SITREP-Q: Quantum Readiness in a Changing Global Security Environment

Communiqué

1. On February 10, the Centre for International and Defence Policy hosted Situation Report Quantum ([SITREP-Q](#)), a conference reviewing Canada's quantum strategy in a changing global security environment. The conference included briefs from leaders in the National Quantum Secretariat, Department of National Defence, Canadian Centre for Cyber Security, and Quantum Industry Canada, alongside roundtable discussions with policy experts and industry leaders. The views expressed in this communiqué do not represent official positions or opinions of individual speakers or attendees, or their affiliated organizations. Instead, the purpose of the communiqué is to draw attention to high-priority themes and calls to action emerging from the conference discussions.

2. Conference discussions highlighted the critical need for improved mutual literacy between defence and technology sector communities. Helping CAF end-users and DND policy leads to expand their quantum literacy, while also supporting the increased defence literacy of the quantum sector, will help facilitate common understanding and accelerate the development of meaningful relationships. In addition to developing programs for upskilling and advanced training, the forthcoming *Canada Defence Skills Agenda* should consider targeted modules that support building a base of mutual literacy between defence, on the one hand, and the ten identified sovereign capability areas, on the other.

3. Participants recognized the importance of early-stage research funding provided by Canadian research granting agencies, provincial governments, and philanthropists in developing a deep pool of highly-qualified personnel and catalyzing early innovation successes in Canada's quantum sector. As noted in the Defence Industrial Strategy, the continuation of fundamental research is a critical step to ensure that Canada can be similarly well-placed for future technological revolutions.

4. Although the guiding strategic documents for quantum policy in Canada recognize the necessity of commercialization support for the Canadian quantum

industry to succeed, the global race to commercialize quantum technologies has experienced a marked acceleration since Canada's strategies were released. Beyond an expansion of existing programs in scale, participants also discussed the potential impact of increased government support for the productization of emerging quantum technologies and for the industrialization of the quantum sector, especially through improving supply chain resilience and access to critical minerals.

5. Participants called for improvements to the process of identifying defence use cases for emerging technologies, to provide innovators with improved access to information about how technologies will be used. This included a call to accelerate security clearance processes, a commitment made in the *Defence Industrial Strategy*. Participants also suggested that by focusing challenges on the intended effects of technologies, Canadian innovators would be better able to identify and develop defence-related applications of frontier technologies.

6. Canada's quantum sector is characterized by the prevalence of small- and medium-sized entreprises (SMEs). For SMEs, long and uncertain timelines for proposal reviews, contracting, granting, procurement, and other processes can represent a significant disincentive for engagement with the Department of National Defence. As the Defence Investment Agency begins work to accelerate procurement processes, consolidate processes, and reduce duplication, participants recommended the collection of data on the time from application to transfer of funds within research, development, and procurement programs. Reporting on these figures will help improve transparency of the programs so that SMEs can understand government processing timelines while also facilitating the benchmarking for continued improvement.