

## The need for open access in Australia

The Australian Government invested \$12 billion in science, research and innovation in 2020-21.<sup>1</sup> However, the results of research funded in Australia are mostly published in peer reviewed journals that require subscriptions for access. Sometimes, the research results may be made open access by the authors paying an additional fee to the journal upon publication.

This approach stifles innovation and lowers return on investment. If results of government-funded research are usually behind paywalls, stakeholders must decide to pay for access, often before they understand whether the research results will be of use to them. For many stakeholders, the cost is not worth the investment, limiting their access and reducing capacity to innovate.

A single, national open access strategy would:

1. improve Australia's return on investment in the research sector,
2. maintain and advance Australia's global position in science, research and innovation,
3. increase industry and government access to science and research investment to support economic growth, and
4. be a step towards open science and research.

The open access agenda is not new to Australia. The Australian National University established an e-print repository in late 2001, the first of its kind in Australia.<sup>2</sup> The Australian Scheme for Higher Education Repositories helped fund the creation of repositories at Australian universities.<sup>3</sup>

Australia's main research funders, the Australian Research Council and the National Health and Medical Research Council, established open access policies in 2012.<sup>4,5</sup> About half of Australia's universities also have open access policies.<sup>6</sup>

A recommendation was made to the Australian Government in 2018 that "the Australian Government develop a more strategic approach to Australia's open scholarship environment".<sup>7</sup> While progress has been made, the majority of Australia's publicly funded research is still behind paywalls.<sup>8</sup>

Australia now has the opportunity to create an overarching national strategy for open access and coordinate current efforts by different stakeholders.

## A priority for Australia's Chief Scientist

Dr Cathy Foley, Australia's Chief Scientist, provides high-level independent advice to the Prime Minister and other Ministers on matters relating to science, technology and innovation. As such, she is well placed to bring together stakeholders and influence the national policy agenda.

Dr Foley has been involved in scientific publishing since 2000 and is currently the Editor-in-Chief for an Institute of Physics Publishing (IoPP) journal, Superconductor Science and Technology.

Open access is one of the key pillars of Dr Foley's 2021 strategic work plan and she is working with the Government to explore options for a model that is right for Australia.

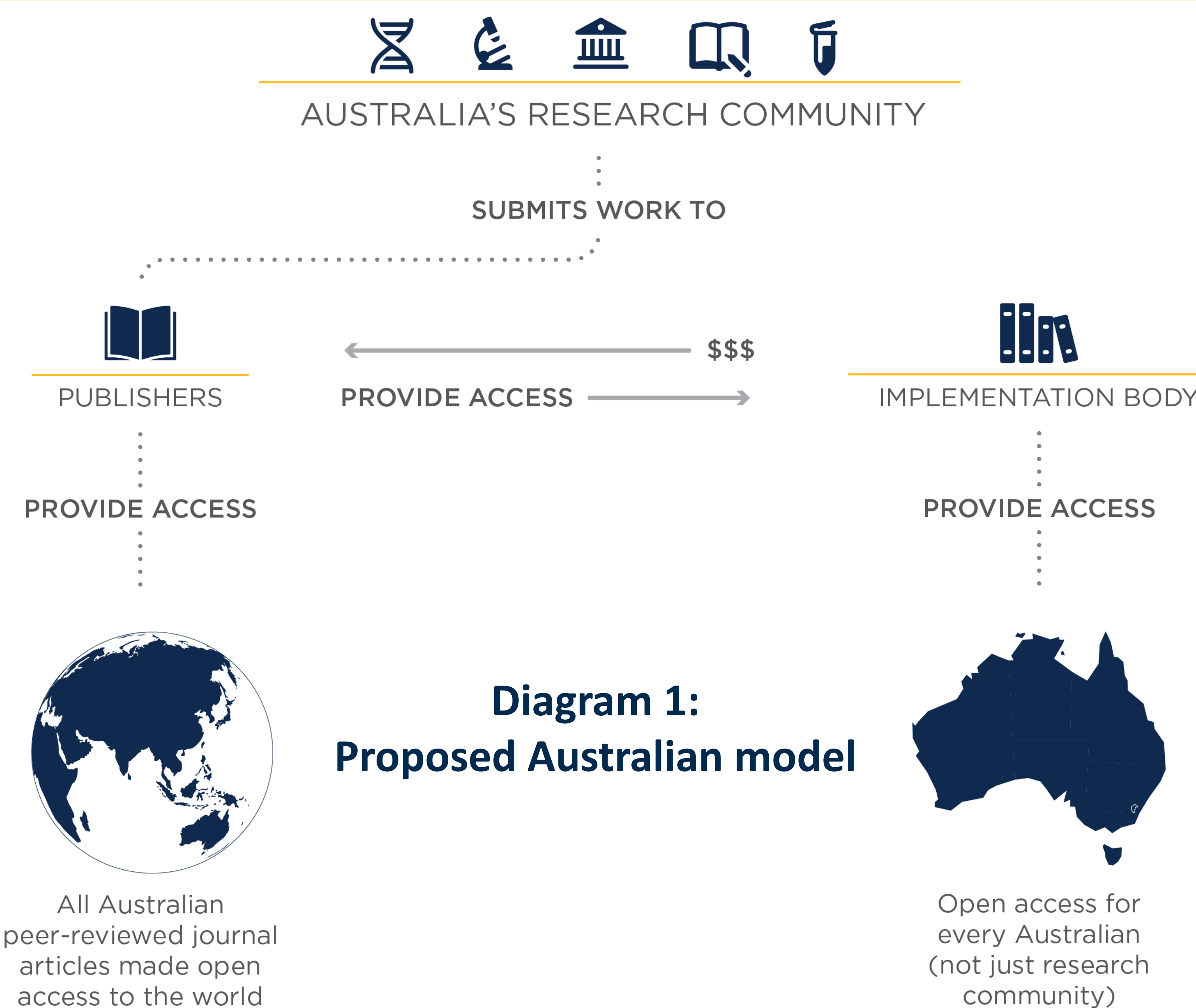
As part of this work, the Office of the Chief Scientist is undertaking a prospective analysis informed by desktop research, consultations with key stakeholders, and a survey on current subscriptions and publishing expenditure. This will inform further consideration of a potential national open access strategy for Australia, including the governance, technical and financial arrangements.

## References

1. Department of Industry, Science, Energy and Resources. (2021). Science, Research and Innovation Budget Tables, 2020-21. Retrieved from: <https://www.industry.gov.au/data-and-publications/science-research-and-innovation-sri-budget-tables>
2. Steele, C. (2013). "Open access in Australia: an odyssey of sorts?". Insights 26(3), 282-289. Retrieved from: <https://insights.uksg.org/articles/10.1629/2048-7754.91/galley/88/download/>
3. Ibid.
4. Australian Research Council. (2018). ARC Open Access Policy. Retrieved from: <http://www.arc.gov.au/arc-open-access-policy>
5. National Health and Medical Research Council. (2018). National Health and Medical Research Council Open Access Policy. Retrieved from: <https://nhmrc.gov.au/sites/default/files/images/open-access-policy.pdf>
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# An Australian Model for Open Access

## Australia's Chief Scientist, Dr Cathy Foley



## Benefits and Risks

### Potential benefits:

- The broadening of the reach of research, increasing innovation and government return on investment in research and development.
- The creation of more diversity in research career pathways, with potential for increased mobility between sectors.
- A wider audience for academic research and increased access to reliable information that can counter the spread of unreliable information.
- The creation of a fairer system by improving equity in opportunities for authors to publish open access.
- The improvement of research integrity as final versions of papers can easily be accessed and follow-on discussions, corrections and actions are readily available and linked.
- A greater visibility of the publishing process, demystifying academia for those outside the sector.
- The reduction of administrative costs of managing subscriptions, open access costs and possibly repositories, Australia-wide.

### Potential risks:

- The challenge of equitable redirection of current government funding from many sources into a single pool.
- The challenge of negotiating agreements with diverse publishers.
- The impact on small, subject-specific Australian publishers compared to large, multinational publishers.
- The potential misalignment with open access strategies being pursued internationally, including in the future.
- The potential vulnerability of centralised agreements with each publisher if governments change their support.
- The possible costs to publishers in developing new or adapting old IT systems to service a new model.

## A possible model

Under a possible Australian Model, all subscription and all open access publishing fees could be administered by one central implementing body (see Diagram 1).

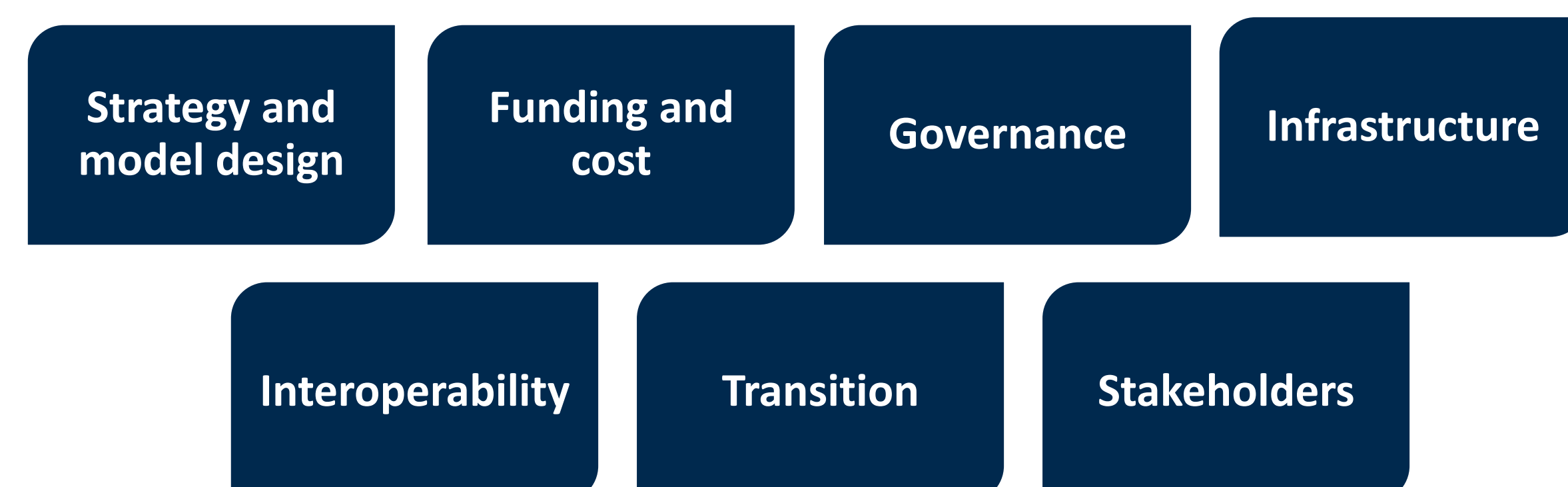
- A central pool of funds would be used for subscriptions and open access fees
- A comprehensive national transformative agreement with each publisher would be negotiated and managed through a central implementing body.
- Each agreement would cover
  - national subscription costs to enable access to academic journals around the world for everyone residing in Australia, and
  - costs of open access publishing so all Australian peer reviewed journal articles are available internationally as open access.<sup>10</sup>
- IT infrastructure would be hosted by a central implementing body.<sup>11</sup>

## Guiding principles

It is proposed the Australian model is developed according to the principles that the model should:

- Use, and increase the benefits from, Australia's existing expenditure on academic subscriptions and publishing
- Allow people residing in Australia to freely access all peer reviewed journal articles from the date of publication<sup>12</sup>
- Ensure Australian peer reviewed journal articles in all discipline areas are openly accessible internationally from the date of publication<sup>13</sup>
- Support research integrity by facilitating the provision of quality metadata, keeping versions of record and assisting in discoverability
- Preserve author autonomy regarding where to publish
- Recognise the role of publishers in the system and ensure the sustainability of their businesses
- Use infrastructure that is user-friendly, internationally interoperable and designed for future developments in publishing and open research
- Be equitable for all stakeholders

## Key considerations



## Would you like to contribute your views?

The Office of the Chief Scientist would value insights and feedback from those with experience or an interest in the open access agenda.

You can provide your feedback to [openaccess@chiefscientist.gov.au](mailto:openaccess@chiefscientist.gov.au).

8. Curtin Open Knowledge Initiative (2020). COKI Open Access Dashboard. Retrieved from: <http://openknowledge.community/dashboards/coki-open-access-dashboard/>
9. Office of the Chief Scientist (2021). Australia's Chief Scientist | 2021 Strategic Workplan. Retrieved from: <https://www.chiefscientist.gov.au/sites/default/files/2021-08/Australia%27s%20Chief%20Scientist%202021%20Strategic%20Workplan.pdf>
10. Further work will be needed to define the criteria by which research is considered 'Australian' for the purposes of this model.
11. An example of a nationally accessible database is Trove, an Australian online library database aggregator and service hosted by the National Library of Australia. See: <https://trove.nla.gov.au/>
12. The proposed Australian model would include access to all reputable, high quality, peer reviewed journal articles in all disciplines, from a diverse range of publishers, including small publishers, without an additional payment by Australian stakeholders.
13. Further work will be needed to define the criteria by which research is considered 'Australian' for the purposes of this model.