Office of the Deputy Vice Chancellor (Research and Innovation)
30 September 2025

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA
CREATE CHANGE

UQ Submission: Strategic Examination of Research and Development – Issues Papers 1-4

Contents

Notes

Overall – two questions per paper, with 3000 character (~400-word) response limits:

- What aspects of the model work well?
- What could be improved and how?

Issues Paper 1: National coordination for RD&I impact

What aspects of the model work well?

The University strongly supports the ambition for national coordination in order to provide uplift for Research Development, and Innovation (RD&I) impact. As per our submission to the Department's 2023 consultation on the National Science and Research Priorities, there is virtue in establishing an RD&I architecture that sets out Government's priorities at the highest level, and that has a clear, mission-driven focus.

In addition, we reiterate our recommendation in our submission to the original SERD consultation, that "Government policy settings should focus on reducing complexity and providing funding stability to allow initiatives time to realise impact and return-on-investment".

The disparate nature of policy interventions at the national level continues to be one of the largest inhibiting factors for RD&I impact. UQ encourages a whole-of-government approach to an integrated uplift of Australia's RD&I system, aligning innovation-centric efforts across Industry, Infrastructure, Innovation, Health, Education, Environment and other portfolios.

The following elements of the Model outlined in Issues Paper 1 work well:

- Strategic Stability: The 10-year horizon offers clarity and continuity, enabling sustained intellectual development and long-term impact assessment.
- Mission-Oriented Approach: Long-range priorities and tri-sector partnerships align with national needs, fostering collaboration and translation of research into impact.
- Commitment to Foundational Research: Continued support for investigator-led research safeguards curiosity-driven inquiry while complementing translational objectives.
- Governance and Coordination: Centralised coordination and cross-jurisdictional mechanisms provide accountability and streamline program delivery.
- Evaluation Frameworks: Emphasis on impact evaluation aligns with international best practice, promoting transparency and systemic capability building.

What could be improved and how?

Component 1 – Focus Areas

- Current criteria risk privileging STEM and commercially oriented research. Care is required to centre projects addressing societal challenges. Further Humanities and Social Sciences research is key in delivery for over-arching goals.
    - Recommendation: Include a dedicated "social/societal challenges" focus area that integrates STEM and HASS components. HASS leadership in priority-setting will strengthen outcomes.

Component 2 – Investment

- The 50% co-investment requirement may disadvantage HASS disciplines, as community and cultural partners in this space often lack substantial capacity for funding.
    - Recommendation: Introduce reduced investment thresholds for tri-sector partnerships involving community and cultural organisations.
- The Paper rightly draws attention to the common gap in late-stage development and commercialisation. Smaller organisations and SMEs struggle to access the absorptive capacity needed to convert research into market outcomes. Barriers include resource constraints, mismatched timelines, and low awareness of RD&I opportunities.
    - Recommendations:
        - Provide flexible, staged funding models that reduce administrative burden for SMEs

- Incentivise risk-sharing consortia where universities, large firms, and SMEs co-invest resources and capabilities
- Support "sticky" collaborations that ensure knowledge transfer is ongoing and cumulative, rather than project-based one-offs.
- Develop support for SME environments to lessen or prevent the 'valley of death' in the commercialisation of new technologies.

Component 3 – Coordination Mechanisms

- Recommendation: Involve intermediary roles, mechanisms and spaces (innovation brokers, precincts, mission managers) into focus area governance to foster trust and translation and to ensure regional and sectoral impact.

Component 4 – Frameworks

- The proposed evaluation framework and metrics overemphasise economic outputs to the detriment of measures that are significantly more meaningful to large parts of the RD&I endeavour. This includes key research impact goals like sustainability, inclusion, and community resilience, as well as research performance metrics aligned to disciplinary excellence in discovery research.
    - Recommendation: Broader evaluation frameworks should incorporate integrated sustainability indicators aligned with UN SDGs as well as social impact and national wellbeing measures. Qualitative measures should form part of the evaluation model, along with discipline-specific indicators of research excellence.

Component 5 – Foundational investment

- As already noted, special attention is needed to situate and support SME investment.
    - Recommendations:
        - Design SME-friendly funding models that lower administrative barriers and provide risk-sharing mechanisms
        - Measuring collaboration quality, not just outputs, in evaluation frameworks to ensure there is not a scale bias in the model.

Issues Paper 2: Scaling the system: A proactive approach to scaling the RD&I system

What aspects work well?

The focus on increasing collaboration between industry and research, and the recognition on the need for rapid scaling of our Research Development, and Innovation (RD&I) system addresses a genuine weakness in Australia's research endeavour. We commend the emphasis in Issues Paper 2 on startup creation pathways for diverse founders, including First Nations entrepreneurs; this exemplifies the inclusive, forward-thinking focus that is necessary in creating more value from our RD&I.

The following elements of the Model outlined in Issues Paper 2 work well:

- Focus on collaboration: Emphasis on increasing industry–research partnerships addresses a key weakness in Australia's RD&I system.
- Scaling RD&I capacity: Recognition of the need for rapid system growth is well aligned with national innovation goals.
- Inclusive startup pathways: Support for diverse founders, including First Nations entrepreneurs, demonstrates a forward-thinking and inclusive approach. Recognition of the need for innovative translation funding is also important.

What should be improved and how?

Component 1 – Small proportion of globally-focused innovation-led businesses in Australia

- As noted in the University's submission to the initial SERD consultation [Recommendation 12, p.14] , international efforts to drive innovation have found success in providing small businesses with seed or startup funding to partner with research organisations.
- The United States' competitive grants programs, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) have found great success in boosting the commercialisation of RD&I by SMEs. A 2022 assessment found that the SBIR and STTR programs fulfill their missions, and are linked to businesses that play a significant role in the life sciences innovation system and produce meaningful research and innovation output, most notably clinical trials and patents.
    - Recommendation: Consider SME technology transfer and innovation schemes similar to international models. An STTR type program for Australia could assist technology uptake and adoption by smaller businesses and be complementary to existing initiatives such as the Australian Economic Accelerator program as well as the Industry Growth Program.

Component 2 – Driving new firms and industries to delivery productivity gains

- The opportunity exists for Australia to support incremental innovation within SMEs, while also enabling startups to grow into globally competitive, innovation-led businesses.
    - In order to support the scaling of new firms and industries we recommend:
        - Clarifying ambition and growth across organisation types: While startups are typically innovation-led and globally-focused, SME success may be better measured by metrics including RD&I density, revenue targets, or quantified collaboration efforts.

Component 3 – Connection across the RD&I ecosystem

- The higher education sector performs fundamental and applied research and innovation as part of its mandate, while industry tends to focus on research and development that is closer to the commercial adoption phase. The national innovation system is vastly under resourced in being able to bridge the widely acknowledged 'valley of death' between research & innovation and implementation.

- Recommendation: Increase investment in intermediary structures and cluster-based models to foster co-design, talent pipelines, incubation and long-term partnerships (See Universities Australia report *From fragmented to future-ready: Partnering for innovation* for further detail).

Component 5 – skill base to support scaling of new businesses

- Recommendation: The skills expansion outlined in the Issues Paper is supported, with proposed expansion to include expanded programs targeting university researcher upskilling in entrepreneurship, founder mentoring, executive upskilling, and board training. Supporting the research community to participate more actively in the translation of research – whether as founders, board members or technical advisors – can improve commercialisation pathways.

Issues Paper 3: RD&I incentives

What aspects work well?

Australia's research quality is high; however our new-to-market innovation levels are relatively low. Expanding incentives such as proof-of-concept grants, translational hubs, and accelerators in key sectors would strengthen pull-through mechanisms.

The tiered approach to recognise different levels of business scale and capacity is sound as start-ups, SMEs, and large enterprises do have distinct needs.

We also commend the focus on First Nations entrepreneurship.

What should be improved and how?

- As with our comments with respect to previous Papers, we note that there is little to no mention of HASS research.
    - Recommendations:
        - Acknowledge HASS's role in innovation: It contributes essential "soft infrastructure" like cultural competency, ethics, communication, and social cohesion.
        - Support HASS methodologies: These rely on collaborative inquiry, community engagement, and cross-cultural synthesis, requiring tailored support mechanisms.
        - Recognise the value of non-commercialisation research impact such as policy translation value, which may deliver healthier communities, more sustainable practices and productivity gains.
- The framework treats universities primarily as feeders for the pre-revenue and startup phases, rather than as core components of Australia's research infrastructure.
    - Recommendations:
        - Reframe universities as central to the innovation ecosystem, not just feeders for startups.
        - Support university-led venture capital: This would help bridge the gap between research and commercialisation.
        - Fund the full economic cost of basic research: This would enable universities to invest in commercialisation capabilities and knowledge translation.
- Incentives for industry collaboration must extend beyond the Research Development, and Innovation (RD&I) tax incentive, strengthening incentives for collaboration on key priorities as well as pathways for talent development.
    - Recommendations:
        - Update RD&I Tax Incentive thresholds; these have remained unchanged since 2011.
        - Introduce a collaboration premium: Offer a small bonus for businesses partnering with universities on national priorities.
        - Enable government-backed financing: Use the National Reconstruction Fund to support businesses claiming the RD&I Tax Incentive through equity or debt initiatives
        - Use direct funding to support high-risk, transformative innovation.
        - Support PhD placements and specialist training to build RD&I talent.

Issues Paper 4: Investment and capital – growing investment and capital for RD&I

Nil response recommended – we did not receive input.

Office of the Deputy Vice Chancellor (Research and Innovation)
10 October 2025

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UQ Submission: Strategic Examination of Research and Development – Issues Papers 5-6

Contents

Notes

Overall – two items per paper, with 3000 character (~400-word) response limits:

- What aspects of the model work well?
- What could be improved and how?

Issues Paper 5: Foundational research – Creating knowledge

What aspects of the model work well?

As noted in our response to Paper 1, UQ is strongly supportive of the Government's commitment to supporting foundational research. Curiosity-driven inquiry is the cornerstone of innovation, and providing broad, lasting support for investigator-led research bolsters this important component of the R&D ecosystem.

This paper presents its strongest position when it protects the value of curiosity-driven research while offering pragmatic reforms targeting systemic shortfalls in indirect research funding. We encourage the panel to revisit the proposal for uncapping the Research Support Program, as outlined in our response to the SERD Discussion Paper, as an immediate means of addressing these shortfalls. Through addressing indirect research funding, Australia can remain committed to curiosity-driven excellence, underpinned by sustainable funding, infrastructure, and workforce development.

We commend also the proposal to broaden research training to support more diverse career pathways. PhD placements, other specialist RD&I-centred training, and industry placements for researchers already engaged in research careers will help to build a nationally significant talent pipeline and serve as a link towards building greater collaboration with industry.

Additionally, we note the virtue of reforming performance frameworks to recognise and value translational impact. The translational impact of research has the advantage of effecting both industry engagement, through commercialisation and entrepreneurial opportunities, and also societal benefits via the realisation of the outcomes of the research endeavour.

The ambition to strengthen foundational research via longer term funding is also strongly supported. Funding or grants that span five years or longer are essential for fundamental scholarship and for longitudinal research.

What could be improved and how?

Curiosity-led research

Paper 5 correctly identifies that translation and impact matter. What's missing is a safeguard to ensure that foundational research is preserved, recognising that the greatest applications often emerge from curiosity-driven, long-horizon research. Importantly, while the outcomes of foundational research may find translational impact, including through commercialisation, not all discovery researchers will be entrepreneurs. Supporting and sustaining *both* disciplinary research excellence and translational capability should be the goal for our R&D system.

The focus areas must also make allowance for the foundational knowledge for understanding that is enabled by HASS research capability. We reiterate our recommendation (per response to Issue Paper 1) to include a dedicated "social challenges" focus area that integrates STEM and HASS components.

Specialisation

There is the risk that the institutional specialisation proposal could fragment the comprehensive research capabilities that make universities unique knowledge ecosystems in which cross-disciplinary collaboration allows research teams to unlock novel solutions to complex challenges.

Further, the existing Threshold Standards set a sensible research requirement for qualification as a 'university': weakening this standard is not in the national interest, nor is it necessary to meet the objective of building concentrations of research excellence in particular institutions.

Research training

There is very little emphasis placed on HDR students and their research journeys outside of the context of commercialisation or industry placements. While these ambitions are important, a more pressing challenge is the substantial decrease in domestic HDR enrolments.

UA documented an 8% drop in domestic PhD enrolments from 2018–2023. The proportion of Honours and Masters students completing a PhD in core sciences has dropped from an average of 34% in 2017 to 16% in 2025. These drops are largely attributable to the financial disincentive of working 3 or 4 years full-time to attain a PhD, on a poverty-level stipend. If we truly seek to "encourage more home-grown ideas, more research, and more translation" then we must be willing to finance research training to encourage the most capable Australians to pursue research careers.

Research infrastructure

Foundational research must be underpinned by robust and accessible national RI. A reduction in funding levels in FY2028-29 to ~50% of their current level would be catastrophic to the nation's RD&I enterprise.

We support the recommendation made in the Universities Accord to move the NCRIS to sustainable, ongoing Government funding. This should include a component of longer-term operational funding for NCRIS projects to provide ongoing employment for the expert RI workforce.

The coordination model put forth in Paper 1 should integrate mechanisms for stabilising and extending federal and state funding for NCRIS.

Issues Paper 6: Government as an exemplar

What should be improved and how?

Governments as innovation customers

Government procurement policies have the capacity to support innovation and act as a catalyst for growth in domestic research and development. A national, co-ordinated policy, leveraging the scale and buying power of state and federal governments would likely stimulate innovation in areas where private sector demand is lacking or unpredictable.

The Business Research and Innovation Initiative (BRII), targeting SMEs to develop new technologies to solve government challenges and focused on national priorities, is a stepping stone toward a successful model of government support. The initiative has had success in encouraging SMEs to innovate, delivering notable economic impacts, and helping government agencies to solve policy and service delivery problems, but needs to be scaled up to increase its reach and impact

As an iteration of the BRII, we draw reference to the proposal of the Go8 in their submission, which recommends the introduction of a Small Business Technology Transfer Program to leverage jurisdictional R&D budgets and specific procurement needs for products or services.

We recommend that Government give strong consideration to quantifying how its component agencies can dedicate a fixed proportion of their procurement and/or R&D budgets to facilitate local innovation and incentivise collaboration.

Component 5 – Measuring RD&I

Given the status and scope of the ARC's Research Insights Capability (RIC) exercise, we would advocate for a coordinated approach in the research evaluation space.

While UQ supports the Department's proposal of an outcome-focused RD&I performance framework and we encourage the adoption of metrics that assess impact across program and system levels, the establishment of a framework, and the downstream work of data collection, must be undertaken in collaboration with the ARC and/or their RIC exercise collaborators and stakeholders.

In our submission to the ARC RIC consultation exercise, the University advocated for a research evaluation exercise that identifies:

- Discipline-level excellence and impact; where are our researchers driving critical change (including economic, social, and environmental metrics)
- What research is being done that aligns with national research priorities that are mission-driven

- Australia's contribution to knowledge across fields of research, and who we are collaborating with and how
- The role of infrastructure in our national research activity
- The profile of university-industry engagement in our sovereign research endeavour
- Our researcher demographics
- How Indigenous research and knowledge can be appropriately represented.

Our submission also highlighted that the measurement of research outputs, whether quantitative or qualitative, must adhere to research evaluation best practice, and should adopt measurement approaches that emphasise integrity, openness, collaboration, and diversity of contributions.

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