



## *Introduction*

Quantum science and technology is an important domain of emerging technology policy, both within the Department of Defence/Canadian Armed Forces (DND/CAF) as well as across the whole of society. A series of key strategic documents released by DND/CAF and Innovation, Science and Economic Development Canada (ISED) have outlined the Canadian government's approach to this important issue area. Drawing on a recent article published in the *Canadian Foreign Policy Journal* (Murphy & Parsons, 2024), this policy brief explores how the framing of quantum science and technology

Whereas earlier documents discuss quantum science and technology as a domain equally open to positive opportunity and negative threats, recent language has focused more on quantum technology as a tool for political adversaries to cause harm to Canadian stability





the concern appears to be the technological advancement of adversarial nations like Russia

hands, strategic documents make a securitizing move that calls for the removal of quantum science and technology from the realm of normal politics. This threatens to negatively impact the depth of public discourse on quantum science and technology, sidelining consideration of issues like responsible and ethical use in order to prioritize security policy.

Unlike classic examples of securitization theory, however, the extraordinary and extra-political power gained through the securitization process does not accrue to executive political actors. Instead, the result is the capture of this issue area by subject matter experts within the bureaucracy. This practice of removing issues from the scope of normal politics

## 2. Foreground dual-use opportunities

Many quantum technologies in development for defence and security applications are 'dual use' in their applicability, meaning that the same technologies can be deployed in both military and civilian contexts. By overtly acknowledging the dual use nature of technologies in forthcoming defence policy, the civilian applications of these technologies will be raised. This will further the desecuritization of the



Waever, O. (1999). "Securitizing sectors? reply to Eriksson." *Cooperation and Conflict* 34(3): 334-340.

Williams, M. C. (2003). Words, Images, Enemies: Securitization and international politics. *International Studies Quarterly*, 47(4), 511–531. <https://doi.org/10.1046/j.0020-8833.2003.00277.x>

- 1 For further analysis of the National Quantum Strategy, see Csenkey & Graver (2024).
- 2 But see also criticism for the suboptimal consideration of ethical policy questions (Murphy 2024).
- 3 In Best's work, this concept arises from ongoing research on the capture of monetary policy by technocratic elites in national banks (2018; 2019; 2022).
- 4 This connection is explored further in Murphy (n.d.).
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