

Strategic Evaluation of R&D

Australian Industry Group Submission

16 April 2025



Robyn Denhom
Chair – Strategic Examination of Research & Development
Department of Industry, Science and Resources

Dear Robyn,

RE: R&D at the crossroads

Australia stands at a critical crossroads in its research and development (R&D) journey. Despite decades of rhetoric and countless reviews about becoming a "clever country," our members have not seen material changes to match these aspirations. This stark reality demands immediate and substantive action, not merely incremental adjustments to a system that has consistently failed to translate Australia's world-class research into economic prosperity and productivity gains.

Our members have actively participated in the examinations consultations and provided input into this submission. Their message is clear and unanimous: we cannot afford to wait any longer for meaningful change.

Times are exceptionally challenging for our members. They value the importance of R&D in their businesses but are grappling with slowing investment, a restrictive workplace relations system, an increasingly uncompetitive tax system, a complex regulatory environment, ongoing skilled labour shortages, and uncertainty over energy affordability and availability.

These pressures are occurring against a backdrop of wildly volatile international conditions and once-in-a-generation national security challenges. In such difficult circumstances, the capacity and confidence to invest in business R&D in Australia is severely constrained, precisely when innovation and productivity enhancement are most needed.

The SERD discussion paper presents a thorough analysis of Australia's R&D landscape, and in recognition of its comprehensive nature, our submission focuses more on potential solutions where possible. However, we must emphasise a critical gap requiring attention—the commercialisation imperative.

Calls to increase research funding to 3% of GDP are divorced from economic reality if the commercialisation imperative is not addressed. Simply pouring more funding into a dysfunctional system won't enhance its effectiveness or lift national productivity. What Australia desperately needs isn't more of the same, but rather a fundamentally new approach for how R&D translates into commercial outcomes that drive productivity growth across our economy.

The time for incremental change has passed. With the converging challenges of decarbonisation, diversification, and digitalisation, rebuilding our capacity to not only generate but also commercialise R&D is essential to our national prosperity, productivity and security.

We urge the panel to place commercialisation at the centre of any reform agenda for Australia's R&D system.

Yours sincerely,

Innes Willox
CEO
Australian Industry Group
16 April 2025

Recommendations

- Establish a Ministerial Council for Innovation, Science, and Technology to set a rolling ten-year national innovation, science and technology strategy and facilitate cross-governmental cooperation.
- Build a broader industrial base for business R&D. Our narrow industrial base limits our capacity to improve overall R&D performance.
- Decouple government funded research/industry collaboration programs, removing requirements for industry to engage with publicly funded research organisations.
- Reform public sector research infrastructure by consolidating overlapping grants, NCRIS projects and improving governance models.
- Create a National Prototyping Network for industry to bridge the commercialisation gap (TRL levels 5-8), staffed by private sector professionals.
- Adapt the US Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs to the Australian context.
- Introduce Business Revenue-Based Financing (HECS for Industry IP commercialisation), with loans repaid as a percentage of future product revenue.
- Expand Australia's proposed patent box system beyond medical and biotechnology sectors to all industries.
- Reform the R&D Tax Incentive by:
 - Aligning payments with Business Activity Statements (BAS)
 - Indexing Tax Offset, Non-Refundable Tax Offset and Expenditure Threshold caps to CPI
 - Use AI analysis to identify and publish technology clusters and research patterns
 - Improve transparency in program administration
- Allocate 2-3% of total costs in significant government funded national projects (e.g. defence and infrastructure) for Australian businesses to conduct targeted R&D.
- Develop an integrated innovation brokerage and leadership development network for SMEs.
- Form a national IP Bank as a central repository for IP funded by the public purse.
- Create a public IP/Commercialisation Scorecard for Australian research institutions to benchmark their effectiveness.
- Implement programs to address STEM skills shortages, including flexible pathways for industry personnel into teaching positions.
- Maintain visa programs to attract skilled workers and improve initiatives to entice Australian expats to return.
- Develop a national policy that centres first nations leadership in first nations focused research projects.
- Streamline regulatory frameworks to make Australia more competitive for global R&D investment.
- Establish measurement frameworks that directly link R&D programs to GDP contribution, productivity gains, and commercialisation success rates.

What should an integrated, sustainable, dynamic and impactful Australian R&D system look like?

Australia's innovation ecosystem has all the necessary pieces to drive enterprise and productivity but faces critical coordination challenges.

The nation lacks a long-term bipartisan national innovation, science and technology strategy, resulting in fragmented policy approaches between Australian and State Governments. These efforts are constrained by electoral cycles and poor consensus, as evidenced by the concurrent reviews to SERD by the Australian Research Council and similar bodies underway.

Australia also lacks sufficient sophisticated publicly available data on the return on investment for different R&D interventions, making it impossible to directly correlate BERD, GERD or public sector research organisation spending with GDP or economic outcomes.

Australian business R&D depends heavily on just three industry divisions – professional scientific & technical services, manufacturing, and finance & insurance – which account for 74% of all business R&D investment.

This concentration exposes Australia to cyclical economic effects, such as mining's boom-and-bust pattern. It has also left the country overly dependent on professional services for growth. The solution lies in building a broader industrial base for business R&D. This narrow industrial base limits our capacity to improve overall R&D performance.

The dramatic decline in mining R&D deserves special attention. Once among Australia's most R&D intensive industries a decade ago, mining now ranks among the least. Addressing the factors behind this decline would significantly rebuild national capability. Mining innovations, particularly in robotics, sensing and environmental management, have historically benefited other sectors including agriculture, manufacturing and transport.

To set the strategy we propose establishing a Ministerial Council for Innovation, Science, and Technology composed of relevant Ministers at the Federal and State level with budgetary responsibility for their portfolios. The aim of the council is to set a rolling ten year national innovation, science and technology strategy within six months of the review reporting, facilitate cross-governmental cooperation, provide policy certainty, pull and create a supportive environment for R&D.

Success would be characterised by robust business expenditure on R&D that consistently ranks in the top quartile globally. Public sector research organisations would evolve from predominantly government-funded entities to dynamic knowledge generators with strong commercialisation records.

Most importantly, the system would foster a culture where risk-taking is encouraged, failures provide learning opportunities, and breakthrough technologies are systematically developed and commercialised in Australia for global markets.

Finally, Australia's narrow definition of R&D restricts government support for businesses engaging in genuine innovation. Many companies constantly iterate on products to meet regulatory requirements, yet fall outside current definitions. A more inclusive framework would recognise that practical product development often represents valuable innovation, enabling more businesses to access crucial support.

What government, university and business policy settings inhibit R&D and innovation why?

Government

Australia lacks a long-term national innovation, science and technology strategy, creating significant economic challenges. Current Australian and state government R&D policy settings inadvertently create barriers to BERD. The complexity and sheer number of government support mechanisms generates unintended consequences that undermine their original objectives.

While R&D and innovation programs established through New Policy Proposals address market failures, they lack direct connections to ROI and GDP impact resulting in the public not feeling assured that investment of their tax dollars are worthy.

Business R&D is viewed as linear and one way, when in fact it is cyclical, highly virtuous and a flywheel to continue value creation/impact/growth/investment. To leverage this cyclical nature, business needs a clear commercialisation journey from Research & Development to Commercialisation (R&D to C) via a structured roadmap of coordinated government and private sector support. This integrated pathway would provide consistent assistance at every developmental stage, creating a seamless progression that maximises economic outcomes and ensures investments translate to measurable market success and economic growth.

The misalignment between government decision-making cadence and business needs creates significant challenges. Businesses require greater speed, as they are geared toward quarterly resourcing and growth decisions.

Members have informed us that R&D grant and incentive programs impose administrative requirements that consume a substantial portion of funding for successful applicants. Organisations often must allocate staff or engage consultants for compliance and reporting, which reduces the effective value of the funding.

This administrative burden shifts organisational focus from research activities to documentation and bureaucratic processes. For international businesses, this burden can act as a disincentive to conduct R&D in Australia compared to markets where similar schemes have higher caps or no caps, and take a more risk-based approach to regulation.

The significant delays between delegate approval and ministerial/local member funding announcements create substantial operational challenges. Extended timelines frequently render initial project parameters obsolete, increasing costs and reducing the potential impact of proposed innovations. These timing issues further complicate the already complex process of technological development.

Government procurement policies predominantly favour low-risk approaches, systematically disadvantaging local innovative firms. The current framework prioritises minimal-risk compliance over technological advancement. Smaller sized members have stated they would prefer a contract supporting their innovative products rather than a grant to undertake further R&D.

The cumulative effect is a policy environment that creates more barriers than opportunities for technological innovation. The current approach requires comprehensive review to align support mechanisms with the actual needs of innovative businesses.

University

Australian universities face significant policy barriers that inhibit R&D and innovation. The administrative burden of securing research grants creates substantial delays, with extensive peer-review processes postponing project initiation. Academic careers are disproportionately tied to grant success rather than research outcomes or commercial impact.

Industry collaboration typically revolves around attempting to form collaborations around long-term funding mechanisms like ARC Linkage grants or Cooperative Research Centres, creating a rigid approach to partnerships. Universities pay lip service to industry collaboration and commercialisation while lacking genuine accountability measures.

The focus on publications and citations over practical application creates misaligned incentives. Rigid promotion criteria reward traditional academic outputs rather than entrepreneurial activities or industry engagement. Risk-averse institutional cultures discourage experimental approaches. Members report that complex, opaque and shifting university IP policies are a major barrier to establishing collaborations. Indeed, these policies frequently obstruct, rather than facilitate, knowledge transfer.

Australia's declining OECD rankings in innovation metrics reflect these entrenched systemic issues, requiring comprehensive policy reform to reverse the trend.

Members harbour frustration with the various iterations of university tech transfer offices, complaining about excessive bureaucracy, unrealistic IP valuations and lengthy processes that impede speed to market. The risk-averse culture prevalent in these offices contradicts industry's commercialisation needs.

This opacity around performance seriously undermines potential university-industry partnerships that could drive innovation in the Australian economy.

Defence collaborations between Australian universities and defence firms raise security concerns when these institutions maintain close ties with China. Such partnerships risk sensitive technology transfer, intellectual property theft, and compromised research integrity. Stronger vetting procedures and transparency requirements could safeguard national security while preserving valuable academic-industry innovation.

Business

Unlike universities, business R&D is fundamentally driven by the commercialisation imperative—investment decisions must ultimately deliver to the bottom line.

Our members are unequivocal: they genuinely value innovation and seek to expand their R&D activities, but they face extraordinary constraints. Removing restrictive workplace relations, uncompetitive taxation, complex regulations, critical skilled labour shortages and energy uncertainty will assist businesses to focus on the future.

Policies that assist in the development of business leadership can have a material impact on innovation and R&D. Skilled leadership supports better organisational management and preparedness for current, emerging and future challenges. Given the increasingly complex environment that our members operate in, highly effective leadership and management is more important than ever.

There is a positive relationship between leadership and firm performance. Recent research has also found a strong, positive correlation between employee well-being and productivity. A meaningful improvement in well-being results in an average 10% increase in productivity. A study into happiness and productivity also identified that happy workers are 13% more productive.

In Australia, the perception of management practices by employees has dropped notably over the last 15 years. In 2010, Australia ranked 11th for management practices, this had dropped to 18th in 2014. Australia's ranking was 33rd in 2024, a slight improvement on 36th in 2023.

What do we need to do to build a national culture of innovation excellence, and engage the public focus on success in R&D and innovation as a key national priority?

This challenge sits at the heart of Australia's future prosperity. To succeed, we must transform how we communicate, celebrate, and prioritise research and development across government, business, and community levels.

Our members are overwhelmingly optimistic about technology upgrades, with 84% of businesses reporting active adoption. Most consider innovation and technology essential to achieving their broader strategic goals for new business development, managing workforce constraints and improving productivity.

While our members understand the value of R&D in creating novel products and services, many business leaders are preoccupied with navigating unprecedented regulatory burdens, increased costs, and reassessing business models amid rapid geopolitical shifts. Executives are questioning internal R&D programmes, external collaborations, and technology investments during this transformational period.

Meanwhile, Australians focused on cost of living struggles find it difficult to appreciate cutting-edge research when basic needs seem precarious. Media coverage often portrays R&D, particularly in areas like AI, as primarily threatening jobs rather than creating opportunities.

Despite being surrounded by technological marvels, there's a disconnect between these advances and recognition of the researchers behind them. The myth of isolated academics in remote institutions hampers valuable academia-business partnerships that could advance Australia's R&D ecosystem.

To build our R&D culture, we need narratives linking research directly to improved quality of life, showing how it addresses cost pressures and creates products Australians use daily. These narratives should also highlight how R&D helps with productivity gains that allow people more time to do what matters most to them in both work and personal life. Much of technology is about augmenting and enhancing people's abilities to focus on value creation activity.

We suggest establishing innovation as a cross-portfolio priority with cabinet-level responsibility, creating policies that survive electoral cycles, developing metrics beyond GDP to measure success, and implementing regular system reviews with international benchmarking.

Celebrating R&D success stories prominently, creating national awards, developing focused media programming, and fostering acceptance of failure as part of the research process will strengthen Australia's position as a knowledge economy leader.

What types of funding sources, models and/or infrastructure are currently missing or should be expanded for Australian R&D?

Engagement with our members has suggested the following opportunities for consideration.

Decoupling Research/Industry Collaboration Programs

Amongst members there is an increasing level of disenchantment with many of the collaborative programs (ARC, CRC etc) and questions as to whether they result in an appropriate return on investment.

In line with Innovation Science Australia's Barriers to Commercialisation report, we strongly endorse the decoupling of the requirement for industry to engage with publicly funded research organisations to be eligible for government innovation support programmes.

As a starting point we recommend the ability to partner with registered research providers under the R&D Tax Incentive.

Public Sector Research Infrastructure Reform Proposal

We recommend a comprehensive restructuring of Australia's public sector research infrastructure to enhance efficiency, governance, and long-term sustainability. The National Collaborative Research Infrastructure Strategy (NCRIS) should absorb Linkage Infrastructure, Equipment and Facilities (LIEF) grants to create a unified funding stream. Given the specialised nature and extended lifecycle of these research assets, consistent long-term funding commitments out to ten years are essential.

To improve operational efficiency, we propose consolidating overlapping NCRIS projects and implementing a governance review to establish best practice models that ensure genuine independence from Public Sector Research Organisations. Allowing NCRIS projects to directly employ staff, rather than through host organisations, would enable competitive remuneration, expedite recruitment processes, and simplify facility access through single contracts.

Equipment acquisition decisions should be insulated from the influence of research directors' interests. Centralising commercialisation activities through the Australian Economic Accelerator would create greater impact than the current fragmented approach. Additional funding should support industry engagement facilitators across all NCRIS projects.

The NCRIS programme needs heightened national visibility through inclusion in all relevant government granting guidelines.

National Prototyping Network for Innovation

Feedback from members is clear, and aligns with what we see in China, that manufacturing requires constant problem solving resulting in further IP generation and onshoring of R&D.

Australia needs a dedicated network of prototyping facilities separate from NCRIS infrastructure to bridge the commercialisation gap, i.e. TRL levels 5-8. This network would focus on high-growth potential SMEs across all industry sectors, operating independently from NCRIS facilities and following the successful Irish Manufacturing Research (IMR) model.

Like the IMR the network would operate on three core principles:

Demystify: Making advanced technologies accessible and understandable to Australian businesses through hands-on demonstration, training and knowledge transfer across diverse sectors.

Derisk: Providing ISO-accredited facilities where companies can prototype, test and refine innovations before full-scale investment, significantly reducing commercial uncertainty regardless of industry.

Deliver: Facilitating tangible outcomes through collaborative research and development between industry experts and businesses to accelerate commercialisation in all sectors.

A national network with nodes in each state would build essential human capital alongside physical infrastructure. This initiative would accelerate Australia's industrial strategy, helping businesses become early adopters in advanced innovation. Access would remain low or no-cost, ensuring Australian companies can capitalise on opportunities and tackle competitive threats head-on. The facilities are to be staffed by private sector professionals, (not public sector researchers), and are technology agnostic.

SBIR and STTR for Australia: Adaptation Framework

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs have proven successful in the United States by connecting small businesses with federal R&D funding. These programs could be effectively adapted to the Australian context with several key considerations.

Australia could implement a two-phase approach similar to the US model: a feasibility phase followed by prototype development. However, the Australian version should align with national research priorities and leverage existing innovation infrastructure.

A critical adaptation would be integration with Australia's university system and CSIRO, creating pathways similar to STTR's academic partnership requirements. This would address Australia's research commercialisation gap.

Implementation should include dedicated funding across key departments (Defence, Health, Industry), clear IP ownership provisions favouring SMEs, and simplified application processes to encourage participation from regional innovators.

Success would require bipartisan political commitment and metrics focused on commercialisation outcomes rather than just grant distribution.

Capital for Growth

Feedback from our members shows a noticeable focus on IT firms in the venture capital sector, primarily due to their faster iterative processes and quicker paths to market. IT firms, especially those in software development, can often scale rapidly and achieve profitability sooner than deep tech and existing firms. This makes them attractive to Australian venture capitalists looking for quicker returns on investment.

Main Sequence Ventures and Breakthrough Victoria represent significant government intervention in Australia's venture capital ecosystem, raising important questions about market dynamics that deserve thorough investigation. Have these public funds created a "follow-the-leader" mentality among private VCs? Further, are they more risk adverse in who they provide investment to.

Members have suggested private investors may be increasingly waiting for government fund signals before deploying capital, potentially reducing independent decision-making. This pattern could be dampening competition for deals and narrowing the diversity of investment strategies across the ecosystem.

A deeper analysis of investment patterns, co-investment rates, and decision timing would help determine whether these government funds are truly complementing private capital or inadvertently creating herd behaviour that limits the robust competition needed for a healthy venture ecosystem.

Business Revenue-Based Financing: Accelerating IP Commercialisation for the rest

Members find that their ability to access capital for growth is very challenging and face a significant shortfall in development finance, particularly for business R&D. We propose Business Revenue-Based Financing (BRBF) as a solution specifically targeted at intellectual property development and commercialisation.

Drawing on the successful Higher Education Contribution Scheme (HECS) model, BRBF provides eligible firms with loans to advance IP creation and market launch, repaid as a small percentage of future revenue (e.g., 5%), triggered only when the product reaches profitability. This structure directly aligns financing with the commercial lifecycle of IP development, offering crucial financial protection during the often lengthy period between innovation and market success.

BRBF loan caps are based on past revenue, with collection through existing ATO mechanisms. This ensures administrative simplicity and creates potential for the government to recover investments in successful IP commercialisation ventures, enabling wider support for Australia's innovation ecosystem.

The approach is particularly valuable for turning promising IP into market-ready products and services. For established businesses, BRBF enables IP development without immediate repayment pressure. For university-derived startups, it bridges the critical gap between research outcomes and commercial applications.

Expanding Australia's Proposed Patent Box System

As previously detailed, there is a fundamental gap in Australia's innovation ecosystem: commercialisation. Critically, it's through successful commercialisation where Australia is able to secure the benefits of research investment - through jobs, tax revenue, ecosystem development by keeping successes onshore, etc. An IP-linked commercialisation model, such as a patent box, is a critical need and would have a significant impact to increase Australia's international competitiveness (particularly in light of the uncompetitive 30% corporate tax rate).

Australia's proposed patent box system, discussed in 2022, offers a reduced tax rate of 17% on income derived from eligible patents in the medical and biotechnology sectors. This system aims to incentivise local R&D and retain associated profits and manufacturing within Australia.

Expanding Australia's patent box system to all sectors would involve applying the reduced tax rate to income derived from a broader range of intellectual property (IP), such as patents, copyrights, trademarks, and software developments.

The system would need to ensure compliance with OECD's Base Erosion and Profit Shifting (BEPS) standards, requiring a direct link between IP income and substantial R&D activities conducted locally. This expansion could foster economic growth and technological advancement by making Australia a more attractive destination for R&D-intensive businesses.

R&D Tax Incentive Reform

The RDTI plays a crucial role in Australia's innovation ecosystem. Any decisions to exclude specific sectors or fields from these benefits should be based on robust economic analysis and clear policy objectives. Transparency in decision-making is essential – the government should publish detailed reasoning, supporting data, and impact assessments for public scrutiny. This allows stakeholders to understand the rationale, provide feedback, and ensure decisions serve the broader economic interest rather than political expedience.

Currently, members note the narrative around the program, (often dominated by consultants rather than government), results in a perception that it is too risky to access without assistance. We support a review of how RDTI funding and credits are distributed to ensure the program achieves its intended economic benefits. Understanding what percentage reaches businesses directly impacts policy effectiveness and taxpayer value. This analysis would reveal potential inefficiencies in the system, such as excessive administrative costs or consulting fees that may be reducing the scheme's net benefit to innovating companies. It could also identify if certain business types or sectors face disproportionate barriers in accessing the full value of their claims.

To increase impact of the program we suggest the option aligning payments for eligible companies with their Business Activity Statements (BAS) to provide a more consistent and reliable funding stream. Currently, eligible companies receive a lump sum annually, which can create cash flow challenges and hinder the continuity of their R&D programs. By integrating payments with BAS, companies would receive more regular financial support, allowing them to plan and execute their R&D activities more effectively. This change would reduce the financial strain on companies and encourage sustained investment in innovation.

The refundable Tax Offset Cap, Non-Refundable Tax Offset Cap and Expenditure Threshold under the RDTI are experiencing a situation similar to income tax bracket creep, making the program less useful to businesses of all sizes. The current caps effectively send a signal to the market that beyond a certain level, R&D should be conducted overseas. This is entirely counter-productive, particularly given the discussion paper's identification that increased R&D investment by large businesses would most significantly move the needle. We strongly recommend that these caps be raised significantly and indexed to CPI.

A publicly available AI analysis of R&D Tax Incentive data could identify emerging technology clusters and research patterns across industries, highlighting areas with high innovation potential and strong government support. By examining the distribution of successful claims across different sectors and technologies, AI could reveal underserved niches and promising research directions. This analysis could also uncover synergies between different fields, suggesting collaborative opportunities that businesses might otherwise miss. Understanding which research areas have historically received the most support, combined with trend analysis, could help businesses align their R&D investments with government priorities while identifying gaps in current research that represent strategic opportunities.

Supporting Australian Innovation in National Project procurement

Significant government projects of national importance, both in defence and civilian sectors, often face unique challenges requiring innovative solutions. From military modernization to critical infrastructure, these initiatives demand cutting-edge approaches to overcome technical obstacles.

Allocating 2-3% of total project costs specifically for Australian businesses to conduct targeted research and development is proposed. This approach would create a dedicated innovation pipeline for solving project-specific problems, strengthen domestic industrial capabilities and technical expertise, reduce reliance on foreign solutions for sovereign capabilities, generate intellectual property with potential commercial applications, and support knowledge transfer between defence and civilian sectors.

This strategic investment would cultivate specialised expertise while ensuring projects meet their objectives. By embedding R&D funding within major initiatives, an ecosystem would be fostered where Australian innovation directly addresses national priorities, creating a virtuous cycle of capability development and economic advancement.

Brokerage and Education Network

Australia needs an integrated approach to increase BERD by combining innovation brokerage with leadership development for SMEs. This dual strategy addresses both external navigation challenges and internal capability gaps limiting R&D investment.

An industry-led innovation brokerage network would connect businesses with private sector R&D resources and government/research institutions. Specialised brokers would map the innovation ecosystem and facilitate targeted connections to venture capital, commercialisation experts and industry innovation hubs, reducing the transaction costs that discourage SME investment in R&D.

Complementing this external navigation, a focused leadership development program would equip SME decision-makers with essential capabilities in R&D portfolio management, technology roadmapping and innovation team leadership. This addresses the fundamental capability shortages often underlying Australia's business R&D underinvestment.

By simultaneously improving ecosystem navigation and building internal capabilities, this approach would drive measurable increases in private sector R&D expenditure and successful commercialisation rates across Australian SMEs.

What changes are needed to enhance the role of research institutions and businesses (including startups, small businesses, medium businesses and large organisations) in Australia's R&D system?

Public Sector Research Institutions

Despite decades of substantial government funding, Australia's public research sector faces a crisis of relevance. Research-industry collaboration rates continue to worsen, with our members increasingly turning to overseas universities that offer more affordable, efficient, and commercially focused partnerships with clear routes to market.

While emerging green shoots in research commercialisation show promise, they're insufficient to address systemic issues. The era of relying primarily on government funding must evolve toward self-sustainability.

Key to this transformation are bodies such as Australia's Economic Accelerator (AEA) which not only have a critical role in accelerating the commercialisation of IP at early stage Technology Readiness Levels but driving very necessary cultural change through Australia's public research sector, making it more agile, client focused and aligned with industry's needs.

Formation of IP Bank

To support the commercialisation of public sector IP we support the formation of a national IP Bank. This bank would serve as a central repository for IP funded by the public purse, aiming to streamline the commercialisation process and support universities in focusing on their strengths in R&D.

Operating outside the public service, the IP Bank would house publicly funded IP and release it to industry through standardised contracts and royalty agreements. By involving commercialisation specialists, the bank would ensure that the IP is effectively transitioned from research to market. Royalties generated from the commercialisation of IP would be shared between the IP Bank, the government, and the originating research institutions.

IP/Commercialisation Scorecard for Australian Research Institutions

The introduction of a publicly available IP/Commercialisation Scorecard for Australian public sector research institutions would create much-needed transparency in the nation's innovation ecosystem. This public-facing resource would benchmark institutions' effectiveness in translating research into commercial outcomes.

The scorecard would capture critical metrics including each institution's formal IP ownership policies, success rates in commercialising research outputs, revenue generated from IP licensing or spinouts, adoption of standardised HERC-IP contract frameworks, and resourcing of dedicated Technology Transfer Offices.

This initiative would benefit multiple stakeholders: industry partners gain clarity on institutions with proven commercialisation pathways; government can target funding to institutions demonstrating excellence; and researchers can identify institutions with robust translation support.

The scorecard aligns with National Innovation Priorities by addressing the "valley of death" between research and commercialisation. Regular updates would track improvements while creating healthy competition among institutions and identifying systemic barriers requiring policy intervention.

Business

One of industry's most important parts in the innovation jigsaw puzzle lays in its ability to effectively commercialise IP by providing the necessary infrastructure, resources, and market access, resulting in job creation, increased competitiveness, productivity, and economic growth.

We would like to see government and research sectors lean into this experience in the early development of policy, programmes, regulation, research and development rather than at the conclusion.

Australian business needs a long-term bipartisan strategy for R&D, developed collaboratively with industry. Policy stability is crucial in this space given the extended timelines over which decisions materialise and investments pay off.

Hence our earlier proposal for establishing a Ministerial Council for Innovation, Science, and Technology and a rolling ten-year national innovation strategy within six months of the review reporting.

This approach would ensure the continuity and coherence necessary for Australia to build and maintain competitive advantage in an increasingly knowledge-driven global economy.

How should Australia support basic or 'discovery' research?

As noted earlier the nation lacks a long-term national innovation, science and technology strategy which materially impacts on the level of basic research undertaken in Australia.

A comprehensive ten-year national strategy for research, innovation, and technology is crucial for Australia's scientific advancement. Such a strategy would provide long-term direction, ensure policy stability across political cycles, and signal serious commitment to the international research community. This approach enables strategic resource allocation and creates confidence for large-scale, transformative research initiatives that extend beyond short-term funding cycles.

Consistent funding from government grants, from the ARC and NHMRC aligned with national priorities like the net-zero transition will help focus limited resources. Collaboration between universities, research institutions with industry insights will enhance impact and create practical applications for findings. Industry can help inform research priorities by identifying knowledge gaps and challenges requiring scientific investigation. This dialogue helps shape research agendas addressing both immediate needs and long-term advancement.

Democratising access to intellectual property from publicly funded research would maximise societal benefit. The proposed IP bank would create a centralised repository making innovations available to researchers, businesses and the public, accelerating knowledge sharing while recognising inventors' contributions.

These interconnected approaches create a thriving environment for basic research, delivering scientific advancements that benefit Australian society.

What should we do to attract, develop and retain an R&D workforce suitable for Australia's future needs?

Technology is one of the key drivers of change across the globe. It is creating many new jobs and tasks, and changing many others through rapid developments in AI, robotics and cyber security. Australia is projected to need 370,000 digital workers by 2026, with high-level digital skills – such as programmers and analysts – expected to balloon by 47% by 2026.

One issue across both the VET and higher education sectors is the need for an increase in the pool of teachers and trainers who can deliver STEM education and training across different qualifications. In VET, governments should support the movement of industry personnel into teaching positions through more flexible pathways into teaching. Developing skills for this sector begins with primary and secondary schooling.

The latest OECD Programme for International Student Assessment (PISA) has shown there is a considerable decline in science, and mathematics and numeracy skills among Australian students. Action needs to be taken to arrest this decline to ensure there is a baseline standard at the foundational skills level and to put a floor under the higher-level STEM skills required for a transforming economy through trends like decarbonisation and digitalisation.

Australia's skills flow is influenced by both domestic training initiatives and international migration. The country has implemented several visa programs to attract skilled workers from abroad, particularly in high-demand sectors. The Australian Government should maintain initiatives and support programs to attract skilled individuals and investors who can contribute to Australia's innovation landscape.

Existing programs to improve STEM skills and the innovation ecosystem should focus on linking researchers with commercial partners rather than training them as entrepreneurs.

Countries like Israel, Singapore and the US have successful models of supporting researchers within commercial teams.

The movement of skilled migrant workers between firms helps transfer knowledge and spread innovation. There is an opportunity to leverage Australia's innovative capabilities to entice expats to repatriate and add to the domestic innovation ecosystem. Programs of the Department of Foreign Affairs and Trade to showcase active innovation in emerging technology areas can resonate with the interests and aspirations of returning citizens.

There is currently no simple visa mechanism for an intra-company transfer for a set period, which significantly limits the ability to bring talent into Australia and upskill local staff. This gap in our immigration framework hinders knowledge sharing, innovation exchange, and the development of specialised expertise within Australian operations. The introduction of a streamlined intra-company transfer visa would deliver multiple benefits: accelerating skills development among local teams, facilitating crucial knowledge transfer, strengthening global business connections, and ultimately enhancing Australia's competitiveness in the international market. Such a practical policy improvement would represent a significant positive outcome for both Australian businesses and the broader economy.

To optimise human capital and boost Australia's innovation ecosystem, it's also crucial to address gender disparities. Women face significant barriers to accessing capital, support networks and opportunities. Increasing diversity and inclusion in the STEM workforce is highlighted as crucial to addressing skills shortages and ensuring broad participation in the workforce.

How can First Nations knowledge and leadership be elevated throughout Australia's R&D system?

Australia could develop a national policy that centres First Nations leadership in research projects. This approach would guide priorities, encourage partnerships between Indigenous and non-Indigenous researchers, implement strong ethical guidelines protecting Indigenous rights and data sovereignty, and provide education and funding opportunities for Indigenous researchers.

In our immediate region, we can learn from New Zealand's Vision Mātauranga policy. This successful framework integrates Māori knowledge into national research initiatives while ensuring Indigenous leadership, collaborative models, ethical standards, and capacity building.

Businesses can take concrete actions by partnering with Indigenous communities, funding aligned research projects, providing cultural safety training, and collaborating with Indigenous enterprises to commercialise innovations. Supporting Indigenous start-ups through mentorship, market access and investment creates mutual benefits.

By embracing these strategies, Australia will create a more inclusive R&D system that honours First Nations knowledge. This approach enriches our research landscape with diverse perspectives and innovative solutions that benefit all Australians.

What incentives do business leaders need to recognise the value of R&D investment, and to build R&D activities in Australia?

Australian business leaders clearly understand the crucial role of R&D investment and are eager to conduct innovative research activities domestically. However, their capacity to invest is significantly hampered by numerous challenges affecting the operating environment as noted earlier in this submission.

International business leaders require both strategic and financial incentives to prioritise R&D investment in Australia. While tax incentives and grants are valuable, the strategic imperatives must be compelling in today's globally competitive R&D landscape.

Leaders need clarity on how Australian R&D contributes to their global competitive advantage. The global nature of corporate R&D means Australian operations compete internally for investment allocation. When regulatory frameworks are overly complex or restrictive, investment naturally flows to more conducive environments. Australia must streamline approval processes and regulatory requirements to remain competitive against alternative global locations.

Critically, the connection between R&D location and commercialisation impacts long-term innovation outcomes. When R&D and commercialisation occur in proximity, it creates a virtuous cycle that strengthens IP development and attracts further investment. Leaders need to see demonstrable examples of this ecosystem effect.

The most powerful incentive is demonstrating that "doing" R&D in Australia leads to measurable business outcomes – creating a compelling case that Australia is not just a viable R&D location, but a strategic advantage in the global innovation landscape.

What should be measured to assess the value and impact of R&D investments?

Regardless of BERD or GERD to assess R&D investments effectively, measurement must go beyond self-reported surveys to include hard data on tangible economic outcomes. The primary metrics should establish direct links between specific R&D programs, sectors and their GDP contribution.

Members support recording sector-specific productivity gains in targeted industries following R&D implementation using standardised measurement frameworks. This could include revenue growth trajectories that track expansion in businesses utilising R&D innovations compared to industry averages.

Further, job creation and wage impacts could be measured as well as the creation of higher-value roles and corresponding wage improvements. Sovereign capability development assessments could focus reduced dependency on imported technologies in strategic sectors. Commercialisation success rates would track the conversion of research into commercial products, including patents, licences, and market-ready innovations.

Regarding international best practice, Australia should examine successful innovation measurement approaches from other countries, with particular focus on systems that effectively link research investments to industrial transformation and economic outcomes. This examination would help identify standardised metrics that could be adapted to the Australian context.

These measurements should be incorporated into a publicly available standardised national scorecard that connects R&D investments to broader economic objectives. The scorecard must be transparent, accessible to diverse stakeholders, and focus on pivotal indicators aligned with national priorities. Annual reporting with periodic reviews would ensure ongoing relevance, while making data publicly available would foster collaborative problem-solving and demonstrate how R&D investments translate into tangible benefits for Australia's economy and society.

About Australian Industry Group

Ai Group and partner organisations represent the interests of more than 60,000 businesses employing more than 1 million staff. Our membership includes businesses of all sizes, from large international companies operating in Australia and iconic Australian brands to family-run SMEs. Our members operate across a wide cross-section of the Australian economy and are linked to the broader economy through national and international supply chains.

Our purpose is to create a better Australia by empowering industry success. We offer our membership strong advocacy and an effective voice at all levels of government underpinned by our respected position of policy leadership and political non-partisanship.

With more than 250 staff and networks of relationships that extend beyond borders (domestic and international), we have the resources and expertise to meet the changing needs of our membership. We provide the practical information, advice and assistance you need to run your business. Our deep experience of industrial relations and workplace law positions Ai Group as Australia's leading industrial advocate.

We listen and we support our members by remaining at the cutting edge of policy debate and legislative change. We provide solution-driven advice to address business opportunities and risks.

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