ID	Milestones	Measure	Date
1	Evidence of engagement and plan for first prototype	Report on engagement with other TA1.2/1.3 teams and the Technical Area Project Manager(s), including:	10 October 2025
		(1) feedback how the collaboration with the PM(s), and with other teams, is working and what (if anything) could improve it; and (2) evidence of engagement with TA1.1, to be delivered in the form of an annotated TA1.1 Bibliography (bibliography provided by the programme team in July).	
		Demonstration of initial prototype, able to represent, but not necessarily typecheck, a selection of proofs in diagrammatic first-order logic. Prototype is published online to allow other teams including the programme team to access it, in accordance with opensource terms outlined in the funding call. Discussion of current expectations for how these components will integrate with other team's contributions, including feedback from PM.	

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2	Updated prototype	Demonstration of an updated prototype of the team's component, published online in accordance with opensource terms outlined in the funding call. Discussion of current expectations for how these components will integrate with other team's contributions, including feedback from PM.	10 January 2026
3	Contribution to 'Gantt of Gantts'	Based on engagement with TA1.2/1.3 PMs, provide a detailed breakdown and project plan outlining planned deliverables and how these align with contributions from other teams, as reflected in the overall Gantt chart.	10 January 2026

4	Updated Prototype	An up-to-date version of the prototype shall be made available online in accordance with the project plan & technical objectives outlined in the January 2026 project plan, with a brief report detailing progress to date and relevant revisions to the project plan.  The likely objections (subjects to updates) are:	10 April 2026
		(a) Reference Proof Checker: Typechecking of proofs selected in (1)	
		(b) Data-Parallel Datastructure: GPU implementation of reference datastructure can represent proofs from (1)	
		NB ARIA will make decisions regarding the continuation of the project after the 12-month go/no-go point based on the information provided by this point. ARIA will seek evidence of tangible progress and rapid momentum in implementation prior to the go/no-go decision. Additionally, ARIA will conduct an external code review of the work produced following this milestone to support the go/no-go decision.	

5	12-Month Go/No Go Milestone This is a Go/No Go Milestone	Provide a summary of progress made since the proposed project plan (as set out in the Jan 10th milestone), including any new learnings & subsequent updates.	11 July 2026
		Approval of an updated proposal and project plan in the form of an updated Schedule 2, covering the period from the go/no-go decision point, until the end of the programme.	
		This submission will also include a clear explanation of how the contribution integrates into the overarching Safeguarded AI platform (as discussed with the TA1.2 PM).	

## 3.3 The intended long-term outcomes are summarised below:

- 1. A feature-complete open-source library for data-parallel proof checking of SMTs.
- 2. An end-to-end proof-of-concept reinforcement learning (RL) theorem prover built on the dataparallel checker.

The aim of these tools is to facilitate domain-specific SMT-based proof checking, particularly for ARIA creators.

## 4. Project Reporting requirements

You will complete, submit and attend the following reporting/meeting requirements at the frequency set out below:

Frequency	Requirement	
Planning	<ul> <li>Roles and responsibilities</li> <li>External communications</li> <li>Vision</li> <li>Project details</li> <li>Code and data management</li> <li>Project plan + project management</li> </ul>	

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