OAA Response to the NRI Roadmap Exposure Draft 2026

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On behalf of the Open Access Australasia Executive Committee.

Q1. What additional elements of 'what good looks like' should be considered in the future design of the NRI system?

Open Access Australasia welcomes Section 3's framework for a good NRI system across four areas: strategic planning, prioritisation, monitoring and evaluation, and supporting pathways to translation. We recommend that open research be explicitly recognised as a cross-cutting principle embedded within all four areas.

Access to research infrastructure and access to the knowledge it enables are related but distinct. Shared access to facilities does not necessarily ensure that publications, data, software and other outputs remain discoverable and appropriately accessible to researchers, practitioners, policymakers, communities and industry. The Roadmap should identify discoverability, appropriate access, reuse and preservation as NRI portfolio outcomes, supported by clear rights information, accessible formats and interoperable systems.

Strategic planning: Planning should encompass infrastructure, services and specialist workforce needed to produce and analyse research and make outputs discoverable, appropriately accessible, reusable and preserved long term. This includes the full lifecycle of publications, data, software and other outputs, rather than treating dissemination and stewardship as activities occurring after infrastructure has performed its primary function.

Prioritisation: Criteria should recognise infrastructure's contribution to sustained access to and responsible reuse of research outputs, including support for interoperable systems, accessible formats and clear rights and access information. Openness should be enabled wherever legally, ethically and culturally appropriate. Access conditions and restrictions should be established through legitimate governance and clearly communicated. Aboriginal and Torres Strait Islander authority over Indigenous Knowledge and Data must shape infrastructure governance and design from the outset. Community-governed access is part of responsible infrastructure design, not an exception to resolve after systems are established.

Monitoring and evaluation: Evaluation should consider whether infrastructure enables sustained discovery, appropriate access and reuse, preservation and public benefit. Indicators and qualitative evidence should suit different infrastructure types and recognise that access to facilities and access to the knowledge they enable are related but distinct.

Supporting pathways to translation: Section 3.4 appropriately recognises policy and community outcomes alongside commercial outcomes. These broader outcomes depend in part on relevant research outputs being findable, accessible and usable by policymakers, practitioners, communities and industry. The final Roadmap should recognise open research infrastructure as an important enabler of commercial and non-commercial translation.

Embedding open research across four areas would help ensure that NRI's value remains discoverable, appropriately accessible, reusable and preserved for the benefit of research and the wider community.

Q3. Where are the opportunities to strengthen the analysis of the current state in Australia, and how could they be addressed?

Section 2.2's account of strategic planning and governance could be strengthened by recognising the distributed infrastructure through which Australian publications and other research outputs are published, deposited, described, discovered, accessed and preserved. The Exposure Draft recognises national repositories

within its discussion of data infrastructure but does not clearly map repositories and publishing services for publications and other outputs as a connected part of Australia's research infrastructure landscape.

This gap could be addressed through the national landscape analysis proposed in Section 3.1. The Exposure Draft states that landscape analysis should go beyond a description of existing facilities and involve a "user-driven analysis that focuses on services offered". We recommend applying this approach to Australia's distributed open scholarly communication infrastructure.

The analysis could encompass institutional and disciplinary repositories; open scholarly publishing platforms; discovery and aggregation services; preservation services; and relevant metadata and persistent identifier infrastructure. Relevant considerations include their reach and use, interoperability, sustainability, governance, workforce requirements and dependencies on proprietary or international systems. The analysis could also assess which services, individually or collectively, demonstrate national reach, connectivity and research impact, consistent with the Roadmap's definition of nationally significant infrastructure.

Input could be sought from university and research libraries, repository and publishing-platform managers, scholarly communication specialists, collecting institutions, and relevant research and community user groups. Where services hold, describe or disseminate Indigenous Knowledges or Data, Aboriginal and Torres Strait Islander organisations and communities must have decision-making authority over the scope, methods and interpretation of the analysis as it relates to that material.

The aim is to establish an evidence base for strengthening existing assets and developing shared or coordinated services where these would provide national value. This would not imply that every institutional platform constitutes NRI or that nationally coordinated capability requires a single centrally operated system.

Q6. What specific opportunities for greater coordination between funding schemes do you recommend should be subject to further analysis in 2027-2028 in order to improve Australia's RI system?

Open Access Australasia recommends further analysis of coordination between research funding schemes that establish requirements for the management and dissemination of research outputs, and programs that fund the national and institutional infrastructure needed to meet those requirements.

The Exposure Draft identifies NCRIS, MRFF, NHMRC and ARC as public research investment streams operating with different processes and criteria. It also recognises the need for collaboration among these streams to avoid gaps and duplication, particularly in digital research infrastructure.

A specific opportunity for analysis in 2027–2028 is therefore how requirements attached to ARC, NHMRC and MRFF funding inform investment priorities for NCRIS and other national digital research infrastructure programs. Requirements relating to deposit, metadata, access, licensing, preservation and responsible governance create ongoing demand for repositories, preservation services, interoperable systems and specialist staff. Coordination would help ensure that these requirements are considered when infrastructure needs and funding priorities are assessed, rather than leaving each institution to develop separate solutions.

This analysis could also consider how funding schemes collectively support the implementation of requirements relating to Aboriginal and Torres Strait Islander research, Indigenous Cultural and Intellectual Property and Indigenous Data Sovereignty. Effective implementation requires Indigenous-led governance and guidance, appropriate technical functionality and sustained specialist capacity.

The objective would be to establish mechanisms for sharing information about emerging requirements, forecasting their infrastructure implications, identifying gaps and overlaps, and coordinating investment where shared national provision would be more effective than fragmented institutional responses.

Q8. AI is impacting research practices in all domains. What are the implications for how we should plan and prioritise national research infrastructure?

Open Access Australasia welcomes the draft's emphasis on provenance, assurance and human oversight. Section 5.2 calls for "sufficient evidence for replication and audit", while Section 6.2 proposes evidence chains around AI-supported research.

Publications and other research outputs are not only end products. With data and software, they form part of the research record that researchers and AI systems draw on to develop hypotheses, interpret evidence and produce further research. The draft recognises that AI connects researchers to literature, data, collections and tools, but its priorities focus more fully on compute, models, datasets and workflows.

AI planning should consider the nationally significant services that make this record a dependable input to future research. This does not mean assuming responsibility for scholarly publishing as a whole or treating every repository as NRI. It means identifying repository, discovery, linking and preservation services with national reach, connectivity and research impact.

Priorities should include nationally accessible services providing authoritative sources, metadata, persistent identifiers, version and correction information, and enduring access to evidence. Researchers should be able to trace AI-supported claims to authoritative sources and record the publications, data, models, software and workflows used. Continuing curation is necessary as versions, corrections and retractions appear.

Rights and access conditions should be clear and machine-actionable where possible. Researchers and public institutions should retain sufficient rights in publicly funded outputs to deposit, preserve, migrate and provide enduring access to them. Access does not confer permission for every computational use, including AI training. Open availability does not resolve copyright, privacy, consent or cultural authority. Decisions affecting Aboriginal and Torres Strait Islander Knowledge and Data must be governed by Aboriginal and Torres Strait Islander peoples.

Global commercial AI and cloud providers will be important partners, but planning should avoid strategic dependence on services whose costs, access conditions and continuity are outside Australian control. Commercial capability should complement public and community-governed infrastructure through which Australia retains control of publicly funded research assets. Open standards, interoperability, exportable content and metadata, transparent terms, preservation arrangements and credible exit pathways should allow content and workflows to move between providers without loss of evidence or access.

These priorities build on Section 2.3's recognition of relationships between public research institutions, commercial AI providers and ownership of research assets. They would strengthen sovereign capability by ensuring Australia retains trusted evidence, enduring access and appropriate control, as well as domestic computing capacity.

Q9. Do you agree with the definition of nationally significant research collections in terms of reach, connectivity and research impact? Why or why not?

Yes. Open Access Australasia supports defining national significance through reach, connectivity and research impact. Section 5.6 appropriately makes clear that national significance does not depend on the size, location or administrative status of the institution or collection. This recognises that research value is distributed across local, community, regional, state and national institutions, and that connections among distributed collections can create nationally significant research capability.

The principal area requiring further attention is how reach, connectivity and research impact will be interpreted in the proposed Phase 1 assessment framework. These concepts should be defined in ways that recognise both demonstrated contribution and credible future potential.

In particular, connectivity should encompass a collection's capacity and value as part of a connected national research ecosystem, not only its present level of digitisation or integration. Many significant collections will require investment in description, digitisation, interoperability and discovery before their full contribution can be realised. This is consistent with the Roadmap's proposed phased approach: maturity and feasibility may

appropriately inform implementation sequencing without determining the underlying significance of a collection. The assessment also should recognise that collections may be nationally significant collectively, through their complementary holdings and connections, even where individual collections would not meet the criteria independently.

Reach should similarly reflect the breadth of researchers and communities that a collection serves or could serve, rather than relying only on current user numbers or requiring unrestricted access. Appropriate access may remain subject to Indigenous authority, cultural protocols, privacy, consent and other legitimate conditions. Such conditions should not in themselves prevent a collection from being recognised as nationally significant.

Research impact should encompass demonstrated and prospective scientific, cultural, social, policy and public-good research contributions, including interdisciplinary uses that may become possible when collections are connected. We recommend that the detailed indicators and evidence requirements for all three criteria be transparent and developed in consultation with collection holders, research communities and Aboriginal and Torres Strait Islander authorities.

Open Access Australasia would welcome the opportunity to contribute to the development of these indicators and evidence requirements through the consultation process.

Q10. Are the strategic objectives and key areas for action the priority ones?

Open Access Australasia broadly supports Section 5.6's strategic objectives and key areas for action on discovery, access, interoperability, metadata, preservation, stewardship and Aboriginal and Torres Strait Islander authority. We welcome the draft's implied rationale for nationally coordinated repository and publishing infrastructure, which OAA has long advocated, although these terms are not expressly used. Its emphasis on distributed but connected national capability, shared standards, persistent identifiers, repositories and long-term stewardship aligns with that position.

We welcome the objective to "Preserve and improve access to nationally significant physical and digital collections" and propose three refinements.

First, clarify the relationship between the collection's framework and digital research infrastructure for nationally significant collections of research outputs, including theses, reports, publications, creative works and community-engaged scholarship. The broad NRI definition appears capable of encompassing these materials, but the draft does not expressly locate them within either framework. Coordination would help ensure coherent consideration of infrastructure supporting their discovery, access, preservation and reuse, rather than fragmented arrangements.

Second, we support the focus on discovery, access, interoperability, usability, reuse and responsible access. Enabling infrastructure and service models could also support clear rights and licensing information, permissions for reuse, provenance, accessible formats and appropriate access mechanisms. This would translate discoverability into practical and lawful reuse while respecting cultural authority, privacy, consent and other legitimate conditions.

Third, we welcome the recognition of preservation, curation, long-term stewardship and sustainable capability models. The final Roadmap should make explicit that these are continuing operational responsibilities requiring recurrent investment, not one-off outcomes of digitisation, connection or initial platform development. This includes sustained support for metadata maintenance, preservation actions, rights management, technical maintenance, storage and specialist workforce capability.

We support the draft's commitment to openness and protection consistent with FAIR and CARE principles, and to Aboriginal and Torres Strait Islander authority over Indigenous Knowledges in research collections. This includes authority over collection, management, description, access, use and repatriation, and governance and access arrangements upholding Indigenous Data Sovereignty and cultural protocols.

These refinements would build on the draft's direction, translating its commitment to connected, discoverable, accessible and sustainably managed national collections into practical implementation and supporting the federated repository and publishing infrastructure it points towards.

Q11. In the descriptions of any of the capabilities (workforce, digital research infrastructure, fabrication, observation, measurement, and collections), are there key aspects that have not been mentioned? If so, please elaborate.

Open Access Australasia welcomes the recognition in Section 5.2 of national repositories as a component of data infrastructure. The description could be strengthened by clarifying that national digital research infrastructure should also encompass the services through which publications and other research outputs are deposited, described, linked, discovered, accessed and preserved.

Two areas warrant clearer recognition:

First, nationally coordinated repository infrastructure for publications, theses, reports, creative works and other outputs, linked with related data and software. This need not take the form of a single national repository. It could be a federated network building on existing institutional and disciplinary repositories while providing shared discovery, aggregation, interoperability, persistent identification and preservation.

Second, shared or federated scholarly publishing infrastructure, including community-governed Diamond open access journals where these demonstrate national reach, connectivity and research impact. It could provide sustainable hosting, publishing workflows, interoperable metadata, identifiers, long-term preservation and specialist support, while allowing journals and communities to retain editorial and governance autonomy. These are enabling capabilities, not simply administrative activities.

Both repository and publishing infrastructure should support diverse knowledge systems, research methodologies and forms of output, including Indigenous research methodologies and culturally appropriate forms of authorship, review, description, discovery, access and dissemination. Where Indigenous Knowledge or Data is involved, services must operate under Aboriginal and Torres Strait Islander authority and consistently with Indigenous Data Sovereignty and Governance and Indigenous Cultural and Intellectual Property principles.

Section 5.1 could recognise repository managers, metadata and digital preservation professionals, scholarly communication specialists, rights and licensing specialists, and Indigenous knowledge and data governance specialists. These roles combine technical expertise with knowledge of research practices, legal requirements, cultural protocols and user needs.

We recommend recognising these capabilities as connected services within digital research infrastructure and assessing nationally coordinated or federated models. This would strengthen existing institutional and community infrastructure without requiring all services or content to move to a single central facility, while supporting research integrity, reproducibility, translation and long-term value.

Q12. Do you have any comments on the proposed phased approach to elevate Indigenous Knowledge Systems?

Open Access Australasia welcomes Phase 1's work to elevate Indigenous Knowledge Systems by recognising and giving effect to Aboriginal and Torres Strait Islander authority, governance and decision-making on Indigenous Knowledge and Data. We support the draft's recognition of Indigenous Data Sovereignty (IDS) and Aboriginal and Torres Strait Islander authority over Traditional Knowledge and Data.

We welcome Phase 1's commitment to national community consultation, engaging with on-Country Indigenous Knowledge and Data providers, users and representative institutions; and development of governance arrangements reflecting Aboriginal and Torres Strait Islander priorities, cultural authority and governance expectations. Phase 1 must be led by Aboriginal and Torres Strait Islander communities, and the

findings of their consultation and governance processes must determine subsequent phases. The form, scope, governance and operation of future arrangements for Indigenous Knowledge and Data should be decided through Aboriginal and Torres Strait Islander-led processes, not assumed at the outset.

Phase 1 includes analysis of current status and priority infrastructure needs, and an audit of Indigenous Knowledge and Data practices across existing NRI facilities. Community consultation and governance development should guide this work, including the audit's scope, priorities, methods and interpretation. The audit must extend beyond NRI facilities to institutional and disciplinary repositories, and relevant research outputs and associated materials across the research sector. These may include publications, theses, reports, images, audiovisual works and datasets about, by or produced with Aboriginal and Torres Strait Islander peoples. It could examine their description, access, management, preservation and reuse, including consent, permissions, provenance, cultural protocols, Indigenous Cultural and Intellectual Property, IDS and access conditions. A priority is identifying gaps between community-determined requirements, priorities and expectations and institutions' and services' capacity to meet them. This evidence should guide consideration of required capability and capacity uplift.

The audit must be appropriately governed, resourced and undertaken with Aboriginal and Torres Strait Islander rights-holders, with participation, consent, cultural protocols, access to findings and subsequent use determined under Aboriginal and Torres Strait Islander authority. This work can build on the substantial body of work already undertaken by Aboriginal and Torres Strait Islander researchers, scholars, communities and leaders in IDS, Indigenous Data Governance, cultural authority, Indigenous Cultural and Intellectual Property and stewardship of Indigenous Knowledge and Data.

Open Access Australasia would be pleased to contribute repository-sector expertise to Phase 1, particularly in identifying current practices, gaps and capacity needs across repository services.

Q14. Do you have any comments on the proposed phased approach to collections?

Open Access Australasia supports a phased approach to collections, but Phase 1 is pivotal: it determines priorities for Phase 2 investment and future NRI planning. The national assessment and prioritisation framework must identify not only mature, visible collections but also gaps in national capability, emerging collections, changing research practices and future national needs.

Starting with highly feasible collection enhancements requires care. Feasibility, partly defined by existing interoperability, accessibility, usability, collaboration and institutional capacity, risks becoming a proxy for existing resourcing. If Phase 1 prioritises only mature collections, Phase 2 will reinforce rather than address uneven capability. The framework must include equity and future-readiness criteria, and a pathway to build capability beyond the initial investment-ready collections.

Phase 2 should build on Phase 1 findings to invest in shared national open infrastructure designed from the outset to connect and support the full distributed research collections ecosystem, not just initially prioritised collections. While direct enhancement of individual collections may be staged, underlying infrastructure should support discovery, interoperability, access and preservation across collections, institutions and disciplines. It should recognise scholarly publishing infrastructure as part of the wider ecosystem needed to make Australian research discoverable, accessible, preserved and appropriately reusable.

Across all phases, Indigenous Data Sovereignty, cultural authority, Indigenous Cultural and Intellectual Property, free, prior and informed consent, and culturally appropriate access and reuse protocols must be embedded in governance, prioritisation, technical design and investment decisions. This aligns with the draft's Phase 1 commitment to co-develop governance and stewardship models with Aboriginal and Torres Strait Islander peoples, and its Phase 2 commitment to CAREful FAIRness, Indigenous Data Sovereignty and responsible access.

The Roadmap should note two policy issues affecting success. First, nationally consistent rights-retention settings for publicly funded research are needed to address rights upstream, enabling authors and institutions

to make outputs openly available and preserve them in trusted repositories. Otherwise, institutions must develop their own rights-retention approaches within differing policy and contractual settings, producing a fragmented and often ineffective response. Second, research assessment and reward settings need to value open and responsible dissemination, curation and stewardship; otherwise, researchers and institutions will have little incentive to make research accessible, reusable and sustainably preserved.

OAA would welcome a clear pathway and timetable for stakeholder participation and would be pleased to contribute to the assessment, priority-setting and development of shared national infrastructure.

Q15. Please add any feedback on the draft findings you would like the Roadmap Expert Working Group to consider.

Open Access Australasia welcomes the findings on lifecycle funding, integrated research workflows, end-to-end capability, workforce, coordination, and the need for data to be secure, standardised, interoperable, governed and accessible where appropriate.

Taken together, these findings point to the need for nationally connected infrastructure that supports the full lifecycle of Australian research outputs. The draft rightly observes that research infrastructure must increasingly support end-to-end capability. This should explicitly extend beyond analysis and translation to include discovery, dissemination, appropriate reuse and long-term preservation. These functions ensure that research outputs and their supporting evidence remain findable, accessible where appropriate, interpretable, available for validation and reuse, and capable of contributing to further research and public-good translation.

We recommend that the final Roadmap make this implication explicit: nationally connected infrastructure for the discovery, dissemination, appropriate reuse and long-term preservation of Australian research outputs is essential to maximise the value of public investment in research. Sustained support for interoperable repositories, identifiers, metadata, preservation services and the specialist workforce that operates them will strengthen research integrity, equitable access, public-good translation and responsible AI, while upholding Indigenous authority and appropriate protections for sensitive material.
This would connect commitments already present in the draft. Section 5.2 recognises repositories, identifiers and provenance, while the collections proposals recognise discovery, preservation and stewardship. The final Roadmap should articulate their shared contribution as a cross-domain national capability.

Q16. Please add any other feedback you would like the Roadmap Expert Working Group to consider.

Open Access Australasia welcomes the Roadmap's strategic direction and its recognition that national research infrastructure includes digital and knowledge-based resources, repositories, datasets, standards, platforms and specialist personnel. We recommend that future planning give clearer and more sustained attention to the infrastructure that enables Australian research outputs to be discovered, accessed where appropriate, connected, preserved and responsibly reused.

Australia needs national capability in this area. This does not mean that every institution must adopt the same platform, or that every individual repository or journal must be separately designated as national research infrastructure. It means coordinated, sustained investment in the services, standards, expertise and connections that enable diverse institutional, disciplinary and community-based systems to operate as a coherent national capability.

Open Access Australasia recommends that future planning consider three connected capabilities, proposed in our December 2025 joint submission with the Council of Australasian University Librarians.

<u>Enhanced discovery of Australian open research outputs</u>

Develop a nationally coordinated aggregation and discovery capability connecting institutional and disciplinary repositories, and linking publications with relevant datasets, software, preprints and other supporting outputs. This would make Australian research easier to find and use appropriately for researchers, policymakers,

practitioners, communities, industry and small and medium-sized enterprises.

Planning should address common metadata, persistent identifiers, provenance, durable links between related outputs, and clear rights and access information. It must accommodate sensitive material, Indigenous Data Sovereignty, cultural authority and community-governed access; aggregation must not be equated with unrestricted availability. An initial implementation could build on existing repository content and connections, with priorities informed by the national landscape analysis.

Shared repository service models

Examine opt-in service models that offer shared repository provision alongside continued operation of existing institutional systems. Such models could combine common technical infrastructure with shared expertise in metadata, preservation, rights, accessibility, security and governance.

Institutions selecting shared hosting can retain appropriate stewardship and decision-making. Institutions retaining their own systems could be able to participate through open, interoperable connections. Assessment should compare costs, sustainability, portability, security, preservation capability and service quality across open-source and proprietary options. Transition planning, long-term operating funding and specialist staffing must be treated as core parts of the capability, not implementation afterthoughts.

Networked open journal publishing infrastructure

Develop a coordinated approach to infrastructure supporting open journals, including diamond open-access journals that charge neither readers nor authors. These journals provide vital publishing spaces for distinctive Australian research, local histories and community perspectives, helping ensure this knowledge remains visible and accessible as part of Australia's research record. This would provide a durable, community-governed public-interest capability alongside commercial publishing services, reducing dependence on fragmented local provision and helping ensure that important Australian journals are not left without sustainable technical and preservation support. The first step should be an updated national landscape assessment of Australian open journals, including publishing platforms, discoverability, preservation, accessibility and support needs.

This assessment could inform shared hosting and publishing-service options while retaining editorial independence, disciplinary diversity and community governance. The resulting capability should support reliable publishing workflows, persistent identifiers, high-quality metadata, discovery, preservation and specialist assistance. Planning should identify where collective provision can improve sustainability, quality and access without imposing a uniform operating model on diverse journals.

These proposals would give practical effect to the Roadmap's commitment to integrated, distributed and nationally connected research infrastructure. They could be assessed through the proposed landscape and prioritisation processes against national reach, connectivity, research contribution, equity, resilience, governance requirements and long-term operating needs. Open Access Australasia would welcome opportunities to contribute library-sector and scholarly-communication expertise to their further development.

Open Access Australasia thanks the Department of Education and the NRI Roadmap Expert Working Group for the opportunity to comment on the Exposure Draft. With a membership drawn largely from universities across Australia and Aotearoa New Zealand, Open Access Australasia advances equitable access to research through advocacy, collaboration and capacity-building. Our members bring practical experience of the policies, repositories, publishing services and stewardship that enable research to be shared and used. We therefore have a direct interest in ensuring that national research infrastructure planning encompasses not only the production of research, but also the enduring availability, appropriate access and responsible reuse of its outputs.

We would welcome a clear pathway for continued engagement as the Roadmap is finalised and implemented and would be pleased to contribute our expertise and work with our members and other stakeholders on the development of coordinated national approaches to open research infrastructure. We look forward to supporting a research system that maximises public benefit while respecting Indigenous authority and legitimate conditions on access and use.

For further information or any questions regarding this submission, please contact Open Access Australasia Program Manager, **Janet Catterall, janet@oaaustralasia.org.**

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