



Australian Government

SDIP 4 - Domestic manufacture of guided weapons, explosive ordnance and munitions

Annex B4

Defence acknowledges the Traditional Custodians of Country throughout Australia. Defence recognises their continuing connection to traditional lands and waters and would like to pay respect to their Elders both past and present.

Defence would also like to pay respect to the Aboriginal and Torres Strait Islander peoples who have contributed to the defence of Australia in times of peace and war.

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Overview of Annex B

This Annex contains the Detailed Sovereign Defence Industrial Priorities (Detailed SDIPs) for SDIP 4, in accordance with Chapter 3.

The SDIPs are:

SDIP 1. Maintenance, repair, overhaul and upgrade (MRO&U) of Australian Defence Force aircraft

SDIP 2. Continuous naval shipbuilding and sustainment

SDIP 3. Sustainment and enhancement of the combined-arms land system

SDIP 4. Domestic manufacture of guided weapons, explosive ordnance and munitions

SDIP 5. Development and integration of autonomous systems

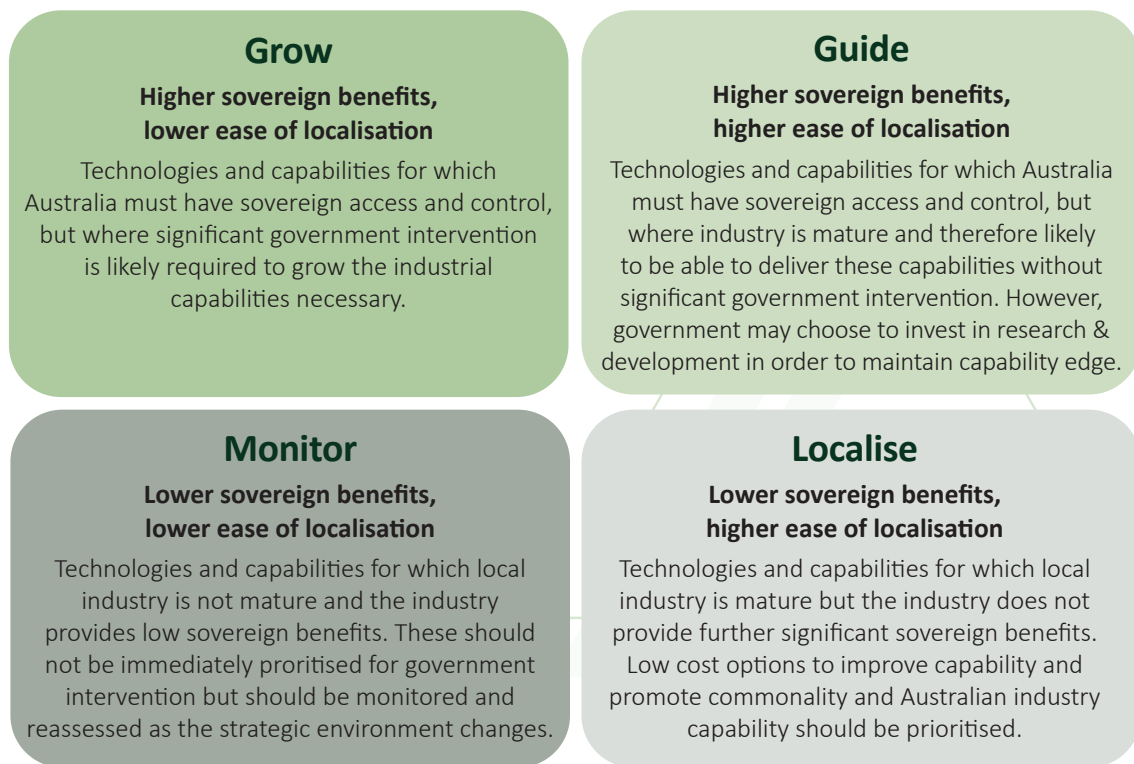
SDIP 6. Integration and enhancement of battlespace awareness and management systems

SDIP 7. Test and evaluation, certification and systems assurance

There are many areas where defence industry is already providing a service or capability to Defence; for example, the provision of enabling information and communication technology support including data centres, cyber and health services. Defence will continue to work with industry to ensure we have the level of industrial capability required in Australia to deliver defence outcomes.

Defence will refine the information in these Annexes through consultation with industry, and in line with the biennially-updated National Defence Strategy. Defence will work with industry to identify shortfalls, critical paths and areas for growth, using the approach described in Chapter 3 (Figure 4). The aim is to consistently and continuously guide and grow the defence industrial base, aligned to Defence's needs.

Figure 1 - Approach to industrial prioritisation



Capability and Delivery Managers

The Vice Chief of the Defence Force is responsible for defining and communicating the capabilities Defence requires of Capability Managers. Capability Managers and Delivery Managers are responsible for the growth and health of the industrial capabilities required to deliver and sustain the directed defence capabilities.

Industrial capability lifecycle

The information provided for each Detailed SDIP contains Defence's requirements against the industrial capability lifecycle.

The industrial capability lifecycle consists of:

Innovation, Science & Technology	Design & Development	Integration & Adaptation	Manufacture & Assembly	Sustainment & Support
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- ▶ **Innovation, Science & Technology** – innovative technology solutions that have been identified as meeting a defence capability need and providing an asymmetric advantage for Defence to develop, explore and mature to pull through to capability. These would be candidates for consideration under the Advanced Strategic Capabilities Accelerator (ASCA).
- ▶ **Design & Development** – areas that require further maturation and development beyond the prototype phase to meet a defence capability need.
- ▶ **Integration & Adaptation** – mature industry solutions or systems that need to be integrated with other defence systems and/or adapted to meet a defence capability need.
- ▶ **Manufacture & Assembly** – industry solutions, systems or components that Defence has determined must be manufactured and/or assembled in Australia, to ensure sovereignty and/or supply chain security and resilience.
- ▶ **Sustainment & Support** – industrial capabilities and services that Defence has determined must be delivered by industry in Australia to sustain and support defence capability.

SDIP 4 - Domestic manufacture of guided weapons, explosive ordnance and munitions

Capability and Delivery Manager

The Capability Manager for the domestic manufacture of guided weapons, explosive ordnance and munitions SDIP is the Chief of Guided Weapons and Explosive Ordnance. The Delivery Manager is the Chief of Guided Weapons and Explosive Ordnance.

Background

The Defence Strategic Review emphasised the need to hold sufficient stocks of guided weapons and explosive ordnance (GWEO) and have the ability to manufacture selected guided weapons.¹

GWEO includes all guided and non-guided munitions containing explosive content, from guided missiles, torpedoes and naval mines, to bombs and warheads, small arms ammunition and flares. The Australian Defence Force (ADF) uses hundreds of different GWEO types, and each type can contain hundreds or even thousands of components. Individual GWEO types are often tightly coupled with specific launch platforms, combat and fire control systems and targeting systems, making substitution to a different GWEO type difficult.

A small number of multi-national companies manufacture most of the ADF's GWEO. The industry operates on a 'sell-then-make' business model, which often results in long delivery lead times. The intellectual property for more advanced GWEO types and associated manufacturing processes is tightly held.

Australia currently manufactures a range of non-guided munitions, including small arms ammunition and some types of aircraft bombs. However, all of the ADF's guided weapons are currently manufactured outside Australia.

Prioritisation approach

The Australian Government is committed to a targeted uplift of Australia's domestic GWEO manufacturing capabilities, with initial domestic production of guided weapons to commence by 2025.

Defence is currently working with selected industry partners, including its GWEO Strategic Partners Raytheon Australia and Lockheed Martin Australia, on plans to expand guided weapon manufacturing. Given the high barriers to entry, our approach will focus on a small number of selected guided weapons.

Few countries manufacture all of their own guided weapons and even fewer are capable of manufacturing every component in any individual guided weapon. It is not realistic, affordable or necessary for Australia to do so. The Australian Government's approach to uplifting GWEO manufacturing will build Australia's supply chain resilience, increase our industrial and military self-reliance and enable us to contribute to the wider allied industrial base.

The GWEO Group, as Defence's lead in developing the GWEO Enterprise, is adopting a phased approach to build Australia's domestic manufacturing capability for GWEO. We will commence with assembly of imported components and then progress to local manufacturing of some components. In due course, this will likely include rocket motors and warheads for selected missiles. In the longer-term, we aim to design and manufacture a wider range of components and GWEO types, including through co-development of future weapons.

More detail will be provided in the GWEO Enterprise Plan, that will be considered by the Australian Government in Quarter 2 2024.

¹ DSR page 68

Epoch 1 outcomes

We will manufacture selected guided weapons, commencing with assembly of imported sections/components and expanded types and/or increased quantities of non-guided munitions.

Specific outcomes for Epoch 1 are as follows:

Manufacture of specific weapons

- ▶ Development of specific proposals for consideration by the Australian Government in Quarter 2 2024 that will allow domestic missile manufacturing to begin by 2025 for in-service/in-production weapons.
- ▶ The pathway for domestic manufacturing of guided weapons will likely commence with local assembly of imported components and materials.

Manufacture of non-guided munitions

- ▶ Development of specific proposals for consideration by the Australian Government in Quarter 2 2024 that will allow domestic manufacture of initial additional types of non-guided munitions.

Energetic materials production

- ▶ Continued work with industry partners to capitalise on the existing industrial capabilities at Mulwala and Benalla for production of explosives and propellants.

Uplift of industry for GWEO technologies

- ▶ Investigation of technologies such as loitering munitions and hypersonics to identify future opportunities for greater sovereign resilience, or co-development and co-production opportunities with our trusted partners.

Critical enablers

- ▶ Work with trusted partners to progress the MRO&U of priority munitions in Australia, with an initial focus on MK-48 heavyweight torpedoes and Standard Missile-2 missiles.
- ▶ Investment in other critical enablers needed to underpin an expanded GWEO Enterprise, including increasing our testing and research capabilities and rapidly expanding our storage and distribution network to accommodate a growing GWEO inventory.

Hypersonics

- ▶ Continued investment in hypersonic research and development.

Epoch 2 outcomes

We will manufacture selected weapon sub-sections and components to improve supply chain resilience. We will uplift industrial capability and capacity to design and manufacture GWEO components, to position Australia to manufacture future weapons types.

Specific outcomes for Epoch 2 are as follows:

Manufacture of specific weapons

- ▶ Introduction of a growing number of Australian-made components over time.

Manufacture of non-guided munitions

- ▶ Introduction of expanded types of non-guided munitions.

Energetic materials production

- ▶ Initial focus on developing the industrial capability and capacity to produce rocket motors and warheads.
- ▶ Domestic production of energetic components offers an opportunity to improve supply chain resilience by reducing the need for international transport of dangerous goods.

Uplift of industry for GWEO technologies

- ▶ Uplift of our industrial capability in a broader range of GWEO-related technologies to position Australia to develop, manufacture and sustain future weapon systems.

Critical enablers

- ▶ Work with trusted partners to progress the MRO&U of an expanded range of priority munitions in Australia.
- ▶ Continued investment in other critical enablers needed to underpin an expanded GWEO Enterprise.

Hypersonics

- ▶ Continued investment in hypersonic research and development.

Detailed Sovereign Defence Industrial Priorities

Table 1 - Detailed SDIPs for SDIP 4, Epoch 1 (2023-25)

Description	Innovation, Science & Technology	Design & Development	Integration & Adaptation	Manufacture & Assembly	Sustainment & Support
Selected guided weapons types				✓	✓
Selected non-guided explosive ordnance				✓	✓
Hypersonic weapons technology	✓	✓			

Table 2 - Detailed SDIPs for SDIP 4, Epoch 2 (2026-30)

Description	Innovation, Science & Technology	Design & Development	Integration & Adaptation	Manufacture & Assembly	Sustainment & Support
Selected guided weapons types				✓	✓
Selected non-guided explosive ordnance	✓	✓	✓	✓	✓
Select guided weapon components - rocket motors				✓	✓
Select guided weapon components - warheads	✓	✓	✓	✓	✓
Hypersonic weapons technology	✓	✓			

✓ - Continuation from Epoch 1
 ✓ - New in Epoch 2