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CANADA'S DEFENCE INDUSTRIAL STRATEGY: FROM INNOVATION TO READINESS

Report of the Standing Committee on Industry and Technology

Ben Carr, Chair

MARCH 2026
45th PARLIAMENT, 1st SESSION

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NOTICE TO READER

Reports from committees presented to the House of Commons

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

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THE STANDING COMMITTEE ON INDUSTRY AND TECHNOLOGY

has the honour to present its

SECOND REPORT

Pursuant to its mandate under Standing Order 108(2), the committee has studied Canada's defence industrial strategy and has agreed to report the following:

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SUMMARY

Canada's defence industry is at a turning point due to global instability and growing threats to supply chains. At the same time, the rapid pace of technological change and constrained timelines for defence investments make it imperative that capability development advance without delay. New defence investments announced in Budget 2025 have created both urgency and opportunity. In these circumstances, the House of Commons Standing Committee on Industry and Technology (the committee) examined how a Defence Industrial Strategy (DIS) could strengthen Canada's industrial ecosystem and better align procurement with the operational needs of the Canadian Armed Forces. The study also considered how a DIS could enhance interoperability with allies and strengthen Canada's role within allied supply chains. Over six meetings, the committee heard from 35 witnesses and received 12 written briefs.

The committee heard evidence that the defence industry is economically significant, regionally distributed and deeply integrated with allied markets. Witnesses expressed concerns about slow and risk-averse procurement, limited pathways from innovation to acquisition, capital constraints facing small and medium-sized enterprises, workforce shortages and fragmented governance. At the same time, witnesses also identified opportunities to build capabilities in areas including aerospace, advanced digital technologies, critical minerals, Arctic infrastructure and dual-use innovation.

Across the study, witnesses converged on several foundational principles for a successful DIS: the need for long-term predictability from government to drive clear demand for industry; procurement systems that can keep up with the pace of modern threats; intentional use of procurement policies; stronger partnerships among industry, academia, government and nations; and coordinated investment in people, infrastructure and capital.

LIST OF RECOMMENDATIONS

As a result of their deliberations committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.

Recommendation 1

That the Government of Canada commit to updating the Defence Industrial Strategy regularly with structured industry and stakeholder input.

Recommendation 2

That the Government of Canada improve defence procurement processes by delegating authority for smaller, iterative purchases to lower operational levels.

Recommendation 3

That the Government of Canada conduct a review of the Industrial and Technological Benefits Policy. That this policy aims to establish lasting benefits, in particular through technology transfer mechanisms, the conclusion of long-term maintenance contracts and the establishment of lasting partnerships allowing participation in the production of equipment.

Recommendation 4

That the Government of Canada prioritize sustained investment in northern and Arctic infrastructure to support sovereignty, economic development, resilience and defence readiness.

Recommendation 5

That the Government of Canada target and support regional defence ecosystems and commercial manufacturing clusters to capitalize on existing advantages in weapons systems, advanced manufacturing and emerging technologies such as quantum.

Recommendation 6

That the Government of Canada prioritize domestic participation across the defence supply chain, continue to support a dual-use supply chain and reinforce the role of commercial manufacturers in national security.

Recommendation 7

That the Government of Canada support university-industry partnership clusters to accelerate defence-related innovation and commercialization.

Recommendation 8

That the Government of Canada use defence procurement as a strategic industrial policy tool by modernizing procurement processes, increasing speed and risk tolerance and enabling early engagement with Canadian firms.

Recommendation 9

That the Government of Canada implement dedicated procurement streams for SMEs, continuous capability sustainment mechanisms and flexible contracting models to ensure innovators and start-ups can scale and compete effectively.

Recommendation 10

That the Government of Canada ensure that Canada's financial system provides consistent, unbiased and accessible financial services to defence-sector firms, including SMEs and dual-use technology companies.

Recommendation 11

That the Government of Canada improve access to capital for defence firms, reduce financial barriers created by long procurement timelines and ensure financial institutions treat defence companies equitably.

Recommendation 12

That the Government of Canada prioritize the development and integration of core enabling technologies – including software systems, mission systems, artificial intelligence, cybersecurity (including quantum) and autonomous platforms – as key defence-industrial capabilities.

Recommendation 13

That the Defence Industrial Strategy integrate micro-modular and small modular nuclear reactors as essential energy solutions for Arctic and remote operations, recognizing their strategic importance for sustained defence readiness.

Recommendation 14

That the Government of Canada invest in training, recruitment and multi-role skill development for military personnel to keep pace with rapidly evolving software and hardware systems.

Recommendation 15

That the Government of Canada evaluate future fighter fleet options – including mixed fleets and sovereign unmanned aerial vehicle development – to maximize operational effectiveness, industrial benefits and long-term sustainment capacity.

Recommendation 16

The committee reiterates the recommendation it made in February 2022 that the government develop a real aerospace strategy given its dual civil and military function.

Recommendation 17

That the government develop a strategy to promote the establishment of sovereign capacities in terms of data transmission and storage.

Recommendation 18

That the Government of Canada establish dedicated procurement streams for women-owned and Indigenous-owned SMEs (similar to the U.S. WOSB program) and provide education and training supports to help underrepresented businesses participate in the defence supply chain.

Recommendation 19

That the Government of Canada develop and implement a clear ethical framework with respect to the Defence Industrial Strategy.

Recommendation 20

That the Government of Canada pursue multilateral discussions on the ethics and use of autonomous weapons.

CANADA'S DEFENCE INDUSTRIAL STRATEGY: FROM INNOVATION TO READINESS

INTRODUCTION

Canada is entering a period of accelerated defence and security transformation, shaped by global instability, North Atlantic Treaty Organization (NATO) expectations and significant new investments announced in budget 2025.[1] The rapid pace of technological change, the escalation of threats and the constrained timelines for defence investments make it imperative that capability development advance urgently and without delay.[2] In this context, new measures such as the Defence Industrial Strategy (DIS) and the recently established Defence Investment Agency intend to, among other things, define priority capabilities, guide procurement and better align industrial development with defence needs.[3] At the time of publication of this report, the Government of Canada had just publicly presented its DIS.

As Canada continues to pursue solutions that strengthen sovereign capabilities, support industry growth and enable the Canadian Armed Forces to meet evolving operational demands, the House of Commons Standing Committee on Industry and Technology (the committee) agreed to the following motion on 22 September 2025:

> That pursuant to Standing Order 108(2), given the imperative for Canada's self-reliance in national defence and security, and the significant level of investment announced, the committee study the opportunity to use a defence industrial strategy to regenerate and further develop sovereign capabilities of Canada's industrial ecosystem and procurement opportunities for Canadian businesses. This includes areas such as aerospace, digital technologies, cyber security, vehicle and arms manufacturing, heavy industry, scientific research, advanced materials, and the bioeconomy; that the committee invite Ministers and

1 Department of Finance Canada, "Chapter 4: Protecting Canada's sovereignty and security," *Canada Strong*, Budget 2025, pp. 181–200.

2 House of Commons, Standing Committee on Industry and Technology (INDU), *Evidence*, 19 November 2025, 1710 (Lisa Lambert, Chief Executive Officer, Quantum Industry Canada); INDU, *Evidence*, 19 November 2025, 1635 (Michael Langlais, Vice-President, Risk Development, Canadian Corps of Commissionaires); INDU, *Evidence*, 19 November 2025, 1725 (Langlais).

3 Department of National Defence, *Canada's Defence Industrial Strategy*; Government of Canada, *Defence Investment Agency*.

representatives from the Department of National Defence and the Department of Innovation, Science and Economic Development to appear on this study; that the committee hold a minimum of six (6) meetings on this study, to conclude no later than November 5th; and that the committee report its findings to the House.[4]

The committee dedicated six meetings to the study between 1 October 2025 and 26 November 2025. Over the course of the study, it heard 35 witnesses and received 12 written briefs. This report synthesizes their perspectives on the strengths and vulnerabilities of Canada's defence industrial base, highlights strategic opportunities they identified and outlines foundational principles they proposed to guide a modern Canadian defence industrial strategy.

AN OVERVIEW OF CANADA'S DEFENCE INDUSTRY

Economic Footprint

Canada's defence industry represents a significant and export-oriented segment of the national economy. Kendal Hembroff, Associate Assistant Deputy Minister at the Department of Industry, told the committee that in 2022, the industry "comprised over 620 firms, which contributed over $9.6 billion in GDP and 81,200 jobs." She also emphasized its integration with allied markets, citing 63% of defence exports destined for the United States (U.S.), 11% for Europe and 5% for the United Kingdom (U.K.). Christyn Cianfarani, President and Chief Executive Officer of the Canadian Association of Defence and Security Industries (CADSI), suggested that with a coherent defence industrial strategy and clear objectives, Canada's defence industrial base could plausibly double in size over the next decade.

The committee also heard about the fiscal context of increased spending where Canada plans to fulfill its NATO commitment to increase spending to 5% of GDP on defence by 2035. Christopher Penney, Senior Advisor of the Office of the Parliamentary Budget Officer (PBO), cautioned that Canada's debt-to-GDP ratio is projected to rise. At the same time, Jason Jacques, Interim Parliamentary Budget Officer of the PBO, stated that sustained increases in defence expenditures will require explicit fiscal trade-offs and careful attention to limited means. Mr. Jacques reminded the committee that the increase from 2% to 5% in defence spending could partly be covered by dual-use

4 INDU, *Minutes of Proceedings*, 22 September 2025.

investments. He added that it remains unclear what Canadian spending on infrastructure might be eligible under the new target.

This fiscal context raises the need to both understand an increase the economic impact and benefit of this spending. Mr. Penney added that the PBO is "working on a new report that will ascertain the fiscal impact of reaching 3.5% of defence spending plus 1.5% ancillary defence spending by 2035." With respect to Canada's Industrial and Technological Benefits (ITB) policy, [5] which "requires a firm awarded an eligible defence or Canadian Coast Guard contract undertake business activity in Canada equal to the value of the contract," Ms. Hembroff noted that the policy is "estimated to contribute approximately $4.7 billion to Canada's GDP." For his part, Mr. Jacques noted that between 2015 and 2019, contracts subject to ITB obligations totalled $18.3 billion. He added that nearly half of that amount was not directly tied to production of the military equipment acquired by Canada, and only about one-third flowed to Canadian-owned firms.

Industry Structure and Regional Strengths

Testimony throughout the study exhibited Canada's defence industrial base as a network of interconnected regional systems rather than a single, centralized sector. According to Ms. Hembroff, Canada has world-leading aerospace capabilities and a broad industrial base spanning defence, marine, space, advanced manufacturing and emerging dual-use technologies. The following examples intend to illustrate how some of these systems are distributed, rather than to privilege any system or region.

Canada has significant aerospace capacity through clusters located across the country. Mike Mueller, President and Chief Executive Officer of Aerospace Industries Association of Canada, listed the provinces of British Columbia, Manitoba, Ontario and Quebec as examples. Mélanie Lussier, President and Chief Executive Officer of Aéro Montréal, noted that Quebec's approximately 250 aerospace firms and 43,000 workers generate roughly $23 billion in annual sales, making aerospace the province's largest export sector.

In relation to Canada's naval and marine industry, John Vandenberg, Executive Director of the Western Arctic Marine Training Consortium, spoke to the sector's significant economic impact nationwide. Ms. Hembroff and Wendy Hadwen, Assistant Deputy Minister of Policy-Industry at the Department of National Defence, highlighted

5 Government of Canada, *Industrial and Technological Benefits (ITB) Policy*.

shipbuilding as an existing industrial base, supported by regional development agencies through initiatives such as the National Shipbuilding Strategy.[6]

Advanced technologies were described as playing an increasingly prominent role in Canada's defence industrial base. Witnesses noted that capabilities such as artificial intelligence (AI), robotics, cloud and digital networks, biotechnology and quantum technologies are frequently dual-use and often emerge from civilian markets. Alexander Salt, Triple Helix Postdoctoral Fellow, appearing as an individual, explained that many of these critical capabilities originate in civilian start-ups and small and medium-sized enterprises (SMEs) rather than traditional defence contractors, reflecting a broader evolution in the composition of the sector. As a result, the defence industrial landscape includes a wider range of firms, research institutions and innovation hubs alongside established contractors.

Witnesses also identified areas in which Canada demonstrates recognized expertise within this landscape. Katheron Intson, Chief Executive Officer of Sentinel Research and Development Inc., emphasized current strengths in autonomous systems, describing Canada as the producer of highly skilled robotics, AI and aerospace engineers, with particular capabilities in autonomous systems, sensors and small and mid-sized unmanned air vehicles. Lisa Lambert, Chief Executive Officer of Quantum Industry Canada, showcased Canada's strong quantum research foundation and described quantum as a broad technological platform spanning sensing, communications, computing and enabling systems. Citing Canada's National Quantum Strategy, she indicated that quantum technologies could contribute more than 3% of GDP by 2045.[7] She further highlighted the sector's defence relevance, including secure communications, advanced sensing, resilient navigation and data processing.

Several witnesses highlighted the critical role of northern and Indigenous communities. Madeleine Redfern, Chief Operating Officer and Northern Director of CanArctic Inuit Networks Inc., appearing as an individual, Ben Hendriksen and Stephen Van Dine, respectively Mayor and City Manager of the City of Yellowknife, all spoke about how Arctic resources and infrastructure underpin both regional and national priorities. They positioned Indigenous-led governments, organizations and enterprises at the forefront in strengthening sovereignty, advancing reconciliation, and supporting sustainable economic development and Arctic security.

6 Government of Canada, *National Shipbuilding Strategy*.

7 Innovation, Science and Economic Development Canada, *Canada's National Quantum Strategy*.

Canada's Position in Allied and Global Defence Markets

Witnesses generally characterized Canada as a second-tier defence industrial power whose strength lies in deep integration with allied supply chains rather than in fully autonomous, end-to-end platform production. James Fergusson, Senior Research Fellow for the Centre for Defence and Security Studies at the University of Manitoba, appearing as an individual, observed that "successful Canadian companies depend upon accessing the global marketplace." He explained that Canada's defence environment is structurally tied to the U.S. through the Defence Production Sharing Agreement and "as a function of broader economic reality."[8]

Major-General Jeff Smyth, Chief of Air and Space Force Development for the Royal Canadian Air Force (RCAF), Robert Huebert, Professor of the Centre for Military Security and Strategic Studies at the University of Manitoba, appearing as an individual, and Philippe Lagassé, Associate Professor at Carleton University, appearing as an individual, each discussed how interoperability with the U.S. remains fundamental to Canada's defence posture, particularly for North American Aerospace Defense Command cooperation. Dr. Lagassé cautioned that efforts to re-orient defence industrial policy away from established U.S.-aligned systems could carry strategic, operational and economic risks, for instance by further undermining interoperability with key allies such as the U.K. and Australia, which rely on shared cloud infrastructure. Véronique Proulx, Chief Executive Officer of the Fédération des chambres de commerce du Québec, speaking on behalf of major suppliers and businesses, reiterated the importance of prioritizing relations with the U.S. government so Canadian firms can leverage U.S. investments.

Several witnesses addressed the F-35 fighter jet program to illustrate strategic and economic outcomes of allied integration. Christian Leuprecht, Professor at the Royal Military College of Canada and Queen's University, appearing as an individual, declared that the program is indispensable to continental defence, while Dr. Fergusson claimed that it would provide Canada long-term access to a global production market. Richard Foster, Chief Executive and Vice-President of L3Harris Canada, appearing as an individual, testified that a full fleet of 88 aircraft could support approximately 5,000 direct and indirect jobs over the life of the program, and that a mixed-fleet approach could significantly reduce those opportunities. L3Harris Canada had been selected as the Government of Canada's strategic partner for it's F-35 fighter jet airframe

8 Canadian Commercial Corporation, *About DPSA*.

maintenance depot.[9] Dr. Huebert noted that Canada's Nordic allies, including Norway, Finland and Denmark, have adopted the F-35 within their defence frameworks.

Heather Exner-Pirot, Director of Energy, Natural Resources and Environment at the Macdonald-Laurier Institute, emphasized that Canada's contribution to allied defence markets increasingly lies upstream. In particular, she pointed to Canada's role in supplying defence-critical raw materials, as NATO and the U.S. seek to reduce reliance on adversaries. She claimed that while rebuilding domestic defence manufacturing will take time, Canada can play an immediate role by expanding production and processing of minerals that exist domestically, such as gallium, germanium, tungsten, titanium, bismuth, graphite and some rare earths. She called for closer coordination with trusted allies on how those materials are processed and integrated into manufacturing.

Other witnesses and brief authors alluded that integration within allied markets has not consistently translated into durable domestic capacity. Neil Chaulk, Chief Executive Officer of Solace Power Inc., and a joint brief by David Durand, Tara June Misra and Kyle Briggs, both described a recurring pattern whereby Canadian firms and intellectual property (IP) developed with public support are acquired or absorbed by foreign interests once technologies mature. Contributors to the brief indicated that this outcome is often driven by structural features of foreign markets, such as unequal access to capital and procurement scale, and claimed that "IP and data lost to allied nations are no less lost as drivers of domestic value creation."[10]

CHALLENGES AND OPPORTUNITIES FOR CANADA'S DEFENCE INDUSTRY

Reforming Defence Procurement

> **"The old approach to procurement does not work at the speed of modern threats."**
>
> Matthew Lombardi,
> Co-Founder, The Icebreaker

9 Public Services and Procurement Canada, *Government of Canada announces strategic partner for its CF-35A fighter jet airframe maintenance depot*, News release, 25 November 2024.

10 David Durand et al., Joint submission to the Standing Committee on Industry and Technology - Study on the Defence Industrial Strategy by Mr. David Durand, Ms. Tara June (TJ) Misra, and Dr. Kyle Briggs, 8 December 2025.

Throughout the committee's study, witnesses raised concerns that Canada's current procurement methods are too unpredictable, lengthy, complex and risk-averse to support a 21st century defence industry. For example, Major-General Smyth explained that since many aircrafts are reaching the end of their service lives, the RCAF is required to make near-term purchases to maintain the ability to defend Canada. He contrasted this with longer-term investments needed to develop and deliver future capabilities, which may take a decade or more, and stressed that "stability in funding is critical."

For SMEs and technology innovators, some witnesses likened procurement delays to a "valley of death."[11] Arad Gharagozli, Chief Executive Officer of GALAXIA Mission Systems, reported a 14- to 15-month delay between project award and contract signature for a satellite mission, a timeline he characterized as incompatible with a start-up lifecycle. Matthew Lombardi, Co-Founder of the Icebreaker, echoed that it takes the average SME 18 months to receive a security clearance before being able to bid on a defence contract in Canada.

Witnesses identified cultural and structural features of the procurement system that exacerbate delays, including:

- the prioritization of risk elimination over risk mitigation;[12]
- fragmented governance among departments and agencies that contribute to long requirements phases and multiple approvals;[13]
- limited industry engagement and visibility into CAF capability gaps and requirements, compounded by security classification barriers;[14] and
- limited pathways from research and development (R&D) to acquisition, with pilot projects seldom translating into commercialization or ongoing

11 INDU, *Evidence*, 22 October 2025, 1710 (Christyn Cianfarani, President and Chief Executive Officer, Canadian Association of Defence and Security Industries); INDU, *Evidence*, 22 October 2025, 1810 (Michael Smith, Chief Operating Officer, ONE9); INDU, *Evidence*, 5 November 2025, 1755 (Richard Shimooka, Senior Fellow, Macdonald-Laurier Institute, as an individual); INDU, *Evidence*, 26 November 2025, 1705 (Goran Pesic, President and Chief Executive Officer, Samuel Associates Inc.).

12 INDU, *Evidence*, 8 October 2025 (Alexander Salt, Triple Helix Post-doctoral Fellow, as an individual); INDU, *Evidence*, 22 October 2025, 1815 (Smith).

13 INDU, *Evidence*, 1 October 2025, 1755 (Madeleine Redfern, Chief Operating Officer, Nothern Director, CanArctic Inuit Networks Inc., as an individual); INDU, *Evidence*, 5 November 2025, 1825 (Shimooka); INDU, *Evidence*, 26 November 2025, 1635 (Pesic).

14 INDU, *Evidence*, 26 November 2025, 1705 (Arad Gharagozli, Chief Executive Officer, GALAXIA Mission Systems).

procurement through existing mechanisms such as Innovation for Defence Excellence and Security (IDEaS) or Defence Research and Development Canada.[15]

In response, witnesses emphasized that procurement reform hinges on a small number of decisive choices: who is empowered to decide quickly, how R&D transitions into contracts and how Canadian industrial value is retained. Michael Smith, Chief Operating Officer of ONE9, called for the government to encourage managed, mission-aligned risk-taking to support timely outcomes. Richard Borger of ACME Testing and Consulting, Hugo Hodgett, Chief Executive Officer of H2 Analytics Inc., Michael Langlais, Vice-President of Risk Development at the Canadian Corps of Commissionaires, and Mr. Lombardi all put forward that authority for small, iterative purchases should be delegated to lower operational levels. Ms. Cianfarani noted that procurements frequently stall during early phases of procurement, in part due to frequent staff turnover, and suggested that greater continuity and clearer procurement process mapping could reduce inefficiencies.

Robert Asselin, Chief Executive Officer of U15 Canada, Ms. Lussier and Dr. Salt encouraged that innovation programs such as the Bureau of Research, Engineering and Advanced Leadership in Innovation and Science (BOREALIS) and IDEaS help propel commercialization.[16] However, the committee also heard how the IDEaS program is not sufficiently connected to procurement. Dr. Lagassé said that while the program allows for capability to be developed with Canadian companies, "there's no contracting mechanism for the government to then actually acquire the capability." Dr. Salt recommended drawing on U.K. and Australian models by transforming IDEaS into a formal defence accelerator institution to lessen focus on competition over grants and allow more opportunities for direct contracting to occur.

Mr. Borger proposed repealing the ITB policy, arguing that current practices impose administrative burdens on SMEs without delivering proportional outcomes. Others, including Ms. Cianfarani, Mr. Hodgett and Ms. Lussier, supported reform or review of the ITB policy, calling for earlier and more interventionist application, greater transparency and enforceability, and tighter alignment with strategic industrial niches.

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15 INDU, *Evidence*, 8 October 2025, 1740 (Salt); INDU, *Evidence*, 5 November 2025, 1825 (Shimooka); INDU, *Evidence*, 5 November, 1830 (Philippe Lagassé, Associate Professor, Carleton University, as an individual); INDU, *Evidence*, 26 November, 1705 (Pesic); InDro Robotics, *Submission to the House of Commons Standing Committee on Industry and Technology*; Chemistry Industry Association of Canada, *Strengthening Canada's Defence Industrial Supply Chain*, Brief submitted to INDU; Government of Canada, *IDEaS*; Government of Canada, *Defence Research and Development Canada*.

16 Government of Canada, *Bureau of Research, Engineering and Advanced Leadership in Innovation and Science (BOREALIS)*.

Finally, Mr. Lombardi underscored that multiyear-long procurement timelines are ill-suited to "a piece of software that becomes obsolete within months if not constantly updated." Drawing on Ukraine's experience, he and Ms. Intson highlighted the value of "attritable mass" – smaller, lower-cost technologies, such as drone swarms, that can be produced at scale and readily replaced – and procurement models that support rapid iteration and on-demand prototyping.

Capital Constraints and Targeted Defence Financing

Witnesses underscored that gaps in financing prevent Canadian defence innovators from growing into reliable domestic suppliers or globally competitive exporters. Many of them noted that, without predictable revenue, private lenders and investors are generally unwilling to finance growth in defence SMEs and "scale-ups" – defined by Mr. Chaulk as firms that have moved beyond experimentation, with validated products, existing revenue, experienced teams and readiness for accelerated growth. For example, Mr. Hodgett explained that short-term contracts – often limited to one year with optional extensions – do not provide sufficient revenue certainty for banks and other capital providers to support financing and investment. Those witnesses also spoke about the stigma associated with defence and capital spending. Mr. Lombardi recounted an entrepreneur's experience of being refused banking services due to perceived risks associated with the sector. Mr. Gharagozli told the committee that Canadian investors are often reluctant to support hardware- and infrastructure-intensive defence technologies.

Kevin Reed, President of the Defence, Security and Resilience Bank Development Group (DSRB), added that "[b]udget ceilings, balance sheet pressures and regulatory frameworks, such as Basel III and Basel IV" further limit defence lending.[17] Mr. Reed advocated Canadian participation in the DSRB, stating that "[i]f Canada were to subscribe for $10 billion, $2 billion would go up over four years and $8 billion would be callable, and this would generate at least $50 billion of financing power delivered through the Canadian commercial banks, all without increasing sovereign debt."

Providing context for these discussions, Mr. Jacques advised the committee that national defence investments should be viewed within a constrained fiscal environment since "the debt-to-GDP ratio for the country cannot rise in perpetuity." As well, he stated that there is "a point at which the economy has to grow in such a way that it generates enough revenue to pay for the goods and services that Canadians expect and enjoy."

17 BIS, *The Basel Framework*.

Against this backdrop, Mr. Smith believed that "the single most impactful thing the Crown can do is seed the venture capital ecosystem to ensure that critical early-stage technologies make the leap from concept to commercialization." Mr. Hodgett recommended multi-year contracts for early-stage innovators to provide predictable revenue. He suggested that signing multi-year contracts upfront would provide defence SMEs with the certainty needed to invest and grow, and that institutions such as the Business Development Bank of Canada (BDC) and Export Development Canada could better support these firms by offering financing – such as capital loans – backed directly by government procurement contracts. Similarly, North Vector Dynamics and NordSpace Corporation noted in their briefs that BDC's Defence and Security Business Mobilization Program provides funding to help scale manufacturing capacity.

Talent, Training Gaps and Workforce Diversity

Although Canada's defence industry supports many high-skilled jobs, witnesses identified persistent shortages in key occupations across the defence value chain and noted ongoing gaps in workforce diversity. Mr. Foster and Mr. Mueller pointed to difficulties in recruiting and retaining skilled workers, linking workforce instability to weak domestic pathways in science, technology, engineering and mathematics fields. Written submissions by Universities Canada, U15 Canada, and École de technologie supérieure (ÉTS) reinforced the need for integrated talent pipelines that combine research and applied training with industry demand, and proposed expanded co-op programs, micro-accreditations, and defence-focused experiential learning to address skills gaps.

With respect to workforce diversity, a few witnesses expressed that the defence industry can successfully support inclusive employment practices. Mike Greenley, Chief Executive Officer of MDA Space, believed that diversity and inclusion can and should be embedded as standard business practices, citing MDA Space's experience tracking and improving gender and cultural representation. Mr. Langlais acknowledged persistent gender imbalances in the defence workforce and indicated that a defence industrial strategy that focuses on SMEs could help address these gaps. He noted that women-led SMEs seeking to contribute to defence and security priorities are disproportionately affected by the complexity of procurement and ITB frameworks and suggested that simplifying these processes would enable greater participation. Moreover, when asked about the possibility of a program to provide defence contracting opportunities for women-owned small businesses, Mr. Langlais said that such an approach could be beneficial, but cautioned that it should not detract from the urgent delivery of required capabilities, noting that both objectives could be pursued in parallel.

Northern Infrastructure, Indigenous Partnership and Workforce Development

Witnesses recounted that northern and Indigenous communities contribute essential geographic, operational and industrial defence capabilities. Dr. Leuprecht situated defence and security within a broader context of social cohesion, underscoring that Arctic readiness depends on resilient northern communities capable of withstanding kinetic threats and foreign interference. Ms. Redfern and Mr. Hendriksen and emphasized that, in the Arctic, infrastructure investments frequently serve multiple and overlapping purposes, supporting community well-being, regional economic development and national security simultaneously. To that end, they, along with Mr. Van Dine and Goran Pesic, President and Chief Executive Officer of Samuel Associates Inc., advocated sustained investments in foundational infrastructure, including transportation corridors, clean energy systems, telecommunications and housing, as prerequisites for resilience and readiness. With respect to nuclear energy, Ms. Redfern made the point that achieving clean energy solutions would be impossible without it, especially in rural and remote northern Canada. In addition to recognizing the need for dual- and multi-use infrastructure, Ms. Redfern remarked that uncoordinated planning hinders effective delivery, and called for more integrated tools, such as a unified inventory of northern infrastructure assets and a modelling system to map interdependencies.

The committee heard that input from northern Indigenous communities, organizations and municipalities can help build Arctic capacity and enable the successful deployment of technologies. Ms. Redfern noted that many marine technologies lack Arctic testing and require support to adapt, while Mr. Van Dine and Mr. Hendriksen suggested that Arctic regions could serve as centres of excellence for cold-weather testing of vehicles, sensors and communications systems if supported by coordinated public-private partnerships. In this context, Ms. Lambert encouraged a mission to position Canda as a global leader in deploying quantum and frontier technologies for Arctic and maritime conditions.

The committee also heard that infrastructure investments should be matched by efforts to build a northern workforce. For instance, Mr. Vandenberg drew attention to early school outreach and locally delivered training as key to cultivating interest in, and expanding access to, marine careers for northern residents.

FOUNDATIONAL PRINCIPLES FOR A CANADIAN DEFENCE INDUSTRIAL STRATEGY

A Living Defence Industrial Strategy

> **"In the absence of requirements, industry will not invest. They need to know that there is a buyer. You cannot just build things without a buyer, and you need policy to indicate that there is a buyer."**
>
> Philippe Lagassé,
> Associate Professor, Carleton University

At the time of her appearance, which took place prior to the release of the DIS, Ms. Cianfarani confirmed that "Canada has not had a DIS in living memory" and that CADSI has yet to see "a fulsome draft document in written format that describes the strategy's objectives, tools, instruments and frameworks, or what capabilities the strategy intends to sustain, grow and create in Canada." Moreover, she said that "if Canada's DIS is to deliver the outcomes the Prime Minister has articulated, it will need to be adjusted over time with recurring industry input." Dr. Lagassé reiterated the need for the government to release a national security strategy as well as a follow-on defence policy to provide clear guidance and enable planning of future requirements.

Similar to previous witnesses who voiced that Canada's opportunities do not lie in comprehensive self-sufficiency, Richard Shimooka, Senior Fellow at the Macdonald-Laurier Institute, appearing as an individual, observed that "there is no viable path to become a defence industrial autarky." According to Mr. Shimooka, Canada faces immediate defence capability gaps that require near-term actions alongside a long-term strategy to rebuild the defence industrial base, and warned that trying to address those two objectives through a single approach risks failing at both. He asserted that the DIS "must be subservient to the defence policy of the country, not the other way around."

Long-Term Predictability and Demand Visibility

Witnesses emphasized that long-term assurance – through predictable demand and investment timelines – is essential to defence industrial development. Mr. Foster described defence industrial growth as a long-term endeavour requiring predictable, multi-year contracts and enduring strategic partnerships to give industry the confidence

to invest in and support sovereign readiness. From an operational perspective, Major-General Smyth reminded the committee that complex weapons systems require significant time and resources to progress from development to full capability, particularly to support training and effective use by CAF personnel.

According to Dr. Leuprecht, Canada and its allies pay significantly more for defence equipment due to limited economies of scale. He stated that 20 to 30-year collaborative partnerships with allies could improve value for taxpayers while attracting capital with relatively low government investment. Ms. Cianfarani similarly observed that Canada's transactional, procurement-by-procurement approach limits economies of scale and private investment. She argued that shifting to long-term partnerships with prime contractors – that is, companies that are awarded the primary contract for supplying goods and services related to Canada's defence and security needs – based on the model of the National Shipbuilding Strategy would allow Canada to plan decades ahead. Mr. Greenley added that the DIS should be built around 20-year technology road maps with clearly defined horizons.

Buy Canadian and Domestic Industrial Engagement

Witnesses generally welcomed the Government of Canada's *Buy Canadian* approach, which Ms. Hembroff explained would apply to defence sectors. Ms. Lussier and Ms. Proulx agreed that the policy is a step in the right direction. However, Ms. Lussier, on behalf of Quebec's aerospace sector, pushed for "a government that can be bolder with its procurement approach in Canada or abroad." Ms. Cianfarani straightforwardly declared that Canadian firms must be embedded at the outset of defence procurements.

Written briefs encouraged that *Buy Canadian* be used intentionally as an industrial policy tool, supported by targeted assistance to help firms – particularly SMEs – navigate certification, compliance and commercialization requirements such as the International Traffic in Arms Regulations.[18]

Ms. Redfern cautioned that while increased defence spending and the minimum 5% Indigenous procurement target have expanded Indigenous participation, weak verification has enabled fraudulent firms.[19] She maintained that meaningful Indigenous involvement goes beyond titular ownership and requires transparent reporting and

18 Natacha Jean and Arianne Collin, Micrologic, *Strengthening Canada's National Defence Through Digital Sovereignty : Time to Rely on Canadian Expertise*, Brief submitted to INDU, 5 November 2025; North Vector Dynamics, *Building Sovereign and Resilient Defence Capabilities through Advanced Canadian Technology*, Brief submitted to INDU, November 2025.

19 Government of Canada, *Mandatory minimum 5% Indigenous procurement target*.

audits, combined with capacity building, training and genuine participation in projects and benefit-sharing, "to prove that Inuit or Indigenous people are not just tokens or front-facing parts of the company."

Partnership with Industry and Academia

> **"When research excellence, receptive industrial capacity, and predictable procurement work together, sovereign capabilities follow. If we get that alignment right, we will strengthen our security, drive innovation and build the technological foundations of Canada's prosperity for decades to come."**
>
> Robert Asselin,
> Chief Executive Officer, U15 Canada

Several witnesses and briefs supported the need for closer integration among universities, SMEs, large defence contractors and CAF end-users, supported by secure research environments and shared testbeds. Ms. Lambert and Ashwin K. Iyer, Professor and Director of the Centre for Applied Research in Defence and Dual-use Technologies of the University of Alberta, appearing as an individual, implied that such collaboration is essential to accelerating innovation. Universities Canada, U15 Canada, and ÉTS characterized universities as foundational defence assets that provide secure research infrastructure, highly qualified personnel and applied research capacity. ÉTS, in particular, highlighted the importance of institutions operating at technology readiness levels 3–7, where de-risking, prototyping and industrial readiness are most needed.[20]

Witnesses also noted that while universities generate early-stage talent and intellectual property in advanced fields, additional bridging mechanisms are required to help SMEs navigate defence systems and move technologies toward adoption. Dr. Iyer and Mr. Borger promoted the utilization of NATO Defence Innovation Accelerator for the North Atlantic test centres.[21] Mr. Asselin commended the creation of BOREALIS, which he likened to the U.S. Defense Advanced Research Projects Agency,[22] as an opportunity "to translate advanced research into deployable technologies for the Canadian Armed Forces and for

20 Government of Canada, *Technology readiness levels*.

21 North Atlantic Treaty Organization, Defence Innovation Accelerator for the North Atlantic, *Test Centres*.

22 United States, *DARPA*.

[Canada's] advanced industries." Dr. Salt highlighted the role of support hubs in assisting emerging technology firms understand defence procurement requirements. He made an additional point that Canada should diversify its defence industrial partnerships by pursuing new international R&D agreements on emerging technologies.

Ethical and Values-Based Considerations in Defence Trade

A few witnesses acknowledged that a more active defence industrial strategy raises difficult questions about arms exports and Canadian values. Dr. Lagassé framed these tensions as trade-offs among: alliance interoperability and operational advantage; sovereignty and domestic industry; and fiscal constraints. He noted that sustaining a viable domestic industry will likely require increased exports, including to markets where human-rights records and democratic practices may not fully align with Canada's preferences. While Mr. Smith declared that there is no settled legal or technical solution to the use of lethal autonomous weapons, he believed that the issue shifts from law to policy at a certain point, when "a government that is willing to use lethal autonomous weapons systems will have to be comfortable with a certain amount of risk and perhaps a certain amount of messiness." As for the policies on these weapons, Dr. Lagassé argued that they must be managed collectively at the international level, particularly within NATO, to ensure a common framework among allies.

Several witnesses further responded to the suggestion that a defence industrial strategy would benefit from a clear ethics framework to guide procurement, research and financing decisions. Mr. Asselin noted that university research is already subject to ethical governance and academic freedom protections and observed that emerging technologies such as AI will require policy guidance from government to clarify acceptable use. Mr. Reed explained that financing institutions operate within treaty-based and ratings-based constraints, particularly with respect to weapons prohibited under international agreements, and indicated that evolving technologies such as AI lack a fully defined financing framework domestically and among allies. From an industrial policy perspective, Ms. Hembroff said that Canada is reviewing procurement practices and examining allied models, including those of the U.K. and the U.S., as the DIS was being developed.

THE DEFENCE INVESTMENT AGENCY

On 5 November 2025, the committee agreed to invite Doug Guzman, Chief Executive Officer of the Defence Investment Agency (DIA), to appear as a witness as part of its

study.[23] The testimony had not occurred at the conclusion of the report, but the committee requested a subsequent opportunity to meet with Mr. Guzman. In the interim, the committee heard from other witnesses on the DIA's intended role and scope.

> **"There is no room for silos at this time; it's not peace time."**
>
> Wendy Hadwen,
> Assistant Deputy Minister, Policy-Industry, Department of National Defence

According to Ms. Hadwen, the DIA reflects "a commitment to solving the procurement challenge." Mr. Leuprecht stated that it has the potential to underwrite high-risk, high-reward defence innovation, particularly for SMEs that are currently under-supported and vulnerable to foreign acquisition. Mr. Shimooka supported the intent behind the DIA, however, implied that its current structure risks being another bottleneck. He called for fundamental reform that assigns accountability to a single procurement authority. North Vector Dynamics also welcomed the DIA as a step toward streamlining procurement, but stated that it is unlikely to address procurement at the scale required by sovereign defence startups without broader, system-wide reforms. Mr. Fergusson was skeptical that the agency would fundamentally reform defence procurement and expressed that any improvements are likely to be marginal.

CONCLUSION

Witnesses before the committee converged on a core message: Canada's DIS and related initiatives, including the Defence Investment Agency and *Buy Canadian* policy, represent a timely opportunity to align national security, economic resilience and technological leadership – but only if they are implemented with clear priorities, practical choices and sustained will. A successful strategy will require the Government of Canada to focus on many sovereign and strategic capabilities, provide long-term predictability and demand, modernize procurement, as well as mobilize capital and talent across the country.

Witnesses also reminded the committee that every industrial choice entails considerations among interoperability, fiscal responsibility and democratic values. Findings within this report aim to support Parliament and the Government of Canada in navigating decisions that translate increased defence spending into lasting security, prosperity and industrial strength for Canadians.

23 INDU, *Minutes of Proceedings*, Meeting 13, 5 November 2025.

APPENDIX A:
LIST OF WITNESSES

The following table lists the witnesses who appeared before the committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the committee's webpage for this study.

Organizations and Individuals	Date	Meeting
As an individual	2025/10/01	5
Ashwin K. Iyer, Professor, Director, Centre for Applied Research in Defence and Dual-use Technologies, University of Alberta		
Madeleine Redfern, Chief Operating Officer, Nothern Director, CanArctic Inuit Networks Inc.		
Department of Industry	2025/10/01	5
Kendal Hembroff, Associate Assistant Deputy Minister, Industry Sector		
Department of National Defence	2025/10/01	5
Wendy Hadwen, Assistant Deputy Minister, Policy-Industry		
MGen. Jeff Smyth, Chief, Air and Space Force Development, Royal Canadian Air Force		
Macdonald-Laurier Institute	2025/10/01	5
Heather Exner-Pirot, Director, Energy, Natural Resources and Environment		
ACME Testing and Consulting	2025/10/08	7
Richard Borger		
As an individual	2025/10/08	7
Alexander Salt, Triple Helix Postdoctoral Fellow		
Office of the Parliamentary Budget Officer	2025/10/08	7
Jason Jacques, Interim Parliamentary Budget Officer		
Christopher Penney, Senior Advisor		
U15 Canada	2025/10/08	7
Robert Asselin, Chief Executive Officer		

Organizations and Individuals	Date	Meeting
Aerospace Industries Association of Canada	2025/10/22	9
Mike Mueller, President and Chief Executive Officer		
Canadian Association of Defence and Security Industries	2025/10/22	9
Christyn Cianfarani, President and Chief Executive Officer		
MDA Space	2025/10/22	9
Mike Greenley, Chief Executive Officer		
ONE9	2025/10/22	9
Michael Smith, Chief Operating Officer		
The Icebreaker	2025/10/22	9
Matthew Lombardi, Co-Founder		
As an individual	2025/11/05	13
Philippe Lagassé, Associate Professor, Carleton University		
Christian Leuprecht, Professor, Royal Military College of Canada and Queen's University		
Richard Shimooka, Senior Fellow, Macdonald-Laurier Institute		
City of Yellowknife	2025/11/05	13
Ben Hendriksen, Mayor		
Stephen Van Dine, City Manager		
Defence, Security & Resilience Bank Development Group	2025/11/05	13
Kevin Reed, President		
Sentinel Research and Development Inc.	2025/11/05	13
Katheron Intson, Chief Executive Officer		
As an individual	2025/11/19	15
James Fergusson, Senior Research Fellow, Centre for Defence and Security Studies, University of Manitoba		
Richard Foster, Chief Executive and Vice-President, L3Harris Canada		
Robert Huebert, Professor, Centre for Military, Security and Strategic Studies, University of Calgary		

Organizations and Individuals	Date	Meeting
Canadian Corps of Commissionaires	2025/11/19	15
Michael Langlais, Vice-President, Risk Development		
H2 Analytics Inc.	2025/11/19	15
Hugo Hodgett, Chief Executive Officer		
Quantum Industry Canada	2025/11/19	15
Lisa Lambert, Chief Executive Officer		
Aéro Montréal	2025/11/26	17
Mélanie Lussier, President and Chief Executive Officer		
Fédération des chambres de commerce du Québec	2025/11/26	17
Véronique Proulx, Chief Executive Officer		
GALAXIA Mission Systems	2025/11/26	17
Arad Gharagozli, Chief Executive Officer		
Samuel Associates Inc.	2025/11/26	17
Goran Pesic, President and Chief Executive Officer		
Solace Power Inc.	2025/11/26	17
Neil Chaulk, Chief Executive Officer		
Western Arctic Marine Training Consortium	2025/11/26	17
John Vandenberg, Executive Director		

APPENDIX B:
LIST OF BRIEFS

The following is an alphabetical list of organizations and individuals who submitted briefs to the committee related to this report. For more information, please consult the committee's webpage for this study.

ACME Testing and Consulting

Briggs, Kyle

Chemistry Industry Association of Canada

Defence, Security & Resilience Bank Development Group

Durand, David

École de technologie supérieure

InDro Robotics

Micrologic

Misra, Tara June

NordSpace Corporation

North Vector Dynamics

Polytechnics Canada

Samuel Associates Inc.

U15 Canada

Universities Canada

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the committee requests that the government table a comprehensive response to this report.

A copy of the relevant *Minutes of Proceedings* (Meetings Nos. 5, 7, 9, 13, 15, 17, 19, 25, 26 and 28) is tabled.

Respectfully submitted,

Ben Carr
Chair

Conservative Supplemental Report to the Second Report of the Standing Committee on Industry and Technology Entitled "Defence Industrial Strategy"

March 2026

The following reflects the perspective of Conservative members on the Standing Committee on Industry and Technology as it concerns the committee's report on Canada's defence-industrial strategy.

Canada's defence industrial capacity must be understood as part of a broader national strategy of sovereignty and resilience. As Canada enters a more uncertain geopolitical era, economic strength, energy security, technological capability, and military readiness are increasingly inseparable. A credible defence-industrial strategy must therefore contribute not only to procurement outcomes, but to a stronger, more self-reliant Canada capable of defending its territory and supporting its allies. Ultimately, defence-industrial policy is not a narrow procurement exercise, but a practical means by which Canada converts its resources, talent, geography, and technology into sovereign capability.

Stated plainly, Conservatives view defence-industrial renewal as inseparable from four linked national objectives:

first, restoring strategic self-reliance in energy and critical resources;
second, rebuilding military capability through faster, more agile procurement;
third, asserting Arctic sovereignty through dual-use northern infrastructure; and
fourth, ensuring digital sovereignty so that defence-relevant data, systems, and intellectual property remain under Canadian control.

A defence-industrial strategy that ignores these foundations will produce process without power.

With respect to that, Conservatives share many of the conclusions established by the report and wish to add the following additional information.

A. Strategic Resources, Energy Security, and Allied Supply Chains

1) Critical minerals and allied supply chains

Canada's natural resource endowment—particularly energy and critical minerals—provides both economic opportunity and geopolitical leverage. Responsible development strengthens Canada's ability to support allies, reduce reliance on authoritarian regimes, and reinforce Canadian sovereignty.

Witnesses emphasized that while Canada possesses extraordinary reserves of critical minerals, domestic processing and refining capacity remains limited. Strengthening these capabilities would reduce reliance on adversarial states for inputs used in advanced and dual-use

technologies. Heather Exner-Pirot noted the gap between Canada's mineral wealth and its limited ability to refine and process these resources domestically.[1]

Recommendation:
That the Government of Canada undertake a critical minerals defence-supply-chain plan with allies that accelerates Canadian production, especially processing and refining capacity (including by-product refining), so Canada and allies are not strategically dependent on adversaries for key inputs.

2) Natural gas exports as a security tool: strengthen allies and fund sovereignty capacity

Witness testimony emphasized that development of Canada's natural resources—particularly natural gas—has both economic and security implications. Several noted that Canada has declined opportunities to export natural gas to allies seeking reliable supply.

Christian Leuprecht testified that, "exporting natural gas and critical minerals is the best way for Canada to be a loyal ally to European and Indo-Pacific allies and partners," and warned that "failure to export energy to Europe amounts to subsidizing Russia's war of aggression on Ukraine."[2]

Energy exports strengthen allies, reduce adversary leverage, and generate revenues that support Canadian sovereignty and defence capacity.[3]

Recommendation:
That the Government of Canada undertake a clear plan to both establish a strategic energy reserve bolstered by accelerated LNG export capacity, and underpinned by allied market access (particularly Europe), recognizing that energy exports are a strategic lever that strengthens allies, weakens adversaries, and generates revenue for Canada's defence and industrial capacity.

B. Arctic and Northern Sovereignty Infrastructure

3) Northern SMRs/MMRs as sovereignty infrastructure

Reliable energy is foundational to northern infrastructure, defence installations, and community development. Northern regions remain heavily dependent on expensive diesel generation.

Madeleine Redfern emphasized that dependable and affordable energy is, "the foundation for everything else," and identified SMRs/MMRs as among the few technologies capable of providing stable baseload power in remote regions.[4]

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[1] https://openparliament.ca/committees/industry-and-technology/45-1/5/heather-exner-pirot-1/
[2] https://openparliament.ca/committees/industry-and-technology/45-1/13/christian-leuprecht-1/
[3] Madeleine Redfern (Chief Operating Officer, Northern Director, CanArctic Inuit Networks Inc., As an Individual) at the Industry and Technology Committee | openparliament.ca
[4] Madeleine Redfern (Chief Operating Officer, Northern Director, CanArctic Inuit Networks Inc., As an Individual) at the Industry and Technology Committee | openparliament.ca

Recommendation:
In partnership with Indigenous communities, the government of Canada undertake a comprehensive study of the viability of MMR/SMR in the north, focusing on prospective economic and strategic benefits, compliance with reasonable environmental standards, and any SMR/MMR project's contribution to strengthening Canada's sovereignty.

4) Northern infrastructure planning: one consolidated asset inventory and integrated sequencing

Witnesses described a recurring challenge in northern infrastructure development: projects proceed without a comprehensive understanding of existing assets and their condition.

Madeleine Redfern called for, "the production of an inventory of all existing assets and the age and condition of those assets… telecommunications, transportation or energy," noting that infrastructure planning must recognize dependencies such as energy requirements for telecommunications infrastructure.

Recommendation:
That the Government of Canada, with territorial and Indigenous partners, produce and maintain a single consolidated inventory of northern assets (telecom, transport, energy) with condition, age, and sequencing, to avoid piecemeal spending and prioritize enabling infrastructure (especially stable power).

5) "Dual-use" northern infrastructure: sovereignty, daily life

Canada's Arctic presents both opportunity and vulnerability. The Northwest Passage is expected to play a growing role in global shipping, while northern regions contain significant natural resources and critical minerals.

Witnesses emphasized that infrastructure investments should serve both northern communities and Canada's sovereignty objectives. Madeleine Redfern stressed that improving infrastructure in the North supports daily life while strengthening Canada's operational presence and territorial control.[5]

Recommendation:
That the Government of Canada prioritize northern infrastructure investments explicitly designed for both sovereignty and daily life ("dual-use"), with clear criteria ensuring that defence-related spending improves operational reach, permanent presence, logistics, and quality of life for northern communities.

6) Build Arctic telecom redundancy and subsea domain awareness (fibre and sensors)

[5] Madeleine Redfern (Chief Operating Officer, Northern Director, CanArctic Inuit Networks Inc., As an Individual) at the Industry and Technology Committee | openparliament.ca

Subsea cables underpin global communications infrastructure and are increasingly critical to northern connectivity. Madeleine Redfern noted that such infrastructure can also support environmental monitoring through integrated sensors.[6]

Because subsea cables are high-value targets for disruption, redundancy is essential. Redfern emphasized that, "redundancy" is necessary to preserve failsafe communications in the event of damage to underwater infrastructure.

Recommendation:
That the Government of Canada prioritize redundant Arctic connectivity (including subsea fibre) and support sensor-enabled subsea infrastructure to strengthen surveillance, resilience, and sovereignty.

7) Northern marine workforce pipeline (recruitment, training, equipment, sea-time)

Witness testimony highlighted workforce shortages in marine occupations essential to maritime security and economic activity.

Madeleine Redfern noted that, "all of our larger marine training institutions are located in our southern latitudes."[7] She further warned that current training capacity may supply graduates sufficient to fill only 42% of required marine positions in the coming years.

Recommendation:
That the Government of Canada strengthen northern marine training capacity, including outreach in northern schools, financial supports, modernized equipment, expanded training facilities, and funded practical placements to build workforce capacity for commercial carriers, Coast Guard, and Navy.

C. Defence Procurement and Industrial Policy Levers

Canada must move from a process-defined procurement culture to a capability-defined procurement culture. Success should be measured by the timely fielding of operational capability.

8) Fix defence procurement at the root: single accountability, dynamic tools, enforceable timelines

Witnesses broadly agreed that Canada's procurement system requires reform. Firms producing relevant technologies often face fragmented governance and lengthy timelines.[8]

[6] Evidence of the Standing Committee on Industry and Technology - Evidence No.05 - 45-1
[7] Ibid
[8] ACMETestingAndConsulting-e.pdf

Christyn Cianfrani described procurement cycles of five to fifteen years, warning that such timelines risk, "run[ning] small businesses out of cash flow."[9]

Recommendation:
That the Government of Canada undertake fundamental reform of defence procurement to fix governance and execution simultaneously, by reducing fragmentation, establishing clear single-point accountability, and implementing dynamic procurement tools—including enforceable service standards, delegated purchasing authorities, and use of external contracting capacity where appropriate— so defence capability can be fielded on operationally relevant timelines — in months where possible, and in years rather than decades where complexity requires while maintaining accountability to taxpayers.

9) Remove systemic barriers preventing Canadian SMEs from competing (incl. security-clearance wait times)

SMEs face structural disadvantages in the procurement system, including long security-clearance timelines and delayed contracting decisions.

Matthew Lombardi testified that firms can wait an average of 18 months to obtain security clearances and described the system as, "not designed for SMEs."[10]

Recommendation:
That the Government of Canada reform defence procurement and security-clearance processes to eliminate systemic barriers—including significant wait times and unpredictable onboarding processes—that prevent Canadian SMEs, start-ups, and scale-ups from participating fully and competitively in defence contracts.

10) Tailor procurement pathways to capability type, including rapid deployment where appropriate

Witnesses emphasized that procurement timelines should reflect the type of capability being acquired. Some systems require long timelines, while others—such as software, sensors, and counter-drone technologies—can be deployed far more rapidly.[11]

Recommendation:
That the Government of Canada tailor defence procurement pathways and service standards to capability type, recognizing that some systems—such as drones, counter-UAS, software, sensors, and cyber tools—can and should be procured and deployed within months, while larger platforms (e.g., aircraft and ships) reasonably require longer acquisition timelines.

11) Use procurement strategically to build Canadian, export-ready capability

[9] Evidence - INDU (45-1) - No. 9 - House of Commons of Canada
[10] Evidence - INDU (45-1) - No. 9 - House of Commons of Canada
[11] Evidence - INDU (45-1) - No. 9 - House of Commons of Canada

Defence procurement can strengthen Canadian firms and ensure domestic control of critical technologies such as cloud infrastructure, artificial intelligence, and cybersecurity.

Katherin Intson testified that the CAF alone cannot sustain modern defence manufacturers,[12] while evidence from L3Harris Canada highlighted the export-driven nature of the defence sector.[13]

Recommendation:
That the Government of Canada use defence procurement strategically by:
(a) establishing Canadian-priority procurement streams for sovereign and defence-sensitive capabilities (including cloud, AI and cyber; and ITAR-free systems, which allow for the free flow of technology and the integration of firms within the global defence procurement ecosystem); and
(b) prioritizing defence investments in Canadian firms that either have validated international markets or demonstrate a credible pathway to export readiness, ensuring defence spending builds scalable, sustainable capability rather than long-term dependency on periodic government procurement alone; and

c) affording due consideration to the inherent challenges faced by SMEs in accessing global markets

12) Replace the Industrial Technological Benefits Policy (ITB) with outcomes-based industrial capability (real IP/talent/throughput—verifiable results)

The ITB policy is intended to leverage defence contracts to strengthen Canadian industry by compelling investment commensurate with the value of a defence contract. However, witnesses indicated that the program can reward administrative compliance rather than genuine capability development.

ACME Testing and Consulting testified that primes are, "perverting the intended use and application" of the ITB policy and that little consideration is being given to verifiable outcomes.[14]

Recommendation:
That the Government of Canada modernize and refocus the Industrial and Technological Benefits (ITB) policy into an outcomes-based framework that prioritizes verifiable Canadian industrial capability — including IP retained in Canada, skilled talent trained, production capacity built, and export readiness — rather than paper compliance or financial multipliers.

D. Innovation-to-Deployment Architecture

[12] Evidence - INDU (45-1) - No. 13 - House of Commons of Canada
[13] Evidence of the Standing Committee on Industry and Technology - Evidence No.15 - 45-1
[14] Evidence - INDU (45-1) - No. 7 - House of Commons of Canada

13) Align university R&D to defence priorities and connect it to procurement (keep IP in Canada)

Canada's challenge is not discovery but commercialization and retention of intellectual property. Too often, Canadian research is funded domestically but commercialized elsewhere.

Universities Canada stated that Canada's research strengths are not translating into sufficient domestic commercialization and scale.[15]

Recommendation:
That the Government of Canada apply a sovereignty and national-capability lens to publicly funded research and innovation programs — including both university-based research and business-facing R&D supports — by:
• identifying priority capability areas (e.g. defence, security, critical infrastructure, digital resilience, energy, space);
• ensuring funding streams preserve academic independence while creating optional, attractive, well-defined pathways to commercialization and procurement; and
• strengthening the "continuum" from research to application to public procurement so Canadian IP, firms, and talent can scale in Canada rather than being prematurely sold or lost.

14) Operationalize BOREALIS as a Canadian DARPA-style agency with procurement authority

Robert Asselin testified that Canada's, "long-standing failure" has been linking research discoveries to industrial deployment.[16]

Recommendation:
That the Government of Canada fully operationalize BOREALIS as a mission-driven, DARPA-style defence innovation agency by:
• giving it a clear mandate to move ideas from research to prototyping to commercialization to public procurement;
• aligning funding explicitly to sovereign defence capabilities and critical industries;
• ensuring direct, structured, and predictable pathways into DND/CAF procurement to create an "anchor customer" effect for Canadian firms;
• designing the agency to support dual-use outcomes, rapid experimentation, and tolerance for managed risk, consistent with the successful U.S. DARPA model; and
• working toward deploying innovation as a means of enhancing Canada's sovereign capabilities.

15) Fully utilize NATO DIANA test centres and accelerators to support Canadian firms

[15] Evidence - INDU (45-1) - No. 16 - House of Commons of Canada
[16] Evidence of the Standing Committee on Industry and Technology - Evidence No.07 - 45-1

Witnesses indicated that NATO DIANA testing centres—specialized facilities that support technological innovation within the NATO alliance—are underutilized despite demand from firms seeking validation and certification for defence technologies.

ACME Testing and Consulting described "very little activity"[17] at these centres.

Recommendation:
That the Government of Canada significantly increase utilization of Canada's NATO DIANA test centres and accelerators to support Canadian firms with testing, validation, and IP development for defence and dual-use technologies.

16) Expand applied prototyping, testing, and field-validation capacity (TRL 4–7)

Witnesses described a "valley of death" between research and deployment where promising technologies—often between technology readiness level (TRL) 4-7, the stages where innovations are validated and applied—stall. Matthew Lombardi warned of entrepreneurs waiting years for a trial or sandbox demonstration.[18]

Recommendation:
That the Government of Canada expand applied prototyping, testing, and field-validation capacity (TRL 4–7) so Canadian defence and dual-use technologies can be proven, refined, and deployed rather than stalling after early research.

17) Reinforce ISC Testing Stream with independent third-party evaluators

Witnesses indicated that the Innovative Solutions Canada testing stream lacks sufficient third-party evaluators, creating bottlenecks.[19]

Recommendation:
That the Government of Canada undertake a review to reinvigorate Innovative Solutions Canada's Testing Stream and normalize independent third-party evaluators to improve rigor, speed validation, and reduce internal bottlenecks.

18) Make the system innovation-forward: written rationale and review when innovation is rejected

ACME recommended that any "no" to credible innovation require a written rationale.[20]

Recommendation:
That DND and CAF adopt an innovation-forward mandate whereby rejection of credible innovation proposals must include a written rationale subject to review.

[17] ACMETestingAndConsulting-e.pdf
[18] Evidence - INDU (45-1) - No. 9 - House of Commons of Canada
[19] ACMETestingAndConsulting-e.pdf
[20] Ibid

19) Establish a cold-weather testing and training centre of excellence in the North

Redfern testified that Yellowknife is, "an ideal location" for defence industry development and cold-weather testing.[21]

Recommendation:
That the Government of Canada work with northern partners to establish a dedicated cold-weather testing and training facility in the North to support CAF readiness, allied collaboration, and Canadian industrial testing.

E. Platforms and Immediate Threats

20) Fulfill the full F-35 Lightning II commitment (88)

Witnesses emphasized the importance of interoperability and the industrial benefits associated with the F-35 program: namely, thousands of jobs across Canada, including at L3 Harris and Magellan Aerospace, who work on sustainment for the F-35.

Dr. James Fergusson testified to the facilitation of exports that the sustainment ecosystem provides: "[the F-35 opens a] global market for the next 40 years to maintain that job base."[22] Richard Shimooka described the F-35 as "absolutely vital for basic national security."[23]

Recommendation:
That the Government of Canada fulfill its original commitment to procure 88 F-35s, recognizing industrial benefits, interoperability, and Canada's long-term access to a global sustainment market.

G. Digital Sovereignty and Future-Proof Resilience

21) Build an "attritable air defence" pathway (low-cost counter-drone capability)

NorthVector Dynamics argued that legacy air defence—while merited and essential for conventional threats like missiles—is too expensive and static for high-volume aerial threats capable of attrition, such as drones.[24]

Recommendation:
That the Government of Canada prioritize procurement pathways for low-cost, rapidly manufacturable counter-UAS / intercept solutions to address mass drone threats and preserve high-end interceptors for high-value targets.

22) Digital sovereignty: Canadian-controlled defence cloud + sovereign capability build-out

[21] Evidence of the Standing Committee on Industry and Technology - Evidence No.05 - 45-1
[22] Evidence - INDU (45-1) - No. 15 - House of Commons of Canada
[23] Industry and Technology Committee on Nov. 5th, 2025 | openparliament.ca
[24] NorthVectorDynamics-e.pdf

Witness submissions highlighted the importance of maintaining sovereign control over defence-related data and digital infrastructure.[25] Christyn Cianfrani, in particular, noted the importance of "data sovereignty" as Canada increasingly receives assets that contain a significant amount of data.[26]

Recommendation:
That the Government of Canada require Canadian data residency and sovereign digital infrastructure for defence-sensitive data and operations, including the development of a Canadian-controlled defence cloud.

23) Post-quantum security + quantum sensing/communications as resilience capabilities

Lisa Lambert described quantum as, "enabling entirely new ways to sense, to navigate, to secure and to interpret the world, unlocking dual-use capabilities that today's systems simply can't match."[27]

Recommendation:
That the Government of Canada prioritize applied programs in post-quantum security, quantum sensing, and quantum communications as core defence and national-security capabilities.

Conclusion

This supplementary report reflects a consistent message from testimony and submissions: Canada's defence posture is only as credible as its ability to generate real capability at home — to produce it, field it quickly, sustain it through disruption, and control the strategic systems on which it depends.

That requires a broader national effort to strengthen what is within Canada's control: strategic resources, Arctic infrastructure, procurement speed, sovereign industrial capacity, innovation deployment, digital sovereignty, and operational readiness.

Canada does not lack talent, geography, resources, or ideas. The question is whether our institutions are prepared to convert those advantages into national strength. Sovereignty is not secured by aspiration alone. It is built — deliberately, practically, and at speed.

Respectfully submitted,

Raquel Dancho – M.P Kildonan—St. Paul | Ted Falk – M.P. Provencher
Kathy Borrelli – M.P. Windsor-Tecumseh—Lakeshore| Michael Guglielmin – M.P. Vaughan—Woodbridge

[25] EcoleDeTechnologieSuperieure-067-251211-016-e.pdf
[26] Evidence - INDU (45-1) - No. 9 - House of Commons of Canada
[27] Evidence of the Standing Committee on Industry and Technology - Evidence No.15 - 45-1