



aia

australian information
industry association

AIIA DOMESTIC CAPABILITY: FRAMEWORK POLICY

JUNE 2021

1. INTRODUCTION

Domestic capability is a building block of sovereign capability¹.

In the information and technology industries domestic capabilities include uninterrupted access to the people, skills, technology, financial resources and infrastructure, that underpin information industry outputs.

Through the lens of critical supply chains these domestic capabilities are the elements that underpin our ability to respond to unforeseen events and are critical for sustainable, uninterrupted delivery of products and services that enable the operation of our critical industries. While unforeseen in the form they might take and when they might occur, these threats are predictable in some aspects and policy makers have begun to respond accordingly.

For example, it is now widely acknowledged that cyber-enabled economic disruption and even warfare is a real and present threat to national and personal security, giving rise to the focus on securing critical infrastructure and critical services. The ability to provide this security requires access to certain domestic capability.

The AIIA recognises that domestic capabilities are an essential driver of Australia's economic growth, particularly as Australia continues to focus on becoming a leading digital economy by 2030.

The domestic capability framework policy focusses on the programs, initiatives and related policies required to enhance domestic capability.

The benefits of enhancing domestic capabilities include:

- Sufficient independent capabilities to be considered a valued partner by those we want to ally with
- Enhanced domestic and export sales across information industries
- Stimulated STEM opportunities across all corners of the digital eco-system, leading to sector growth
- Technology as a critical enabler for our core industries means greater domestic capability ensures strengthened business continuity and maintenance of global strength
- Contributor to the information economy rather than a consumer, driving innovation and growth, and
- Australia positioned as an attractive and easy place to do business for foreign multi-nationals that seek access to global capabilities.

¹ Sovereign capability is defined as the policies, processes and initiatives required to build the domestic capacity of Australia's information industries, and to protect Australia's Digital Integrity (the accuracy, validity and accessibility of data).

1.1 POLICY SCOPE

Multinational Corporations

A key driver of domestic capability is the ongoing close engagement of multinational corporations (MNCs) across Australian markets. Innovation, know how, knowledge sharing, knowledge transfer and resourcing are all key drivers of domestic capability and in many Australian States are the focus of local content policies. The full participation of MNCs as direct and indirect investors into Australia's information industry is important to deliver these drivers of domestic capability. Direct and indirect participation refers to the involvement of MNCs in Australian and global supply chains and employers and contributors of and to Australian talent. Major global software and technology platforms are available in Australia and support a local ecosystem of SMEs and partners that build off and support these ecosystems.

Building domestic capabilities should not be allowed to become a default protectionist device. Partnerships with international allies, including MNCs, are essential to ensure the Information industries in Australia remain competitive and at the leading edge of technology. The integration of these international capabilities with indigenous industries and skills to ensure domestic resilience must be the objective.

Australian companies

While recognising the pivotal role of small to medium sized enterprises (SMEs) in building domestic capabilities, this framework is broader than policies and practices focused only on SMEs. Policies and programs to stimulate domestic capabilities must encompass all aspects of the Australian information industry including businesses of all size, investors, the not-for-profit sector, the tertiary sector and public sector.

2. PROBLEM STATEMENT

A range of hazards have the potential to significantly compromise the supply of essential services across Australia; physical, personnel and cyber security are all increasingly interrelated. Recent incidents, such as compromises of the Australian parliamentary network, university networks and key corporate entities, natural disasters and the impacts of COVID-19, illustrate that threats to the operation of Australia's critical infrastructure entities continue to be significant, unpredictable and present across multiple domains, i.e not confined to sectors or simple vectors of vulnerability.

Further, overseas we see the growing uncertainty in political environments and natural disasters that can impact issues such as data sovereignty² and data continuity.

In an increasingly interconnected environment, we need to develop domestic capabilities that provide some assurance around a level of continuity of access and security of critical data and information systems, for example, in the event of a loss of international connectivity.

Planning for domestic capabilities to address these threats starts with understanding the current state which encompasses:

- Understanding ultimate ownership and control of entities³
- Understanding the existence of reciprocal arrangements between strategic partnership nations
- Visibility of entities' supply chain and outsourcing arrangements, including for storage of sensitive operational data, to identify vulnerabilities that might compromise continuity of access or integrity
- Understanding associated entities and links to other companies
- Identifying a range of common services being used by multiple entities, such as shared information technology service providers or shared control systems, creating supply chain risk aggregation
- Understanding the extent of reliance on operations and subject matter expertise from outside Australia, and
- Understanding the impact of and planning for the limits of local manufacturing capabilities.

2 A broad definition of data sovereignty can encompass the maintenance of jurisdictional control over data. In this document data is defined as per the ACSC's Cloud Security Assessment and Authorisation Framework and includes Customer Data, Account Data, Metadata and Support and Administrator Data.

3 In accordance with Foreign Investment Review Board (FIRB) guidance.

3. VALUE STATEMENT

Enhanced domestic capabilities deliver value across the ecosystem, building domestic market capabilities.

a) **Multinational Corporations:**

The AIIA recognises the vital role MNCs play in Australian and international supply chains, as significant employers and as direct and indirect investors in Australian capability. For Australia to remain an attractive place for multinationals to do business it is vital that domestic capability is built and sustained to ensure a pool of talent, expertise and an attractive technology ecosystem exists, grows and is visible.

Conversely, enhanced domestic capabilities create a stronger and viable additional foreign market for MNCs to do business.

b) **Australian businesses of all sizes (large, SMEs and start ups):**

- The ability to secure a greater proportion of the Retained Economic Benefit through profits, taxes (corporate, employee, GST, etc)
- Capacity to establish export capability in areas of strategic and/or comparative advantage
- Ability to grow through the transfer of knowledge and know how
- Greater access to resources, and
- Contribution to information industry market growth and thereby greater market opportunities.

c) **Public Sector:**

- Builds an economic capacity, new markets and additional commercial opportunities, particularly if they are linked to future capabilities
- Increase Australia's competitiveness in overseas markets
- Self-determination to influence and prioritise how, when and where the capability is deployed, in line with national domestic priorities and how these products/services and related skills/capabilities are enhanced in the future
- Increases our national security resilience and ability to plan for, mitigate and respond to threats, and
- Creates high value jobs in the services economy.

Enhancing domestic capabilities will build on current federal government positions that encourage uptake of digital technologies by the private sector, as well as the wider government support for the growth of tech skills.

4. DOMESTIC CAPABILITY PRIORITIES

This policy framework focuses on domestic capabilities required to support our nation's critical industries identified in Australia's Cyber Security Strategy 2020. These capabilities can also be known as '*domestic capability priorities*'.

Australia's Cyber Security Strategy 2020 identifies the following industries as critical given their fundamental importance to Australia's economy, security and sovereignty:

- Banking and finance
- Communications
- Data and the Cloud
- Defence industry
- Education, research and innovation
- Energy
- Food and grocery
- Health
- Space
- Transport
- Water

The AIIA has identified the following initial Domestic Industrial Capability Priorities considering the strategic, capability, and resource dimensions of industrial domestic capabilities; along with judgements based on forecast demand. The AIIA's priority is on cost-effective, innovative capability while also maximising Australian industry involvement.

Domestic Information Industry Capabilities:

- Cyber and information security
- Software development (software capable)
- Data infrastructure: telecommunications, data centres (and data centre hardware / equipment), software
- Data management and analytics
- Surveillance and intelligence data collection, analysis dissemination and complex systems integration
- Test, evaluation, certification and systems assurance
- Cloud technologies, including storage
- Hardware (to support manufacturing)
- Batteries
- Artificial Intelligence
- Machine learning
- Quantum Computing

4.1 CHALLENGES

The challenge in determining domestic capability priorities and programs is to understand the *minimum viable level of domestic capability required* to support the critical industries identified in the cyber security strategy and achieve the benefits outlined in this document.

The Defence Industry Plan provides an example of an attempt by Government to provide guidance around the minimum level of domestic capability, as follows: *Australian industry must have the technical, managerial, heavy engineering and advanced manufacturing capabilities required to build an innovative, cost competitive, sustainable and continuous program that delivers Australia's future submarines, major surface combatants and minor war vessels.*

Defining the minimum viable level of domestic capability for the information industries more broadly is a more complex question because the capacity to be supported is still an emerging discussion. We propose this definition should be developed by a process overseen by the Made in Australia office, discussed below.

5. HOW TO ACHIEVE DOMESTIC CAPABILITY

There are many policy initiatives across Federal and State Governments intended to encourage the growth of local industry or business. SMEs are a particular focus of government intervention.

Often, however, the objective is defined narrowly (job or skill creation in specific sectors) or not clearly defined at all.

Clearly defining the benefits of domestic capabilities could provide greater impetus to pull together various policies and programs around a unifying goal. For example, policy measures to encourage the development of domestic capability in the Defence industries are readily understood because the objective of the policy – Australia's capacity to militarily defend itself – is self evident. This level of clarity has been absent in policy supporting the information industries more broadly, despite cyberspace being regarded as the fifth domain of warfare.

For domestic capability to be achieved there must be a coordinated policy approach that considers how we buy capabilities and at the same time develop identified industries to grow these capabilities. Supporting these policies are programs that involve industry to industry and government to industry collaboration that include capability development and innovation themed grants, partnering and capability uplift.

As such, any policy or program must encompass all businesses that operate within the eco-system to drive domestic capability from MNCs down to start ups, and across the tertiary sector, research organisations and government.

5.1 CAPABILITY PLANNING

Similar to Defence and Infrastructure planning there must be a planned view of required technology capabilities, linked to forecast risks or events and threats, cascading from a 5-year view, to 3 years and then 12 months. Planning could be the responsibility of a central federal government policy team and be linked to the identified critical industries and the domestic capability priorities supporting them. Federal government responsibility is important to foster take up and ownership across federal and state government jurisdictions.

State government capability planning should align to these federal directions, just as there is uniformity in the development of defence capabilities across Australian governments.

5.2 PROCUREMENT POLICY

By far the largest buyer of ICT products and services are government jurisdictions across Australia. All Australian governments have “buy local” policies and programs that are typically aligned to dollar thresholds, for example the Australian Industry Plan requirement at \$20M. These programs are good at achieving higher levels of local content within a MNC supply chain but can stop short of developing required capabilities within Australian businesses.

Many of these programs also focus on SMEs rather than Australian businesses of all sizes. These programs also do not address the perceived 'risk' or **cultural cringe** of buying Australian. For each of the domestic capability priorities procurement policies are needed that consider:

- A value statement demonstrating the 'additional value' of building domestic capabilities
- Involvement of start ups in government procurement
- Maximising the involvement of Australian companies in government procurement regardless of contract value
- Greater transfer of knowledge, know how and skills from overseas into Australian businesses, targeting domestic capability priorities
- Target number of high value government procurements let to Australian businesses, and
- Quotas for Australian business involvement in government contracts.

5.3 INDUSTRY POLICY

Industry policies and programs are required to drive the development of each domestic capability priority and can include:

- **Industry capability studies** for each domestic capability priority to understand current state against desired future state, with consideration of:
 - supply chain and outsourcing arrangements, including for storage of sensitive operational data
 - associated entities and links to other companies
 - common services being used by multiple entities, such as shared information technology service providers or shared control systems
 - Extent of reliance on offshore operational technology providers and subject matter expertise to support service and project delivery, and
 - required local manufacturing capabilities.
- **Industry development policies** incorporating programs to address gaps identified in the capability studies. These policies have been initiated for cyber security and defence industries.
- **Investment policies** focused on greater access to capital that in turn leads to increased domestic capability:
 - Creation of an innovation / VC hub around the theme of increased domestic capability
 - R&DTI special category for projects of strategic capability
 - Policies to stimulate VC industries
 - Super funds including access for mid tier market
 - Early stage VC and gaps requiring private investment, and
 - Taxation legislation to be changed to stimulate investment
- **Early adoption industry policies.**

6. RECOMMENDATIONS

Government as a buyer is both the most powerful and the least utilised lever the public sector has to develop domestic capability. While this isn't acknowledged by policy makers, there is strong anecdotal evidence that agencies themselves often have a bias against buying local.

The AIIA proposes the following recommendations to help shift this “cultural cringe” by giving a clear signal on the value Government places on local industry and building domestic capability.

a) Establish a “Made in Australia” Office in PM&C

The AIIA recommends a “Made in Australia” office (MIAO) be established in the DPM&C with a mandate to establish a list of strategically important information industry capabilities (domestic capability priorities) to support the critical industries listed in this document, and to determine which of those are available from Australian suppliers.

The office will not mandate Australian owned but will recognise the strategic value in supporting and growing local sourcing and reinvestment within Australia. That is, aligned with the retained economic benefits measures, it should holistically value the contribution of suppliers to growing capacity in country. This will enable the supply side of the industry to grow which then builds capacity and capability not only to serve other industries in Australia but also to leverage these skills and capabilities to sell overseas.

The first activity of the MIAO should be to establish the minimum viable level of domestic capability Australia needs to independently respond to a global event in support of Australia's critical industries.

In the course of this analysis the MIAO would be required to identify risks and the appropriate controls to mitigate them, including bringing greater clarity to the perceived risks around ownership and control and how those should be addressed (as discussed in Section 2 above). This office could then develop procurement and industry policies listed in this document with meeting this minimum capability standard as an outcome.

Further the office could consider formal implementation of reciprocal arrangements between strategic partnerships which in turn enhance domestic capabilities.

Finally, the MIAO could act as an internal advocate to the whole of government and model the use and adoption of new and secure digital and information industries technologies, with a view to establishing models and examples for the private sector.

b) Build a coordinated effort, across the federal and state governments to focus on increasing domestic capabilities.

Through established structures such as the national digital council, consider shared policies and programs, between the Federal and State Governments, that generate domestic capabilities such as:

- Domestic capability office or coordinator within each State
- Targeting removal of red tape
- R&D
- Information industry skills development, and
- Increasing domestic spend on technology to a minimum of 25% in shared programs that attract federal government funding, consistent with current Commonwealth Procurement Rules requiring adoption of policies such as Indigenous Procurement Plans and Federal Safety Commissioner requirements. This includes Specific Purpose Payments and Public Private Partnerships.

c) Introduce Retained Economic Benefits criteria in Government Procurement for goods and Services aligned to domestic capability priorities

This recommendation builds on the Retained Economic Benefit model considered by the NSWG Sovereign Procurement Taskforce and can provide a means by which the promotion of domestic capability is balanced against the risks of protectionist outcomes.

For example, for the procurement of information industry capabilities (domestic capability priorities) a criteria can be added in procurement assessment processes that puts a weighted value on the extent to which a vendor's proposal creates positive externalities, such as job creation, local wealth creation (equity impacts), technology transfer, and propensity to reinvest revenue domestically, especially in local R&D and IP creation. This extends existing commitments within Commonwealth Procurement Rules to identify broader domestic economic benefits for significant procurements greater than \$4M.

d) Develop a 5 year plan for building domestic capability priorities that includes:

- Industry capability studies linked to a clear vision for Australia's information industry to independently support critical industries, and
- Venture capital program for Australia to become VC and financial market friendly, with appropriate market signalling to support investment.

This 5 year plan should inform the work of the Made in Australia office. The ability to respond is underpinned by these industries with each.

e) For the Federal Government to create a Digital Restart Fund

For the Government to provide assurance programs for domestic supply chain similar to FedRAMP.

f) Incorporate ICT procurement reporting baseline for all ASX listed organisations

Promote domestic information industry capabilities by asking non-ICT, ASX listed companies and Government Agencies to report on their ICT spend and introduce targets against the procurement of domestic information industry capabilities. Targets and reporting requirements could be introduced progressively up to a requirement of, for example, 25% domestic information industry spend by 2025.

About the AIIA

The Australian Information Industry Association (AIIA) is Australia's peak representative body and advocacy group for organisations in the digital ecosystem. Since 1978 AIIA has pursued activities to stimulate and grow the digital ecosystem, to create a favourable business environment for members and to contribute to Australia's economic prosperity.

We do this by delivering outstanding member value, by providing a strong voice of influence; building a sense of community through events and education; enabling a network for collaboration and inspiration; and developing compelling content and relevant and interesting information.

Our members are diverse and truly represent the diversity of the Australian tech ecosystem and include Australian SMEs and larger technology, telecommunications and infrastructure and cloud companies as well as hyper-scale cloud and multi-national software and SAS providers.

June 2021

Australian Information Industry Association

For further information please contact the Policy and Advocacy team at the AIIA at policy@aiaa.com.au.

