Science & Technology AUSTRALIA

POLICY SUBMISSION

9 OCTOBER 2026

GETTING IT RIGHT: BUILDING AI INFRASTRUCTURE THAT WORKS FOR AUSTRALIA

Science & Technology Australia thanks the Australian Government for the opportunity to respond to the consultation paper *Getting it right: Building AI infrastructure that works for Australia*. This submission focuses on Part 3 – *Conditions for AI training*.

Science & Technology Australia is the peak body for the nation's science and technology sectors, representing nearly 150 member organisations and more than 235,000 scientists and technologists. We connect science and technology with governments, business and the community to advance science's role in solving some of humanity's greatest challenges.

STA notes this consultation has close connections to the broader reforms proposed in the Strategic Examination of Research and Development's final report, *Ambitious Australia*. Recommendation 4d explicitly identifies the need to ensure Australia has state-of-the-art high-performance computing and graphics processing unit (GPU) capabilities to support research, development and innovation. The proposed AI infrastructure standards present an important opportunity to advance this ambition by leveraging private investment in AI infrastructure to deliver coordinated and enduring benefits for Australia's research and innovation system. However, **any industry contributions should complement, rather than substitute for, sustained public investment in national research infrastructure**.

More broadly, the Government should ensure that its approach to AI infrastructure is coordinated with the implementation of *Ambitious Australia* and the future National Resilience and Science Council, so that investments in data centres, computing capability and AI strengthen Australia's sovereign research capabilities, support scientific discovery and contribute to long-term productivity and economic growth.

Key points

- STA welcomes the Government's recognition that Australia cannot simply be a destination for infrastructure investment, and that research outputs, IP and returns from AI training must not simply accrue offshore.
- But sovereign AI capability is not simply having other countries' companies based here. It depends on Australia's own researchers, research institutions, research infrastructure and STEM workforce – and that requires direct and sustained public investment.
- Contributions from frontier AI developers, hyperscalers and neocloud providers can play a valuable role, but must complement – not substitute for – public investment in Australian research capability.
- Contribution mechanisms should operate under a nationally coordinated, merit-based system that ensures researchers have smooth and effective access to compute, storage, data and expert technical support.

Science & Technology Australia recommendations

1. Recognising that sovereign capability must be built in Australia, not simply hosted here, the AI standards should be complemented by direct, sustained public investment in Australia's own AI

research capability – its researchers, research institutions, research infrastructure and STEM skills pipeline.

2. To ensure that Australia benefits from investments in AI infrastructure and data centre development, the AI Standards should ensure that all investors be active participants in Australia's R&D capability. This could take the form of a revenue-based public-interest levy that would fund Australian R&D. This includes:
    a. a public-interest research levy on revenue (i.e. revenue before deducting any expenses) from large-scale AI training and commercial compute, discounted for verified onshore R&D investment.
    b. a compute reserve scheme, whereby hyperscalers and neocloud providers are required to reserve a share of capacity for Australian research at low or no cost, ensuring:
        i. access through a single, merit-based nationally coordinated scheme (e.g. NCMAS)
        ii. specialised technical support
        iii. appropriate data and IP protections for researchers, as well as data portability between providers
        iv. appropriate security parameters for sensitive data
        v. reliable and guaranteed for the life of a research project
3. In recognition that publicly funded and publicly accessible compute capacity and capability is central to Australia's research, economic development and productivity, the Australian Government should:
    a. undertake a coordinated national-level assessment of current and future compute requirements, spanning research, government and industry needs, including how various public, private and hybrid models currently meet this needs.
    b. deliver secure funding on a decadal scale, rather than short grant cycles, to national level compute capability.
4. Design safety and security conditions in principles-based legislation with technical detail in regularly updated instruments, and ensure they are underpinned by Australian expertise, with strong links between the Australian AI Safety Institute, regulators and the research community.

Sovereign capability must be built, not just hosted

The consultation paper acknowledges both the opportunity and the need to capitalise on data centre and AI training investment to build Australia's sovereign AI capability. STA strongly supports this ambition.

However, the paper largely frames sovereign capability as something that will flow from attracting international firms. Having frontier labs and hyperscalers operate in Australia is valuable – but it is not the same as sovereign capability. Sovereign capability means Australia has the domestic scientific, technical and regulatory expertise to understand AI systems, make informed choices about the technologies we adopt, test and govern them, and develop our own AI where Australia's interests require it.

As STA argued in its submission to the Joint Select Committee on Artificial Intelligence, Australia need not replicate the global AI supply chain, but it must invest where it has distinctive strengths and unique national needs – including health, agriculture, climate and environmental science, resources, astronomy, biodiversity and defence. Modelling uniquely Australian climate and weather systems, for example, is clearly in the national interest and unlikely to be a priority for any other country or company.

The AI standards should therefore sit alongside a deliberate Government commitment to invest directly in Australia's own AI researchers and research system, including the STEM skills pipeline from school mathematics through to postgraduate research training. Contributions secured from industry should be clearly additional to that investment, not a reason to reduce it.

Science & Technology Australia recommendation:

1. Recognising that sovereign capability must be built in Australia, not simply hosted here, the AI standards should be complemented by direct, sustained public investment in Australia's own AI research capability – its researchers, research institutions, research infrastructure and STEM skills pipeline.

Securing research and innovation contributions

Companies seeking to invest in data centres or other AI infrastructure in Australia should be required to be active participants in Australia's R&D system. STA considers a public-interest research payment combined with a compute reservation scheme would deliver the simplest and most reliable benefit; negotiated in-kind contributions alone risk being inconsistent and hard to enforce.

A public-interest research levy. A levy set as a modest share of revenue from large-scale AI training and commercial compute (e.g. in the range of 0.5–2.5% of revenue, i.e. income before any deductions) would provide a predictable, enforceable contribution. It could be discounted for companies that make verifiable onshore R&D investments that meet the R&D Tax Incentive eligibility requirements – this would reward genuine local research presence.

Proceeds would fund national public compute and/or a sovereign AI research fund allocated through competitive, merit-based processes such as those administered by the Australian Research Council. There are clear precedents in Australia's agricultural research levies and Canada's AI Compute Access Fund.

A compute reservation scheme. Applications to the 2026 National Computational Merit Allocation Scheme (NCMAS) totalled more than 2.2 billion hours of compute time – nearly 3 times the combined capacity of Australia's two HPC facilities (National Computational Infrastructure and Pawsey Supercomputing Centre). Hyperscalers and neocloud providers could help alleviate the strain on these critical national computing capabilities through delivering a share of capacity (e.g. 1–3%) for Australian research at low or no cost. This must be coupled with co-located storage – many research datasets must sit alongside the compute that processes them. For reserved capacity to deliver maximum benefit, the following conditions should apply:

- Single, merit-based access, allocated through the NCMAS or an expanded equivalent, so researchers apply once rather than to multiple providers.
- Specialised technical support to enable researchers to access platforms and prepare and curate data. Current support is often generic, outsourced and cost-prohibitive.
- Data and IP protections wherein researchers retain ownership of their data and IP and can move data between providers without financial or technical barriers.
- Security parameters whereby Government retains visibility of research data types held on commercial platforms, as even low-risk datasets (e.g. genomic data) can raise security concerns when combined with other data.
- Reliable and guaranteed for the life of a research project that is not pre-empted by commercial demand.

Frontier AI companies are likely better placed to contribute through bespoke or targeted research collaborations with Australian research institutions. There are already several examples of successful organic partnerships with tailored AI development to solve specific research problems. However, these partnerships must also meet the above obligations regarding data and IP protection, security

requirements and reliable and guaranteed access. These companies should still contribute to the levy where they operate large facilities here.

Frontier developers and hyperscalers should also support AI literacy and the STEM pipeline. Companies could be incentivised to engage local technical and expert staff, as well as fund industry PhD or cadetship programs.

AI literacy materials could be developed in partnership with the National AI Centre, through delivering teaching resources, scholarships, data literacy programs for researchers and workforce diversity programs.

All commitments and contributions to Australia's R&D capability should be measurable and publicly reported. Useful indicators include:

- Contributions to the public-interest research levy
- Quantum of compute and storage delivered to Australian researchers
- Number of locally based research and engineering staff, as a proportion of total workforce
- Number and size of funded scholarships, cadetships and industry PhDs
- University and public research organisation partnerships
- Australian-owned IP and commercialisation outcomes

Science & Technology Australia recommendation:

2. To ensure that Australia benefits from investments in AI infrastructure and data centre development, the AI Standards should ensure that all investors be active participants in Australia's R&D capability. This could take the form of a revenue-based public-interest levy that would fund Australian R&D. This includes:
    a. a public-interest research levy on revenue (before deducting any expenses) from large-scale AI training and commercial compute, discounted for verified onshore R&D investment.
    b. a compute reserve scheme, whereby hyperscalers and neocloud providers are required to reserve a share of capacity for Australian research at low or no cost, ensuring:
        vi. access through a single, merit-based nationally coordinated scheme (e.g. NCMAS)
        vii. specialised technical support
        viii. appropriate data and IP protections for researchers, as well as data portability between providers
        ix. appropriate security parameters for sensitive data
        x. reliable and guaranteed for the life of a research project

Commercial compute cannot replace public research infrastructure

Commercial compute contributions must not be treated as a replacement for publicly funded, publicly accessible compute such as the NCRIS-funded National Computational Infrastructure and Pawsey Supercomputing Centre, which provide compute and expert support through merit allocation at no cost to researchers.

Over-reliance on commercial providers risks cost escalation, unreliable capacity when global demand peaks, and a two-tier research system open only to those who can pay. The most resilient model is a mixed national computing estate, with public infrastructure carrying core research workloads and commercial cloud providing flexible, burst and specialised capacity.

Science & Technology Australia recommendation:

3. In recognition that publicly funded and publicly accessible compute capacity and capability is central to Australia's research, economic development and productivity, the Australian Government should:

a. undertake a coordinated national-level assessment of current and future compute requirements, spanning research, government and industry needs, including how various public, private and hybrid models currently meet this needs.
b. deliver secure funding on a decadal scale, rather than short grant cycles, to national level compute capability.

Safety and security conditions need Australian expertise

STA supports the proposal that frontier labs authorised to train in Australia meet minimum safety and security conditions, including disclosure of reportable AI incidents. These conditions should be proportionate, risk-based and technology-neutral, and draw on emerging international frontier AI transparency and incident-reporting regimes and the work of the international network of AI safety institutes, so that obligations are interoperable and do not deter investment.

To keep pace with rapid technological change while giving investors certainty, core obligations should be set in principles-based legislation, with technical detail – such as incident definitions and reporting thresholds – in instruments that can be updated regularly in consultation with technical experts. Developers should be required to report defined incidents proactively, provide further information to the Government on request, and publish transparency reports in a specified form. Safeguards should protect genuinely commercially sensitive and security-classified information, while allowing appropriately accredited Australian researchers to access disclosed information for safety research.

Critically, these conditions will only be as effective as Australia's capacity to interpret and act on what developers disclose. That requires independent domestic technical expertise – within the Australian AI Safety Institute and regulators, and across the research community they draw on. This is another reason why sovereign capability depends on investing in Australian researchers, not simply hosting international firms.

Science & Technology Australia recommendation:

4. Design safety and security conditions in principles-based legislation with technical detail in regularly updated instruments, and ensure they are underpinned by Australian expertise, with strong links between the Australian AI Safety Institute, regulators and the research community.

Science & Technology Australia would welcome the opportunity to discuss this submission further, to contribute to targeted stakeholder engagement on the conditions for AI training. Additionally, STA recently conducted a national AI in Research survey, with results currently being analysed. We would be happy to share findings from this work in due course.

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