ATN submission – SERD issues paper 1 – National Coordination

The Paper asked how Australia should set and govern long-term priorities, balance foundational and applied research, and coordinate enabling capabilities.

What aspects of the model would work well?

- ATN Universities welcomes the recommendation for a small number of long-term national focus areas with 10-year plans; this will provide clarity and durability. We also support the emphasis on impact, enabling capabilities and evaluation. Thirdly, we believe moving away from fragmented, short-term initiatives towards durable, transparent and independently set priorities is the right approach.
- It is appropriate that core funding for discovery research is not proposed to be repurposed for translation in these strategic focus areas. Maintaining different funding streams across the spectrum from basic to applied is essential to the health of the overall pipeline of research.
- The paper identifies the crucial role of foundational research; alongside this review are significant changes occurring at ARC, NHMRC and MRFF. ATN Universities encourages SERD to ensure discovery remains covered adequately after these various changes so it's not effectively de-prioritised.
- We welcome the requirement for state and territory governments to collaborate within tri-sector partnerships. Putting their resources into these partnerships will a) be a critical enabler of these partnerships and b) ensure “skin in the game” for state and territory jurisdictions. ATN Universities wishes to contribute to further development of this model of tri-sector partnerships to ensure they support genuinely impactful research and aren’t dominated by a smaller number of large providers.
- The selection of key priority sectors is appropriate. ATN member universities are already leaders in many fields directly relevant to these priorities, such as applied technology, engineering, built environment, net zero/energy transition, health, and climate resilience. Successful sector-specific innovation models such as the Advanced Strategic Capabilities Accelerator for defence R&D could be considered as a template for these sectors.

What could be improved and how?

1. National priorities must connect to precincts and partnerships including our regions
    - Coordination will only deliver impact if national focus areas are anchored in precinct partnerships, ensuring SMEs and communities can access infrastructure, expertise and applied pathways. [Example: Germany’s Fraunhofer Institutes].
    - National focus areas must be carefully framed and kept flexible to capture emerging opportunities. Triennial reviews proposed within the paper should be empowered to adjust scope, via a transparent process, to incorporate fast-moving fields such as AI and quantum. Triennial reviews should be overseen by an independent expert council to ensure credibility and coherence, as seen in Horizon Europe.
    - Where appropriate, national priorities should align with domestic priorities such as the Critical Technologies, Future Made in Australia and the National Reconstruction Fund Priorities and global missions to amplify Australia’s research impact.

- This aligns with the UK's approach to setting national RD&I priorities, which combines a small number of clear strategic themes with strong cross-cutting enablers, broad consultation, and continuous evaluation.

2. The balance of discovery and application must be safeguarded
    - Foundational research must be secured through ring-fenced, CPI-indexed discovery funding to ensure we do not hollow out the pipeline feeding future innovations.
    - ATN Universities supports maintaining a competitive, non-thematic discovery pool (ARC/NHMRC style) insulated from translation KPIs, to preserve diversity and competition in parallel to focus-area investments.
    - Priority-setting must be independent and transparent. The independent expert council referred to previously should include representatives across academia, industry and the community. It should oversee the process against clear, published criteria e.g. economic potential, national strengths and societal need.
    - To improve the model, priority-setting should explicitly integrate HASS and the teaching–research nexus. Each focus-area plan should include explicit streams for HASS integration and blue-sky inquiry untied to near-term translation, so that national priorities do not marginalise essential disciplinary breadth.

3. The system must be evaluated against real-world outcomes
    - Evaluation and data systems must track impact on a more regular basis to support timely evaluation. A national research evaluation framework should be built on existing data recording and reporting and apply modular metrics e.g. economic, social, environmental, collaboration and workforce, supported by a robust RD&I data platform.
    - The UK's Research Excellence Framework (REF) demonstrates how applied impact can be systematically assessed alongside traditional outputs.

ATN submission – SERD issues paper 2 – Scaling the system

This paper presents a framework to radically accelerate and strengthen Australia's research, development and innovation (RD&I) system with a focus on how we create value, including economic impact, from our efforts.

What aspects of the model would work well?

- ATN Universities welcomes the issues paper's recommendations to scale Australia's RD&I system to meet national ambitions. ATN Universities and its members has argued before that scaling requires both investment and structural reforms. In particular, ATN's applied research mission means we welcome the emphasis on building industry-facing programs and strengthening workforce capability.
- The issues paper's diagnosis of the problem is strong. We particularly note the concerning finding that only around 2% of Australian firms are currently innovation-driven, and that early-stage Australian firms struggle to scale in Series B onwards relative to those the USA and Canada.
- The paper's framing of system-wide coherence, rather than piecemeal expansion, is the right approach.
- The proposal to develop startup creation and growth pathways would build on an already strong network of these pathways at ATN member universities. Each ATN member provides a network of accelerators, incubators and startup supports to help take cutting edge research into present-day applications.

What could be improved and how?

1. Collaborative programs that link research and industry should be the foundation for growth
    - National coordination should build on programs that already deliver applied outcomes at scale, including partnerships comprising existing regional and metropolitan precincts. As noted in our response to Paper 1, precinct-based models such as Trailblazers and CRCs show how long-horizon, partnership-driven initiatives connect researchers, industry and end-users to deliver impact.
    - Future national programs should strengthen and expand these models, embedding them in innovation precincts where SMEs and communities can access facilities, expertise and talent. This would align national priorities with place-based delivery, rather than creating additional layers of administration.
    - Equity must remain a guiding principle in workforce design, ensuring regional researchers, SMEs and First Nations partners can participate fully in national missions.

2. Government and industry should collaborate as lead adopters of innovation
    - ATN Universities agrees that national priorities must be paired with strong demand signals. Government and industry can play a catalytic role by acting as collaborative lead adopters in national missions, working alongside universities to test, refine and adopt new technologies. Risk-aversion among established industries and government remains a barrier; the model should include incentives for end-users to take strategic risks.

- Collaborative pilots should be embedded in each focus area, co-designed and co-delivered by universities, industry and government across metropolitan and regional centres to prove innovations in real-world settings and accelerate their uptake. Germany's Fraunhofer Institutes are a good case example here.
- This approach would support investment in research to translate into adoption and application, delivering benefits across industry and society.

3. Workforce capability must support translation and mobility
    - Workforce mobility must be enabled by recognising industry-engaged and applied contributions e.g. patents, prototypes, policy influence, precinct leadership, collaboration outcomes, on equal terms with traditional academic outputs.
    - National priorities should embed mobility programs such as secondments, industry PhDs and portable fellowships, helping researchers gain experience across sectors and supporting two-way knowledge transfer. [See: Singapore's Research, Innovation and Enterprise (RIE) framework]
    - Facilitating movements of academic staff through the innovation system takes administrative resources. Incentives to support research translation need to support both the academic entrepreneurs themselves to move in and out of industry, and the commercialisation professionals working at or with universities to support these activities.

ATN submission – SERD issues paper 3 – RD&I incentives

The Paper asked how incentives should be designed to support ambitious R&D, share risk, broaden participation, and draw in private capital.

Which of our proposals work well

- We welcome the Paper's focus on designing incentives that support ambitious R&D, share risk, broaden participation, and draw in private capital. These directions align with ATN Universities' vision for a stronger, more applied research and innovation system.
- The recognition that incentives should target ambitious, high-risk R&D rather than incremental improvement is well placed. This creates scope for more transformational outcomes that deliver national benefit.
- We support the emphasis on risk-sharing between government and industry. Clearer mechanisms to share cost and risk will encourage firms to pursue projects with higher potential impact.
- The goal of drawing in more private capital is equally important. Leveraging government incentives to mobilise private investment reflects international best practice and will grow Australia's overall R&D intensity.
- The shift towards differentiated pathways for start-ups, SMEs and large enterprises is also a constructive step. It acknowledges the distinct barriers faced at each stage and the need to reduce reliance on consultants.
- The emphasis on collaboration as central to ambitious R&D is welcome. Partnerships across universities, industry and government are critical to delivering innovation that has national impact.
- Finally, the recognition that incentives must be accessible to SMEs and new entrants is positive. Lowering barriers to participation will broaden the base of firms engaged in breakthrough innovation and strengthen national capability.

What should be improved and how?

1. Collaboration must be at the heart of breakthrough innovation
    - Incentives settings should reward collaboration across universities, industry and government, not just individual excellence. As envisaged in Issues Paper 1, a tri-sector model aligned to national focus areas will deliver multiplier effects.
    - Incentives should include a premium for collaborations with universities and research organisations. This ensures enduring partnerships that leverage national infrastructure and talent, alongside incentives for large firms to engage with start-ups and scale-ups.
    - Programs should support joint projects that demonstrate clear pathways to application and adoption, including precinct-based initiatives and pilots in real-world settings. [See: Canada's Innovation Superclusters, UK Catapult Programmes]

2. Applied outcomes must be recognised and industry pathways for researchers must be enabled
    - Incentive frameworks should value patents, prototypes, policy impact, precinct leadership and industry partnerships on equal terms with publications and grants.

- Recognising applied contributions would enable researchers to pursue translation and adoption pathways without jeopardising career progression. [Trailblazers are already doing some work on this]
- Developing structured industry HDR programs that embed early career researchers in industry settings, would build translational skills and long-term academia-industry partnerships. [Singapore RIE framework]

3. Ambitious R&D must be accessible to SMEs and new entrants
    - Risk-sharing measures such as co-investment, matching funds or guarantees are critical to attract private capital and enable SMEs to take part in breakthrough innovation.
    - ATN Universities supports redesigning the RDTI to establish a dedicated startup stream with a defined eligibility “off-ramp” as firms scale, alongside simplified, low-burden assessment requirements to minimise dependence on external consultants.
    - Incentive programs should be designed to lower barriers for smaller firms and new entrants, ensuring they can partner with universities and contribute to national capability.
    - Incentives must also provide long-term certainty. Trailblazers and the UK Catapult program show that clear, multi-year commitments give industry and universities confidence to take risks and invest in research initiatives and infrastructure.

ATN submission – SERD issues paper 4 – Investment and Capital

This paper identified opportunities to expand investment and capital in Australia's research, development and innovation system. It outlined approaches to boost venture capital availability for startups and scaleups, while reducing barriers that currently limit superannuation funds from investing in higher-growth domestic private equity.

Which of our proposals work well

- We welcome the Paper's focus on tackling Australia's conservative capital culture and expanding investment pathways to support ambitious RD&I. Aligning capital with national focus areas and enabling greater participation from startups, scaleups and global investors is essential to building a stronger innovation system.
- The recognition that venture capital availability must grow, particularly in deep tech and scale-up stages, is well placed. Adjustments to proven vehicles and reforms to encourage angel investment will help provide the early and growth-stage finance needed to build globally competitive firms.
- The proposals to address barriers limiting superannuation funds from investing in domestic private equity are timely. Reforming regulatory tests and reporting requirements so funds can pursue higher-return, higher-impact investments will unlock more patient capital for national priorities.
- We also support the Paper's acknowledgement of skills and exits as integral parts of the investment system. Building investment capability, entrepreneurial leadership, stronger pathways for commercialisation professionals and research entrepreneurs, and more options for exits will help ensure capital translates into lasting economic and social outcomes.
- Finally, the emphasis on attracting more international investment and promoting a national narrative around Australia's innovation strengths is welcome. Strengthening connections between domestic and global investors will diversify the pool of capital and expertise available to Australian ventures.

What should be improved and how?

1. Capital pathways must be anchored in precincts and partnerships

- Investment incentives should be tied to precincts and partnerships, ensuring funds flow into place-based ecosystems where infrastructure, talent and industry co-locate. [See: UTS-Tech Central, Melbourne City North Innovation Precinct, Newcastle Institute for Energy and Resources].
- Focus area leads should be required to embed angel networks, VC funds and superannuation vehicles into precinct anchors, allowing SMEs and startups access to capital, research infrastructure and applied expertise from universities and research organisations.
- Triennial reviews should allow flexibility to capture fast-moving fields such as AI and clean energy, while maintaining investor confidence in long-term capital flows.

2. Investment must develop people and support strong exit pathways

- Skills development should be embedded in the design of new fund-of-funds and investment vehicles, building capability in fund management, governance and entrepreneurial

leadership and in commercialisation and translation expertise in universities and research organisations. The National Innovation Visa program could be leveraged to address specialist gaps.

- Conditional RDTI incentives could be extended to corporations that acquire or scale startups, with a premium when collaborating with a research institution, rewarding investment in Australian innovation and reinforcing the national commercialisation ecosystem.
- Exit incentives should be tied to metrics such as sovereign capability, research translation, job creation and IP retention, ensuring acquisitions and scale-ups deliver enduring national benefit.

3. Patient capital must be mobilised for national priorities
    - ATN Universities supports reforming regulatory barriers (e.g. super fund regulation like APRA performance tests, ASIC rules) that currently discourage superannuation funds from investing in deep tech, scale-ups, and long-horizon R&D ventures. Reducing these disincentives would unlock a greater pool of patient capital for innovation.
    - To keep focus on applied impact, superannuation vehicles should be prioritised toward national missions and precinct-linked opportunities, where research, talent and industry capability are already concentrated.
    - Broader sector voices, including those at the Economic Reform Roundtable, have also called for changes to superannuation regulations so funds are better positioned to invest in national priorities such as renewables, infrastructure, and emerging technologies.