Australian Council of Deans of Science

September 1st, 2023

ACDS SUBMISSION IN RESPONSE TO
THE AUSTRALIAN UNIVERSITIES ACCORD INTERIM REPORT

The Australian Council of Deans of Science (ACDS), represents the leadership of Australia's University Science Faculties, Colleges, and Schools, which are responsible for the strategic development and delivery of science teaching and research in Australian universities. The ACDS provides advocacy, advice and support for members and acts as a voice for Australian university science.

The ACDS thanks the Australian Universities Accord Panel for identifying many key issues and options for reforming the Australian University sector and is pleased to have the opportunity to make this submission in response to the Interim Report. This document builds on our submission in response to the discussion paper in April and focuses on Teaching, Research and Sustainable Funding.

2.4 EXCELLENCE IN LEARNING, TEACHING AND STUDENT EXPERIENCE

The ACDS **strongly supports** the following areas that have been identified for further consideration by the Accord panel: Valuing all academic roles, including teaching-focussed academics and academics who are both excellent teachers and world-leading researchers, professional development of teaching staff, incentivising excellence and innovation in teaching and promoting collaboration in teaching and sharing best practice. Student-centred teaching delivery models, including a range of flexible delivery options that are more inclusive for a broad student cohort, more industry-based WIL opportunities for students, and improving support for students in online learning and shared content repositories (noting that the ACDS is proud to have established an ACDS Resource Repository to support University Science Teaching). Appropriate teaching infrastructure and the establishment of a National Learning and Teaching committee (within the Tertiary Education Commission), to oversee initiatives associated with the above.

In addition, we urge the Australian Universities Accord Review Panel to **also consider the following matters**:

- **Embedding indigenous knowledge into university teaching curricula**. We implore the Accord panel to mandate Universities to embed a minimum level of indigenous knowledge into their curriculum, in addition to research (Section 2.7). This is essential for ensuring that all of our communities have an appropriate awareness, appreciation and respect for the contribution indigenous knowledge makes to our society. We are proud to have made some progress on this for University Science teaching through the ACDS Indigenous Science program).
- **Valuing and enabling research-informed teaching.** Ongoing curriculum development is a hallmark of university teaching. Research outcomes inform this and keep our curriculum current. Research-driven curriculum design also inspires students to be curious, helps them to develop problem-solving skills and prepares them for a career in innovation. It is therefore essential that research-informed teaching continues to be enshrined in universities to the benefit of students and the innovation sector. We propose that this be achieved through education policy and retaining and supporting an academic workforce in which the majority of academics who deliver teaching are personally involved in knowledge generation or directly connected to research-intensive discipline experts who are at the forefront of their disciplines.
- **Mandating some discipline areas in university curricula**: Consideration should be given to mandating the development of knowledge and skills relevant to areas that are key to the future success of Australia, in all university curricula. For example, that all university students be required to take a fundamental science module that delivers skills in critical thinking, problem-solving, and data analysis, as well as modules on sustainability and entrepreneurship.
- **Enabling the creation of fit-for-purpose teaching infrastructure.** We argue strongly for the development of teaching infrastructure and spaces that enable the delivery of innovative, modern and

future pedagogies and help students to learn effectively. We recommend that this is supported through the re-establishment of the Education Investment Fund (EIF) or something similar.

2.7 RESEARCH, INNOVATION AND RESEARCH TRAINING

The ACDS **strongly supports** the following areas that have been identified for further consideration by the Accord panel: A research program that effectively supports research and innovation, aligning research priorities with national priorities, increasing the funding to the ARC, acknowledging the true costs of research and moving towards full cost recovery. Developing our sovereign capability, advancing research and collaboration on indigenous knowledge and embedding this into other research programs. Establishing a national research training policy that aligns with national priorities, increasing the proportion of PhD students who are indigenous, increasing the number of PhD graduates employed in industry, providing career development opportunities and pathways for EMCRs (including academia, entrepreneurship, commercialization), and training of EMCRs (including PhD students) in translation, commercialisation, and entrepreneurship. A sustainable model for funding research infrastructure (including NCRIS) and raising awareness in the sector, government and industry of university research expertise, capabilities and infrastructure across the country.

In contrast, we **do not support** a potential consequence of full cost recovery of research being at the expense of direct costs, thus resulting in fewer grants being funded and a lower success rate, or being subsidized by international student fees, which should be used to support learning and teaching, or at least research-informed teaching (see above). This is an area where an increase in government funding is essential, to cover the escalating indirect costs (estimated to be $1.20 per $1 of direct costs) in areas such as regulatory compliance, professional services, technology, infrastructure maintenance, robust data storage/protection and building construction. Indeed, new funding that moves Australia up from the current 1.68% of GDP investment in research, towards the OECD average of 2.74% is essential. This is a no-brainer given the evidence showing a 3.32:1 economic return on research investment for ARC schemes alone. A minimum of 50c per $1 should be introduced as a starting point.

We also argue that a national research training policy alignment should extend beyond national priorities and impact. A PhD is an internationally recognized qualification that should align with global priorities (e.g. UN SDGs) and have an international impact. The proposed policy should also incorporate the development of a broad set of employability skills (*e.g.* entrepreneurship, IP, core business skills) as a core element of research training.

In addition, we urge the Australian Universities Accord Review Panel to **also consider the following matters**:

- One of the biggest, spikiest, and boldest actions to arise from the Universities Accord process should be **reframing and transforming the research funding landscape in Australia,** which is arguably no longer fit for purpose and will not enable us to implement many of the excellent areas of focus noted in the Interim report. The ACDS implore the panel to either consider what the funding landscape should look like and drive substantial change or establish a governance structure to do this. The specific issues that need to be considered include:
    - Consider the full value chain of research activities in which universities contribute, and **reconceptualize the support that is required** not only to enable and support each element of the value chain, but also to connect and coordinate these to enable research translation and impact from Australian research discoveries. This should include **mission-based funding**, *e. g.* an MRFF-style scheme for non-medical research.
    - **Remove duplication and fragmentation of funding schemes** across multiple government departments and agencies that don't optimally support and align our research activities with our aspirations for more research collaboration and translation. For example, Discovery, Linkage projects (including Industry transformation and training hubs and Industry fellowships), Trailblazers, Economic Accelerator grants, National Reconstruction Fund, and CRC, RDC, DST, NHMRC and MRFF schemes currently sit across multiple government departments and agencies. A serious review of whether these schemes are delivering what we need now and in the future is required. We argue that reconceptualising and potentially merging schemes and their governance

will lead to a more contemporary, efficient and effective set of offerings to support our aspirations. Learning from international best practices will be important (e.g. Europe, Scandinavia). Appropriate governance, *e.g.* through the establishment of priority-based agencies, will be essential.

- **Raise awareness** of the benefits and **incentivise industry** to contribute to the training and employment of PhD students and graduates, and to establish partnerships and collaborations with universities. Incentives may be financial, *e.g.* subsidies to co-fund research grants, or could involve access to expertise, equipment, students and a future workforce.
- Formalize **a coordinated approach to acquiring, maintaining and accessing research infrastructure**, including major and minor infrastructure and field stations, across universities and national laboratories (e.g. ANSTO and CSIRO), for example within a city or region.
- **Improve the governance of the NCRIS scheme** (we understand that there is currently no Director role or point of contact for universities) and ensure **sustainable technical support for NCRIS facilities**.

3.3 SUSTAINABLE FUNDING AND FINANCING

The ACDS **strongly supports** the following areas that have been identified for further consideration by the Accord panel: A strong framework and design principles for higher education funding that is student-centred, drives achievement of equity targets, and ensures affordability for students. Reduced reliance on insecure funding and cross-subsidization (e.g., international student fees), and sustainable funding to support teaching excellence, innovation and infrastructure. We support the proposal to have separate funding for teaching and research but only if: both are properly funded, the funding doesn't drive cross-subsidization, and a component of the funding is earmarked for research-informed teaching as appropriate to the institution.

In contrast, we **do not support** the proposal to apply a levy to international student fee income, which will have a negative impact on attracting students to study in Australia. Research and infrastructure must be fully funded, for example, via a reconceptualised and expanded research-support framework, rather than further cross-subsidization within or between universities.

In addition, we urge the Australian Universities Accord Review Panel to **also consider the following matters:**

- Dismantle the **Job-ready graduate package** and reverse the planned shortfall in science course funding, which will reduce the quality of science graduates at a time when they are in demand. This includes chronic underfunding of Veterinary science education.
- Support for **teaching excellence and innovation** including grant funding and awards, through the proposed National Committee for Learning and Teaching.
- Develop a program for establishing and maintaining **University teaching and research infrastructure**. Many students are learning in spaces that are of poorer quality than the high schools they attended. Many researchers are not reaching their potential due to ageing infrastructure that is no longer fit for purpose.

OTHER COMMENTS

The ACDS also requests that the Accord Panel consider:

- Supporting the development of strong pathways between **TAFE and Universities**, noting that it is critical to keep the two as separate entities given the clear distinction in their purpose and market.
- The crucial role **Regional Universities** play in providing local community access to science education and research, and whether or how a national regional university could fulfill the distinct needs of regional and rural communities. Wide consultation would need to be undertaken to develop the right model. The cost of delivering science education in regional and remote areas should also be considered.
- The potential for the **Tertiary Education Commission** to provide much needed and ongoing independent expert advisory function to universities, in addition to overseeing the proposed major changes to the Australian Higher Education system arising from the Universities Accord process.