Tier 3 Priority: Quantum Technologies

We are in the midst of the second quantum revolution, which will see the transition from the science of quantum mechanics to the engineering of quantum technologies. This will enable the development of new quantum sensor and quantum communications technologies that deliver unprecedented sensor performance and communications security. Australia has significant quantum technology capabilities and capacity in the academic sector. The Quantum Technologies Theme would now like to further explore the capability and capacity in the small business sector.

The Theme addresses two critical requirements of the Future Force, namely:

* The ability to fight through Global Navigation Satellite System (GNSS) constrained (e.g. underground or underwater) or degraded (e.g. jammed etc.) environments by using quantum technologies to provide Assured Position Navigation and Timing (APNT); and
* The ability to maintain effective communications and battlespace networking in contested environments.