



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA

# University of Wollongong's SMART Advisory Council Response to the Australian Universities Accord Discussion Paper

7<sup>th</sup> April 2023

Dear Australian Universities Accord Panel,

The University of Wollongong's (UOW's) SMART Infrastructure Facility (<https://www.uow.edu.au/smart/>) is a major research entity of UOW, opened in 2011 as Australia's first multi-disciplinary applied infrastructure research and training facility, representing a commitment by the Australian and NSW Governments to apply a more scientific approach to infrastructure planning. SMART plays a significant role in UOW's commitment to encouraging the creation of knowledge exchange and partnerships between government, communities and the technology sector. Most recently, SMART established the Telstra-UOW Hub for AIoT (artificial intelligence of things) Solutions, which is delivering innovative, cost-effective and fit-for purpose AIoT solutions to infrastructure problems and will work alongside Telstra and foundation technology partners Microsoft and NVIDIA. This continues SMART's role in bringing together industry and university researchers to address challenges in areas of critical importance for Australia.

A key part of SMART's success has been the regular advice provided by an active advisory council, made up of members external to the University and from industry and government organisations involved in infrastructure planning and development. These members are from organisations that include Deloitte, ARUP, Infrastructure Sustainability Council, NSW Ports, KPMG, Sydney Water, NEC Australia and New Zealand, Plenary Group and other prominent organisations.

## RESPONSE TO QUESTIONS IN THE DISCUSSION PAPER

Q23 How should an Accord help Australia increase collaboration between industry, government and universities to solve big challenges?

- Government role in linking Universities and Industry: Existing programs such as ARC Linkage and CRC programs have provided great opportunities for University to conduct research in partnership with industry. Challenges are in the initial cost of forming collaborative teams and establishing these centres, which typically require quite similar management and administrative arrangements. An alternative could be for government to help bring together researchers and industry to form teams focused on solving key

---

SMART Infrastructure Facility  
Faculty of Engineering and Information Sciences  
University of Wollongong NSW 2522 Australia  
Telephone (+61 2 4221 5031)

[smart-facility@uow.edu.au](mailto:smart-facility@uow.edu.au) [www.uow.edu.au/smart/](http://www.uow.edu.au/smart/) CRICOS PROVIDER No. 00102E



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA

challenges for Australia, such as those identified in the National Reconstruction Fund (NRF). This may have some similarity to the NSW State Government's NSW Research Networks but expanded to a national level and focused on identifying the key issues of national importance and bringing together people committed to help solve those issues.

- Globally competitive industry-linked research institutes: There are some great examples globally of research institutes that bring together industry and University researchers that provide models for Universities in Australia to consider. Examples include the Catapult Network (<https://catapult.org.uk/>), Said Business School at Oxford University (<https://www.sbs.ox.ac.uk/>) and Cambridge Centre for Smart Infrastructure and Construction (<https://www-smartinfrasturcture.eng.cam.ac.uk/>). Government support for the formation of similar institutes that partner with these global institutes would help to provide internationally competitive research institutes that focus issues of national importance.
- Coordination between all levels of government: Further coordination between Local, State and Federal government initiatives to support research and innovation between Universities and industry could help to make the most of the funding available for research with industry. This may include clarifying the differences between ARC Linkage program and CRC programs as well as the role that the CSIRO plays in expanding collaborative research between industry and Universities.
- Embedding researchers in industry and Universities: The ARC Industry Fellowship scheme is a positive step in helping to form stronger synergies between University and industry, which typically have different goals and expected outcomes when it comes to research and innovation. Further steps to allow for seamless two-way transitions between industry and Universities and that can sustain the collaboration beyond the life of the fellowship would be welcomed. This could include greater consideration of how academic positions focused on industry-engagement and collaboration can still provide for successful research career pathways.

Q26 How can Australia stimulate greater industry investment in research and more effective collaboration?

There are several areas that could help with stimulating greater industry investment in research including:

- Streamlined processes for funding proposals: Funding programs such as ARC Linkage and CRC programs required significant resources to prepare and submit proposals, which then take time for rigorous review process. In contrast, some other schemes, such as Innovation Connections, have a much more streamlined process for approving funding. It would be beneficial to see how a more streamlined process could be adopted for ARC or CRC programs, such that funding can be awarded much more quickly to work on urgent problems.
- Encouraging more Industry-based PhD programs: The new National Industry PhD Program is a positive step in stimulating greater industry investment in research. However the process could be further streamlined so that industry and Universities can more quickly obtain approval to fund a PhD student to work on an identified industry research problem. This could be modeled on overseas programs, such as the EPFLinnovators program at EPFL, Switzerland. Tax incentives for industry: It is recommended that tax incentives for industry research be reviewed and more widely communicated

---

SMART Infrastructure Facility

Faculty of Engineering and Information Sciences

University of Wollongong NSW 2522 Australia

Telephone (+61 2 4221 5031)

[smart-facility@uow.edu.au](mailto:smart-facility@uow.edu.au) [www.uow.edu.au/smart/](http://www.uow.edu.au/smart/) CRICOS PROVIDER No. 00102E



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA

to incentivise greater collaboration with industry and research organisations, noting that many multi-national companies undertake research in their head quarter countries.

- Government support for research commercialization by Universities: There is an increasing need to have funding or some similar support mechanisms to encourage research commercialization by Universities, even a mechanism for Intellectual Property (IP) support like in Europe. This could include technology transfer offices or agencies that researchers can freely contact for generic support common to all Universities such as assessing the value of invention disclosures, preparing patents or other forms of IP protection, assisting with finding funding to support the next stage of commercialisation and other related matters. Currently, Universities need to use their own funds to provide this support.

We thank the panel for the opportunity to respond to the Australian Universities Accord Discussion Paper and would be happy to provide further information in relation to any of the points raised in our response.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'C. Ritz'.

Prof Christian Ritz, Interim Director, UOW SMART Infrastructure Facility, University of Wollongong

Prepared in consultation with

- Philip Davies, Partner| Infrastructure Advisory, Deloitte, Chair – UOW SMART Infrastructure Facility Advisory Council
- Senior Professor Gursel Alici, Executive Dean of Engineering and Information Sciences, University of Wollongong

---

SMART Infrastructure Facility  
Faculty of Engineering and Information Sciences  
University of Wollongong NSW 2522 Australia  
Telephone (+61 2 4221 5031)

[smart-facility@uow.edu.au](mailto:smart-facility@uow.edu.au) [www.uow.edu.au/smart/](http://www.uow.edu.au/smart/) CRICOS PROVIDER No. 00102E