

OFFICE OF NATIONAL INTELLIGENCE

ONI Progress Report FY 2025 / 2026 January - June

Grant ID: NI210100000

Grant Title: Title

Admin Organisation: University

Chief Investigator: Prof Name

Part A - Project Update

A1. Administrative Update

((Provide an update on the administration of the project. Include:

- Progress against recruitment activities, including any personnel commencing or leaving the project;*
- Any anticipated changes to personnel (e.g. named CIs or PIs moving to another university or retiring);*
- Progress against administrative arrangements (e.g. ethics approvals, governance arrangements, MIAs etc.);*
- Any challenges meeting particular output targets;*
- Details of any security incidents encountered (e.g. data breach from hackers, unsolicited request for project information, cyber security incident);*
- Any anticipated requests for project variations (e.g. end date extensions, project completing earlier than expected, personnel changes, change to Partner Organisations and/or contributions);*
- Any highlights for the period;*
- Anything else regarding your project that you feel needs to be flagged with ONI or the ARC.)*

While 2 honors students have been recruited we are struggling to find an appropriate post doc specialising in quantum mechanics that meets the eligibility requirements. We will be opening up another recruitment round from January to February and expect to be reviewing applicants in March. CIs Lastname and Surname are currently undertaking the preliminary work that was anticipated to be undertaken by the post doc pending this recruitment.

CI Prof Lastname will be moving from Monash University to Adelaide University commencing 1/1/2028, but will remain working on the project at the same FTE contribution. Prof Lastname's supervisory commitments for students working on the project will be transferred to CI Prof Surname who remains at Monash University. No other changes are anticipated to named personnel who all remain fully committed to the project.

All administrative arrangements are in place, no ethics approvals are required as this does not involve human or animal research.

The number of peer reviewed publications produced to date is slightly behind anticipated targets due to a longer than anticipated peer review process. We expect the number of publications will meet targets over the life of the project, if slightly behind originally forecast timelines. All other measures are on track with instances of outreach activities in particular far exceeding original targets.

No significant issues are encountered beyond issues with recruitment described above.

No security incidents were encountered during the period.

At this stage we do not anticipate any variations or extensions, however if there is continued difficulty in recruiting an appropriate post doc we may need to discuss whether aspects of the project planned to be undertaken by the post doc will be delayed and we may need to discuss the possibility of an extension or implementation of other mitigation activities.

A highlight for the period was Firstname Lastname received the Research Excellence award at the International Conference for Industrial Research for their paper on Quantum Artificial Intelligence.

A2. Budget Expenditure to Date *(Note – Budget update only required in July-December Report)*

(Provide an update against total grant expenditure for the project up to the reporting date, including prior periods. Estimates within 10-20% are acceptable to provide a guide on project progress. Full financial updates will be provided with the End of Year Report.)

\$200,000.00

A5. Provide a high level update on the progress of the research

((Please upload a PDF of up to two pages. The response should focus on the research being undertaken and the outcomes and development of that research, rather than administrative items that are covered in Question A1 above.

Include:

- Progress against grant funded research*
- Any significant findings or technical developments))*

Please upload a detailed update of the project research (Max 2 pages)

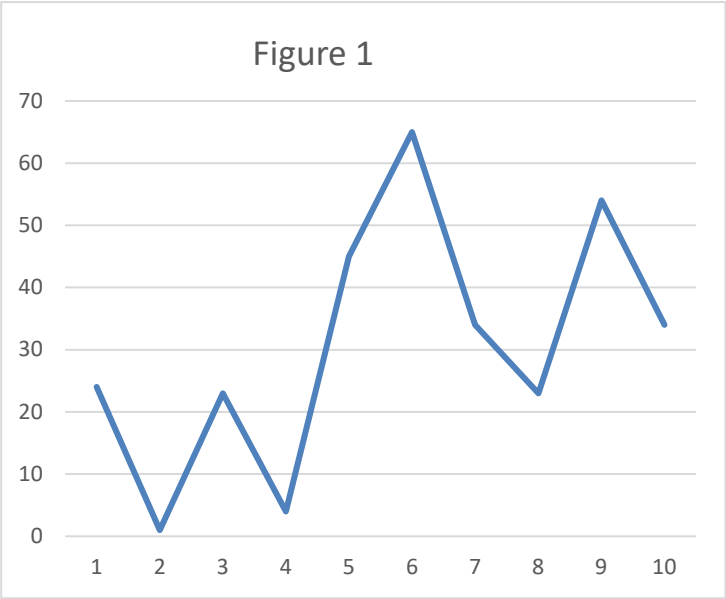
Uploaded PDF file follows on next page.

Since 1 January 2026 we have completed the development and preliminary testing of the antenna from the new material developed under phase 1 of the project and have focused on...

While the completion of testing has been delayed due to minor recalibrations required in the initial setup due to..., the antenna is now operating as expected and we anticipate moving to testing across the full spectrum through the remainder of the 2026 calendar year. Measurements from the preliminary testing, covering a limited spectrum (Figure 1), demonstrate that...

Development of the upgraded calibration tool to support efficient field deployment is progressing and is at the stage of... There was an unexpected outcome in... which has garnered interest from...

A paper was presented to the Annual Research Conference on the materials development process undertaken in phase 1 of the project. The paper focused on...



A3. Performance Measures

NISDRG KPI Report (Closed: 24/05/2022 10:00 AM)			
Performance Measure	Description	Measure Type	Action
Number of data sources	Number of data sources utilised by AI model.	Quantitative KPI Measure	Show
Number of stakeholder engagements	Number of positive stakeholder engagements leading to contributions to direct engagement with the model.	Quantitative KPI Measure	Show
Ability of AI model to facilitate intelligence collection	AI model is performing with a high degree of accuracy and drawing relevant insights from data.	Qualitative KPI Measure	Hide

Specific KPI	Ability of AI model to facilitate intelligence collection		
Description	AI model is performing with a high degree of accuracy and drawing relevant insights from data.		
Measure Type	Qualitative KPI Measure		
Qualitative Measure	Year 1	Completed design of model for identification of relevant data and collection into AI analysis process.	
	Year 2	Model developed and tested in lab conditions. Paper published on results.	
	Year 3	AI lab insights tested with intelligence community. Model tested in live environment.	

Performance Measures Update

(The first time the report is completed, Performance Measures will need to be copied from the table above. For subsequent reports Performance Measures will be imported from the previous Progress Report.

Select Add Row, copy each Performance Measure from the table above.

Provide the current status of each of the Performance Measures below. If you would like to provide ONI further information of each measure, please attach a PDF with the details.

Note: This table will auto-populate into the next Progress Report.)

Performance Measure	Status and Summary of Performance Measure	pdf
Number of data sources	AI data sources: >8 million	
Number of stakeholder engagements	We have delivered 3 workshops which is 1 behind target to date.	
Ability of AI model to facilitate intelligence collection	Model has been successfully tested in lab conditions	

Part B - Grant Personnel

B1. Grant Personnel

NISDRG KPI Report (Closed: 24/05/2022 10:00 AM)

	Year 1	Year 2	Year 3
Honours Student	2	2	2
Higher Degree Research Student	2	0	0
Post-Doctoral Fellow	2	0	0
Non-Academic Participants	1	1	1
Total	7	3	3

(This question demonstrates the grant's ability to build capacity and capability. Personnel should be entered as a numeral and reflect the total number of personnel, excluding those named as CIs or PIs, engaged to work on the project since commencement.)

Count all personnel (excluding CIs and PIs) engaged to work on the project whether paid by the Project (ONI), the Administering Organisation or a Participating Organisation from commencement of the project until the end of the current reporting period.)

	Total of all engaged project personnel to date
Honours Student	0
Higher Degree Research Student	1
Post-Doctoral Fellow	2
Non-Academic Participants	1
Total	3

List of Unnamed Personnel

(Please select Add Row to list all personnel engaged to work on this project whether paid by the grant (ONI), the Administering Organisation or a Participating Organisation. Named CIs or PIs are not required to be listed.)

The Personnel Declaration form for each person should have been forwarded to ONI for confirmation prior to their commencement.

Note: This table will auto-populate into the next Progress Report and can be edited to reflect updated end dates or other details for each personnel.)

Personnel Name	Role (Hnrs / HDR / Post Doc / non academic etc)	Start Date	End Date	Paid by Project (ONI) or Participating Organisation
Firstname Lastname	Post doc	1/1/2023	TBA	ONI grant funding
Personalname Familyname	HDR	6/7/2024	30/12/2025	Monash University scholarship with ONI top up
Firstname Surname	Post doc	6/7/2025	TBA	Griffith University
Firstname Lastname2	Non-academic personnel (lab tech)	12/8/2024	6/7/2026	University of Wollongong

Part C - Grant Outreach

C1. Grant Outreach

NISDRG KPI Report (Closed: 24/05/2022 10:00 AM)

	Year 1	Year 2	Year 3
Keynote Presentations	1	1	1
Briefings to Research Science and Technology Community	1	2	2
Briefings to Government	2	2	3
Briefings to Industry and Business	1	2	2
Total	5	7	8

(Please provide the number of outreach activities achieved against each category from commencement of the project until the end of the current reporting period.)

	Total for the project to date
Keynote Presentations	1
Briefings to Research Science and Technology Community	2
Briefings to Government	3
Briefings to Industry and Business	4
Total	10

C2. Additional Funding

(Please provide information regarding any funding applied for or received as a result of this project including funding to continue or branch out the research.

If you would like to provide ONI further information of this requested funding, please attach a PDF with the details.

Note: This table will auto-populate into the next progress report and relevant details can be updated in subsequent reports, such as if a grant applied for in a previous reporting period has been successful or unsuccessful.)

Additional Funding	Source	Amount	Status	pdf
AEA Seed Grant	Dept Education	\$250,000	Successful	
Discovery Projects 2026	Australian Research Council	\$500,000	Applied	

Part D - Research Outputs

D1. Output Target High-Level

NISDRG KPI Report (Closed: 24/05/2022 10:00 AM)

	Year 1	Year 2	Year 3
Peer Reviewed Outputs	1	3	4
Non-Peer Reviewed Outputs	1	2	3
Data Sets	0	1	2
Total	2	6	9

(Provide details of the number outputs completed from commencement of the project until the end of the current reporting period.)

	Total for the project to date
Peer Reviewed Outputs	3
Non-Peer Reviewed Outputs	3
Data Sets	2
Total	8

D2. Output Target Detailed

NISDRG KPI Report (Closed: 24/05/2022 10:00 AM)

	Year 1	Year 2	Year 3
Collaborative (co-authored) research	3	6	9
Outputs directed at Intelligence communities	2	4	6
Outputs made openly available	10	14	15
Total	15	24	30

(Provide details of the number of outputs (including datasets) from commencement of the project until the end of the current reporting period.)

Note: Collaborative outputs are co-authored in conjunction with someone outside the research team.)

	Total for the project to date
Collaborative (co-authored) research	1
Outputs directed at National Intelligence communities	3
Outputs made openly available	2
Total	6

D3. Quality of Research Outputs

NISDRG KPI Report (Closed: 24/05/2022 10:00 AM)

Quality Measure	Target	Further Details
Scimago ranking for peer reviewed journals	3 Peer reviewed journals published in top 10% journals according to Scimago rankings	Journals and papers
Website views	>500 website views	Website and media
End user uptake	70% of peer reviewed outputs shared with users in national Intelligence Community	End users

Provide a brief update on the quality of Research Outputs produced during the reporting period. The indicators provided in your KPI Report can guide this response, however any indicators of quality or impact can be reported on where your Research Outputs have achieved outcomes outside the scope of the KPIs.

We had 1 journal paper, *Intelligence challenges in quantum computing*, published in the Quantum Computing, one of the top 10% peer-reviewed journals base on Scimago rankings.

Following the Research Conference in Melbourne we also engaged with researchers from University of Canberra regarding our paper on Quantum Artificial Intelligence, which flagged the potential for collaboration on future papers.

D4. Research Outputs

(Please select Add Row to list each research output published since the project commenced.

Outputs are considered "published" at the point they are accepted by the publication following peer review.

Please list each person (named or un-named on the project) that is listed as an author on the publication (e.g. paid by the project (ONI) or a participating organisation including CIs, PIs, PhD, RA, Fellow etc).

Attach a copy of the publication. Data sets do not require an attachment.

Note: This table will auto-populate into the next progress report and can be edited to update relevant details.)

Publication Title	Type of Publication	Place of Publication	Peer Reviewed / Not Peer Reviewed /Data Set	Name of Project personnel Authors	pdf
Intelligence challenges in quantum computing	Journal Article	Quantum Computing, Vol .44, (Jun., 1991)	Peer reviewed	Prof Firstname Lastname, Dr Firstname Surname	1 Page.pdf
Interference in transmitting 5g information	Conference paper	Adelaide Conference 2023	Conference paper	Dr Firstname Surname	1 Page.pdf

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Intelligence challenges in quantum computing

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