Cultivating Coordination
Research Report

02

About the Tech Policy Design Centre

The Tech Policy Design Centre (TPDC) is a nonpartisan, independent research organisation at the Australian National University. TPDC's mission is to develop fit-for-purpose tech policy frameworks to shape technology for the long-term benefit of humanity. We work to mature the tech-governance ecosystem in collaboration with industry, government, civil society, and academia.

Independence Statement

Our work is made possible by the generous support of external funders from government, industry, and civil society. Our research aligns with ANU's Statement on Academic Freedom. In all instances, TPDC retains full independence over our research and complete editorial discretion for outputs, reports, and recommendations.

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Glossary

Regulation	"An intentional form of intervention... in the economic and social activities of a target population with the aim of achieving a public policy objective or set of objectives. The intervention can be direct and/or indirect, the activities can be economic and/or non-economic, and the regulatee may be a public or private-sector actor."[1]
Direct Government Regulation	So called black letter law, [direct government regulation] comprises primary and subordinate legislation."[2] Direct Government Regulation is distinct from Self-Regulation, Co-Regulation, and Quasi-Regulation.[3]
Regulators	Government officials, departmental units, and independent statutory authorities empowered by legislation to administer and enforce direct government regulation, or more specifically, to grant approvals (including registration and licensing); monitor compliance; and enforce laws.[4]
Tech Sector	Includes: • companies and individuals whose core business is to develop digital technologies, including infrastructure, hardware, software, products, platforms, and services (or a combination of some or all of those elements) • companies and individuals whose core business is to develop digital technologies to deliver previously analogue products and services (for example, FinTech, MiningTech, and ArgiTech companies).
Tech-Ecosystem	Broadly defined to include: • the tech sector, its employees, and financiers (e.g. venture capital firms) • manufacturers, retailers, installers, and repairers of digital technologies • end users of digital technologies (government, enterprises, or individuals) • entities (other than companies and individuals for whom it is a core business) that develop digital technologies, study the impact of digital technologies, or support the tech sector's talent pipeline • entities (public or private) that design and implement tech regulation • tech regulators.
Tech Regulation	An intentional form of intervention in the tech-ecosystem,[5] with the aim of achieving a public policy objective or set of objectives. The intervention can be direct and/or indirect, the activities can be economic and/or non-economic, and the regulatee may be a public or private-sector actor.
Direct Government Tech Regulation	Tech Regulation in the form of primary or subordinate legislation. Direct Government Tech Regulation is distinct from Self-Regulation, Co-Regulation, and Quasi-Regulation.[6]
Tech Regulators	Government officials, departmental units, and independent statutory authorities empowered by legislation to administer and enforce (among others) direct government tech regulation, or more specifically, to grant approvals (including registration and licensing); monitor compliance; and enforce laws.

Foreword

Calls to regulate the tech sector grow louder every day. Governments the world over are grappling with how best to respond.

Barely a day passes without a new proposal announcement. Even for those specialising in the field, it is difficult to keep up.

This attention to technology and its regulation is warranted and welcome. But the drive to "do something", and to do it "urgently", must not override the imperative to design *effective* tech regulation.

Despite the increased tempo of regulatory activity, known—and now well-documented—harms arising from the misuse of technology persist.

Conversely, the perennial problems of regulatory uncertainty, inconsistency, and burden, risk stifling innovation and inhibiting the benefits of technology from being fully realised.

Phase One of research by the Tech Policy Design Centre aimed to bring much needed focus to the discussion on tech regulation. Our report *Tending the Tech-Ecosystem* found that one key barrier to effective tech regulation was a lack of coordination between and among politicians, policymakers, regulators, industry, and the rest of the tech-ecosystem.

In the field of tech policy, the muscle memory for coordination-by-default does not yet exist. Too often, tech policy is developed in silos, resulting in duplication, dilution of efforts, and persistent legal gaps.

This is compounded by other barriers to effective tech regulation identified in Phase One, including trust deficits, knowledge asymmetries, and nascent international cooperation.

The resulting lack of coherence undermines the intent of regulatory interventions. Harms persist. Opportunities are missed.

In time, just as technology has become embedded in our lives, 'tech regulation' will be so embedded in public policy that it will become just 'regulation.' But we are not there yet.

We need a plan to get us from where we are, to where we need to be. To that end, this report recommends a model to improve tech policy coordination in Australia.

Coordination is not a panacea. The proposed model is not an end unto itself. The end goal is to incorporate tech policy into every aspect of existing public policy.

However, due to the comparatively nascent nature of tech policy, mainstream policy coordination mechanisms (themselves in need of reform) fall short, and the siloed nature of dedicated tech policy coordination mechanisms undermines their effectiveness.

For example, under the current system, despite the apparent interdependencies, cyber security proposals are considered by one senior official's committee, digital identity by another, and privacy separate again.

This report proposes a model that streamlines tech policy coordination, while uplifting the capacity of all actors in the tech-ecosystem.

This matters because good tech policy will reinforce democracy, drive economic growth, and enhance security, while protecting fundamental rights and human agency.

The model is a stepping stone to maturing the tech policy ecosystem.

I commend it to any government serious about building a better future for all Australians.

Professor Johanna Weaver
Director, Tech Policy Design Centre
Australian National University
February 2023

Executive Summary

At the Tech Policy Design Centre, we reject the prevailing myth that law and policy can't keep pace with technological innovation. It can. And it must.

This report proposes a model for improved tech policy coordination in Australia. It builds on existing government coordination mechanisms, is informed by international best practice, and has been subject to extensive consultation. The model is ready for immediate implementation and is largely cost-neutral.

Overview of the Tech Policy Coordination Model

The proposed best practice Tech Policy Coordination Model does not alter the existing mandates of Ministers, departments and agencies. However, by cultivating coordination among all actors in the tech-ecosystem the Model would facilitate comprehensive and considered development of tech policy resulting in more effective regulatory outcomes.

The proposed model comprises the following bodies.

The **Tech Policy Ministerial Coordination Meeting** is the peak Ministerial coordination body in the Australian tech-ecosystem. Its objective is to facilitate cross-portfolio Ministerial coordination before tech policy proposals are taken to Cabinet.

The **Tech Policy Council** is the peak senior officials' coordination body in the Australian tech-ecosystem. Its objective is to improve coordination among and between policymakers and regulators.

The **Tech Regulators Forum** is the peak regulator coordination body in the Australian tech-ecosystem. Its objective is to improve coordination among tech regulators.

The **Tech Policy Coordination Office** is the central coordination point within the Australian tech-ecosystem. It sits within the Department of the Prime Minister and Cabinet (PM&C) portfolio or another central agency. Its objective is to support improved coordination across Australia's tech policy ecosystem.

The Office has responsibility for:

- The **Policy Register** is a public-facing website listing all active tech-related policy proposals and consultations

- Subject-specific **Policy Forums** provide regularised, non-transactional engagement between stakeholders in the tech-ecosystem

- The **Expert Directory** connects government to individuals and is recognised as having expertise relevant to tech policy and regulation, both within Australia and internationally.

A more detailed overview of each body follows in Section 2.

Figure 1: Best Practice Tech Policy Coordination Model

Tech Policy Ministerial Coordination Meeting

To formalise cross-portfolio ministerial coordination before Cabinet consideration

Tech Policy Council

To improve coordination among and between tech policymakers and regulators

Tech Regulators Forum

To enhance coordination among tech regulators

Tech Policy Coordination Office

To support coordination across the tech policy ecosystem

| Policy Register | Policy Forums | Expert Directory |

Colour Key

Political

Senior Officials

Industry, Academia And Civil Society

Why focus on tech policy?

If we foster the right conditions, technology will be at the heart of the solutions to the most significant challenges of the 21st century – from addressing the climate crisis, to preserving languages and cultural heritage, to transforming the food we eat and the fibres we wear, to stabilising relations among nations.

If we get it wrong, well, pick your favourite dystopian novel.[7]

Significantly, however, it is technology and tech policy that will ultimately shape our future.

Consider, for example, the deployment of surveillance cameras in Australia, the UK, and China: the same core technology, three different policy and legal frameworks, resulting in different lived experiences for citizens.[8]

If we want to shape a future that aligns with and reinforces liberal, democratic values, and fundamental human rights, we must harness technology and tech policy.

Tech policy will also be influential in determining if Australia captures future economic opportunities.

The tech sector is already a major part of the Australian economy and holds significant economic promise for our future.[9] Poorly designed tech policy and a lack of regulatory certainty or harmonisation with like-minded markets impact willingness to do business.

We need to get our policy-setting right to ensure we don't squander the promise while mitigating the risks. While we unquestionably need to regulate to reduce harm, in other instances, *less* regulation, coupled with international consistency, could be the answer to foster innovation and attract investment.

Tech policy is a powerful tool. If we wield it with nuance and balance, we will shape a future in which people, technology, and the planet thrive.[10]

Why is coordination needed?

The need for improved coordination across the tech-ecosystem is evidenced by three trends that undermine effective tech policy development in Australia.

1. **Siloed tech policy development – addressing one problem while unintentionally creating new challenges because of a narrow focus.**

Australia's *Access and Assistance Act[11]* is a case in point. It aimed to solve encryption-related security challenges, but inadvertently adversely affected Australian business interests[12] while undermining fundamental human rights.[13]

2. **Multiplicity of tech policy processes – resulting in duplication and dilution of efforts, with the potential for contradictory results.**

As two examples among countless, consider the proposal to develop an *Online Privacy Code*,[14] or introduce a new penalty regime for breaches of the *Privacy Act*,[15] while a multi-year review of the *Privacy Act* was ongoing.[16]

3. **Persistent legal gaps – despite the proliferation of regulatory proposals, many harmful uses of technology remain unregulated or underregulated.**

As just one recent example, consider the important work of the *Human Technology Institute* highlighting gaps with Facial Recognition Technologies in Australia.[17]

These three trends are compounded by and exacerbate other barriers to effective regulation identified in Phase One of this research, including trust deficits, knowledge asymmetry, and nascent international cooperation.

Enhancing international coordination and harmonising our regulatory approach with like-minded partners will help make Australia a more attractive place to do business.

Cultivating coordination across the tech-ecosystem – in Australia and internationally – will reverse these three trends while also beginning to address the other barriers to effective regulation identified above. As a result, the regulatory effort will more accurately align with intended regulatory outcomes.

In short, improving coordination will lead to *better* regulation, not just *more* regulation.

That said, coordination is not a panacea. As stated in the Foreword, the model proposed in this report is a stepping stone to maturing the tech policy ecosystem and mainstreaming it into more established fields of public policy.

Doesn't coordination already exist?

The Australian Government has many existing tech policy coordination mechanisms, including, but not limited to:

- Data and Digital Ministers' Meeting and Senior Officials' Group

- Secretaries' Digital and Data Committee

- Deputy Secretaries' Data Group

- National Security Committee of Cabinet

- Secretaries' Committee of National Security

- Secretaries' Strategic Security Committee

- Cyber Security and Critical Technology Interdepartmental Committee

- Critical Technology Hub

- Skills Ministers' Meeting

- Digital Platforms Regulators' Forum

- National Science and Technology Council Meeting.

Separate from standing bodies, there are also many instances of ad-hoc coordination among actors in the tech-ecosystem.

However, as reflected in their names, almost all the existing government coordination mechanisms focus on one thematic area (national security, critical technologies, digital, data, skills etc.).

A welcome and notable exception is the recently established Digital Platform Regulators Forum (DP-REG) which facilitates collaboration among regulators on competition, consumer protection, privacy, online safety, and data.

However, as DP-REG's name indicates, the mandate of this group is limited to where these cross-cutting thematic issues pertain to digital platforms, and not their intersection with the much broader tech-ecosystem.

As such, the current Australian Government coordination mechanisms do not address the problems caused by siloed tech policy development.

By way of example, consider three forthcoming reforms: privacy, digital identity and cyber security. Reforms in each domain will directly impact the others. Despite this, each will be subject to different approval processes within the public service and by different Cabinet committees.

The Tech Policy Coordination Model proposed in this report facilitates coordination to enhance these existing tech policy development and approval processes.

The proposed model does not change any existing mandates of Ministers, departments or agencies. However, cultivating coordination at all stages of tech policy development will facilitate a more comprehensive and considered development of tech policy and more effective regulatory outcomes.

What specific problems does the Tech Policy Coordination Model address?

The Tech Policy Coordination Model addresses the following problems identified during this project (see Methodology below).

1. **Political-level coordination** – the lack of which risks disjointed tech policy that underperforms, or which does not achieve its stated objectives at all, and/or which has unintended negative impacts across different government portfolios and jurisdictions.

2. **Tech policymakers' coordination with tech regulators** – the lack of which risks the development of tech policy in isolation, outcomes that are duplicative, contradictory, and that cannot be feasibly implemented by regulators.

3. **Tech regulators coordination** – the lack of which risks duplication and gaps in tech regulation implementation and enforcement.

4. **Broader tech-ecosystem coordination** – the lack of which limits opportunities for meaningful and regular participation by industry, academia, civil society, and consumer groups, resulting in an information asymmetry between government and these groups.

5. **International coordination with like-minded partners on new tech policy proposals** – the lack of which risks the development of tech policy which makes Australia a less attractive place to start, grow, and sustain a company, invest in tech, create jobs, or develop, attract, and retain the best talent.

6. **Coordination (in substance and timing) on new tech policy proposals in Australia** – the lack of which risks siloed tech policy development and exacerbates challenges in identifying all impacted stakeholders, with external stakeholders often not knowing who in government to contact about specific policies.

7. **Regularised, non-transactional, non-adversarial knowledge sharing between government and external stakeholders in the tech-ecosystem** – the lack of which risks silos, trust deficits, and poor tech policy outcomes.

8. **Information and knowledge asymmetry between government and external stakeholders, and a lack of diversity in the experts engaged by government** – which limits options considered by government to address tech policy challenges.

Table 1: Elements of the Tech Policy Coordination Model and problems being solved

Body in the Tech Policy Coordination Model	Problem solved
The **Tech Policy Ministerial Coordination Meeting** is the peak Ministerial coordination body in the Australian tech-ecosystem. Its objective is to facilitate cross-portfolio Ministerial coordination before tech policy proposals are taken to Cabinet.	**Political-level coordination** – the lack of which risks disjointed tech policy that underperforms, or which does not achieve its stated objectives at all, and/or which has unintended negative impacts across different government portfolios and jurisdictions.
The **Tech Policy Council** is the peak senior officials' coordination body in the Australian tech-ecosystem. Its objective is to improve coordination among and between policymakers and regulators.	**Tech policymakers' coordination with tech regulators** – the lack of which risks the development of tech policy in isolation, outcomes that are duplicative, contradictory, and that cannot be feasibly implemented by regulators.
The **Tech Regulators Forum** is the peak regulator coordination body in the Australian tech-ecosystem. Its objective is to improve coordination among tech regulators.	**Tech regulators coordination** – the lack of which risks duplication and gaps in tech regulation implementation and enforcement.
The **Tech Policy Coordination Office** is the central coordination point within the Australian tech-ecosystem. It sits within the PM&C portfolio or another central agency. Its objective is to support improved coordination across Australia's tech policy ecosystem.	**Broader tech-ecosystem coordination** – the lack of which limits opportunities for meaningful and regular participation by industry, academia, civil society, and consumer groups, resulting in an information asymmetry between government and these groups. **International coordination with like-minded partners on new tech policy proposals** – the lack of which risks the development of tech policy that makes Australia a less attractive place to start, grow, and sustain a company, invest in tech, create jobs, or develop, attract, and retain the best talent.
The **Policy Register** is a public-facing website listing all active tech policy proposals and consultations. The Tech Policy Coordination Office maintains it.	**Coordination (in substance and timing) on new tech policy proposals** – the lack of which risks siloed tech policy development and exacerbates challenges in identifying all impacted stakeholders, with external stakeholders often not knowing who in government to contact about specific policies.
Initiated by the Tech Policy Coordination Office, subject-specific **Policy Forums** provide regularised, non-transactional engagement between stakeholders in the tech-ecosystem.	**Regularised, non-transactional, non-adversarial knowledge sharing between government and external stakeholders in the tech-ecosystem** – the lack of which risks silos, trust deficits, and poor tech policy outcomes.
The **Expert Directory** connects government to individuals and is recognised as having expertise relevant to tech policy and regulation, both within Australia and internationally. The Tech Policy Coordination Office maintains it.	**Information and knowledge asymmetry between government and external stakeholders, and a lack of diversity in the experts engaged by government** – which limits options considered by government to address tech policy challenges.

What will it cost to implement?

The recommended Tech Policy Coordination Model is largely cost-neutral.

The only new monies required would establish a new Deputy Secretary position within PM&C or another central policy agency.[18] All other staffing allocations would be absorbed by PM&C (or the central agency) or covered by secondments.

Operational funds would be reallocated from across the federal budget under a work plan agreed annually by all participating members (all government departments and regulators with a tech policy mandate).

The proposed funding structure broadly reflects a similar arrangement implemented by the United Kingdom's Digital Regulation Cooperation Forum.[19]

A detailed overview of the cost implications of each body is provided in the summaries below.

How does the proposed Model leverage international best practice?

Every country in the world is grappling with how best to regulate technologies.

The Tech Policy Design Centre considered existing Australian Government structures and international precedents to inform the model's development.

While no country has the perfect solution, many countries are experimenting with different tech policy coordination models with positive results, particularly concerning oversight of intersecting economic, security and human rights issues, and reducing duplication of effort.

The model proposed in this report amalgamates and builds on existing governance models – from Australia and abroad – with a focus on cultivating coordination.

Specific structural precedents are highlighted below. Annex A provides an overview of each body.

What does success look like?

The proposed model is a stepping stone to attaining the ultimate end goal of mainstreaming tech policy into every aspect of existing public policy.

The key measure of success for the model is that Australia is known internationally as a country that has cultivated a coordinated tech-ecosystem in which people, technology, and the planet thrive. Such a tech-ecosystem is characterised by:

- Regulatory certainty
- Coherent, effective, evidence-based, and implementable tech policy and regulation
- Streamlined regulatory and reporting requirements
- Tech policy that delivers on its intended purpose – addressing harmful uses of technology while fostering growth, investment, tech adoption and innovation in Australia.

Our methodology

This report is the second in a series by the Tech Policy Design Centre. Phase One, *Tending the Tech-Ecosystem*, considered who should be the regulator(s) of the tech-ecosystem.[20]

To inform Phase One of the project, the Tech Policy Design Centre interviewed 32 heads and senior representatives of Australian regulators, the Australian Government, industry, academia, and civil society.

Interviewees responded to the following questions:

- Is a new stand-alone super tech regulator required?
- Should existing regulators be upskilled? Or a hybrid of both?
- Is there a new model that has not yet been considered?
- What are the attributes (skills, knowledge, and expertise) of an effective tech regulator?

The key findings of Phase One are at Annex B.

In summary, no interviewee argued for a new centralised super tech regulator. Instead, all advocated for upskilling and improving coordination among existing regulators. Moreover, many underscored the need for better coordination among and between regulators and policymakers. Addressing the knowledge asymmetry between industry and regulators was also a common theme.

Informed by the expert interviews and current global best practice, Phase One developed a proposed Tech Policy and Regulation Coordination Model.

Phase Two of the project tested the proposed model with stakeholders in Australia and abroad. Input was sought from diverse actors across the tech-ecosystem, including government, industry, academia, and civil society. A complete list of those consulted, and the consultation questions, is at Annexes C, D and E.

The Tech Policy Coordination Model recommended in this report is informed by those consultations, as well as research conducted by TPDC focusing on international best practice, summarised in Annex A.
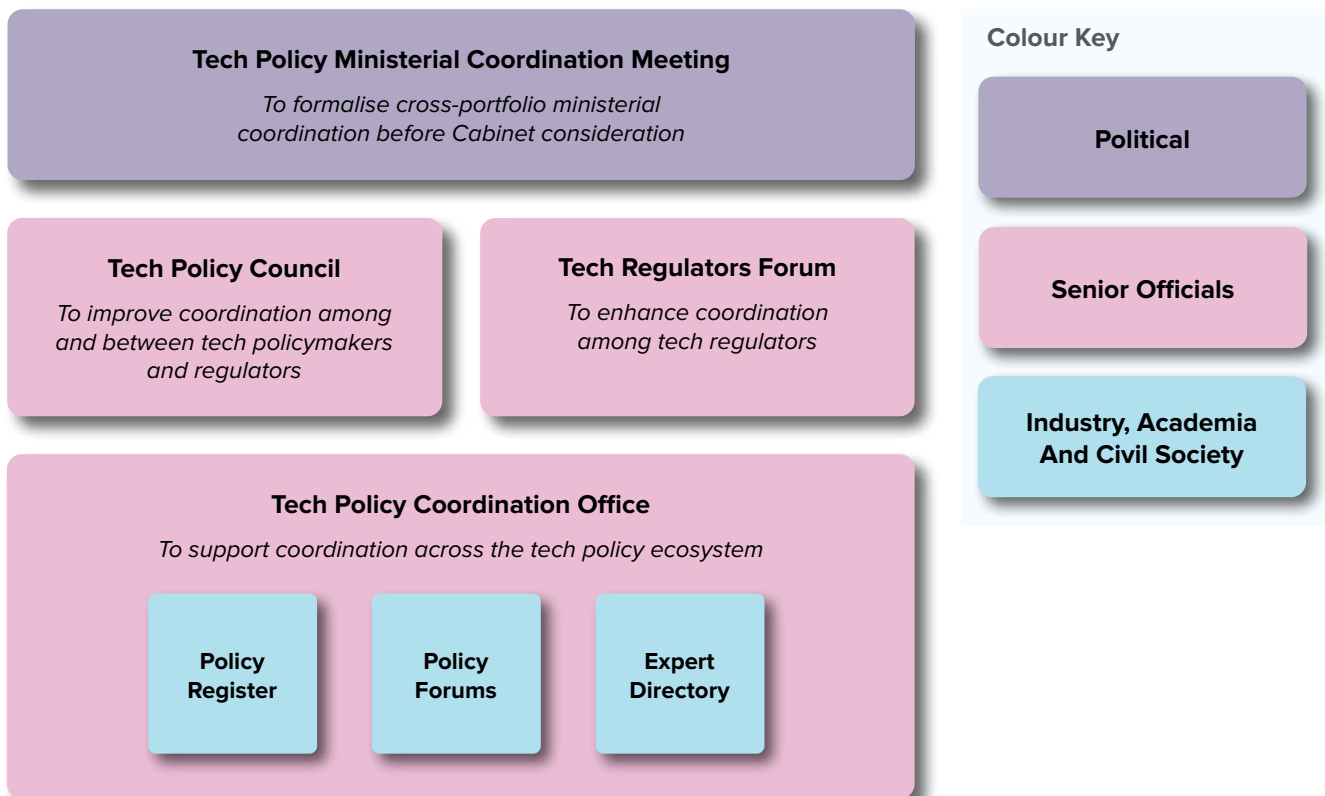
Endnotes

1. Arie Freiberg, *Regulation in Australia*, (The Federation Press, 2017) xxxviii.

2. Department of the Prime Minister and Cabinet, Commonwealth of Australia, *The Australian Government Guide to Regulation,* 2014, https://apo.org.au/sites/default/files/resource-files/2014-03/apo-nid270966.pdf, accessed 15-Jan-2023, page 31**.**

3. *Each of these terms are defined in*: Department of the Prime Minister and Cabinet, Commonwealth of Australia, *The Australian Government Guide to Regulation*, 2014, https://apo.org.au/sites/default/files/resource-files/2014-03/apo-nid270966.pdf, accessed 15-Jan-2023, pages 30-31.

4. This definition of "regulator" draws heavily on the definition of the same in: Productivity Commission 2013, *Regulator Engagement with Small Business*, accessed April 14, 2022, 34, www.pc.gov.au/inquiries/completed/small-business/report/small-business.pdf.

5. Note: The intentional intervention may also impact other sectors. For example, privacy law is 'tech regulation', but it also impacts other sectors. The purpose of the model proposed in this report is to cultivate coordination to ensure that tech-regulation is not developed in silos, but rather considers all current and foreseeable socio-technical contexts. Put another way, the model proposed in this report should be seen as a steppingstone to help mature the tech-ecosystem such that 'tech regulation' becomes 'regulation.'

6. *Each of these terms are defined in*: Department of the Prime Minister and Cabinet, Commonwealth of Australia, *The Australian Government Guide to Regulation*, 2014, https://apo.org.au/sites/default/files/resource-files/2014-03/apo-nid270966.pdf, accessed 15-Jan-2023, pages 30-31.

7. Some of the authors favourite dystopian fiction include: Ernest Cline, *Ready Player Two* (Ballantine Books, 2020); Lionel Shriver, *The Mandibles: A Family, 2029-2047* (Harper Perennial, 2017); Amie Kaufman and Jay Kristoff, *Illuminae: The Illuminae Files 01* (Oneworld Publications, 2015); Aldous Huxley, *Brave New World* (Harper Perennial, 2006); Max Barry, *Jennifer Government* (Abacus, 2003); and, William Gibson, *Agency* (Penguin, 2021).

8. For a short story that captures this sentiment, see: David Brin, "The Transparent Society," WIRED, January 12, 1996, accessed January 24, 2023, https://www.wired.com/1996/12/fftransparent/.

9. Tech Council of Australia, *The Economic Contribution of Australia's Tech Sector* (2021), https://techcouncil.com.au/wp-content/uploads/2021/08/TCA-Tech-sectors-economic-contribution-full-res.pdf.

10. For more on creating an environment in which people, technology, and the planet thrive, see: Maia Gould, *Re/defining Leadership in the 21st century: the view from cybernetics* (ANU School of Cybernetics, 2022), https://cybernetics.anu.edu.au/assets/Redefining_Leadership_in_the_21st_Century-the_view_from_Cybernetics.pdf.

11. *Telecommunications and Other Legislation Amendment (Assistance and Access) Act 2018* (Cth). https://www.legislation.gov.au/Details/C2021C00496.

12. For example, see: the Australian Information Industry Association's submission to the Joint Parliamentary Committee on Intelligence and Security regarding the *Review of the Amendments to the Telecommunications and Other Legislation Amendment (Assistance and Access) Act 2018*, accessed January 23, 2023, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Intelligence_and_Security/AmendmentsTOLAAct2018/Submissions.

13. For example, see: the Office of the Australian information Commissioner's submission to the Joint Parliamentary Committee on Intelligence and Security regarding the *Review of the Amendments to the Telecommunications and Other Legislation Amendment (Assistance and Access) Act 2018*, accessed January 23, 2023, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Intelligence_and_Security/AmendmentsTOLAAct2018/Submissions.

14. Attorney-General's Department, *Online Privacy Bill Exposure Draft*, Australian Government, accessed January 24, 2023, https://consultations.ag.gov.au/rights-and-protections/online-privacy-bill-exposure-draft/

15. Attorney-General's Department, *Privacy Act Review – Discussion paper*, Australian Government, accessed January 24, 2023, https://consultations.ag.gov.au/rights-and-protections/privacy-act-review-discussion-paper/.

16. *Privacy Legislation Amendment (Enforcement and Other Measures) Bill 2022* (Cth). https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd2223a/23bd030#:~:text=The%20Privacy%20Legislation%20Amendment%20(Enforcement,under%20the%20Privacy%20Act%201988.

17. Nicholas Davis, Lauren Perry and Edward Santow, *Facial recognition technology: Towards a model law,* Human Technology Institute, 2022), https://www.uts.edu.au/human-technology-institute/explore-our-work/facial-recognition-technology-towards-model-law.

18. Central policy agencies include the Department of the Prime Minister and Cabinet, the Department of Finance, and the Department of the Treasury. In Australia, coordination functions traditionally sit within these central agencies. If the Tech Policy Office was established in line agency (for example the Department of Industry, Science and Resources) a whole of government coordination mandate would need to be clearly articulated by Government and respected by all actors. This would require cultural change; hence, the best practice recommendation the Office be established in a central agency.

19. Competition & Markets Authority, DRCF Terms of Reference (ToR), GOV.UK, September 5, 2022, https://www.gov.uk/government/publications/drcf-terms-of-reference/terms-of-reference.

20. Johanna Weaver and Sarah O'Connor, *Tending the Tech-Ecosystem: who should be the tech regulator(s)?* (Canberra: ANU Tech Policy Design Centre, 2022), https://techpolicydesign.au/report-tending-the-tech-ecosystem.

1 | Tech Policy Coordination Model – the details

Tech Policy Ministerial Coordination Meeting

To formalise cross-portfolio ministerial coordination before Cabinet consideration

Tech Policy Council

To improve coordination among and between tech policymakers and regulators

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Tech Policy Ministerial Coordination Meeting

The Tech Policy Ministerial Coordination Meeting is the peak Ministerial coordination body in the Australian tech-ecosystem. Its objective is to facilitate cross-portfolio Ministerial coordination before tech policy proposals are taken to Cabinet.

Ministerial Meeting

Council	Forum

Office
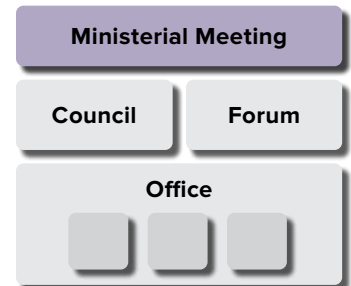
The problem being solved

Political-level coordination – the lack of which risks disjointed tech policy that underperforms, or which does not achieve its stated objectives at all, and/or which has unintended negative impacts across different government portfolios and jurisdictions.

Mandate

- Shape Australia's tech policy priorities and objectives
- Consider new tech-related policy proposals to ensure that they are complementary, well-coordinated and aligned to the identified priorities and objectives
- Articulate clear ownership when implementing tech policy proposals.

Measures of success

- Enhanced understanding among Ministers of cross-portfolio externalities and dependencies of new proposals
- Active, coordinated, timely and informed decision-making on tech policy proposals at the Expenditure Review Committee (ERC), National Security Committee of Cabinet (NSC) and Cabinet
- Regulatory certainty
- Tech policy that delivers on its intended purpose – addressing harmful uses of technology while fostering growth and investment in Australia.

Composition, anchoring, and resourcing

The Tech Policy Ministerial Coordination Meeting, chaired by the Prime Minister, meets monthly (or as required in advance of ERC, NSC or Cabinet meetings considering tech policy-related proposals).

Meetings are attended by NSC and ERC members, the Minister for Industry and Science, and all co-opted Ministers with carriage of proposals under consideration.

The Cabinet Secretary and PM&C manage and act as the Secretariat for the Tech Policy Ministerial Coordination Meeting. They ensure that related proposals are subsequently scheduled for approval at the same ERC, NSC, or Cabinet meeting.

## Existing Australian coordination mechanisms being built upon

Cabinet, National Security Committee of Cabinet and Expenditure Review Committee.

International precedents

The Digital Extraordinary Administrative Advisory Committee (Japan), Ministers' Meeting on Science and Technology (Korea), and the National Science and Technology Council (UK).

Tech Policy Council

The Tech Policy Council is the peak senior officials' coordination body in the Australian tech-ecosystem. Its objective is to improve coordination among and between policymakers and regulators.

Ministerial Meeting	
Council	Forum
Office	
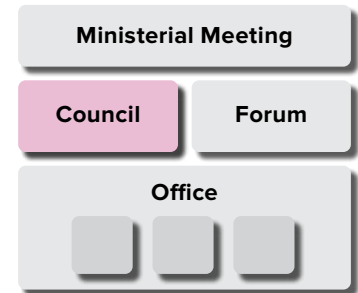
The problem being solved

Tech policymakers' coordination with tech regulators – the lack of which risks the development of tech policy in isolation, outcomes that are duplicative, contradictory, and that cannot be feasibly implemented by regulators.

Mandate

- Set the Tech Policy Coordination Office's strategic direction, including approving the Office's annual workplan and budget

- Coordinate, consider, and harmonise new tech policy proposals, especially where there are domestic cross-portfolio responsibilities or international precedents

- Enhance capabilities and strengthen stewardship of the tech-ecosystem by senior government officials

- Monitor and evaluate the effectiveness of new proposals once implemented.

Regulatory enforcement actions are excluded from the Council's mandate to preserve regulators' statutory independence.

Measures of success

- The Tech Policy Coordination Office operates effectively and efficiently

- Active, coordinated, and informed advice from senior government officials

- Coherent, effective, evidence-based, and implementable tech policy and regulation

- Regulatory certainty

- Enhanced understanding of cross-portfolio externalities and interdependencies of new proposals

- Tech policy that delivers on its intended purpose – addressing harmful uses of technology while fostering growth and investment in Australia

- Enhanced capabilities and stewardship of the tech-ecosystem by senior officials.

Composition, anchoring, and resourcing

The Tech Policy Council, chaired by the PM&C Secretary and Cabinet, meets quarterly.

Meetings are attended by the Tech Policy Coordination Office Chair, members of the Secretaries' National Security Committee of Cabinet (NSC), the Secretaries' Digital and Data Committee, the Digital Platforms Regulators Forum and other Secretaries with carriage of proposals under consideration.

On an annual basis, the Council will approve the work plan and operational budget of the Tech Policy Coordination Office.

As with existing Secretaries' Boards and Committees, the PM&C acts as the Council's Secretariat.

Existing Australian coordination mechanisms being built upon

Secretaries' National Security Committee of Cabinet (NSC), Secretaries' Digital and Data Committee, Deputy Secretaries' Cyber Security and Critical Technology Board, and the Digital Platforms Regulators Forum.

International precedents

Technology Advisory Board (Finland), Science and Technology Policy Council (Iceland), Council for Science, Technology, and Innovation (Japan), Presidential Advisory Committee on Science and Technology (Korea), Presidential Committee on the Fourth Industrial Revolution (Korea), Board of the Rathenau Instituut (The Netherlands), Parliamentary Office of Science and Technology Board (UK), Technology Assessment Board (United States), and National Science and Technology Council (United States).

Tech Regulators Forum

The Tech Regulators Forum is the peak regulator coordination body in the Australian tech-ecosystem. Its objective is to improve coordination among tech regulators

Ministerial Meeting	
Council	Forum
Office	
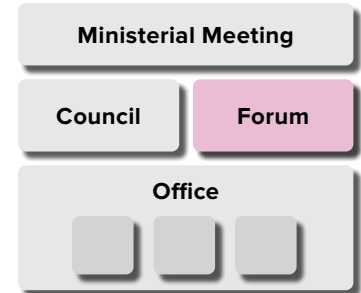
The problem being solved

Australian tech regulators coordination at state and federal levels – the lack of which risks duplication and gaps in tech regulation implementation and enforcement.

Mandate

- Enhance capabilities and strengthen stewardship among tech regulators

- Advance a coherent and coordinated approach to the implementation and enforcement of tech regulation, especially where responsibilities overlap

- Harmonise regulatory and reporting requirements, paying close attention to regulatory costs

- Coordinate engagement with the work of international institutions, forums, and regulators.

Measures of success

- Active, coordinated, and informed implementation and enforcement of tech regulations (regulatory certainty)

- Streamlined and effective regulatory reporting and cost burdens

- Enhanced understanding of cross-portfolio regulatory externalities and dependencies

- Tech policy delivers on its intended outcome – addressing harmful uses of technology while fostering growth and investment in Australia.

Composition, anchoring, and resourcing

The Tech Regulators Forum, chaired by the longest serving Agency Head, meets quarterly.

The Tech Regulators Forum expands on the existing Digital Platforms Regulators' Forum (DP-REG).

Meetings are attended by Heads of the Australian Competition and Consumer Commission, Australian Communications and Media Authority, Office of the Australian Information Commissioner, Office of the eSafety Commissioner, Australian Securities and Investments Commission and Australian Prudential Regulation Authority.

The Heads of the Reserve Bank of Australia and the Department of the Treasury attend when agenda items impact their respective responsibilities. Other relevant Australian regulators may be invited to join or attend meetings on an ad hoc basis, for example, the Cyber and Critical Infrastructure Centre.

Whenever practicable, tech regulation matters considered by the existing Australian Council of Financial Regulators are referred to the Forum for consideration.

The Forum does not preclude other forms of engagement, such as bilateral partnerships.

## Existing Australian coordination mechanism being built upon

The DP-REG and Regulators Leadership Cohort.

International precedents

The Digital Regulators Group (Ireland), Headquarters for Digital Market Competition (Japan), and Digital Regulation Cooperation Forum (UK).

Tech Policy Coordination Office

The Tech Policy Coordination Office is the central coordination point within the Australian tech-ecosystem. It sits within the PM&C portfolio or another central agency. Its objective is to support improved coordination across Australia's tech policy ecosystem.

Ministerial Meeting	
Council	Forum
Office	
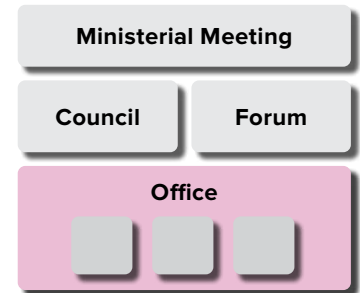
The problem being solved

Broader Australian tech-ecosystem coordination – the lack of which limits opportunities for meaningful and regular participation by industry, academia, civil society, and consumer groups, resulting in an information asymmetry between government and these groups.

Mandate

- Primary entry point to the government for industry, academia, and civil society on tech policy issues (referring enquiries to relevant policy owners)

- Coordinate across all the entities in the tech policy coordination ecosystem, including attending Council and Forum meetings (as above mentioned)

- Enhance capabilities and strengthen stewardship among tech policymakers and regulators

- Act as a Centre of Excellence in best practice tech policy design, including offering in-house tech policy consultancy at the request of Australian Public Service (APS) agencies wanting to develop their own capabilities

- Manage the Policy Register, Policy Forums, and Expert Directory (see below)

- Conduct horizon scanning, identifying emerging issues and trends in tech policy, domestically and internationally

- Support enhanced international cooperation on cross-cutting issues.

Measures of success

- Improved engagement between government, industry, and all actors in the tech-ecosystem

- Enhanced APS tech policy expertise, including foresight capability

- Greater visibility and understanding of cross-portfolio tech policy externalities and interdependences

- Strengthened international partnerships and regulatory harmonisation

- Tech policy delivers on its intended outcome – addressing harmful uses of technology while fostering growth and investment in Australia.

Composition, anchoring, and resourcing

Salaries for the Chair and a permanent, small core staff of directly engaged APS officers are funded by and form part of the Full-Time Equivalent (FTE) of PM&C (or the home central agency).

The core FTE is supplemented by rolling two-year secondments (one from each constituent Council member). The home departments and agencies bear the costs of secondments.

Each Council constituent member also appoints a Senior Executive Service Liaison. The liaison's role is twofold:

1. Ensure members' policy and strategic focus are represented in the planning and delivery of the Office's workplan

2. Working collaboratively for the benefit of the Office.

In consultation with all Council members, the Chair develops the Office's annual workplan, which the Council approves. The workplan sets out the workstreams of the Office and identifies cross-cutting issues and priorities.

In addition to the workplan, the Chair prepares the Office's annual operational budget, which the Council approves. Costs within the Office's budget are split equally between the Council members unless otherwise unanimously agreed. Approval of the Office budget should not be unreasonably withheld.

Existing Australian coordination mechanisms being built upon

The Digital Technology Branch (formerly Digital Technology Taskforce), Critical Technology Hub, and many current interdepartmental committees covering cyber security, critical technology, digital, data, and supply chain resilience.

International precedents

Government working group for the coordination of research, foresight and assessment activities (Finland), Parliamentary Office for Scientific and Technological Assessment (France), Rathenau Instituut (The Netherlands), Parliamentary Office of Science & Technology (UK), Office for Science and Technology Strategy (UK), Office of Technology Assessment (United States), and Office of Science and Technology Policy (United States).

Policy Register

The Policy Register is a public-facing website listing all active tech policy proposals and consultations. The Tech Policy Coordination Office maintains it.

Ministerial Meeting	
Council	Forum
Office	
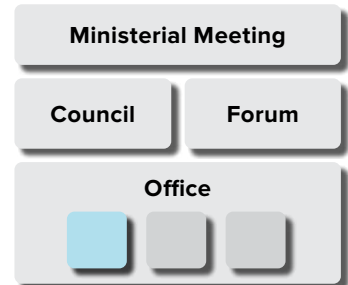
The problem being solved

Coordination (in substance and timing) on new tech policy proposals – the lack of which risks siloed tech policy development and exacerbates challenges in identifying all impacted stakeholders, with external stakeholders often not knowing who in government to contact about specific policies.

Mandate

- Collate, coordinate and, where practicable, harmonise the development and consideration of new tech-related policy proposals.

Measures of success

- Increased transparency inside and outside of government of active tech policy proposals

- Reduced duplication (in substance and timing) of new tech policy proposals

- Industry, academia, civil society, and consumers know who to contact in government about which policy

- Increased participation by a wide variety of stakeholders in the policy development process.

Composition, anchoring, and resourcing

All new tech policy proposals initiated by the Australian Government are entered into the Policy Register, including a clear statement of the proposal's objective, consultation dates, and the primary point of contact.

Upon entry, users will be notified if other consultations are scheduled simultaneously or if other live proposals touch upon similar or related topics. In this way, officials can use the Register as a planning tool.

Stakeholders can subscribe for updates on policies or subject tags. Updates are prepared by the departments or agencies and disseminated by the Register.

Importantly, the Register is a transparency and information-sharing tool only. Consultations themselves continue to be managed by policy departments or regulators.

Over time, there may be scope to expand the Policy Register to include a horizon scanning function, similar to that incorporated in IP Australia's Policy Register.

Precedents

IP Policy Register (Australia) and Policy Paper and Consultations (UK).

Policy Forum

Initiated by the Tech Policy Coordination Office, subject-specific Policy Forums provide regularised, non-transactional engagement between stakeholders in the tech-ecosystem.

	Ministerial Meeting	
Council		**Forum**
	Office	
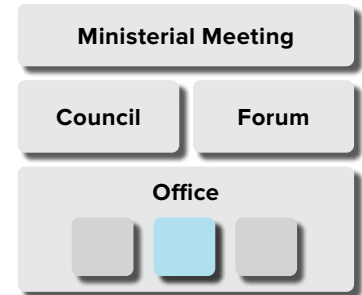
The problem being solved

Regularised, non-transactional, non-adversarial knowledge sharing between government and external stakeholders in the tech-ecosystem – the lack of which risks silos, trust deficits, and poor tech policy outcomes.

Mandate

- Inform the development of effective, evidence-based and implementable tech policy

- Move beyond the transactional engagement between stakeholders in the tech-ecosystem

- Support diverse participation to harness expertise for improved tech policy and regulation design.

Measures of success

- Regular collaborative and constructive engagement between all actors in the tech-ecosystem

- Industry, academia, civil society, and consumers have an opportunity to transparently share their expertise and engage in shaping the early development of tech policy proposals, thereby resulting in more effective outcomes

- Diverse participation is supported, and a wide range of views are sought.

Composition, anchoring, and resourcing

The Tech Policy Coordination Office's annual workplan (approved by the Tech Policy Council) will outline the Policy Forum's workstreams.

The Prime Minister, Ministers, or any constituent member of the Council may establish additional policy workstreams, provided there is supplementary funding.

Policy Forum workstreams prioritise cross-cutting tech policy issues, which benefit from bringing together a broad group of stakeholders.

Forums are public, with open participation.

A capped number of per diems are available on standard terms to individuals representing non-government organisations (NGOs), civil society, and academia. Per diems are not available to public servants or representatives from the tech sector. If oversubscribed, per diems are allocated to prioritise diverse representation.

The Forums operate on standard rules of procedure. The timing, frequency, and outputs of meetings will be determined by the members of each policy stream and adopted into the rules of procedure.

The Forums are not a replacement for consultation during policy development, which continue to be led by the relevant policy departments.

Policy departments and regulators retain the flexibility to run processes and engage in targeted consultation and intervention, as relevant to their responsibilities.

Precedents

Government Data Forum (Ireland) and the Digital Regulation Cooperation Forum (UK).

Expert Directory

The Expert Directory connects government to individuals and is recognised as having expertise relevant to tech policy and regulation, both within Australia and internationally. The Tech Policy Coordination Office maintains it.

Ministerial Meeting	
Council	Forum
Office	
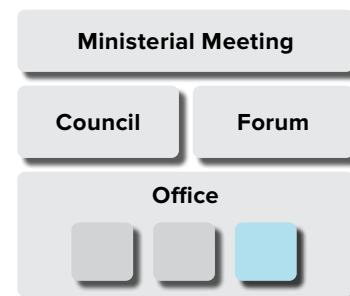
The problem being solved

Information and knowledge asymmetry between government and external stakeholders, and a lack of diversity in the experts engaged by government – which limits options considered by government to address tech policy challenges.

Mandate

• Provide a transparent means to address the knowledge and information asymmetries between government and industry

• Provide politicians, officials, and regulators with access to expert advice on an as-needs basis

• Increase the diversity of experts called upon by government, including access to international experts as appropriate.

Measures of success

• Transparency and greater diversity in who is providing advice to the government

• Informed, evidence-based decisions made throughout the tech policy design, implementation, and enforcement process

• A diverse range of experts are engaged.

Composition, anchoring, and resourcing

The Expert Directory has an open nomination process, with experts listed and called upon in their personal/private capacity per standard terms of engagement.

The standard terms of engagement cover remuneration (optional), confidentiality and non-disclosure, and provide for prioritised Australian Government Security Clearance vetting.

The Expert Directory has an open call for nominations, with online registration. Experts are Australian or international and are requested to provide evidence of credentials and references.

Experts are engaged directly by the department or agency requiring their expertise. The Tech Policy Coordination Office will prepare and publish a transparency report summarising the number of times experts are engaged and the details of each engagement.

Many policymakers and regulators have existing expert mechanisms, including through partnerships with international counterparts. The directory supplements these mechanisms; it does not replace them. Policymakers and regulators are not required to engage experts from the directory if they have access to expertise through other means.

Precedents

The Academy of Science's Fellowship register (Australia), CSIRO's Expert Connect (Australia), Government Science and Engineering organisational directory of expertise (UK), and Chief Scientific Advisers (UK).

Funding

The Tech Policy Coordination Model is largely cost-neutral.

New monies are required to establish a new Deputy Secretary position within PM&C to fill the role of full-time Chair of the Tech Policy Coordination Office (the Office).

The remainder of the Office is staffed by core APS officers absorbed within the portfolio of PM&C. Core staff are supplemented by two-year rolling secondments from the constituent members of the Tech Policy Council (the Council). The home agencies or departments bear the cost of the secondments.

In consultation with all members of the Council, the Office develops an annual workplan, which the Council approves. The workplan sets out the workstreams of the Office in line with cross-cutting issues and priorities of interest to all members of the Council.

The Council also approves the Office's budget (aligned with the workplan). Costs within the budget will be split equally between the members of the Council unless otherwise unanimously agreed by all members. Approval of the budget should not be unreasonably withheld.

Government or members of the Council can ask the Office to conduct ad-hoc projects in addition to the workplan, provided supplementary funding is allocated to the Office by the requesting party.

This funding structure largely reflects that implemented by the Digital Regulation Cooperation Forum (DRCF).

Endnotes

1. For example, the impact of national security decisions on the digital economy.

2. As at the time of drafting that would include: The Hon. Anthony Albanese MP, Prime Minister; The Hon. Richard Marles MP, Deputy Prime Minister and Minister for Defence; Senator the Hon. Penny Wong, Minister for Foreign Affairs; The Hon. Dr. Jim Chalmers MP, Treasurer; Senator the Hon. Katy Gallagher, Minister for Finance, Minister for Women, and Minister for the Public Service; The Hon. Mark Butler MP, Minister for Health and Aged Care; The Hon. Chris Bowen MP, Minister for Climate Change and Energy; The Hon. Catherine King MP, Minister for Infrastructure, Transport, Regional Development and Local Government; The Hon. Mark Dreyfus KC MP, Attorney-General; The Hon. Michelle Rowland MP, Minister for Communications; The Hon. Clare O'Neil MP, Minister for Home Affairs and Minister for Cyber Security; The Hon. Pat Conroy, Minister for Defence Industry and Minister for International Development and the Pacific; and, The Hon. Stephen Jones MP, Assistant Treasurer and Minister for Financial Services.

3. For example, the impact of digital identity reforms on e-health initiatives.

4. For example, the impact of Director Duties enforcement action on Basic Online Safety Expectations implementation.

5. As per the DP-REG Terms of Reference: "Members are not impeded or prevented from engaging bilaterally or outside of the DP-REG." Digital Platform Regulators Forum, "Terms of Reference," Office of the Australian Information Commissioner, accessed January 18, 2023, https://www.oaic.gov.au/__data/assets/pdf_file/0019/16732/DP-REG-Terms-of-Reference.pdf.

6. In addition to current coordination mechanism, there are many former bodies that share elements of the Tech Policy Coordination Office. Two examples often referred to during the consultation process for this report were the governance bodies attached to the Rudd Government's 2009 *National Enabling Technologies Strategy*, namely the associated Stakeholder Advisory Council and the Enabling Technologies Policy Section. For information on the bodies, see Commonwealth of Australia, *National Enabling Technologies Strategy*, Department of Innovation, Industry, Science and Research, last updated August 2, 2014, accessed January 18, 2023, 5, https://webarchive.nla.gov.au/awa/20140802033722/http://www.industry.gov.au/industry/nanotechnology/NationalEnablingTechnologiesStrategy/Pages/Library%20Card/NETS_booklet.aspx; and, Commonwealth of Australia, *National Enabling Technologies Strategy: A National Approach*, Department of Industry, last updated February 12, 2014, accessed January 31, 2023, https://webarchive.nla.gov.au/awa/20140212001012/http://www.industry.gov.au/industry/nanotechnology/NationalEnablingTechnologiesStrategy/Pages/NationalEnablingTechnologiesStrategyANationalApproach.aspx; and Lyria Bennett Moses, "How to Think about Law, Regulation and Technology: Problems with 'Technology' as a Regulatory Target," *Law, Innovation and Technology* 5, no.1 (2013): 1-20, https://doi.org/10.5235/17579961.5.1.1.

7. Competition & Markets Authority, DRCF Terms of Reference (ToR), GOV.UK, September 5, 2022, https://www.gov.uk/government/publications/drcf-terms-of-reference/terms-of-reference.

2 | Annexes

Annex A: Overview of International Precedents[1]

Definition of Terms – Activities and Outputs	
Authority to Set Policy Agenda	The body can instruct government policy departments to implement directions of the body.
Foresight	The body's mandate includes the "production of knowledge about possible futures," such as the long-term opportunities, challenges and trends presented by innovation, science, and technology.[2]

Definition of Terms – Structure and Resourcing	
Permanent Body Committee	A permanent standing body (cf: a taskforce or body with a time limited mandate)
Annual Budget	The body has an ongoing annual budget allocated in support of the delivery of the body's mandate.
Secretariat	The body has a permanent office responsible for providing administrative support to its operations.

Table 2: Overview of international precedents for the Tech Policy Ministerial Coordination Meeting

Note: the bodies recommended in this report amalgamate and build on the non-exhaustive precedents below. Precedents are featured in these tables because they offer best practice or novel examples of cultivating coordination in the tech-ecosystem.

COUNTRY	AUSTRALIA (Proposed)	JAPAN	KOREA	UNITED KINGDOM
BODY	Tech Policy Ministerial Coordination Meeting (Proposed)	Digital Extraordinary Administrative Advisory Committee (Active)[3]	Ministers' Meeting on Science and Technology (Active)[4]	National Science and Technology Council (Active)[5]
ESTABLISHED	Proposed	2021	2018	2021
PERMANENT BODY	Yes	Yes	Yes	Yes (Cabinet Committee)
MANDATE	To set Australia's tech policy priorities, assign clear ownership for the delivery of those priorities, and consider and agree on new tech policy proposals	To examine and implement cross-cutting agendas related to digital reform, regulatory reform, and administrative reform in an integrated manner	To support coordination and collaboration on science and technology policy issues at the ministerial level	To consider matters relating to strategic advantage through science and technology
ACTIVITIES/ OUTPUTS				
AUTHORITY TO SET POLICY AGENDA	Yes	Yes	Yes	Yes
PUBLIC REPORTS	No	Yes	No	Not specified
FORESIGHT	No	No	No	No
ANCHORING				
CHAIR	Yes (PM)	Yes (PM)	Yes	Yes (PM)[6]
VICE CHAIR	Yes (MP)	Yes	Yes	Yes (MP)[7]
COMPOSITION				
PRESIDENT/PRIME MINISTER	Yes	Yes	Yes (PM)	Yes
MEMBER OF PARLIAMENT	Yes	Yes	Yes	Yes
SENIOR GOVERNMENT OFFICIAL or PUBLIC SERVANT(S)	No	No	Yes	No
INDUSTRY	No	No	No	No
ACADEMIA	No	No	No	No
APPOINTED BY	Prime Minister	Prime Minister	Prime Minister	Prime Minister
NUMBER OF MEMBERS (EXCL. SECRETARIAT STAFF)	13 (variable)	24 (variable)[8]	14[9]	12 (variable)
RESOURCING				
ANNUAL BUDGET	Yes	Yes	Yes	Yes
SECRETARIAT SUPPORT	Yes	Yes	Not specified	Yes

Table 3: Overview of international precedents for the Tech Policy Council

Note: the bodies recommended in this report amalgamate and build on the non-exhaustive precedents below. Precedents are featured in these tables because they offer best practice or novel examples of cultivating coordination in the tech-ecosystem.

COUNTRY	AUSTRALIA (Proposed)	FINLAND	ICELAND	JAPAN	KOREA
BODY	Tech Policy Council (Proposed)	Technology Advisory Board (Active)[10]	Science and Technology Policy Council (Active)[11]	Council for Science, Technology, and Innovation (Active)[12]	Presidential Advisory Council on Science and Technology (Active)[13]
ESTABLISHED	Proposed	2020	2003	2001	1989
PERMANENT BODY	Yes	Yes	Yes	Yes	Yes
MANDATE	To set the strategic direction of the Tech Policy Coordination Office, ensuring it is adequately resourced, and support the Tech Policy Ministerial Coordination Meeting, providing advice and recommendations on tech policy proposals	To prepare a technology policy for Finland that creates wellbeing for Finland, steers Finland's competitiveness and is driven by digitalisation	To support the formulation of public policy on scientific research and technological development and set the official science and technology policy for three years	To investigate and discuss basic science and technology policies, as well as the allocation of resources, and evaluate Japan's key research and development	To provide advice and a forum for deliberation on matters relating to science and technology policy
ACTIVITIES/ OUTPUTS					
AUTHORITY TO SET POLICY AGENDA	Yes	Yes	Yes	Yes	Yes
PUBLIC REPORTS	Yes	Yes	Yes	Yes	Yes
FORESIGHT	Yes	No	No	No	No
ANCHORING					
CHAIR	Yes	Yes	Yes	Yes (PM)	Yes (President)
VICE CHAIR	No	Yes	No	Yes	Yes
COMPOSITION					
PRESIDENT/PRIME MINISTER	No	No	Yes	Yes (PM)	Yes
MEMBER OF PARLIAMENT	No	No	Yes	Yes	Yes
SENIOR GOVERNMENT OFFICIAL or PUBLIC SERVANT(S)	Yes	Yes	Yes	Yes	Yes
INDUSTRY	No	Yes	Yes	Yes	Yes
ACADEMIA	No	Yes	Yes	Yes	Yes
APPOINTED BY	Prime Minister	Department of Finance	Prime Minister	Cabinet Office	President
NUMBER OF MEMBERS (EXCL. SECRETARIAT STAFF)	To be confirmed	11 (variable)[14]	25[15]	≤15[16]	30 (variable)
RESOURCING					
ANNUAL BUDGET	Yes	Yes	Yes	Yes	Yes
SECRETARIAT SUPPORT	Yes	Yes	Yes	Yes	Yes

Table 3: Overview of international precedents for the Tech Policy Council (Continued)

Note: the bodies recommended in this report amalgamate and build on the non-exhaustive precedents below. Precedents are featured in these tables because they offer best practice or novel examples of cultivating coordination in the tech-ecosystem.

COUNTRY	KOREA	NETHERLANDS	UNITED KINGDOM	UNITED STATES	UNITED STATES
BODY	Presidential Committee on the Fourth Industrial Revolution (Presumed Defunct)[17]	Board of the Rathenau Instituut[18]	Board of the Parliamentary Office of Science and Technology (Active)[19]	Technology Assessment Board (Defunct)[20]	National Science and Technology Council (Active)[21]
ESTABLISHED	2017	1986	1985	1972	1993
PERMANENT BODY	Yes	Yes	Yes	Yes	Yes
MANDATE	To develop policy directions, strategies, and action plans across government to support the Fourth Industrial Revolution	To determine the work of the Rathenau Instituut	To oversee the Parliamentary Office of Science and Technology's objectives, outputs, and future work	To formulate and promulgate the policies of the Office of Technology Assessment	To provide advice to the President on matters relating to science and technology policy and coordinate the policy-making process, including policy prioritisation
ACTIVITIES/ OUTPUTS					
AUTHORITY TO SET POLICY AGENDA	Yes	No	No	No	Yes
PUBLIC REPORTS	Yes	Yes	No	No	Yes
FORESIGHT	No	No	No	No	No
ANCHORING					
CHAIR	Yes (President)	Yes	Yes	Yes	Yes (President)
VICE CHAIR	Not specified	No	Yes	Yes	Yes (Vice President)
COMPOSITION					
PRESIDENT/PRIME MINISTER	Yes	No	No	No	Yes
MEMBER OF PARLIAMENT	Yes	No	Yes	Yes	Yes
SENIOR GOVERNMENT OFFICIAL or PUBLIC SERVANT(S)	Yes	No	Yes	Yes	Yes
INDUSTRY	Yes	Yes	Yes	No	No
ACADEMIA	Yes	Yes	Yes	No	No
APPOINTED BY	President	Minister of Education, Culture and Science	Not specified	President pro tempore of the Senate and the Speaker of the House of Representatives	President
NUMBER OF MEMBERS (EXCL. SECRETARIAT STAFF)	25 (variable)[22]	8 (variable)	21 (variable)	13	16 (variable)
RESOURCING					
ANNUAL BUDGET	Yes	Yes	Yes	Yes	Yes
SECRETARIAT SUPPORT	Yes	Yes	Yes	Yes	Yes

Table 4: Overview of international precedents for the Tech Regulators Forum

Note: the bodies recommended in this report amalgamate and build on the non-exhaustive precedents below. Precedents are featured in these tables because they offer best practice or novel examples of cultivating coordination in the tech-ecosystem.

COUNTRY	AUSTRALIA (Proposed)	IRELAND	JAPAN	UNITED KINGDOM
BODY	Tech Regulators Forum (Proposed)	Digital Regulators Group (Active)[23]	Headquarters for Digital Market Competition (Active)[24]	Digital Regulation Cooperation Forum (UK DRCF) (Active)[25]
ESTABLISHED	Proposed	2022	2019	2020
PERMANENT	Yes	Yes	Yes	Yes
MANDATE	To facilitate coordination among Australia's tech regulators	To provide a platform for formalised, regular engagement between the regulators in Ireland working on digital issues	To coordinate policies of various organisations in the Government to address the issues in the digital markets, including those caused by digital platforms	To support cooperation and coordination between member regulators on digital regulatory matters
ACTIVITIES/ OUTPUTS				
AUTHORITY TO SET POLICY AGENDA	No	No	No	No
PUBLIC REPORTS	Yes	No	Yes	Yes
FORESIGHT	Yes	No	No	Yes[26]
ANCHORING				
CHAIR	Yes	Not specified	Yes	Yes
VICE CHAIR	Yes	Not specified	Yes	Yes
COMPOSITION				
PRESIDENT/PRIME MINISTER	No	No	Yes	No
MEMBER OF PARLIAMENT	No	No	Yes	No
SENIOR GOVERNMENT OFFICIAL or PUBLIC SERVANT(S)	Yes	Yes	Yes	Yes
INDUSTRY	No	No	No	No
ACADEMIA	No	No	No	No
APPOINTED BY	Ex officio	Ex officio	Not specified	Ex officio
NUMBER OF MEMBERS (EXCL. SECRETARIAT STAFF)	≥6[27]	≥4	≥9[28]	≥4[29]
RESOURCING				
ANNUAL BUDGET	Yes	Not specified	Yes	Yes
SECRETARIAT SUPPORT	Yes	Not specified	Yes	Yes

Table 5: Overview of international precedents for the Tech Policy Coordination Office

Note: the bodies recommended in this report amalgamate and build on the non-exhaustive precedents below. Precedents are featured in these tables because they offer best practice or novel examples of cultivating coordination in the tech-ecosystem.

COUNTRY	AUSTRALIA (Proposed)	FINLAND	FRANCE	NETHERLANDS
BODY	Tech Policy Coordination Office (Proposed)	Government working group for the coordination of research, foresight, and assessment activities (TEA Working Group) (Active)[30]	Parliamentary Office for Scientific and Technological Assessment (Active)[31]	Rathenau Instituut (Formerly the Netherlands Organisation for Technology Assessment) (Active)[32]
ESTABLISHED	Proposed	2011	1983	1986
PERMANENT BODY	Yes	Yes	Yes	Yes
MANDATE	To coordinate across all the entities in the tech policy ecosystem, inform tech policy design, and support the work of the Ministerial Meeting, Council and Forum	To improve the information base for decision-making and develop new ways of disseminating information on research, foresight and assessment activities to decision-makers and society at large	To inform the Government of scientific and technological developments in support of parliamentary decision-making	To support the formation of public and political opinion on socially relevant aspects of science and technology
ACTIVITIES/ OUTPUTS				
AUTHORITY TO SET POLICY AGENDA	Yes	No	No	No
PUBLIC REPORTS	Yes	Yes	Yes	Yes
FORESIGHT	Yes	Yes	No	Yes[33]
ANCHORING				
CHAIR	Yes	Yes (Department Head)	Yes (MP)	Yes
VICE CHAIR	Yes	Yes	Yes (MP)	No
COMPOSITION				
PRESIDENT/PRIME MINISTER	No	No	No	No
MEMBER OF PARLIAMENT	No	No	Yes	No
SENIOR GOVERNMENT OFFICIAL or PUBLIC SERVANT(S)	Yes	Yes	Yes[34]	No
INDUSTRY	No	No	No	Yes
ACADEMIA	No	No	No	Yes
APPOINTED BY	Prime Minister	Prime Minister	National Assembly and Senate[35]	General Board of the Academy and Board of the Institute
NUMBER OF MEMBERS (EXCL. SECRETARIAT STAFF)	To be confirmed	29 (variable)	36[36]	60 (variable)
RESOURCING				
ANNUAL BUDGET	Yes	Yes	Yes	Yes
SECRETARIAT SUPPORT	Yes	No	Yes	Yes

Table 5: Overview of international precedents for the Tech Policy Coordination Office (Continued)

Note: the bodies recommended in this report amalgamate and build on the non-exhaustive precedents below. Precedents are featured in these tables because they offer best practice or novel examples of cultivating coordination in the tech-ecosystem.

COUNTRY	UNITED KINGDOM	UNITED KINGDOM	UNITED STATES	UNITED STATES
BODY	Office for Science and Technology Strategy (Active)[37]	Parliamentary Office of Science & Technology (Active)[38]	Office of Technology Assessment (Defunct)[39]	Office of Science and Technology Policy (Active)[40]
ESTABLISHED	2021	1985	1972	1976
PERMANENT	Yes	Yes	Yes	Yes
MANDATE	To support the National Science and Technology Council and the National Technology Adviser in support of the Government's science and technology	To bridge research and policy on science and technology	To provide early indications of the beneficial and adverse impact of the applications of technology and to develop other coordinated information which may assist Congress	To provide advice to the President and the Executive Office on matters related to science and technology
ACTIVITIES/ OUTPUTS				
AUTHORITY TO SET POLICY AGENDA	No	No	No	No
PUBLIC REPORTS	Yes	Yes	Yes	Yes
FORESIGHT	No	Yes	Yes	No
ANCHORING				
CHAIR	Yes (National Technology Adviser)	Yes	Yes	Yes (Science Adviser to the President)
VICE CHAIR	Yes (Deputy National Technology Adviser)	Yes	Yes	Yes (up to 4 Associate Directors can be appointed)
COMPOSITION				
PRESIDENT/PRIME MINISTER	No	No	No	No
MEMBER OF PARLIAMENT	No	No	No	No
SENIOR GOVERNMENT OFFICIAL or PUBLIC SERVANT(S)	Yes	Yes	Yes	Yes
INDUSTRY	No	No	Yes	Yes
ACADEMIA	No	No	Yes	Yes
APPOINTED BY	Prime Minister	Not specified	Technology Assessment Board	President
NUMBER OF MEMBERS (EXCL. SECRETARIAT STAFF)	Not specified	9 (variable)	≤200 (variable)	≤150 (variable)
RESOURCING				
ANNUAL BUDGET	Yes	Yes	Yes	Yes
SECRETARIAT SUPPORT	Yes	Not specified	Yes	Yes

Annex B: Key Findings for Phase One – *Tending the Tech-Ecosystem*

The Key Findings in Part One of this research, *Tending the Tech-Ecosystem*, are the product of 32 interviews (with heads and senior representatives of Australian regulators, the Australian Government, industry, academia, and civil society) and a review of overviews of tech regulators in 14 jurisdictions globally. The interviews and reviews were representative but not exhaustive. Phase Two of the Project tested these findings with broad groups of stakeholders in Australia and abroad.

What are the attributes (skills, knowledge, and expertise) of an effective tech regulator?

1.1. All interviewees concurred that effective tech regulators required deep knowledge of the business models and incentives that drive the technology companies; there was strong support for establishing non-adversarial fora to facilitate ongoing, non-transactional exchanges to build and mature knowledge sharing among government and industry.

1.2. There were differing views on the level of *in-house* technology-specific expertise that tech regulators needed. Still, all considered *access* to independent technical expertise a minimum requirement (to enable meaningful engagement by regulators and secure effective regulatory outcomes).

1.3. The need for tech regulators to cultivate a diversity of multidisciplinary skills was unanimously endorsed, acknowledging that the skills, knowledge, and expertise required will differ depending on the specific regulatory context.

1.4. A outcomes-focused regulatory toolkit received strong support; no interviewee supported prescriptive regulation. Many spoke about the tension between identifying when an outcome set by government was not technically feasible, as distinct from when it was something industry didn't want to do. Cultivating independent expertise and repairing trust between government and industry were commonly proffered antidotes.

1.5. Interviewees were all bound by a strong sense of purpose, which many observed could be better harnessed to drive more effective regulatory outcomes. Many interviewees also expressed frustration and/or disappointment at the current adversarial state of relationships between industry and government and the underrepresented voice of civil society.

Is a new centralised super tech regulator required? Or should existing regulators be upskilled? Or a hybrid of both? Is there a new model that has not yet been considered?

2.1. No interviewee (regulator, public servant, industry executive, or civil society representative) supported the establishment of a single, centralised 'super tech regulator'.

2.2. Upskilling existing regulators was the preferred base model, supported by increased funding and enhanced transparency and accountability.

2.3. All interviewees conceded that emerging and maturing technologies may give rise to the need for new regulatory powers. However, they were divided as to if those new powers required new domain-specific tech regulators or should be subsumed into existing regulators.

2.4. Calls for consistent political leadership and improved coordination between and among regulators and policy agencies, and with industry and civil society were common themes.

2.5. All agreed that an effective regulator needs access to information and independent expertise; various suggestions to facilitate this are reflected in the proposed Tech Policy and Regulation Coordination (TPRC) Model.

How are other jurisdictions organising themselves?

3.1. No jurisdiction has established a single, centralised 'super tech regulator.'

3.2. Australia[41], China[42], Estonia[43], Fiji[44], India[45], the Republic of Korea[46], and Singapore[47] have established domain-specific tech regulators responsible for at least one element of Tech Regulation.

3.3. All jurisdictions are expanding the mandates of existing regulators to encompass enforcement of tech regulation, with varying degrees of internal coordination and coherence; competition regulators across jurisdictions are particularly active.

3.4. Australia[48], China[49], Japan[50], and the UK[51] are the only jurisdictions with formal coordination mechanisms among some tech regulators; China[52], Japan[53], and the Republic of Korea[54] are the only jurisdictions with a formal mechanism for coordination among tech regulators *and* tech policy departments and agencies.

3.5. Despite the increasing prominence of cyber security, only half of the jurisdictions surveyed have a cyber security regulatory body with enforcement powers (distinct from policy or operational responsibilities): Australia[55], China[56], Estonia[57], Germany[58], India[59], the Republic of Korea[60], and Singapore[61].

Annex C: List of Organisations Interviewed for Phase One – *Tending the Tech-Ecosystem*

All interviews in Phase One were conducted on a non-attribution basis to encourage frank responses.

Organisations marked with an asterisk (*) participated at Agency Head or Chief Executive Officer level.

Organisations marked with a (#) participated in multiple interviews.

- Accenture

- Amazon Web Services (AWS)

- Atlassian

- Australian Competition and Consumer Commission (ACCC)*#

- Australian Communications and Media Authority (ACMA)

- Australian Department of Home Affairs

- Australian Department of the Prime Minister and Cabinet#

- Australian Human Rights Commission (AHRC)*

- Australian Research Council Centre of Excellence for Automated Decision-Making and Society*

- Australian Department of the Treasury

- Centre for Responsible Tech, The Australia Institute*

- Committee for Economic Development of Australia (CEDA)*

- Digital Industry Group Inc. (DIGI)*

- Google

- Gradient Institute*#

- IP Australia*

- International Cyber Policy Centre, The Australian Strategic Policy Institute (ASPI)*

- Microsoft#

- Office of the Australian Information Commissioner (OAIC)*

- Office of the eSafety Commissioner (eSafety)*

- Productivity Commission

- Reset Australia*

- SWIFT Partners*

- Tech Council of Australia*

- UNSW Allens Hub for Technology, Law and Innovation*

- University Technology Sydney (UTS)

- Yahoo!

Annex D: Consultation Questions for Phase Two – Cultivating Coordination
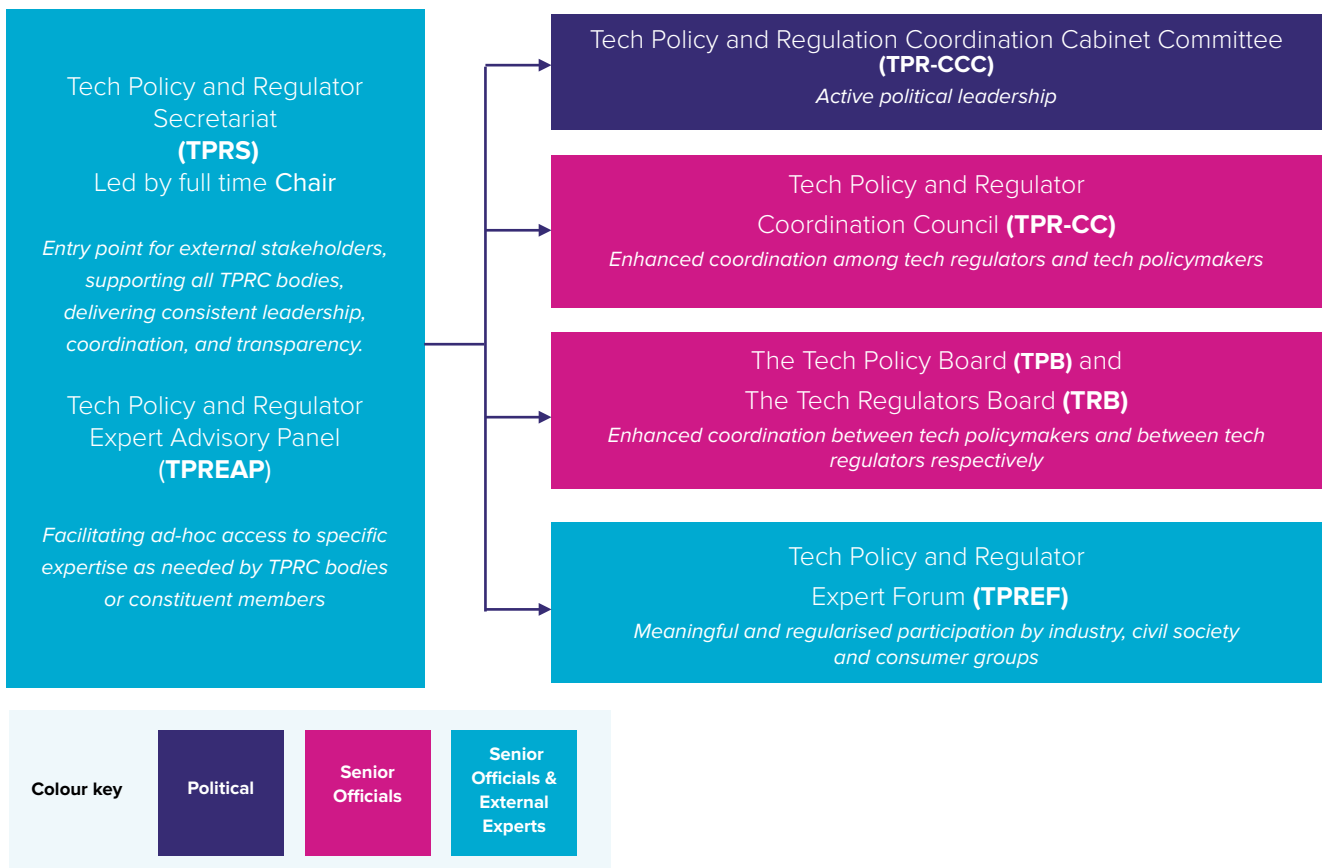
Consultation Purpose

In May 2022, ANU's Tech Policy Design Centre (TPDC) released its inaugural Report – *Tending the Tech-Ecosystem*. The report considered who is best placed to implement and oversee a new era of tech regulation. Its findings were informed by interviews with 32 heads and senior representatives of Australian regulators, the Australian Government, industry, academia, and civil society, as well as a comparative study of 14 jurisdictions internationally.

The report proposed a Tech Policy and Regulation Coordination Model (shown below). The model responds to calls for political leadership, strengthened coordination, increased transparency, access to independent technical expertise, and regularised, meaningful input by industry, academia, and civil society.

Consultation Questions

1. How can the model be simplified?

2. Would you add/remove any bodies?

3. Who should be the constituent members of each body?

4. Where is the best "home" for the Secretariat?

5. What are the attributes of an effective regulator? What is the best structure?

Initial Model (as proposed in Phase One)

Tech Policy and Regulator Secretariat

(TPRS)

Led by full time Chair

Entry point for external stakeholders, supporting all TPRC bodies, delivering consistent leadership, coordination, and transparency.

Tech Policy and Regulator Expert Advisory Panel

(TPREAP)

Facilitating ad-hoc access to specific expertise as needed by TPRC bodies or constituent members

Tech Policy and Regulation Coordination Cabinet Committee **(TPR-CCC)**

Active political leadership

Tech Policy and Regulator Coordination Council **(TPR-CC)**

Enhanced coordination among tech regulators and tech policymakers

The Tech Policy Board **(TPB)** and

The Tech Regulators Board **(TRB)**

Enhanced coordination between tech policymakers and between tech regulators respectively

Tech Policy and Regulator Expert Forum **(TPREF)**

Meaningful and regularised participation by industry, civil society and consumer groups

Colour key | **Political** | **Senior Officials** | **Senior Officials & External Experts**

Annex E: List of Organisations Consulted for Phase Two – Cultivating Coordination

- Agri-Digital
- Amazon Web Services
- Atlassian
- Attorney General's Department
- Australian Agritech Association
- Australian Broadcasting Corporation
- Australian Department of Health
- Australian Department of Home Affairs
- Australian Department of Industry, Science and Resources
- Australian Department of Infrastructure, Transport, Regional Development, Communications, and the Arts
- Australian Department of the Prime Minister and Cabinet
- Australian Department of the Treasury
- Australian Information Industry Association
- Australian Information Security Association
- Australian National University
- Australian Prudential Regulation Authority
- Australian Securities and Investment Commission
- Australasian Society for Computers & Law
- Business Council of Australia
- Commonwealth Bank of Australia
- CSIRO's Data 61
- Digital Platforms Regulators Forum (DP-REG)
- Digital Regulation Cooperation Forum (UK DRCF)
- Digital Rights Watch
- Electronic Frontiers Australia
- Finder

- FinTech Australia
- FTI Consulting
- Gilbert + Tobin
- Gilchrist Connell Legal
- Google
- Health Group
- IP Australia
- Interactive Games and Entertainment Association
- Land and Rogers
- Microsoft
- mOOvement
- Newcastle University
- NSW Government
- Optus
- Palo Alto Networks
- Reason Group
- SAP
- ServiceNow
- Square Up
- Tech Council of Australia
- Tech for Good Institute
- Tony Blair Institute for Global Change
- University of New South Wales
- University of Technology Sydney
- Woolworths
- Zepto

The ANU Tech Policy Design Centre also held international consultations, partnering with the Azure Forum (Ireland), Tony Blair Institute (United Kingdom), and the Tech for Good Institute (Singapore).

Annex F: Abbreviations and Acronyms

ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
APS	Australian Public Service
DP-REG	Digital Platforms Regulators' Forum (AUS)
DRCF	Digital Regulation Cooperation Forum (UK)
ERC	Expenditure Review Committee
eSafety	Office of the eSafety Commissioner
NSC	National Security Committee
OAIC	Office of the Australian Information Commissioner
PM&C	Department of the Prime Minister and Cabinet
UK	United Kingdom

Endnotes

1. The tables featured in the annexes are adapted and updated from Sylvia Schwaag Serger, Emily Wise & Erik Arnold, *National Research and Innovation Councils as an Instrument of Innovation Governance: Characteristics and challenges* (Sweden: VINNOVA - Swedish Governmental Agency for Innovation Systems, 2015), https://publector.org/publication/National-Research-and-Innovation-Councils-as-an-Instrument-of-Innovation-Governance/Title; and, *Chile's National Innovation Council for Competitiveness: Interim Assessment and Outlook* (Chile: Organisation for Economic Co-operation and Development, 2009), 34, https://www.cincel.cl/documentos/Recursos/CHILE_COUNCIL_FINAL.pdf.

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29. *Members of the Headers are: Chief Cabinet Secretary, Deputy Chief Minister for Economic Revitalization, Minister in charge of information and communication technology (IT) policy, Minister of State in charge of affairs related to the Cyber Security Strategic Headquarters, Minister in charge of special missions to the Cabinet Office (consumer and food safety), Cabinet Office special affairs officer in charge of affairs related to the Fair Trade Commission Minister, Minister of State for Special Missions, Minister of Internal Affairs and Communications, and Minister of Economy, Trade and Industry, as well as the Chairman of the Fair Trade Commission at the request of the Chief Cabinet Secretary. See:* Prime Minister of Japan and his Cabinet, "Establishment of Digital Market Competition Headquarters, 27-Sep-2019, https://www.kantei.go.jp/jp/singi/digitalmarket/konkyo.html, accessed 18-Jan-2023.

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47. Korean Game Rating and Administration Committee and Korea Internet and Security Agency.

48. Cyber Security Agency of Singapore and Singaporean Protection from Online Falsehoods and Manipulation Act Office.

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50. Central Commission for Cybersecurity and Informatization and Cyberspace Administration of China.

51. Japanese Headquarters for Digital Market Competition.

52. United Kingdom Digital Regulation Cooperation Forum).

53. Cyberspace Administration of China.

54. Japanese Headquarters for Digital Market Competition.

55. Korean Presidential Committee on the Fourth Industrial Revolution.

56. Australian Department of Home Affairs, Cyber and Infrastructure Security Centre.

57. Cyberspace Administration of China.

58. Estonian Information System Authority.

59. German Federal Office for Information Security.

60. Indian National Critical Information Infrastructure Protection Centre.

61. Korea Internet and Security Agency.

62. Cyber Security Agency of Singapore.