D.1 RESPONSIBLE AI FOR DEFENCE CHECKLIST – Summary

A	A. AI: What is the AI and how does the AI component function?
	A.1 What is the AI designed to do? • A.1.1 is designed to enable combat functionality of a weapon[1] or means[2] of warfare • A.1.2 is designed to undertake safety critical functions *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj; UseCase; SOC* **A.2 What decisions are addressed by the AI functionality?** • A.2.1 is designed to replicate human judgement and discretion in decision making • A.2.2 is undertaking novel decisions only made possible by complex algorithmic processing • A.2.3 is making substantive or complex decisions *If yes, complete: AI; AIObj* **A.3 If the AI functionality includes an ability to learn or modify some of its goals – what TEVV is required to ensure ongoing fitness for purpose?** • A.3.1 can learn or modify its own goals triggers an ongoing requirement for TEVV *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj* **A.4 Can the AI capability convert decisions into action? If so, is this subject to direct human intervention?** • A.4.1 permits decisions to be converted into action • A.4.2 implements decisions without direct human intervention *If yes, complete: AI; HMI; UseOut; AIObj* **A.5 What form of AI technique, machine learning technique or algorithmic processing is used?** • A.5.1 utilises probabilistic methods to compute a decision based upon incomplete or uncertain information • A.5.2 operates using an AI model computational processing that cannot be immediately understood or explained – for example, black box functionality, or through complex machine learning such as neural networks, or deep neural processing etc • A.5.3 operates using an AI model or computational processing that is not reviewable • A.5.3 has embedded values and standards to produce its output *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj; UseCase; SOC* **A.6 What is the source of the AI functionality's code or model?** • A.6.1 derived from open-source, proprietary/commercial, bespoke, self or third-party managed code *If yes, complete: AI*

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1 For Australian purposes, weapon is defined as: 'a device, whether tangible or intangible, designed or intended to be used in warfare to cause: a. injury to, or death of, persons; or b. damage to, or destruction of, objects.'

2 A means includes sub-systems that enable the weapon functionality include AI decision support tools, AI enhances sensor and communications networks.

	A.7 What mathematical model is it based upon? • A.7.1. relies on a mathematical model that is imprecise (requiring control measures to account for the imprecision) *If yes, complete: AI; DevIn; HMI*
B	**B. Development inputs: what is the composition of the AI functionality?** **B.1 What are the AI capability data sources?** • B.1.1 uses data that was not provided by Defence, for development, training, or certification *If yes, complete: DevIn* **B.2 What is the AI capability's data quality?** • B.2.1 cannot describe its data structure, cleaning and bias mitigation process, original data owner, data steward, storage access and security and data rights *If yes, complete: DevIn*
C	**C. Human Machine Interaction** **C.1 What is the AI capability interface?** • C.1.1 does not have a direct human interface during operation of the AI capability • C.1.2 has a temporal or geographical dislocation between its interface and effect caused by the AI *If yes, complete: HMI; AIObj; SOC*
D	**D. AI Use Inputs** **D.1 Does the AI require user inputs (from humans) in order to operate?** • D.1.1 requires a human operator to input instructions or data for it to operate *If yes, complete: AI; HMI; UseIn* **D.2 Does the AI require data from the environment of its designed or intended use?** • D.2.1 requires data from the environment to operate as intended *If yes, complete: AI; HMI; UseIn*
E	**E. AI Use Outputs** **E.1 What are the AI capability data outputs?** • E.1.1 sends output to external sources without being checked by a human first • E.1.2 produces an output involving data that is regulated by the law • E.1.3 is designed to (or consequentially) provides output that directly contributed to independent action of effect that is regulated by the law *If yes, complete: AIObj*
F	**F. AI Object** **F.1 Does the AI interact with humans?** - F.1.1 interacts with humans as the object of the AI action *If yes, complete: UseOut; AIOb;* **F.2 Can the AI generate effects that can directly affect third parties?** - F.2.1 directly affects the rights or obligations of persons or things not operating the system *If yes, complete: UseOut; AIObj*

G	G. AI Use Case
	### G.1 Is the AI intended to be used as a method of warfare? - G.1.1 is intended to enable a method of warfare *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj; UseCase; SOC*
H	H. System of control: control measures, system integration and AI frameworks ### H.1 Explain how the AI capability (or AI functionality) integrates with other systems. - H.1.1 is integrated within, or as part of, a larger system and sends output to that system without it being checked by a human first *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj; UseCase; SOC* ### H.2 What control measures are required for the capability to operate in its designed or intended use - H.2.1 requires specific practice, process, procedure or intervention to restrict, limit or alter its functionality so that it can perform as intended *If yes, complete: AI; HMI; SOC* ### H.3 Has the AI capability or AI functionality been subject to independent review? - H.3.1 has been subject to TEVV and has not been independently verified - H.3.2 cannot be subject to an independent TEVV *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj; UseCase; SOC* ### H.4 Do you need an expert to operate this AI capability? - H.4.1 cannot be operated without developer or contractor assistance (i.e. contracted specialist) - H.4.2 cannot be designed or developed without expert assistance *If yes, complete: AI; DevIn; HMI; UseIn; UseOut; AIObj; UseCase; SOC*

Components Key:

AI	AI
Development Inputs	DevIn
Human Machine Interface	HMI
AI Use Inputs	UseIn
AI Use Outputs	UseOut
Object of AI Action	AIObj
Use Case	UseCase
System of Control	SOC