

WORLD IN TRANSITION

Policy

Roundtable 1

Supply Chains and Logistics



7 November
2025

Prof Douglas Guilfoyle



UNSW
CANBERRA

World in
Transition

World in Transition

Policy Roundtable 1: Supply Chains and Logistics

7 November 2025, UNSW Canberra

Douglas Guilfoyle

This workshop report (and its executive summary) is the sole responsibility of the Convenor and does not necessarily reflect the views of other workshop participants.

The workshop was conducted under the Chatham House rule.

Contents

Executive Summary	1
1. Structural economic vulnerabilities limit national resilience especially given Australia’s small domestic industrial base, an economic ‘missing middle’, and rising digital dependence.	3
2. Australia remains highly exposed to global supply chain fragility.....	4
3. Crisis responsiveness is a national strength: but planning, preparedness, and institutional memory remain weak.	5
4. The Australian innovation ecosystem lacks enabling structures, incentives, and a coherent national industrial strategy.....	5
5. Political, cultural, and narrative barriers impede long-term resilience.	6
Key Recommendations for Transition	7

Executive Summary

Introduction

In an era of increasing uncertainty, geopolitical competition, and technological disruption, Australia's domestic and international supply chains are critical to national resilience and security. Yet key vulnerabilities remain, whether in our dependence on imported fuels, pharmaceuticals, and semiconductors; the fragility of just-in-time logistics; or our structural role as an exporter of raw materials and an importer of finished goods. As supply chains become a site of strategic contest, not just in war, but amid diverging interests between key partners, Australia must grapple with the realities of "friend-shoring," technological decoupling, and workforce constraints.

The World in Transition initiative is a three-year flagship program exploring how geopolitical, strategic and technological shifts are reshaping Australia's external environment and the practice of statecraft in a competitive age. Through public lectures, strategic roundtables and collaborative workshops that engage leading Australian and international experts, the World in Transition initiative will driving discussion about the major forces reshaping Australia's external environment and how Australia should respond.

This inaugural roundtable of the World in Transition initiative convened senior leaders from defence, government, industry, and academia to explore what a coordinated, whole-of-nation logistics strategy could look like in an evolving and competitive environment. The discussion considered the implications of implementing a whole-of-nation approach to logistics, taking into account sector considerations and capability gaps.

The Strategic Outlook

Against a backdrop of complicated global disruptions, tightening economic conditions and intensifying strategic competition, Australia must move decisively in key areas to better safeguard the flows of goods, services, information and infrastructure essential to national security and prosperity. The failure to make choices now that address current critical strategic vulnerabilities in supply chain and logistics risks locking Australia into a more brittle strategic posture, limiting our options and constraining our ability for nimble decision-making in the future.

The strategic picture that Australia faces presents both challenges and opportunities.

Current geopolitical uncertainty and changes to the international systems capable of early detection, such as impacts to operational capacity for global monitoring of infectious diseases by the World Health Organization after withdrawal of the United States completed in January 2026, which increase the risks and possible consequences of global shocks. Whether a pandemic, natural disaster, or a cascading "black night" scenario affecting multiple critical systems simultaneously, Australia must prepare for the next shock. Modern economies are bound up in global supply chains and market incentives do not always align with national

resilience during critical disruptions. This raises a broader question about how Australia will balance market freedom with central coordination in times of crisis, particularly when military mobilisation has long lead times and state-level regulatory fragmentation can disrupt national co-ordination. Australia proved its national capacity to excel at rapid reaction but struggles with long-term planning and cross-sector coordination that is conducted preemptively rather than reactively. Effectively managing and meeting public expectations will be essential in addressing future challenges, especially given the growing importance of managing a contested narrative space in times of national crisis. Successfully building public narratives will be of growing significance for navigating future strategic complexities and ensuring resilience.

The scale of Australia's current multi-layered import dependencies requires reliance on countries within our region. These dependencies create both potential opportunities for developing Australia's position in the region and vulnerabilities in times of strategic pressure, as well as severely limiting visibility and complicating planning in the absence of comprehensive national supply chain mapping. Calls for Australia to develop its own industrial 'sovereign capability' in key inputs have continually been met with equal parts entrepreneurial enthusiasm and structural inertia. These structural factors intersect with intensifying global protectionism and rapidly rising cyber and digital risks, amplifying the need for resilient systems across electricity, fuel, water and critical digital infrastructure.

It is clear that Australia has strong foundations - research organisations, innovative firms, and demonstrated crisis agility – from which it can build enduring competitive advantage in an increasingly competitive and contested world. This will require, however, transitions toward sustained political will, strategic coherence, and a supportive business culture to realise this potential. The following report aims to support this effort by providing of five key challenges and cross-cutting opportunities for Australia.

1. Structural economic vulnerabilities limit national resilience especially given Australia's small domestic industrial base, an economic 'missing middle', and rising digital dependence.

Australia ranks poorly on economic complexity, lacks sovereign capacity in key inputs, and faces growing challenges related to an ageing workforce, low birth rates, and political constraints around migration. These structural pressures intersect with intensifying global protectionism and rapidly rising cyber and digital risks, amplifying the need for resilient systems across electricity, fuel, water and critical digital infrastructure.

The dependency of many critical sectors on foreign capital, foreign processing and foreign data impact the ability of Australian Small and Medium sized Enterprises (SMEs) to scale up. Despite international strength in some service sectors, like tourism and education, national agency remains limited in critical sectors such as agrifood and manufacturing. These dynamics in combination with Australian trade remaining concentrated upon a small list of partners creates added vulnerability to changes in geopolitical realities. Shifts in choices by key trade partners have the possibility to create severe disruption. Growing challenges regarding workforce and population dynamics such as ageing labour force, low birth rates, and political constraints around migration have contributed to sluggish productivity and questions about viable paths to reduce economic vulnerabilities and increase national agency.

Artificial Intelligence (AI) has seen widespread adoption across sectors. Current integration practices, however, risk entrenching dependency on foreign digital platforms and eroding sovereign capacity. Entrenched foreign dependency in frontier technologies could compound already fragmented defence and advanced manufacturing efforts toward sovereign capability development. This is problematic given the lack of clarity about the extent of actual current sovereign capacity. For example, some of the experts in attendance questioned the extent of current Australian capacity and suggested that efforts to 'push' sovereign capability remain too high-level to make worthwhile headway. On the other hand, other attendees made the point that Australia does have the capacity to produce necessary elements for capability but suggested that the primary challenge remains based in a lack funding to build the appropriately skilled labour force to qualify for development, testing and evaluation as well as product qualification. The question remains if the problem is actual production capacity or a culture that stymies development.

2. Australia remains highly exposed to global supply chain fragility.

Australia's supply chains are long, opaque, and heavily import-dependent across pharmaceuticals, energy, digital infrastructure, and defence inputs. There is no comprehensive national risk or vulnerability assessment, and government systems remain siloed, reactive, and susceptible to short-term political cycles. Many hospitals, agencies, and industries lack even basic visibility of upstream suppliers.

Dependencies upon global supply chains systems are not unique to Australia. Large sections of modern economies are bound up in supply chains, however, the reality is that market incentives do not always align with national priorities and resilience. Examples of this were evidenced during the pandemic, when global shipping companies maximised margins during periods of peak disruption. Although some of the needed products and capability to reduce dependencies exist in Australia, barriers to change are ultimately cultural and organisational, not technological. This includes, for example, the funding to build the workforce with the know-how to make an impact.

Existing and emerging sector specific dependencies should be acknowledged and addressed with a focus on national resilience. For example, the pandemic revealed to Australia its dependency on maritime trade and foreign medicines; however, there were commercial interests and lobbying efforts to capitalise on market disruptions. Additionally, emerging digital dependencies on foreign countries may have effects which are largely not yet visible. Concerns about such dynamics are exemplified by recent European Union pushes away from foreign-owned companies like Microsoft, Zoom and offshore cloud storage and toward 'digital sovereignty'. Possible foreign monopoly over key technological advancements pose the risk of foreign control over Australian industries, especially if Australian investors and companies are risk-averse with regards investing in such groundbreaking technologies.

To begin to develop robust systems to navigate these challenges, Australia should work to define critical needs and vulnerabilities in the Australian supply chain. Fundamental assumptions made in developing response frameworks needs to be articulated and assessed, taking into account changes in the context that may impact future assumptions. This includes a critical initial step of defining and categorising the critical goods and services for which we need transparent and verifiable. Supply chain and logistics questions arise, however, about the level of transparency necessary to be helpful in supply chain vulnerabilities. The conclusion by participating subject matter experts is that the transparency needed involves government and industries, not the general public. The clear challenge with such an approach is finding appropriate and effective ways to achieve transparency without revealing Australia's vulnerabilities to the world. However, simultaneous calls to rally national political will towards resilience efforts suggest that there needs to be broader public understanding about why certain decisions are taken to mitigate national vulnerabilities.

3. Crisis responsiveness is a national strength: but planning, preparedness, and institutional memory remain weak.

Australia demonstrated extraordinary agility during COVID-19, especially through large-scale coordination via National Emergency Management Agency and rapid mobilisation of industry-government networks. However, this nimbleness has not translated into sustained preparedness, and a degree of “COVID amnesia” has set in. Future crises will not resemble past ones, and the country cannot continue to rely solely on reactive capability.

Shifts toward a more proactive stance and approach are necessary given the current geostrategic picture. In an increasingly uncertain and complex global environment, this does not mean preparing for every possible scenario, especially given Australia’s proven ability to react dynamically. Preparation for every eventuality would consume an inefficient amount of national resources. A pragmatic path involves key actors finding ways to test impact of changing factors that meaningfully impact supply chains. Tools, such as scenario planning and digital twin technology, are increasingly utilised by other actors understand, triage and respond to systemic complexities.

Finding pathways for coordination during moments of crisis is resource intensive. Lessons learned as to best practices and mechanisms established will be lost if collective institutional memory is not intentionally cultivated. Effective crisis coordination will also require the involvement of regulators such as the ACCC to navigate the boundary between necessary cooperation and anti-competitive conduct. However, no single agency can carry this burden alone.

4. The Australian innovation ecosystem lacks enabling structures, incentives, and a coherent national industrial strategy.

Innovation ecosystems – rather than linear commercialisation – will drive resilience. However, Australia lacks an integrated system to link research institutions, SMEs, primes, and government. The country has multiple disconnected programs with poor coordination across multiple departments, and lacks sufficient risk-tolerant capital.

The creation of a meaningful innovation ecosystem is reliant on government policy settings that fosters start-ups, however Australia’s current policy is insufficient to enable their sustainment. This trend is particularly noticeable in digital and future technology industry, which results in Australian companies that are too small or too risk adverse to innovate. Our experts concluded that the key problem is the lack of political will required to facilitate structural changes. Current national industrial strategy lacks the coherency to effectively address the situation.

As Australia looks to remedy its own orientation toward innovation, examples of both properly and improperly functioning innovation ecosystems exist across the international system and can serve as lessons. Ukraine provides one such example of the potential opportunities and challenges for innovation under acute conditions. For example, de-centralised drone acquisition by unit commanders, working alongside companies, in the Ukrainian context

illustrates the potential rapid cycle of innovation that can be achieved with close integration of industry and command. A significant takeaway is that innovation works better from the bottom up. It is also necessary, however, to acknowledge the different pressures between the peacetime or conflict contexts. Nonetheless, there is a role for government in helping to foster co-located innovation precincts, such as the significant biotech sector clustered around major universities in the United Kingdom.

5. Political, cultural, and narrative barriers impede long-term resilience.

A consistent message from invited experts was that Australia's resilience problems are largely institutional and cultural, not technological. Our public narrative does not foreground risk, shared responsibility, or national resilience, and political incentives favour short-termism over real preparedness. Several speakers argued that without a shift in narrative and leadership culture, reforms will stall.

Underpinning each of the themes and recommendations discussed in this paper is the conclusion that transition toward a more resilient Australia is crucial but that there is a lack of political urgency. There seems little willingness by the Government to accept the costs of preparedness in 'ordinary' times rather than crisis. The lack of willingness to engage by the political class can be, at least in part, explained by the efforts of powerful lobbying groups as well as public disinterest. This creates and reinforces political disincentives. There is also an understandable reluctance by the government to engage narratives that might frighten the public.

Current public narratives about resilience building have proved inadequate to link economic security, environmental pressures, and national wellbeing to unlock meaningful motivation for change. Australia can look to the examples from other countries, for example Finland, which showcase a culture of shared responsibility that is not currently present in Australia.

Australia does have a variety of strategic frameworks that address facets of preparedness and resilience through specific lenses, for example as regards cyber, counter terrorism and natural disasters. However, the disparate and unconnected nature of current efforts raises the question of whether or not additional resilience strategies are needed or if it is better to link existing strategies. Any plan to join up and unite current efforts would, however, require a clear national definition of what a 'resilient' Australia would look like.

Key Recommendations for Transition

Recommendation 1

Establish a National Supply Chain Risk and Resilience Assessment (government-only), updated annually.

A classified, whole-of-government assessment should map critical supply chains, identify unacceptable dependencies (including digital), and articulate underlying assumptions. This must be routinely revisited. This responds directly to calls for transparency of supply chains to government and a single risk picture.

Recommendation 2

Create a permanent National Supply Chain Coordination Mechanism linking government, industry, and regulators.

Building on the successes of the COVID era, participants emphasised the need for standing cross-sector coordination, including ACCC involvement to handle competition issues during crises. This mechanism would integrate scenario planning, stress-testing, and rapid information-sharing.

Recommendation 3

Develop a targeted Industrial Strategy for Critical Capabilities: including digital infrastructure, pharmaceuticals, energy, and defence inputs.

Calls were made for a national industrial strategy, coherent prioritisation, and definition of critical capabilities. Any such strategy should prioritise sovereign foundational capabilities, not only finished goods, and should use tools such as strategic investment, procurement levers, and public-private consortia. It should also explicitly address Australia's rising dependence on foreign AI and cloud infrastructure.

Australia needs a focused industrial strategy that prioritises the foundational "building block" capabilities underpinning pharmaceuticals, energy, digital systems, and defence inputs, but it must also reshape how capability is developed. Several speakers noted that other countries outperform Australia precisely because they have co-located, multi-actor innovation environments: regional ecosystems that accelerate feedback loops, productivity growth, and technology adoption.

Recommendation 4

Strengthen the “missing middle” – SMEs – through better integration, and long-term procurement signals.

Speakers highlighted the value of the existing Industrial Capability Network and the need for consistent, transparent pipelines to allow SMEs to invest in capability without being blindsided by shifting government priorities. Large projects should be required to use ICN or similar platforms to map suppliers and further build domestic capability.

Recommendation 5

Build a national resilience narrative and leadership culture that supports bottom-up innovation and shared responsibility.

Participants emphasised that without political will and an effort to reshape the public narrative, similar to models in Nordic states which emphasise shared responsibility, investment and reform are unlikely. Government should articulate a clear narrative linking resilience to lifestyle, environment, and national security, while empowering bottom-up experimentation, collaboration hubs, and workforce development.

Such efforts will need to address the structural and cultural barriers that complicate narrative-building and communication across sectors. Participants highlighted the importance of shared language, clarity of purpose, and the constraints of security classification. Together, these shape how government agencies articulate strategy and how industry and research communities interpret and respond to it. Addressing these barriers - through clearer framing, improved translation across sectors, and more deliberate cross-sector dialogue - will be essential to building a shared understanding around supply chain resilience and enabling practical collaboration.



UNSW
CANBERRA

UNSW Canberra

Northcott Drive, Canberra ACT 2600

 unsw.edu.au/canberra

 +61 2 5114 5000

CRICOS Provider Code: 00098G | ABN: 57 195 873 179

© Copyright of The University of New South Wales Canberra 2022. The information in this publication is correct at May 2022. UNSW Canberra reserves the right to change any degree, admission requirement or other information herein without any prior notice.

The information contained in this publication applies to Australian citizens, Australian permanent residents, Australian permanent humanitarian visa holders and New Zealand citizens only. All international students should contact Student Administrative Services on +61 2 5114 5000 for admission procedures and degree information.