports to DIS and further information can be provided on request.