

LAND COMBAT VEHICLE PROGRAM – OFFICIAL BRIEFING

Director: COL David Hughes



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Army's key engagement with industry



Program Overview

- The Land Combat Vehicles System ensures the ADF has an enduring capability for land manoeuvre into, through and beyond the direct fire zone in contemporary and future operating environments.
- This capability is required to achieve Defence's strategic objective of an **amphibious capable combined-arms land system** (Integrated Investment Program 2024, para 7.7).
- To ensure Army can secure and control strategic land positions and provide protection to for the ADF (National Defence Strategy 2024, para 6.8.b), the Program is delivering:
 - M1A2 Abrams SEPV3 Main Battle Tank
 - M1150 Armoured Breacher Vehicle
 - M1110 Joint Assault Bridge
 - Boxer Combat Reconnaissance Vehicle
 - Redback Infantry Fighting Vehicle
 - M88A2 Armoured Recovery Vehicle
- The Program is currently managing legacy M1A1 Tank, ASLAV Cavalry and M113 APC fleets.

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Armoured Infantry

- Finalising design of Redback Infantry Fighting Vehicles
- Maintenance of legacy M113AS4 Family of Vehicles, leading to drawdown

- Progress Verification / Validation of Redback Infantry Fighting Vehicles
- Complete Infantry Fighting Vehicle integration in Land Combat System

- Future systems development and integration

Cavalry

- Delivery of Boxer Block II Combat Reconnaissance Vehicles
- Maintenance of legacy ASLAV systems

- Continued delivery of Boxer Block II Combat Reconnaissance Vehicles
- Managed reduction of ASLAV

- Evolve protection and sensor systems
- Support future ISR systems

Heavy Armoured Capability System

- Delivery of M1A2 SEPv3 Main Battle Tanks
- Delivery of Assault Breacher Vehicles
- Delivery of Joint Assault Bridging Vehicles

- Complete capability integration within Land Combat System
- Finalise withdrawal of M1A1 AIM SA
- Final deliveries of Assault Breacher Vehicle and Joint Assault Bridge.

- Evolve Main Battle Tank systems, aligned to US build state
- Support heavy armour capability through-life

**Enhanced Force-in-Being
2024-2025**

**Objective Integrated Force
2026-2030**

**Future Integrated Force
2031 and beyond**

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TOPIC: Increasing Australian industry support for sustaining Armoured Fighting Vehicles

Problem statement 1: How can industry contribute to develop a pathway for domestic major platform sub-assembly maintenance and net reduction in overseas repair and overhaul requirements?

Problem statement 2: How can industry and Defence mitigate the risks to achieving IP transfer and authority to sustain, by enabling international partnerships and regional support hubs/agencies?

Problem statement 3: How will Army reduce cost of ownership and enable adaption of subsystems within Land Combat Vehicle Program (LCVP) platforms?



Problem statement 1: How can industry contribute to develop a pathway for domestic major platform assembly maintenance and net reduction in overseas repair and overhaul requirements?

- **Parameters:** There can be benefit to Defence and the ADF support system when domestic industry can provide major system and sub-system maintenance effects, as opposed to a requirement to transport systems internationally for key maintenance tasks.
- **Risks:** There can be limitations on technology transfer, and ensuring a required throughput of work to enable domestic industry. Many risks can be reduced through international partnerships with OEMs or generating an Australian-based regional support hub (or agency) that services the Asia-Pacific region.
 - The Heavy Armour Capability System relies on international repair and overhaul of critical items, including Foreign Military Sales partners and approved agents.
 - The Combat Reconnaissance Vehicle relies on global supply lines for common disposable parts and items.
- **Pathway to funding:** Secured through contracts with Primes for sustainment of existing projects through their LoT.
- **Options:** Industry should initially engage with Primes and support system leads; however engagement with Defence, including the Land Combat Vehicle Program, can support outcomes.



Problem statement 1: How can industry contribute to develop a pathway for domestic major platform sub-assembly maintenance and net reduction in overseas repair and overhaul requirements?



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Problem statement 1 – CASE STUDY: Heavy Armour maintenance repair and overhaul of critical items.

Parameters: The Heavy Armour Combat System relies on the ability to rapidly repair and overhaul critical items, including the X1100-3B1 Transmission and the 1000amp Generator

Pathway to funding: Secured through contracts with OEMs or Primes for support to existing projects through their LoT, plus sustainment program engagement.

Risks: The current process relies solely on the US for the provision of repair and overhaul. This generates long lead times for returns. There is also increased risk attached to choosing repair options based off distance and turn around times, leading to Army choosing the more expensive overhaul option to guarantee issue rectification.

Options: Industry should initially engage with Primes and support systems leads, however, engagement with Defence can support outcomes.

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Problem statement 2: How can industry and Defence mitigate the risks to achieving IP transfer and authority to sustain, by enabling international partnerships and regional support hubs/agencies?

- **Parameters:** To mitigate risks associated with Intellectual Property (IP) transfer and sustainment in Defence, particularly when leveraging international partnerships, a multi-faceted approach is needed. This includes establishing clear IP frameworks within partnerships, fostering collaborative innovation ecosystems, and developing robust support hubs with integrated/supporting capabilities aligned to platform or subsystem OEMs and Primes.
- **Risks:** Transferring intellectual property (IP) involves significant risks, including loss of control, potential infringement, dilution of competitive advantage, and compliance and regulatory challenges.
- **Pathway to funding:** Engagement with platform or subsystem OEMs/Primes, and Defence for emerging capability.
- **Options:** Explore options like joint research and development (R&D) initiatives, strategic alliances, and establishing regional sustainment hubs. Map the domestic industry skillset or existing commercial equipment support (consider alignment of mining equipment, survey equipment/lenses, power systems etc.) in addition to expanding military equipment support.



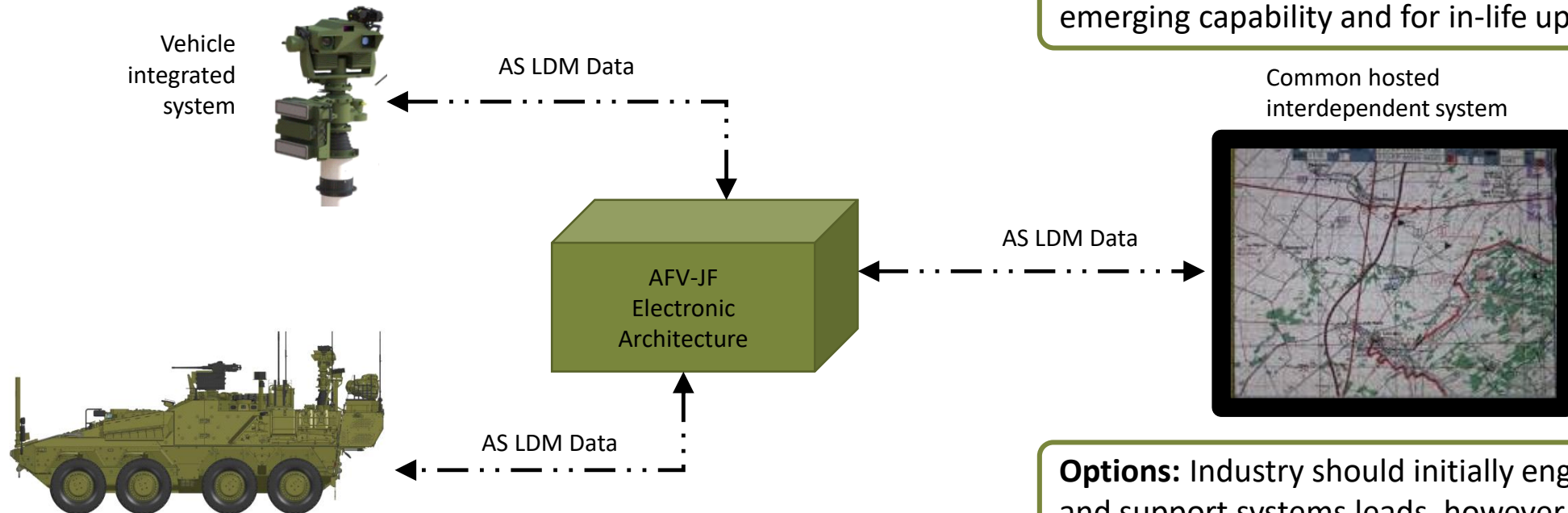
Problem statement 3: How will Army reduce cost of ownership and enable adaption of subsystems within Land Combat Vehicle Program (LCVP) platforms?

- **Parameters:** LCVP is delivering vehicles with significant levels of compliance and reliance on Australian Generic Vehicle Architecture (AS GVA) defined interfaces, including the use of the Australian Land Data Model (AS LDM). The AS GVA and LDM interfaces support vehicle sub-system integration and adaption. The Commonwealth can access and share these AS GVA interfaces with potential suppliers. It is expected that LAND 400 and other selected Army projects will be reliant on AS GVA and LDM defined interfaces into the future.
- **Risks:** Army is in the process of updating its approach to AS GVA, LDM and other vehicle systems integration standards, which has created an opportunity for misinformation between Defence and Industry stakeholders. Army projects that rely on AS GVA and LDM defined interfaces may be adversely affected by an assumption that AS GVA and LDM are no longer relevant to Army vehicle systems integration.
- **Pathway to funding:** Sustainment and upgrade funding through-life. LCVP projects will utilise AS GVA and LDM interfaces where they continue to present lower integration risk. Therefore, industry should align to AS GVA/LDM to maximise opportunities.
- **Options:** Future sustainment, upgrades and adaption of sub-systems for LAND 400 platforms will seek to utilise AS GVA and LDM interfaces where they have already been implemented on those platforms.

Problem statement 3 – EXAMPLE: Australian Land Data Model (AS LDM)

Parameters: Vehicle subsystems, inclusive of sensors, C4I, vehicle health, need to pass data efficiently and accurately within platform data systems.

Pathway to funding: Secured through contracts with specific subsystem OEM or Primes for emerging capability and for in-life upgrades.



Risks: Poor alignment to AS LDM / GVA impacts capability for our soldiers.

Options: Industry should initially engage with Primes and support systems leads, however, engagement with Defence can support outcomes.

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QUESTIONS AND DISCUSSION



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