



QUANTUM TECHNOLOGIES

Frequently Asked Questions

What is the goal of research in Quantum Technologies?

The goal of research undertaken in Quantum Technologies is to inform Defence of the potential benefits and practical limitations of quantum technologies across a wide range of applications, through studies and demonstrator systems, over three years. Technology areas include: sensing, communications, computation, navigation and timing.

The partnerships developed between Defence Science and Technology (DST) Group and other research organisations will further contribute to a vibrant quantum technologies and quantum research environment in Australia.

Research in Quantum Technologies, funded through the Next Generation Technologies Fund, is focussed on development of a world leading innovation capability. Generally the science and technology effort conducted under the Next Generation Technologies Fund is at [Technology Readiness Levels](#) (TRLs) 1–5.

Some of the research undertaken in Quantum Technologies may be transitioned to other parts of the Defence Innovation pipeline if appropriate. This may accelerate the development of key technologies or deployable capabilities.

How will the two stage application and selection process be managed?

First stage applications will be accepted through the web form at the link provided on the Defence Innovation website and will be assessed against the selection criteria outlined in the Call for Applications.

Successful first stage applicants will be required to submit a second stage application providing more detailed plans and budget.

The Quantum Technologies Research Leader will provide successful first stage applicants feedback regarding:

- alignment with the goals of Quantum Technologies
- collaboration opportunities (including DST)
- budgetary guidance.

The Quantum Technologies Research Leader will advise unsuccessful first stage applicants of the outcome of their application and, upon request, provide a summary of assessors' feedback.



How will the application data be managed?

Information provided by applicants in their application will be kept in-confidence. It will be disclosed to the Quantum Technologies evaluation panel for the purposes of project selection. The panel will include representatives from within the Australian Government as well as Government representatives from partner nations, participating under non-disclosure agreements. The application data may be shared within the Australian Government for the purposes of future investment decisions.

Who can contribute?

A main goal of the Next Generation Technologies Fund is the development of Australian capability. Therefore, applications are accepted, subject to security considerations, from any research organisation with an Australian presence. Organisations are free to submit a number of applications. Collaboration is encouraged, provided a lead organisation is identified to manage project delivery. A DST Group collaborator is desirable but not mandatory.

How do program participants identify relevant expertise within DST?

One of the goals of the Next Generation Technologies Fund is to develop collaboration between DST and the Australian innovation community. Collaboration is not mandated for its own sake, but where there is real potential for mutual benefit to be derived from such collaboration, it will be encouraged and facilitated.

Where applicants do not already have existing contacts within DST, the Quantum Technologies Research leads may recommend a DST collaborator if this would provide a meaningful contribution to the proposal. Applicants may refer to the [DST Science and Technology Capability Portfolio](#) to identify potential new or additional collaborations.

DST experts who are contributing to a project could be seconded to or embedded with participants, where appropriate.

How will project participants be engaged in the program?

Industry awardees will be engaged via the Next Generation Technologies Fund Research Agreement in line with the Defence Innovation Hub Intellectual Property Strategy.

Academic awardees will enter into a research or collaborative arrangement as outlined in the Defence Science Partnering (DSP) deed. Universities not currently signatories of the DSP framework are encouraged to contact the Technology Partnerships Office on 03 9626 7247.

Successful applications will receive project funding for an agreed term for agreed deliverables and milestones. Funding will be paid as milestones are achieved, up to the total agreed funding.



How will the project be managed?

DST will lead the research in Quantum Technologies and manage the projects with participants in a collaborative network.

The lead for each project will manage delivery and reporting as specified in the contract or agreement.

Who owns the intellectual property created from projects within the Quantum Technologies research network?

Any contributed background Intellectual Property (IP) associated with each isolated component of the research will be retained by the respective participants. In the case where background IP is embedded in the foreground IP (i.e. where Defence requires use of background IP to exploit the foreground IP), Defence may require a licence from participants for Commonwealth purposes.

Defence does not seek to own IP derived from the research in Quantum Technologies. Defence may, however, require a Commonwealth purposes, non-commercial license as a minimum requirement.

Will the work be classified and are security clearances required?

Classification of work and the need for security clearance will be addressed on an individual project basis. Work may be structured or phased so that part of it can be conducted at an unclassified level. However, it is expected that the majority of the research conducted under Quantum Technologies research projects will be unclassified. DST may determine that sensitive information needs to be shared with project participants, so key researchers may need to be eligible to apply for a security clearance.

Can the project work be published?

A main goal of the Next Generation Technologies Fund is the development of a world-leading innovation capability, therefore peer review and publication is desirable.

The project would need to consider the publication of work conducted under the project on a case-by-case basis with appropriate editing and approval by DST.

How can I get more information?

Any questions regarding the application process or Quantum Technologies research at DST should be directed to gtp@dst.defence.gov.au.