

Deepening Our Defence

Canada's ambitious task to expand
the defence industrial base.



Canadian
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September 2026

Executive summary

Canada is embarking on its largest defence spending plan in generations. This is a key economic test for the federal government that will need to translate the increase in defence spending into lasting industrial capacity, stronger productivity and greater control over critical technologies.

- The spending increase is unprecedented. Core defence spending is projected to rise from \$64B in 2025 to approximately \$160B by 2035. Meeting NATO's broader 5% commitment would bring annual spending to at least \$228B. More than \$1T in cumulative spending is expected over the coming decade, with the defence budget increasing from about 11% of federal expenditures today to nearly 30% by 2035.
- The economic return will depend on where the money goes. IMF modelling suggests that every additional \$10B in defence spending could generate approximately \$7B–\$10B in cumulative real GDP over three years. But the payoff falls when equipment and inputs are imported, and the added fiscal pressure could limit room for other public priorities.
- Canada is starting with a narrow industrial base. The core defence sector consists of 538 firms generating \$17.3B in sales, \$8.6B in direct and indirect GDP and 62,100 jobs. Revenue is highly concentrated: the largest 50 firms account for about 80% of sales. SMEs represent 92% of firms but receive only 30% of industry revenue.





- A significant share of the economic value currently leaves the country. Canadian defence firms import 47% of their purchases, including import-intensive machinery and transportation equipment. Canadian-controlled private firms account for only 18% of industry sales, leaving many decisions about intellectual property, systems integration and exports outside Canada. The need to acquire proven capabilities quickly means foreign suppliers will continue to play an important role, especially during the early stages of the build-out.
- Canada's strongest near-term opportunities extend beyond major platforms. Sustainment and maintenance, repair and overhaul (MRO); construction and engineering; Arctic infrastructure and energy systems; software, AI and autonomy; sensors, space and simulation; and specialized components for prime contractors all offer credible routes into the defence market. Many of these activities must be delivered in Canada and draw on capabilities that already exist across the economy.
- Exports will be essential to sustaining a larger industry. Defence exports reached \$7.9B in 2024—close to half of industry revenue—with 63% destined for the United States and almost 70% for Five Eyes partners. Europe is becoming more important: Canadian defence exports to the region grew 78% between 2022 and 2024. Stronger ownership of IP and export rights will be necessary if Canadian firms are to capture more of this growth.
- Canada produces strong research but struggles to turn it into capability. Defence firms are three times as R&D-intensive as manufacturing overall, and federal research funding in priority capability areas has more than doubled since 2014 to approximately \$165M. Yet only 88 of 802 innovative Canadian firms identified in the analysis—11%—recorded related direct federal sales. Foreign-controlled firms were applicants on roughly three-quarters of patent families involving Canadian innovators.

Chapter 1

The Stakes

Why defence spending has
become an imperative for Canada.

A generational opportunity to industrialize Canada's sovereignty

Canada faces a generational challenge to reinvigorate its economy amid one of the most turbulent geopolitical periods in recent history. Shifting alliances, weakening trust in multilateral institutions, and a recalibrated relationship with the United States, our largest security partner, have increased the need to advance both economic and national security. The old assumption that Canada could rely on open markets, stable alliances and just-in-time access to critical equipment is no longer sufficient. National security and economic security now depend on the same foundation: resilient supply chains, trusted industrial partners, cyber and infrastructure resilience, and the domestic capacity to sustain critical capabilities.

The scale of the opportunity is historic. Budget 2025 committed \$81.8 billion to defence, and Canada's Defence Industrial Strategy (DIS) now explicitly links readiness with industrial growth, innovation and domestic value capture. Its targets include raising the share of defence acquisitions awarded to Canadian firms to 70%, increasing defence-related government R&D by 85%, growing defence exports by 50%, and creating 125,000 new jobs over the next decade.

For the Canadian business community, this represents more than \$1 trillion in cumulative value leading up to 2035. The central question is whether Canada's domestic industrial base can capture that value while building sovereign capability at the same time. Today it largely cannot. Defence contracting still flows primarily to foreign primes, and much of the resulting economic value leaves the country. In pursuit of building economic resilience and increasing Canadian-controlled company participation in the build-out, engaging companies not traditionally involved in defence will be crucial to building a strong industrial base.

This is why defence strategy must now function as industrial strategy. The logic is straightforward: build at home where sovereignty matters, partner with allies where scale and interoperability matter, and buy abroad only where speed is essential and Canadian value can still be captured. NATO's new 2035 framework reinforces the shift, pairing 3.5% of GDP for core defence with 1.5% for broader security-related investment in infrastructure, innovation and industrial capacity.

Building resilience is both necessary for a middle power and strategic for a serious industrial economy.



A new defence era is taking shape on three fronts

1



Erosion of the old order

The fraying of the rules-based international order and shifts in U.S. foreign policy leave Canada needing to be more self-reliant. Strategic dependence for economic benefit is now a vulnerability and partnering with “middle powers” is a priority.

2



New technological warfare

Drones, artificial intelligence (AI) and autonomous systems are changing warfare, leaving new untapped vulnerabilities in both physical and cyber realms. This shift is also an opportunity for Canada’s smaller but capable base of dual-use technology firms.

3



Rearmament of the alliance

NATO allies have committed to invest 5% of GDP annually by 2035 (3.5% in core defence and up to 1.5% in broader security). In 2024, 40% of countries spent at least 2% of GDP on defence—the highest since 2000. Roughly two-thirds have defence spending growing faster than their trend GDP, adding to fiscal pressures.

NATO allies are pivoting to a higher spending trajectory

NATO allies spent over \$2 trillion CAD on defence in 2025, with European allies and Canada growing spending by nearly 20% compared to 2024. For the first time, every member* meets the 2% of GDP spending floor with many committed to reach the new 3.5% core defence spending target and 1.5% security supplement.

5%

New NATO target by 2035
(3.5% core + 1.5% security)

+20%

Year-on-year rise for
Europe and Canada, 2025

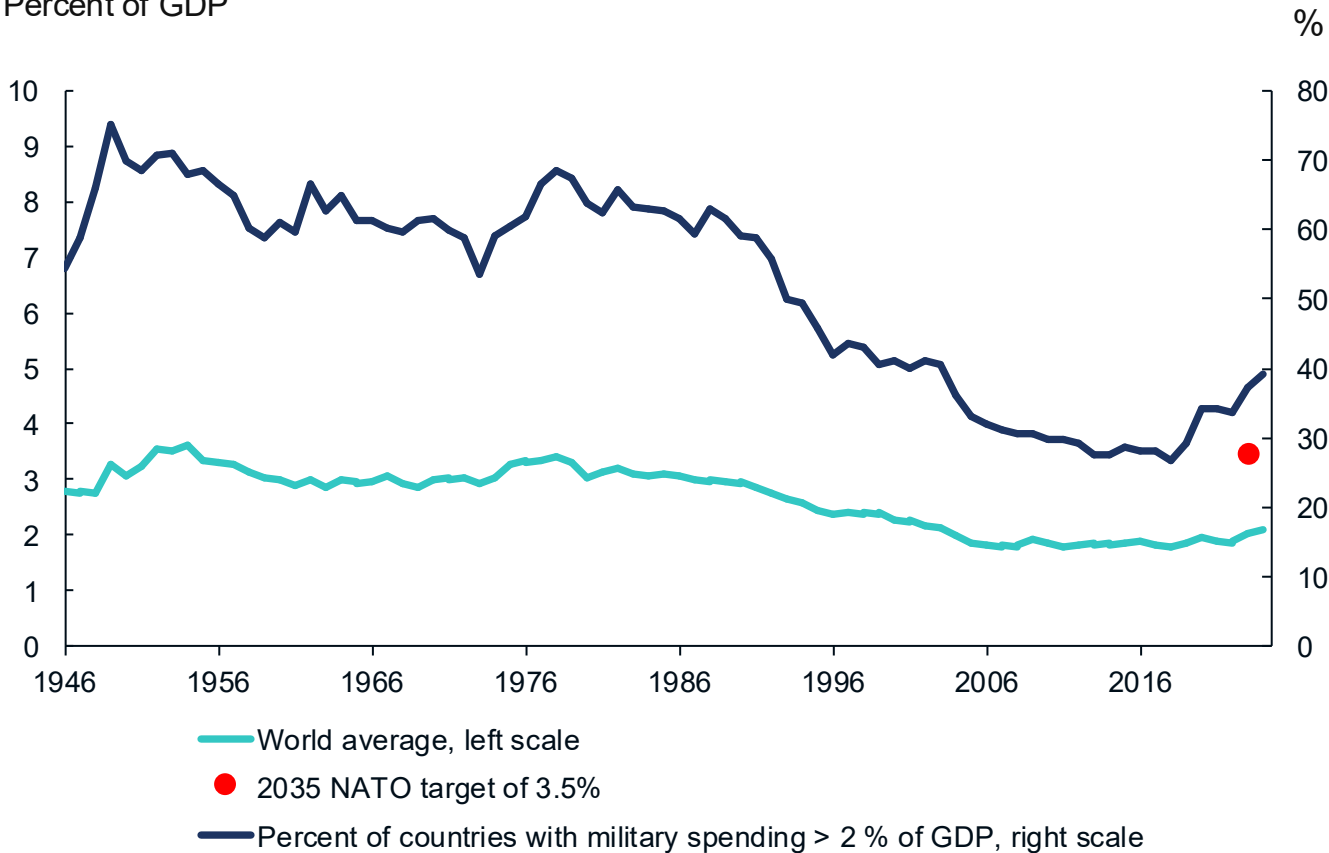
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NATO allies now at or above
2% of GDP for the first time*

The NATO Secretary General's 2025 annual report places Canada among just five allies sitting exactly at the floor, alongside Belgium, Spain, Portugal and Albania. Front-runners Poland (4.3%), Lithuania (4.0%) and Latvia (3.7%) already exceed the new 3.5% core target a decade early, and European allies and Canada have more than doubled real defence spending since 2014 (+106%). With allies expected to show a credible path to 5% at the Ankara Summit in July 2026, the widening gap is the backdrop against which Canada's industrial choices now matter.

The share of countries spending above 2% of GDP reaches a multi-decade high

Defence spending reverses downward trend amid new conflicts
Percent of GDP



After decades of decline, military spending is rising again across the world in a structural rearmament. The world average has climbed back to about 2.1% of GDP in 2024, and the share of countries spending more than 2% has reached roughly 40% — the highest in about two decades.

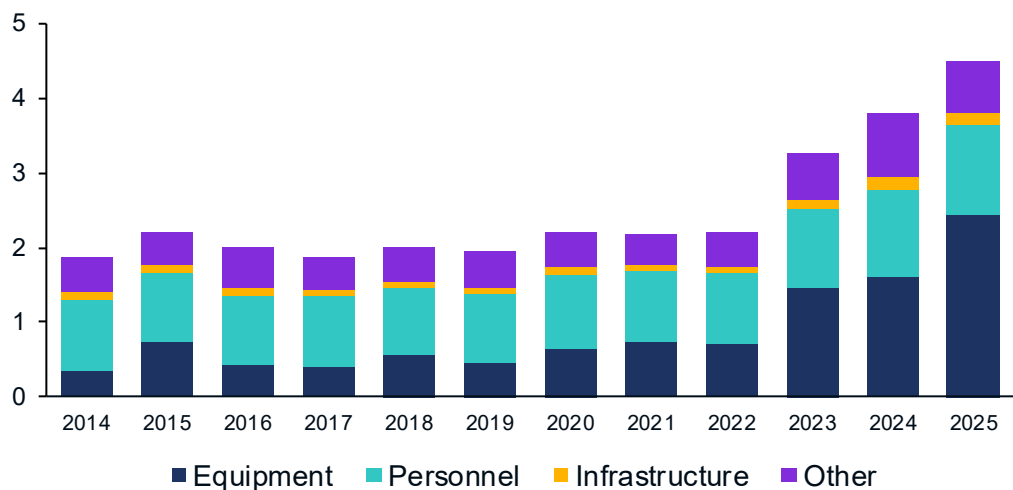
The trigger is a more dangerous security order. China's pacing threat to the U.S., Russia's full-scale invasion of Ukraine in 2022, and recent instability across the Middle East ended the post-Cold War peace dividend.

NATO members realigned around ambitious defence targets and increased spending amid global conflict. In 2025, for the first time, all allies (except Iceland) met or exceeded the 2% floor — up from 23 in 2024 and only three in 2014. The alliance's new 3.5% core target for 2035 locks in a high, multi-year demand floor well above today's world average.

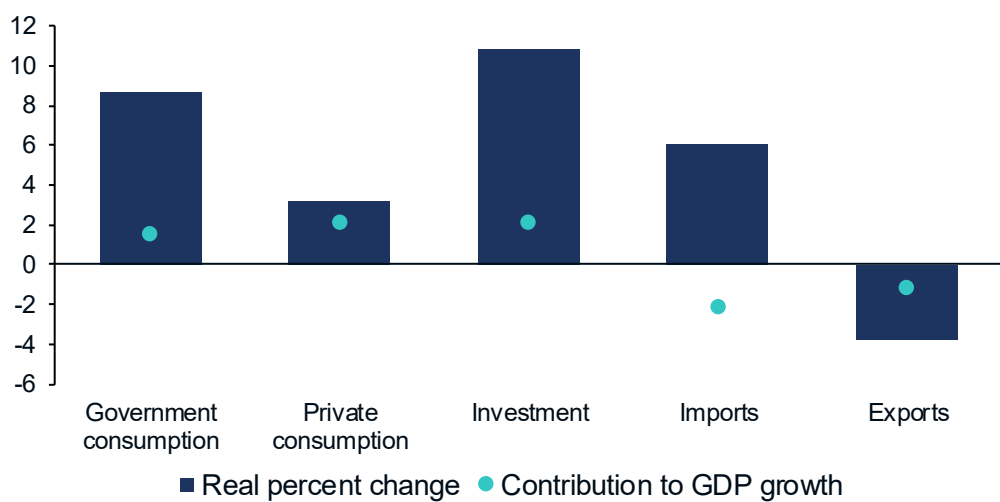
Spending, in short, is no longer the constraint. What is less clear is where this spending flows and what it could mean for Canada's economy and industrial base.

Defence spending booms are led by an equipment build up that can boost the economy

Scaling Defence: The Case of Poland
Percent of GDP



Defence Spending Transmission Channels
Percent, three years following boom



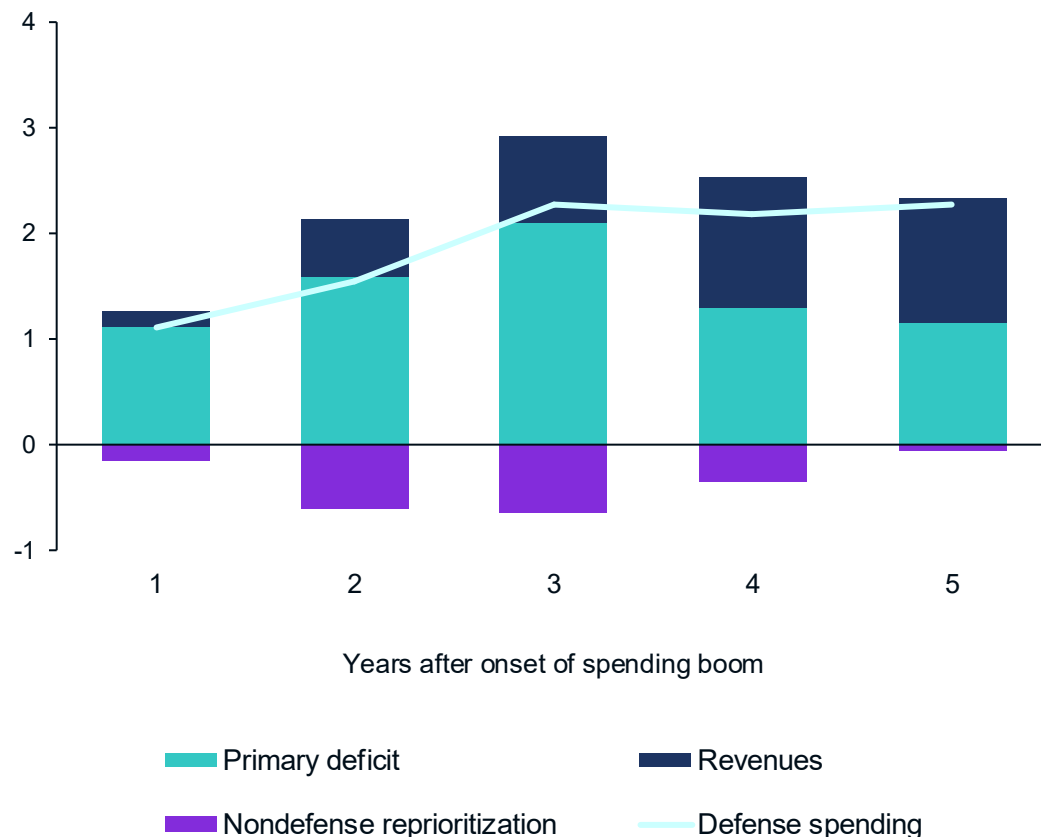
International Monetary Fund (IMF) model simulations illustrate the potential economic benefits of higher defence spending. A sustained increase equivalent to 1 percentage point of GDP could raise real GDP by roughly 0.7% to 1.0% relative to a no-increase baseline. In broad terms, every additional \$10 billion in defence spending could generate approximately \$7 billion to \$10 billion in cumulative real GDP. These estimates are illustrative for Canada and depend heavily on domestic sourcing, import leakages, spending efficiency and financing. The IMF’s analysis of defence-spending “booms” across 164 countries shows how these benefits could emerge. Historically, booms have supported growth through higher government consumption, with the strongest increase occurring in investment, adding about 2 percentage points to real GDP over three years. However, rising imports and weaker exports offset some gains, making domestic production and capacity critical to the longer-term payoff.

Source: International Monetary Fund, World Economic Outlook (April 2026), “Defense Spending: Macroeconomic Consequences and Trade-offs.”
Note: Data from 164 countries since 1946. Defence spending boom defined when the two-year moving average increases by at least 1 percentage point of GDP and doesn’t decline. Three-year-ahead calculations are cumulative. Investment defined as gross fixed capital formation.

Defence spending booms are financed by debt, adding to fiscal costs

Fiscal Realities of Defence Spending Booms

Cumulative change, percentage points of GDP



The fiscal costs are also significant. Evidence from past booms shows that they're financed mainly through higher primary deficits, particularly in their early years. Increased revenues provided only a partial offset, while limited savings came from reprioritizing non-defence spending. For Canada, deficit financing could boost demand and investment but would add fiscal pressure and reduce room for other priorities. Poland illustrates the trade-offs. Between 2021 and 2025, it increased defence spending from about 2.2% to 4.5% of GDP, largely through equipment purchases. Yet limited domestic capacity meant an estimated 80% was sourced from foreign suppliers. Canada's economic payoff will similarly depend on balancing military objectives with domestic capacity and fiscal sustainability.

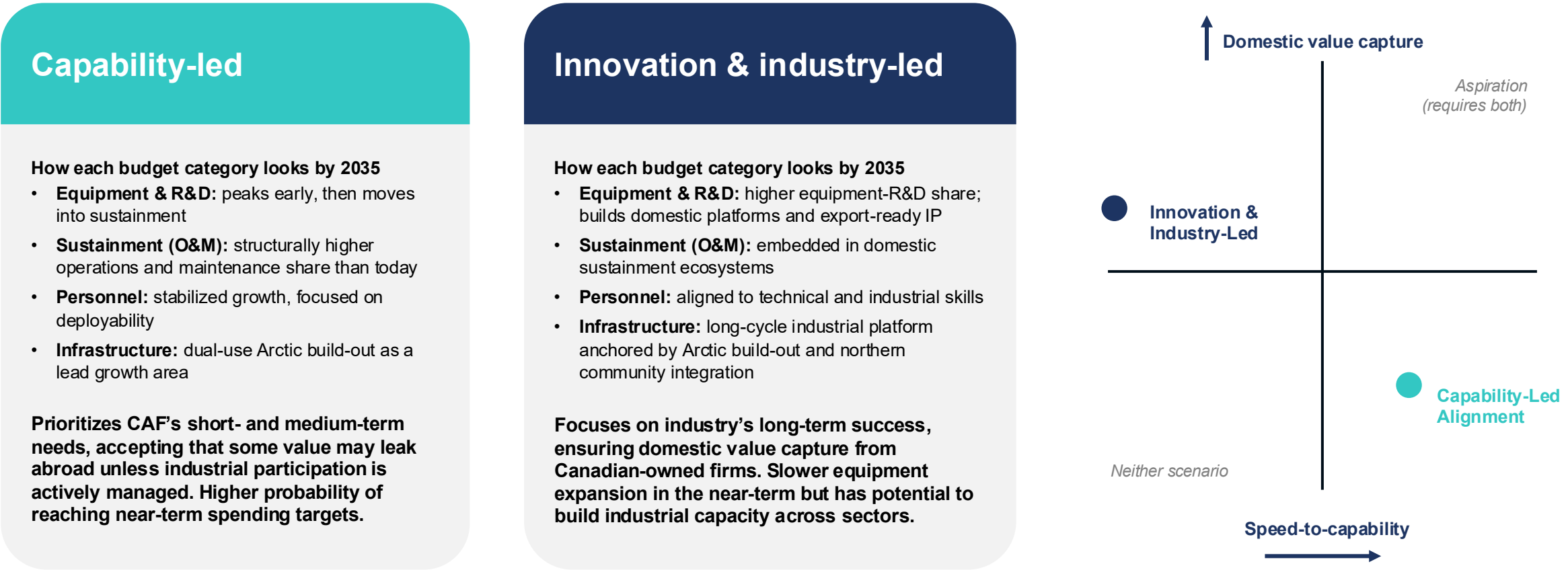


Source: International Monetary Fund, World Economic Outlook (April 2026), "Defense Spending: Macroeconomic Consequences and Trade-offs."

Note: Data from 164 countries since 1946. Defence spending boom defined when the two-year moving average increases by at least 1 percentage point of GDP and doesn't decline. Three-year-ahead calculations are cumulative. Investment defined as gross fixed capital formation.

Rapid short-term spending will likely lead to a capability-led scenario

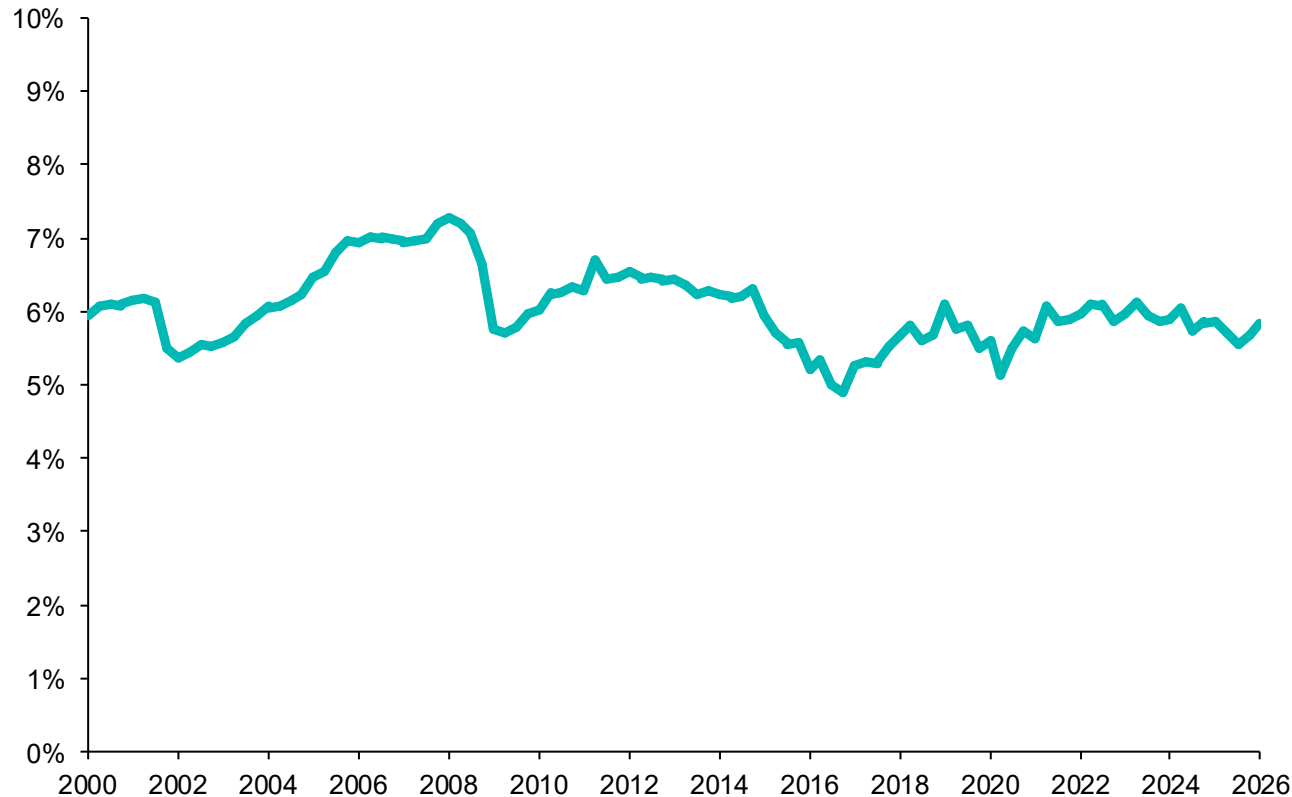
Two potential scenarios to meet Canada’s accelerating defence budget, which will reach \$160B by 2035, based on the NATO 3.5% core target. Canada is embarking on a capability-led journey that prioritizes securing key functions for the Canadian Armed Forces (CAF) and meeting spending targets as quickly as possible.



Defence should address Canada's equipment and IP investment drought

Canadian business investment in machinery, equipment and IP

Share of GDP, %, (2017 chained dollars)

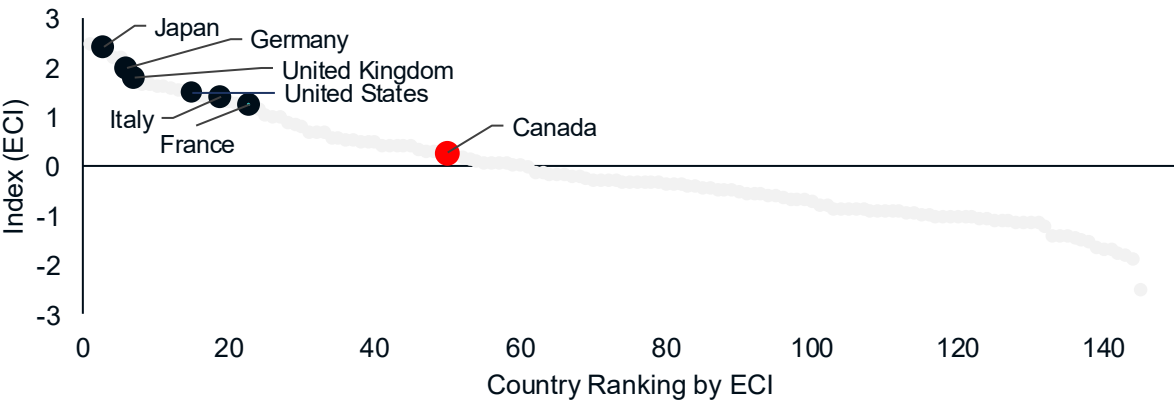


Canada under-invests in machinery, equipment and IP relative to the U.S. and peers. Business investment in real terms among these areas has stagnated to a near three-decade low, contributing to our long-standing productivity drag. Canada's machinery and equipment investment in real terms has been on the decline as a share of real GDP. These investments advance productivity and support capacity in the economy. Over the past decade, business investment was overwhelmingly allocated to housing. The federal government's defence build-out could drive capital deepening across multiple sectors that support defence capabilities providing spillovers into innovation and jobs.

But these gains are conditional on a diverse set of firms participating in the defence economy. Canadian procurement in defence only accounts for 0.26% of GDP in domestic output against a 3.5% target, so without new capacity much of the increase leaks abroad or gets shifted to other categories like operations. With a new sustained commitment to grow the defence sector beyond the traditional, there is an opportunity to cross-pollinate to other "dual-use" capabilities, supporting domestic manufacturing and innovation activity. This will undoubtedly require capital to support expansion and both public and private funders have stepped up to provide necessary capital.

Canada's defence build-out starts from a narrow and shrinking industrial base

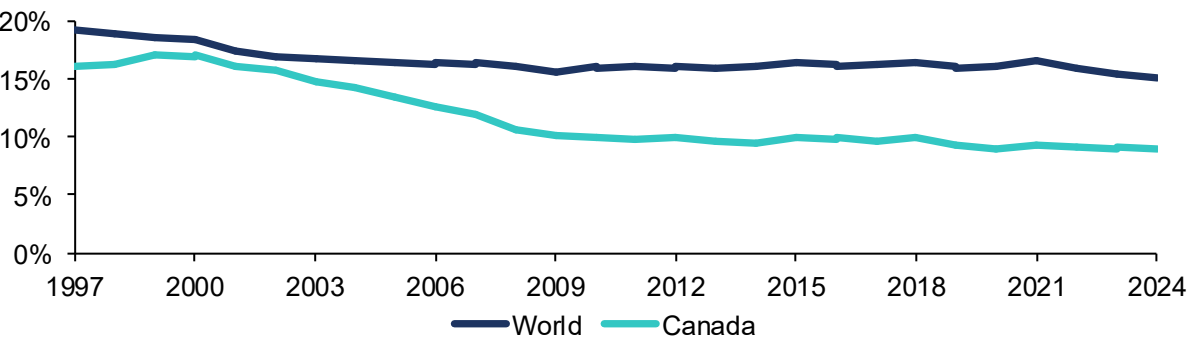
Economic complexity: Canada ranks mid-pack, last among G7 peers



Economic complexity gauges the breadth and sophistication of an economy's productive capabilities, based on the range and exclusivity of its exports. Canada ranks mid-pack globally and last among G7 peers.

Defence production draws on the same capabilities as precision manufacturing, electronics, advanced materials, implying limited domestic complementarities to build on. The smaller manufacturing footprint in Canada further reinforces the point. Manufacturing as a share of the global economy has drifted lower as technology and services have become more valuable, but Canada's manufacturing share of 16% in the late 1990s has shifted to about 9% today, against a stable world average near 15%.

Manufacturing share of the economy, % of GDP



Sectors such as aerospace, shipbuilding, critical minerals, quantum, and AI offer credible pockets of strength. Broadening the industrial base will be a long-cycle undertaking: capabilities eroded over decades require sustained procurement, investment and skills to rebuild.

Services offer a partial counterweight. Canada's depth in software, engineering and AI positions it well for the digital layer of defence — cyber, simulation and systems integration — even as hard production lags.

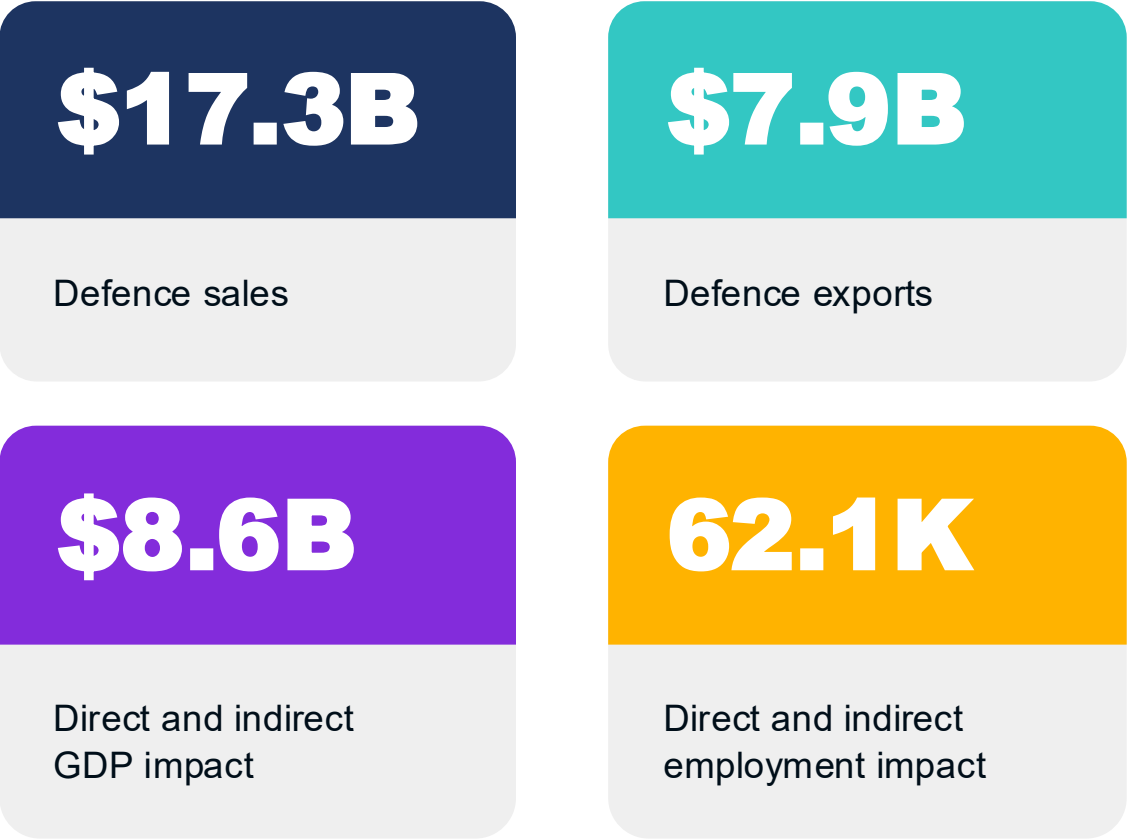
Chapter 2

The Current State

Defence spending, the
industrial base, and challenges.

Core defence is a small but high-value share of the economy

2024

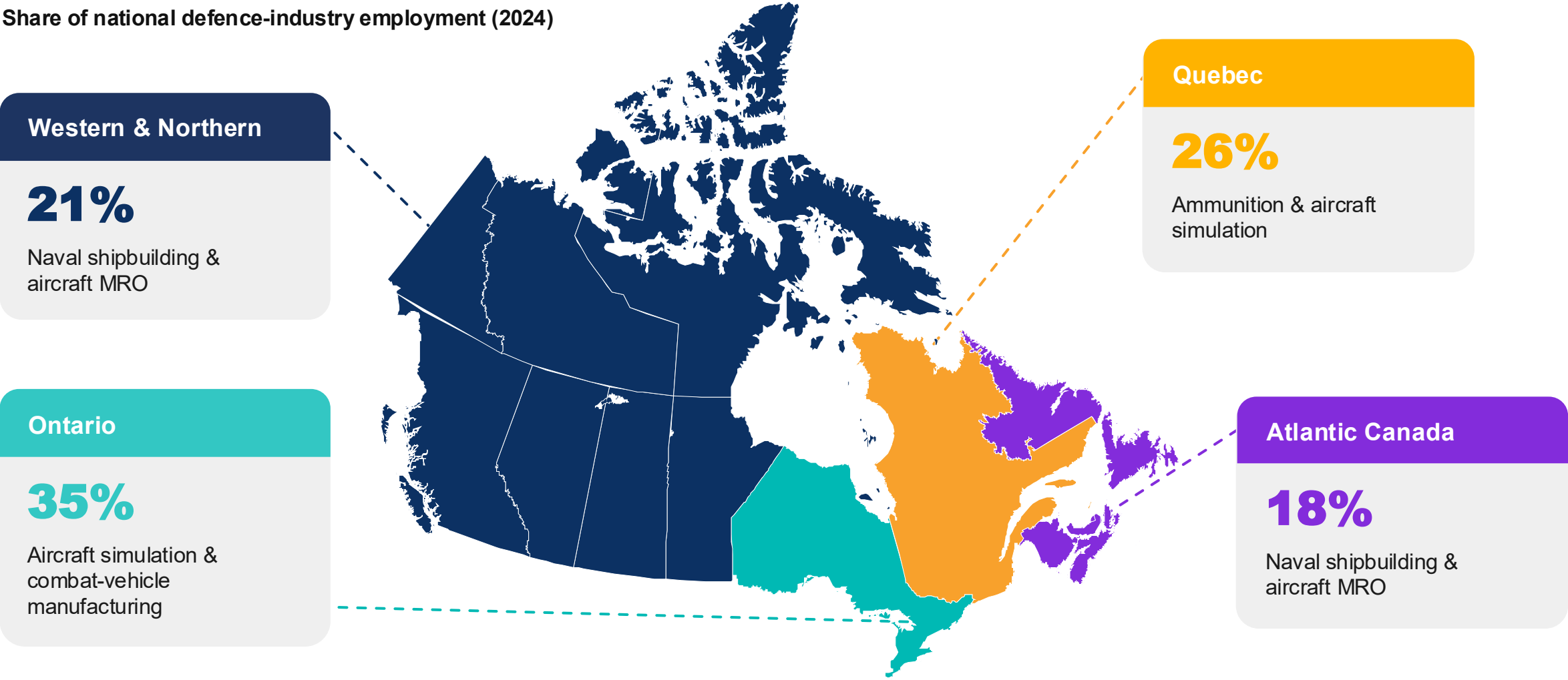


The core Canadian defence sector is represented by only 538 firms based on traditional core definitions. The defence supply chain extends beyond that to include purchases from “dual-use” suppliers whose primary markets sit outside defence — simulation and training, special-mission aircraft, space, IT services and software firms. Defence sales value is concentrated among the top 50 firms, which drive about 80% of revenue while 92% of firms are SMEs capturing only about 30%. This is a prime-led market with a long small-business supply chain that underpins jobs and R&D and which the Defence Industrial Strategy aims to grow toward a 70% Canadian-firm revenue share by 2035. Encouragingly, defence R&D intensity runs ahead of the economy-wide average, but the sector remains scale-led and concentrated among a few large players, so the question is whether the coming build-up broadens that base or reinforces the concentration.

Source: Canadian Defence, Aerospace, Marine and Cybersecurity Industries Survey, 2024.
Notes: The defence sector definitions in the survey are based on self-identification and are limited to firms traditionally participating in defence procurement. Therefore, the scope of the survey is quite limited. Impact figures include defence industry and value chain suppliers (direct + indirect impact).

Where Canada builds: regional defence strengths

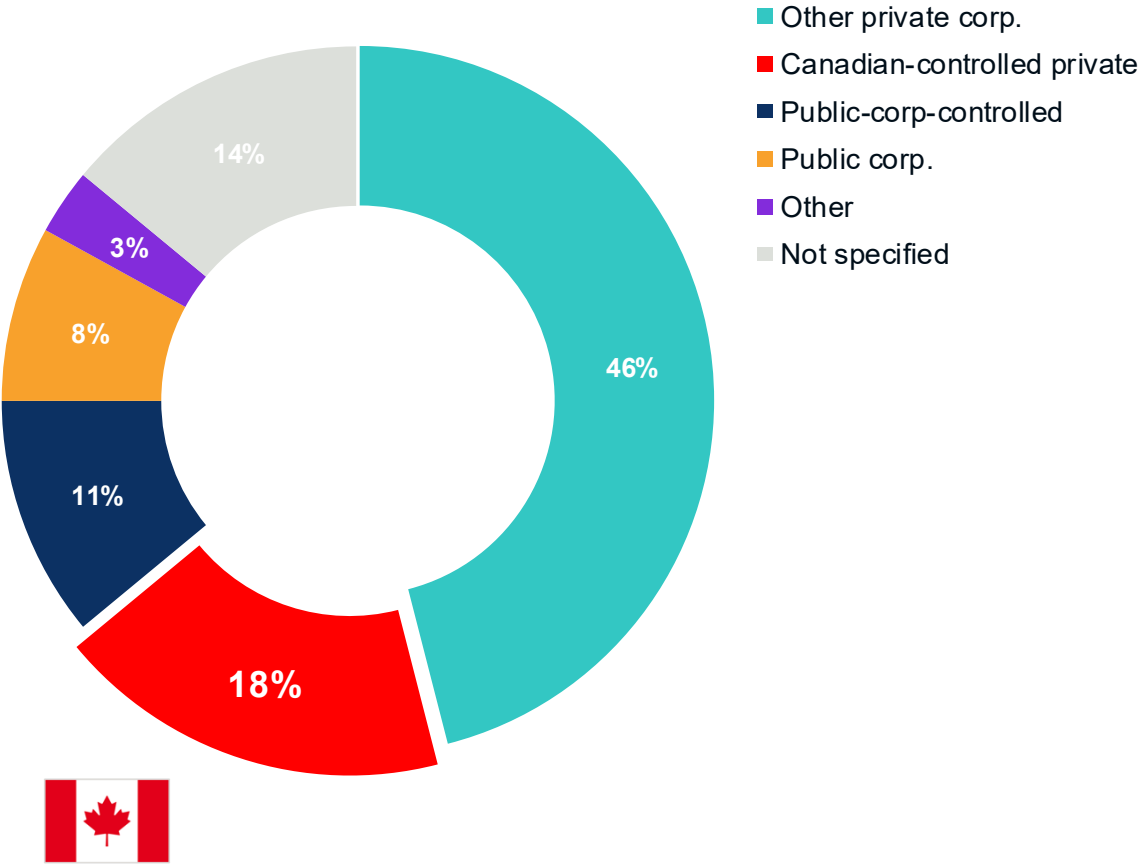
Share of national defence-industry employment (2024)



Sources: CADSI, Canadian Defence, Aerospace, Marine and Cybersecurity Industries Survey, 2024.
Note: Shares of employment by region are based on firms that specified their regional employment breakdown and reflect the 37,700 direct employees in the defence industry.

Growing Canadian sales in defence is a tall task

Share of total defence industry sales by enterprise type (%), 2024



\$3.1B

Defence sales by Canadian-controlled firms.

Domestic ownership anchors the firm base, but as expected revenue is concentrated among larger firms, mostly foreign-owned companies. With only 18% of sales going to Canadian-controlled firms, IP, integration and export decisions are outside of domestic control. Foreign subsidiaries operating in Canada still contribute to the Canadian economy and must follow the federal government’s Industrial and Technological Benefits (ITB) policy on domestic benefits. Tracking procurement awarded to Canadian controlled companies is difficult, especially considering the definition of a Canadian company is largely contested.

Growing the sales share of defence procurement from nearly 20% to 70% in the next 10 years will be a challenge unless SMEs are directly participating in the opportunity and a clear signal from government is forecasted on CAF’s capability requirements. Otherwise, a drastic shift in the domestic production ecosystem is required.

Reaching the 70% Buy-Canadian target depends on SME participation

Sizing the Participation Gap

92%

of defence firms are SMEs (494 of 538; <500 employees)

30%

of defence revenue captured by SMEs (vs 70% by 44 large firms)

38%

of employment held by SMEs

70%

DIS 2026 target for Canadian-firm share by 2035

Without unlocking SMEs, the 70% Canadian-firm target risks being met through foreign primes, while leaving regional and dual-use participation gaps unaddressed. The DIS recognizes this by committing to grow SME defence revenues by more than \$5.1B annually by 2035. Subsequent announcements have focused on streamlining process and access to capital.



Reaching the 70% Buy-Canadian target depends on SME participation

Four structural barriers beyond size and DIS 2026 responses

1 Security clearances

Challenge: SMEs cannot bid on or execute most defence contracts until both their organization and their personnel are cleared through PSPC's Contract Security Program, a federally-sponsored process that routinely takes months and requires physically secured facilities.

DIS 2026 response: DIS 2026 commits to accelerate the clearance process for defence-sector personnel, with PM Carney's February 2026 launch announcement explicitly naming this as a barrier to remove.

2 Access to capital

Challenge: Canadian commercial banks have historically avoided lending to defence, leaving SMEs without the working capital to bridge multi-year procurement cycles or scale production between milestone payments.

DIS 2026 response: A new multi-billion dollar Defence Platform at BDC, announced in February 2026, is paired with a \$357.7M CAD Regional Defence Investment Initiative, and both the National Research Council (NRC) and regional development agencies have been given expanded fiscal capacities to support SMEs.

3 Procurement complexity & ITB structure

Challenge: SMEs lack the in-house procurement teams and Ottawa presence that primes maintain, while the ITB policy has been optional for \$20–100M CAD contracts and has credited indirect work that historically routes value to foreign-prime subsidiaries.

DIS 2026 response: ITB modernization in early 2026 introduces a Canadian Company Boost rewarding direct work with Canadian firms (especially SMEs) and a new SME multiplier, while the Build–Partner–Buy framework directs sovereign-capability work to Canadian firms by default.

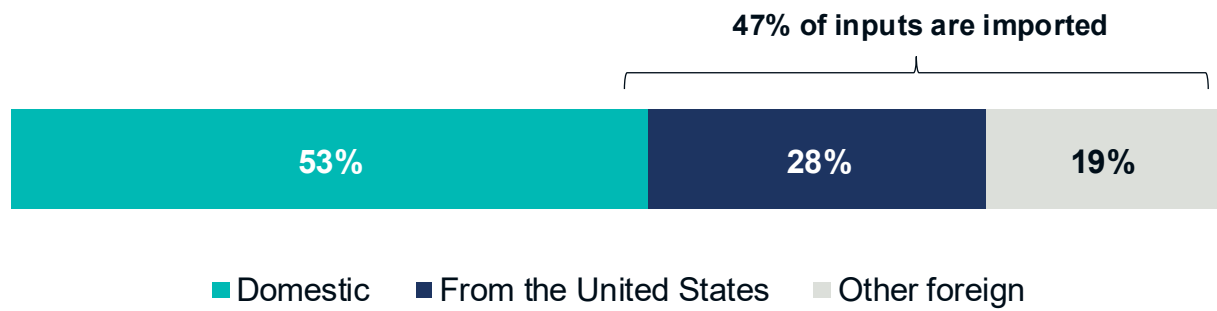
4 Forward purchase visibility

Challenge: The Budget 2025 pipeline extends only to FY2029–30, leaving SMEs without the multi-year demand horizon needed to invest in capacity or workforce, a gap reinforced by the PBO's flagging capital underspend over several years.

DIS 2026 response: The Defence Investment Agency (DIA), launched in October 2025, acts as a single-window procurement authority, supported by a permanent Defence Advisory Forum to give industry partners forward visibility on demand. However, the DIA is only for procurements over \$100M and there is no published list of future defence requirements.

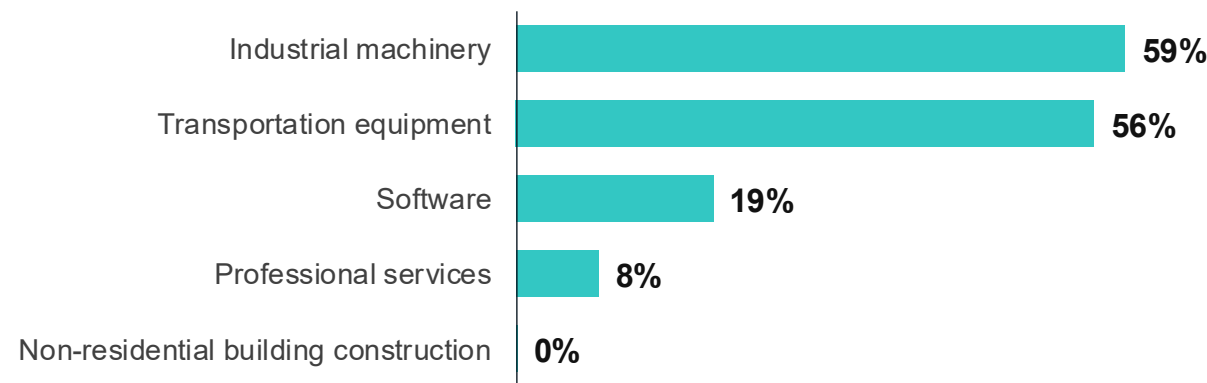
Buy Canadian-ish: Nearly half of purchases are imported

Breakdown of CAD 6.5B Canadian defence firm purchases, by supplier origin, 2024 (%)



Canadian defence firms spent \$6.5B in purchases from companies and distributors in 2024, representing 43% of their total expenditure with only 53% sourced domestically. This means roughly half of each procurement dollar recirculates through Canadian wages, suppliers and taxes; the imported share secures the capability but transfers economic benefits abroad. The U.S. remains the largest supplier of defence equipment for Canada given our integrated economies, but the federal government has made an intentional shift to diversify the supplier base across other allies with recent procurements like the Swedish Saab GlobalEye airborne early warning and control which uses Bombardier’s Global 6500 aircraft.

Import intensity by potential defence categories, 2022 (%)

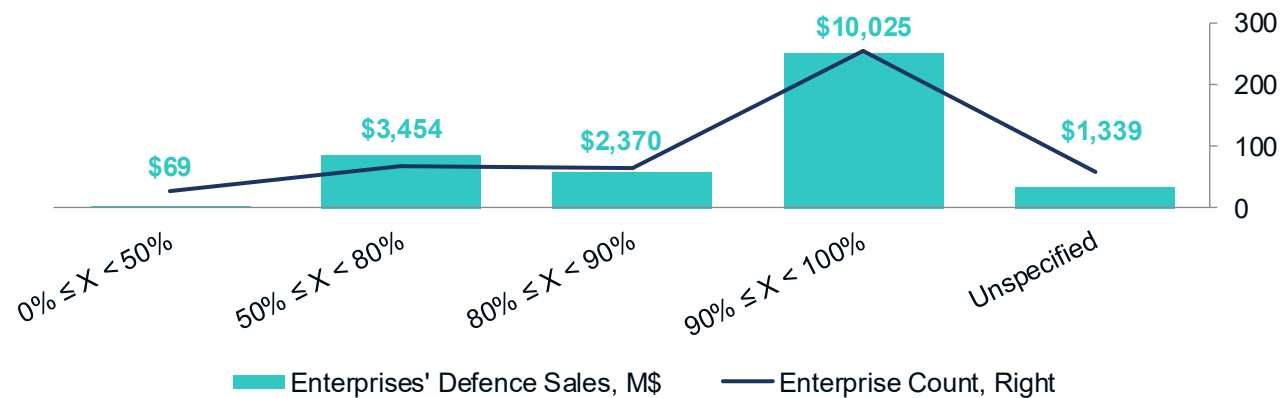


Ottawa's updated ITB policy in May 2026 pushes spending toward that domestic share. It sets new Canadian domestic production targets of up to 70% and deepens incentives for small and mid-sized suppliers. As SMEs are largely services-based with little import intensity, scaling them is the most direct lever to lift domestic value capture. Reaching 70% is achievable only gradually as sectors where the capacity to generate near-term domestic production are import-intensive like industrial machinery (59%) and transportation equipment (56%). What truly defines a Canadian company will continue to be a sticking point as federal government “Buy Canadian” definitions prioritize domestic presence over ownership and other sovereignty indicators.

Sources: BDL analysis of Statistics Canada 2022 Symmetric Supply-Use Tables, Canadian Defence, Aerospace, Marine and Cybersecurity Industries Survey, 2024, Norton Rose Fulbright
Note: Import intensity categories are comparable references for potential procured products.
Import intensity = import value as a share of GDP at basic prices.

Firms have capacity, but are constrained by limited demand and talent

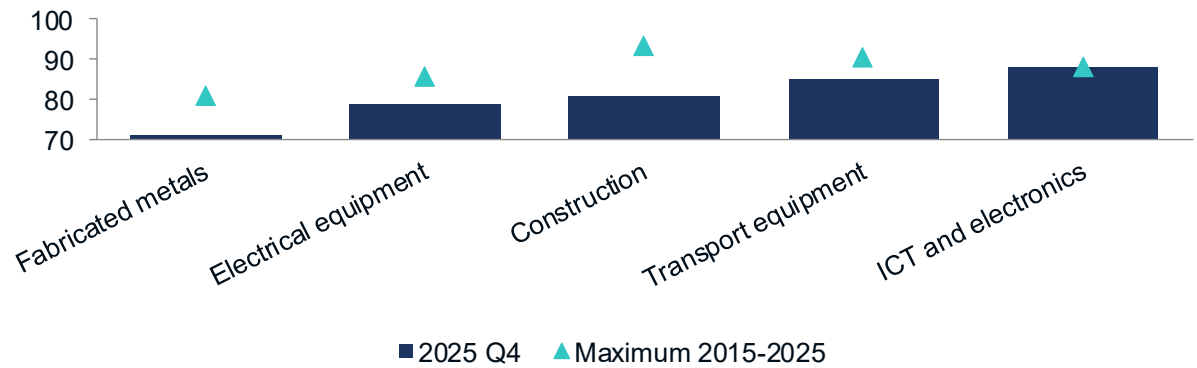
Canadian defence firms' output capacity, 2024



Capacity is available but not fully utilized. The largest share of defence sales is generated by enterprises operating at 90–100% capacity, indicating a concentrated set of highly utilized companies, while just over one-third of the industry still operates below full capacity (below 90%). Lack of future demand is the primary constraint for firms.

Available room differs by industry. In 2025 Q4, every defence-related industry except ICT and electronics was running below its past peak. Slack is widest in construction (80% vs. 94%) and fabricated metals (71% vs. 81%), with electrical equipment (79% vs. 86%) also well off its high; transport equipment (85% vs. 90%) is closest to capacity. Upstream inputs can therefore absorb higher defence orders relatively quickly, while ICT and electronics would require new capacity to scale.

Capacity utilization in Canada's defence-related sectors (% of capacity)

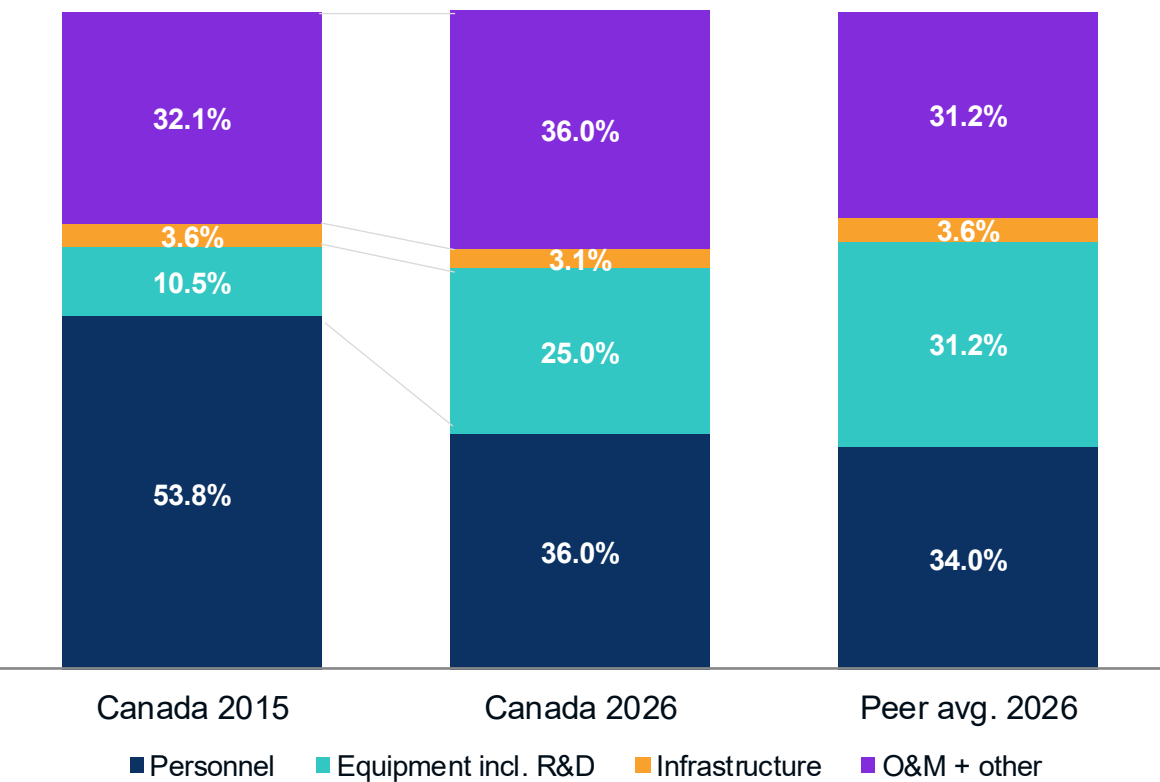


Labour is the leading operational bottleneck. Labour remains the key constraint to scaling defence output, with Canada's Defence Industrial Strategy prioritizing a Canada Defence Skills Agenda to strengthen the talent pipeline and expand skilled labour supply.

Another top challenge cited by firms is difficulty finding necessary materials for production. Given the import dependence of defence manufacturing, building resilience in critical material supplies will be crucial in supporting firms in the defence build-out.

The defence mix has meaningfully shifted toward equipment, but still trails peers

Defence spending by NATO category (% of total): Canada vs. Peers



Equipment’s share almost tripled since 2015, from 11% to 25%, as major platforms enter active spending, while personnel share has compressed amid CAF recruitment shortfalls.

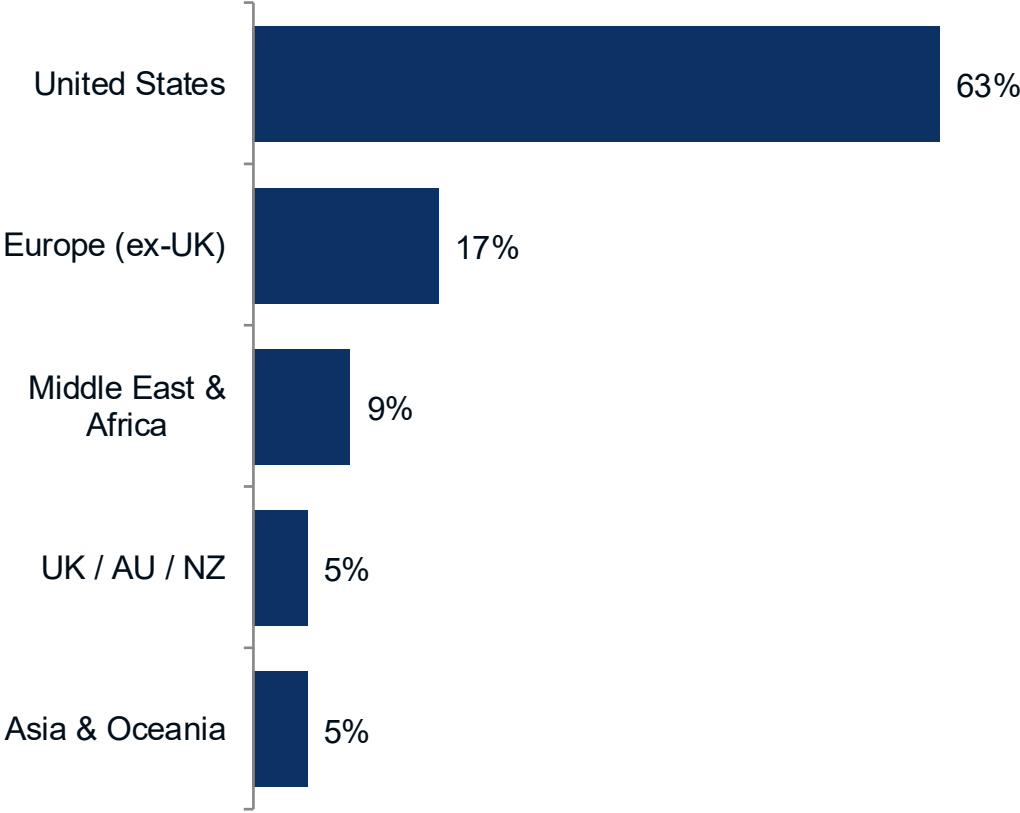
Canada’s defence equipment share is six percentage points lower than the peer average of 31% in 2026, with personnel and O&M taking up more resources. Equipment is where industrial value could be created and is where there are the most procurement opportunities. Major procurement initiatives, including Arctic over-the-horizon radar, airborne early warning and control aircraft, and new submarines, could increase the share of Canada’s defence spending devoted to major equipment. Whether that share remains elevated will depend on the trajectory of total defence spending and the timing of payments. Under NATO’s methodology, major equipment spending is measured on a cash basis, meaning expenditures are recorded in the fiscal year in which payments are made rather than spread over the assets’ useful lives under accrual accounting.

As Poland experienced in their recent build-out, the equipment category is likely where Canada will increase its spending, along with addressing existing infrastructure gaps in the CAF. However, limited domestic production capacity means capabilities will likely be purchased from the United States, Europe, and South Korea, leaving little room to capture the increased share.

Sources: BDL, NATO
Note: 2026 is an estimate. Peer average includes the United States, United Kingdom, Italy, Germany, and France.

Defence exports are major revenue generators for firms, reaching \$8B in 2024

Share of Canadian defence industry exports by destination, 2024 (%)



70%

Of exports go to Five Eyes partners

50%

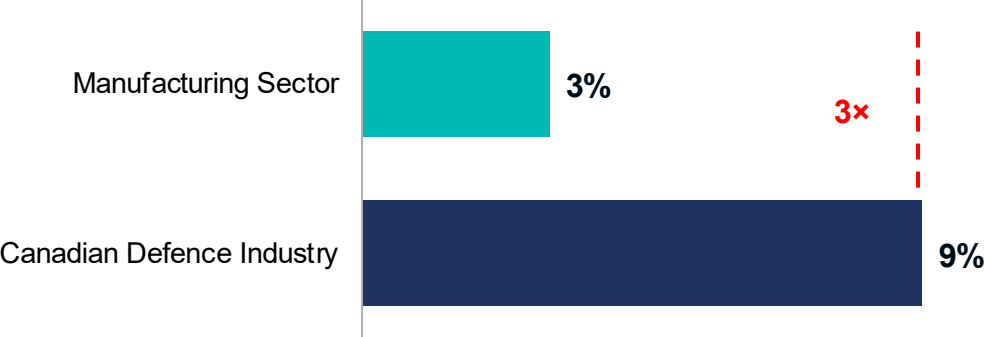
Of exports go to Five Eyes partners

Canada is a trusted supplier of defence equipment and services abroad with nearly 70% headed to other Five Eyes intelligence partners (U.S., Australia, New Zealand, the United Kingdom). The DIS sets a goal of growing exports by 50% over the next decade (5% per year). Defence exports grew by nearly \$1B from 2022 to nearly \$8B in 2024 (7% per year), faster than the 10-year average growth of 4.4%.

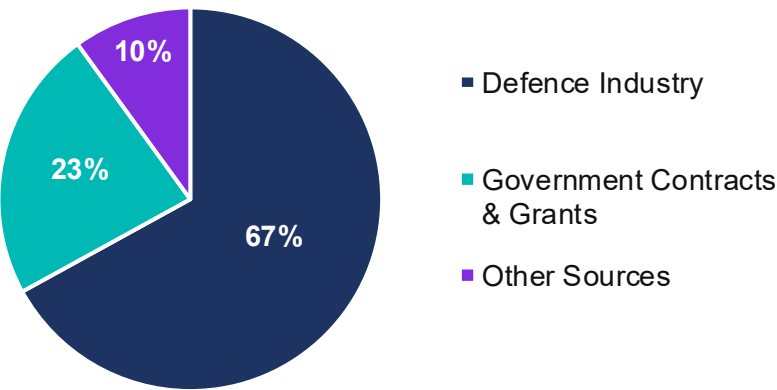
Europe (ex-UK) has been the main growth driver between 2022-2024, supporting broader trade diversification beyond the U.S. with Canadian exports to Europe growing 78% (\$500M). As Canada reestablishes its commitment to European NATO allies, this trend is likely to continue. The highest export-to-revenue-ratios are in aircraft, mission systems, and simulation equipment. External demand will be vital to the long-term viability of defence-related production. Additionally, IP ownership and export rights are needed to allow Canadian companies to sell globally. Strengthening Canadian control over IP, export permissions and product mandates would help more firms move up the value chain and capture global opportunities.

BOREALIS could become the connective innovation architecture

R&D Intensity, by sector, 2024



R&D Expenditures, by source, 2024



Canada’s defence innovation story is also a productivity story. The defence industry is three times more research-intensive than the manufacturing sector overall, and aerospace stands out as one of the most R&D-intensive parts of the defence industrial base. That matters because R&D is how new technologies become new capabilities — and how defence spending can translate into Canadian IP, skilled jobs, exports, and a more competitive economy.

The challenge is in the hand-off from research to capability. In defence, most R&D is funded by industry, with government contracts and grants accounting for about 23%. But smaller firms often lack the scale, capital, and access to funding channels needed to commercialize and grow. This mirrors Canada’s broader productivity challenge: smaller firms generated roughly \$52 in GDP per hour worked in 2021, compared with \$73 for larger firms.

BOREALIS¹ can become the connective architecture. By linking university and college research, industry-funded R&D, government funding, and real defence end-users, Canada can build a more mission-oriented innovation pipeline. Programs such as IDEaS, NRC IRAP, Mitacs, NSERC Alliance, Global Innovation Clusters, NATO DIANA, and Defence Innovation Secure Hubs can help firms access talent, non-dilutive funding, secure testbeds, and procurement pathways.

For business, the opportunity is practical: turn early-stage research into deployable capabilities in areas such as aerospace, sensors, digital systems, space, and Arctic and maritime operations. Other countries show what works. DARPA helped build the autonomy ecosystem through challenge-based innovation; the U.S. DIU’s Blue UAS program created a trusted pathway for secure drones; and the UK’s DASA has helped move SME innovations into military use.

Sources: BDL analysis, Statistics Canada, CADSI, Canadian Defence, Aerospace, Marine and Cybersecurity Industries Survey, 2024
Notes: Firm size defined by employment; small firms have fewer than 100 employees. R&D intensity is measured as the ratio of R&D performed by a sector relative to its GDP.
BOREALIS: Bureau of Research, Engineering and Advanced Leadership in Innovation and Science

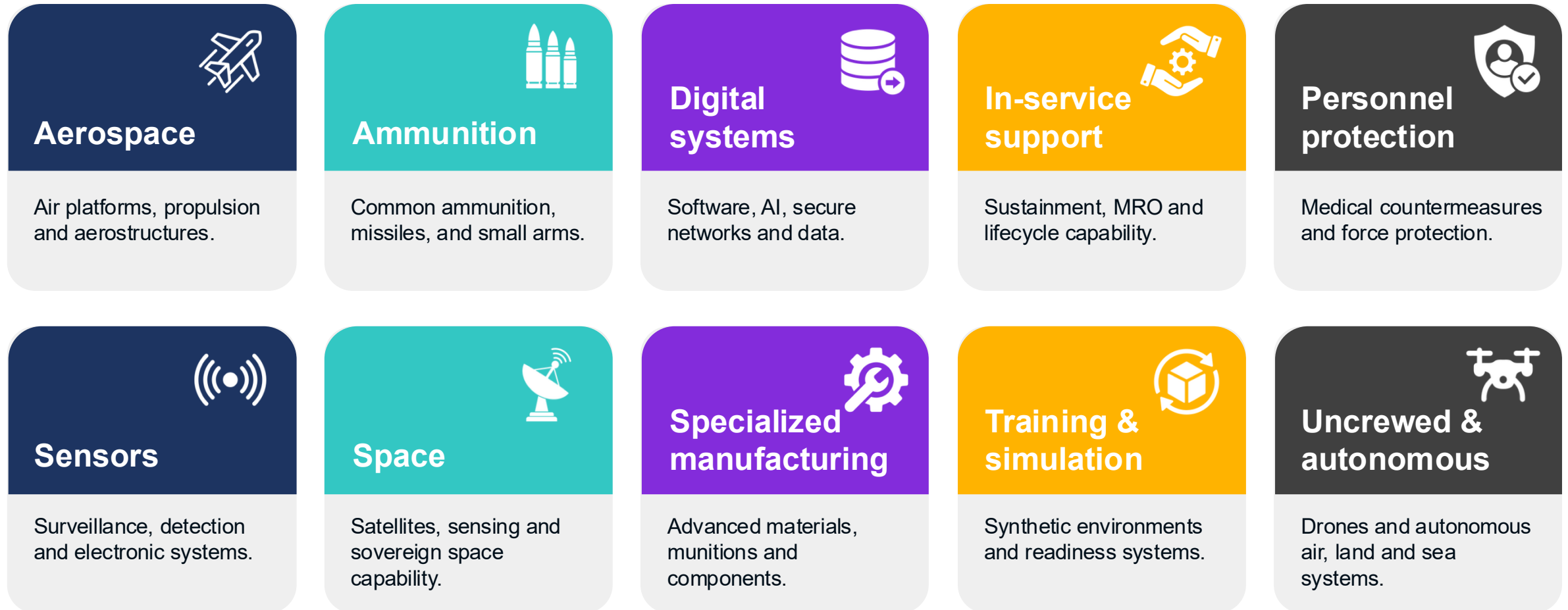
Chapter 3

Innovation to Commercialization

Strengthening Canada's sovereign capabilities through R&D to capture more economic value domestically.

Key sovereign capability areas in Canada's defence strategy

The Defence Industrial Strategy (DIS) frames sovereign capability around the technologies Canada judges it must be able to develop and sustain at home.



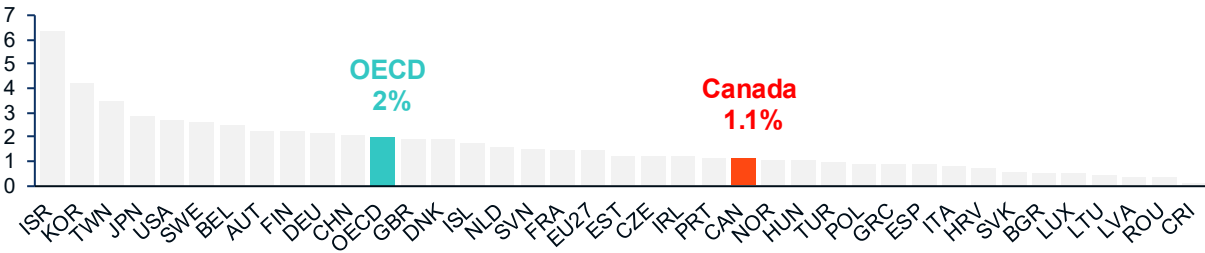
Source: Canada's Defence Industrial Strategy (2026)

Note: Personnel protection and Ammunition were excluded from the innovation analysis of DIS capabilities due to LLM result limitations and accuracy.

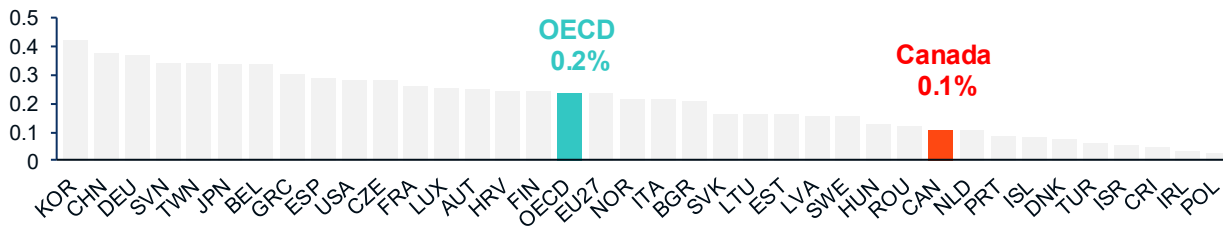
Canada needs to innovate to develop new capabilities

2025

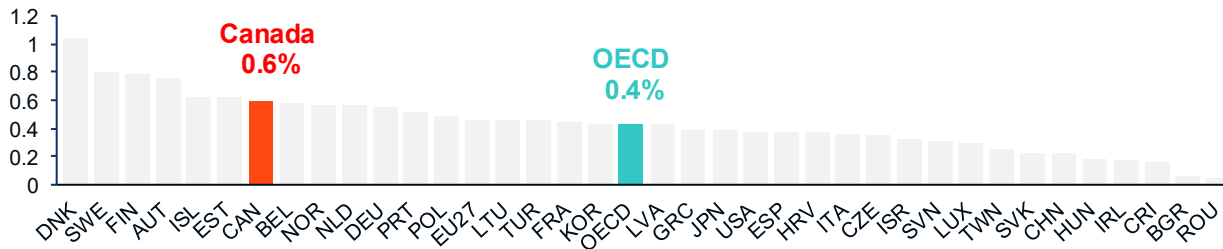
Business Enterprise Expenditure on R&D (BERD)



Government Intramural Expenditure on R&D (GOVERD)



Higher Education Expenditure on R&D (HERD)



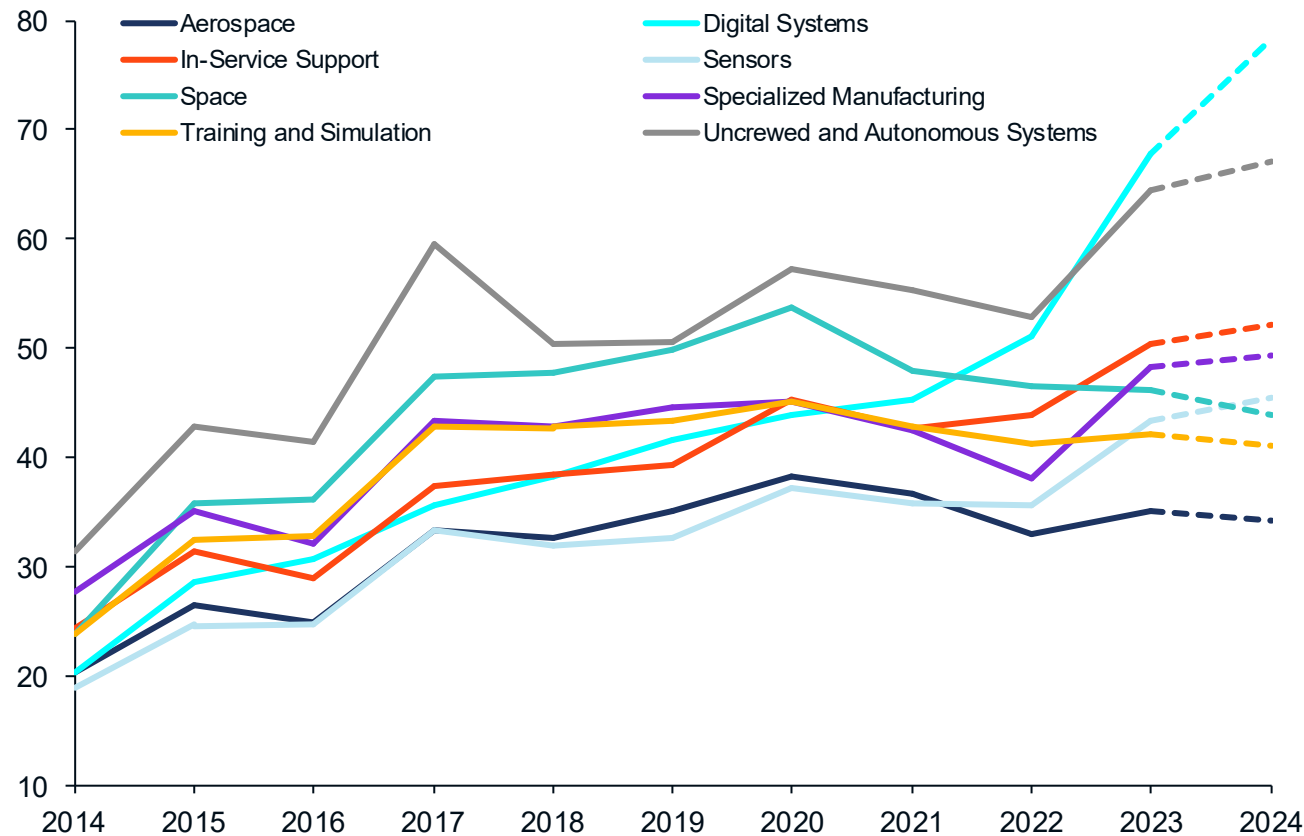
Sovereign defence capability depends on turning Canadian research into technologies, firms and products that can be built and scaled at home. Canada's higher-education R&D represents 0.6% of GDP, above the OECD average of 0.4%. Yet business R&D is just 1.1% of GDP, compared with 2.0% across the OECD, while government-performed R&D is 0.1%, compared with 0.2%. Canada's research strength is concentrated in universities, while business and government investment lags its peers.

Ownership also matters. In 2025, foreign-controlled firms accounted for nearly one-third of in-house R&D spending in Canada's scientific research and development services industry. Foreign investment brings capital, expertise and access to global markets, but defence sovereignty also requires domestic control over key intellectual property, production and commercialization decisions.

Canada has the research depth to compete in digital systems, artificial intelligence, sensors, space and autonomous technologies. However, too little of that research is absorbed by Canadian firms to become procurement outcomes and exportable products. The Defence Industrial Strategy's commitment to increase government investment in defence-related R&D by 85% is an important step. It should be paired with stronger university-industry links, expanded support through the National Research Council's Industrial Research Assistance Program, and procurement pathways that help Canadian companies commercialize and scale.

The research base is growing alongside sovereign capabilities

Federal tri-council research funding in DIS capability areas, 2014–2024 (CAD millions)



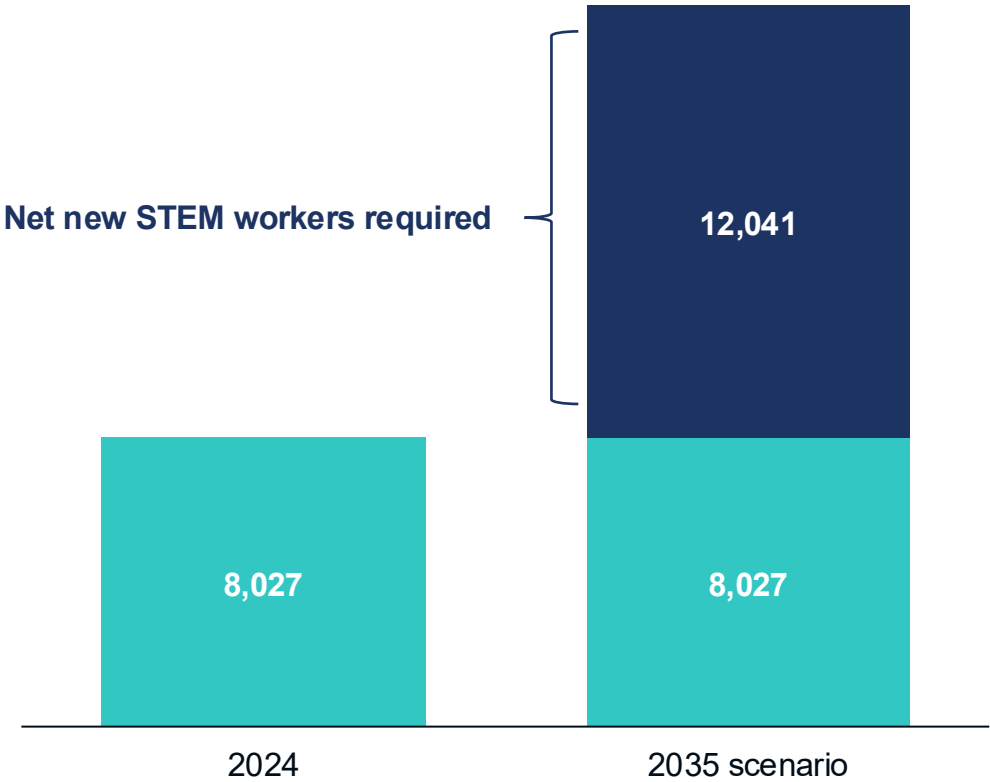
Based on U15 Canada analysis matching eight DIS sovereign capabilities to tri-council federal research, funding has more than doubled since 2014, reaching about \$165M, excluding personnel protection and ammunition categories. Digital systems and uncrewed/autonomous systems show the steepest growth since 2021, evidence that the post-secondary base already holds defence-relevant capabilities. These DIS areas cover drones, AI, quantum computing, communications, and secure cloud. The increase in cybersecurity threats and intercontinental missile systems requires new capabilities in aerial and underwater sensors along with drones and other aerial defence to protect the homeland. The federal government’s \$900 million commitment to establish a Drone Innovation Hub at the NRC aligns with military capability gaps and broader tri-council investment trends.

A thriving research ecosystem requires connecting researchers with organizations and industry that will strengthen sovereign defence capabilities. Mitacs recently launched a defence accelerator program to fund top graduate and postdoctoral research programs aimed at supporting R&D in the relevant sovereign capability streams. Improving access to funding and match-making in research is only one step. The capacity of firms needs to expand to absorb and enable research activity and yield broader results.

Source: BDL, U15 Canada analysis based on NSERC / CIHR / SSHRC data, Canada’s Defence Industrial Strategy, Mitacs
Notes: These are estimates based on data analysis of official records. 2024 is projected. Personnel protection and Ammunition were excluded from the innovation analysis of DIS capabilities due to LLM result limitations and accuracy.

STEM skilled workers are needed to support the defence sector

2035 scenario: Defence engineers, scientists & researchers



Canada has a highly educated population, but it falls below the OECD average in graduate degree attainment, giving businesses access to a much smaller talent pool of R&D researchers than our global peers. STEM talent is central to the defence brain capital base: engineers, scientists, researchers and technicians account for roughly one-third of the 38,000 workers in Canada’s core defence industry. Building a stronger STEM education pipeline will be critical to supporting the growth of this emerging sector. Labour is already the top challenge facing defence businesses, and more stable federal demand, supported by Tri-Council research partnerships, could help close the gap.

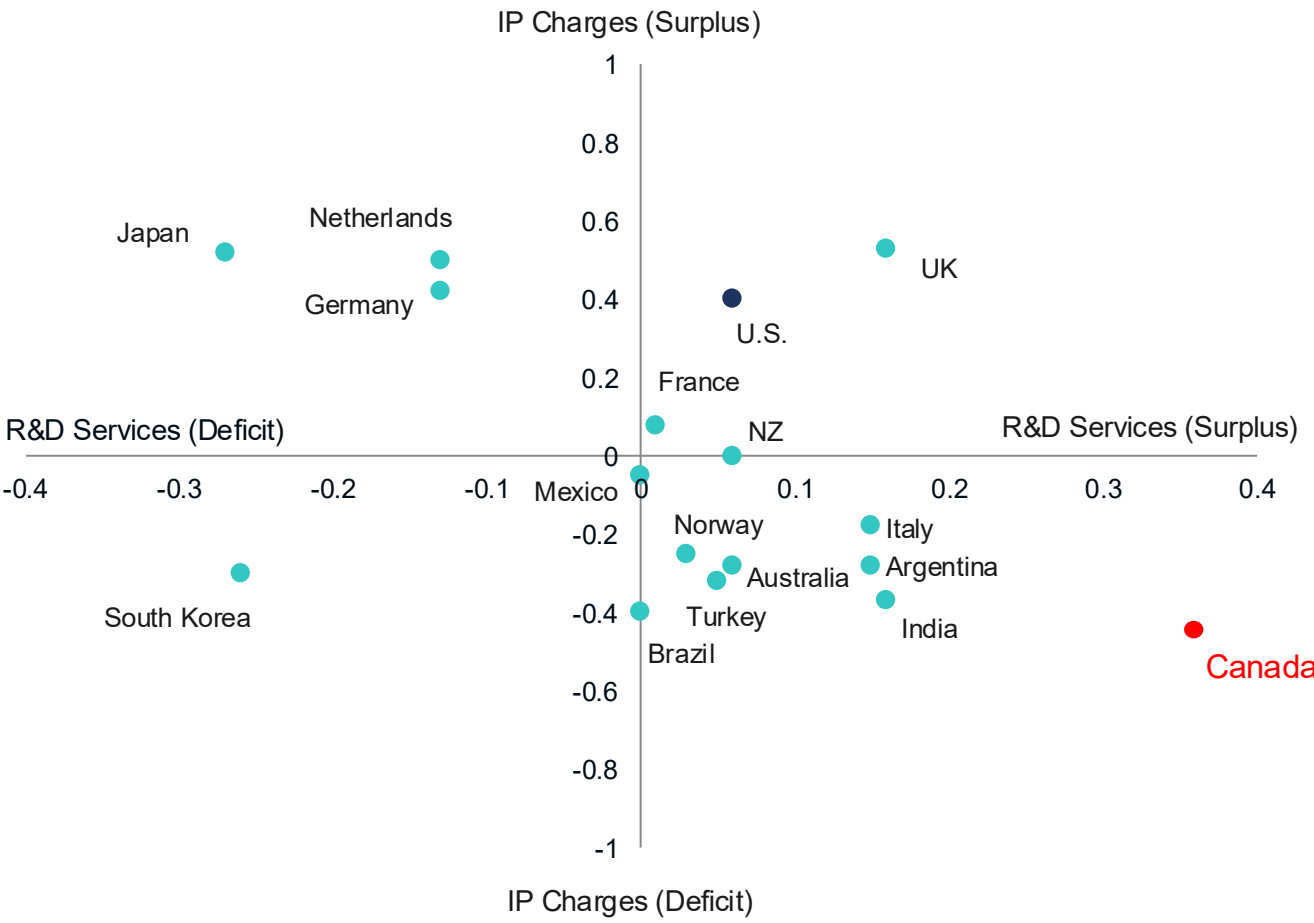
Reaching the 2035 scenario, based on 2.5× industry growth, would require roughly 12,000 net new hires, most with graduate credentials. As defence technologies evolve rapidly, demand for these professions will continue to rise. U15 Canada analysis shows that between 2014 and 2023 research contributing to uncrewed and autonomous systems, space, and digital systems had the highest number of researchers among DIS areas. Building this talent pipeline through a Canada Defence Skills Agenda will be essential, alongside efforts to expand the skilled trades workforce needed for a broader industrial build-out.

Total defence workforce: 38K



The leaky valve: Selling the research, renting back the IP

Trade Balance in R&D Services and Intellectual Property (IP) Income
% of GDP, 2024

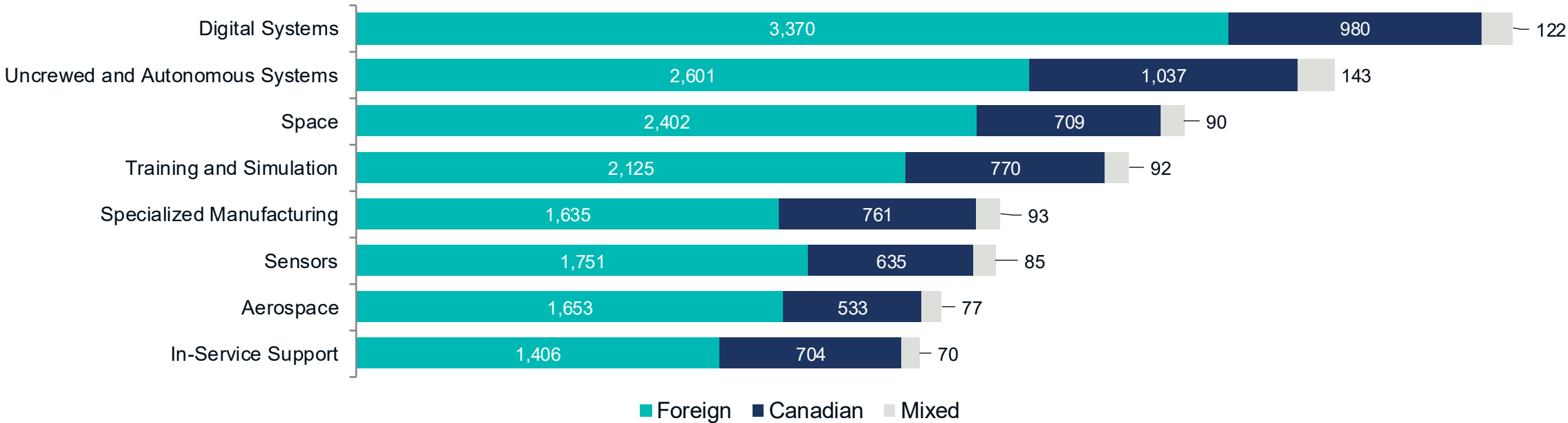


Canada sits in the bottom-right, among the few advanced economies that are a net exporter of R&D services yet a net payer for IP. In practice, Canadian talent and institutions perform research on contract for foreign principals, who take ownership of the resulting IP and book its returns abroad; Canada then pays to license back technologies its own researchers helped create. The United States and United Kingdom benefit from positive net trade in R&D and collect net surplus IP rents, while several economies (Japan, Germany, Netherlands) buy research performed elsewhere precisely because they retain ownership and commercialize the output at home.

The brain drain is not in the research quality but with lack of ownership and commercialization. Because long-run productivity and income gains accrue to whoever owns and monetizes the IP rather than whoever performs the science, an R&D effort structured this way simply enlarges the flow of value captured offshore as it grows. For a defence build-out premised on sovereign capability the implication is Canada strengthening domestic IP ownership incentives to commercialize here.

Foreign applicants dominate patents in every capability area

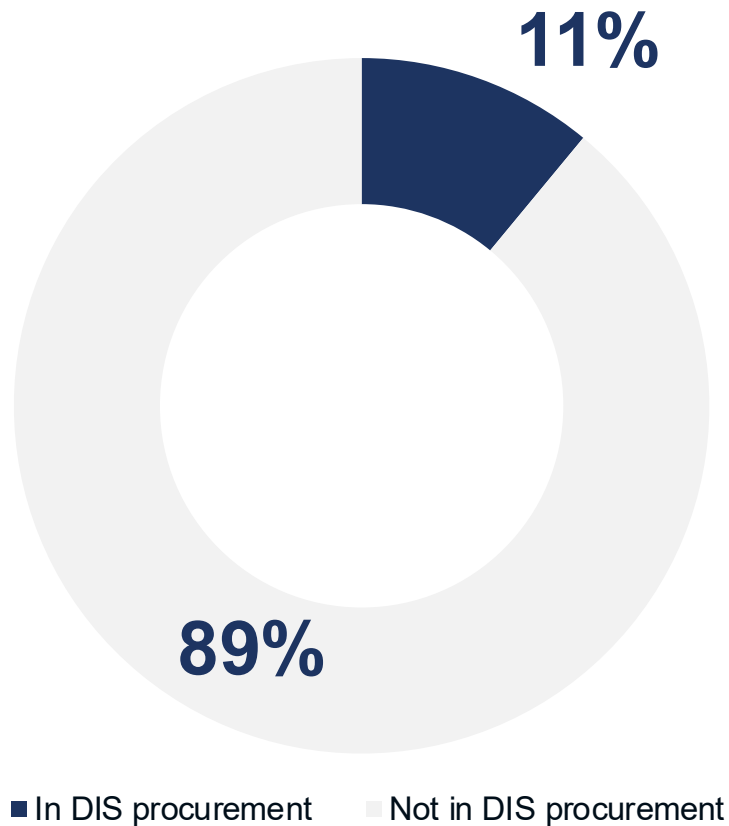
Patent families in DIS capability areas, by applicant country of control, 2014–2023



U15 Canada analysis identified worldwide patent families with a Canadian inventor or applicant in eight DIS areas filed between 2014 and 2023. Among the patent families with Canadian-involvement, a foreign-controlled firm was an applicant about 75% of the time. Overall, the largest number of patent families were in digital systems, uncrewed and autonomous systems and space. The DIS categories where identified patent families had the highest share of Canadian controlled applicants are in-service support, specialized manufacturing, and uncrewed and autonomous.

The missing link: research that never reaches procurement

Canadian firms with DIS-relevant innovation that hold federal procurement contracts



U15 Canada identified 802 likely Canadian firms with at least two records of DIS-related innovation, including publications, patents, Tri-Council research partnerships or support through IRAP since 2015. Only 88 of those firms, or 11%, had a federal contract award since 2015 in any DIS area. Firms don't always directly participate in defence procurement, especially SMEs, who sell to a prime contractor with the direct relationship with the federal government.

Procurement is a critical policy lever. Giving innovative Canadian firms a fair opportunity to compete for and win government contracts can encourage greater business investment in research and development, help companies scale and build a stronger base of Canadian firms capable of exporting to allied markets. The Canadian Armed Forces knows which capabilities it requires, where the DIS sets out defence industrial areas. Policy initiatives that direct the CAF to contract companies to conduct applied research, develop prototypes and test technologies will support this link and ensure that firms are not merely supplying finished equipment.



Source: U15 Canada analysis (PATSTAT, OpenAlex, NSERC, CIHR, SSHRC, IRAP, CanadaBuys).
Note: Personnel protection and Ammunition were excluded from the innovation analysis of DIS capabilities due to LLM result limitations and accuracy.
Firms counted as likely Canadian with two or more innovation records (patents, CIHR, NSERC, SSHRC, IRAP, publications) in a DIS area; procurement based on one or more related CanadaBuys records.

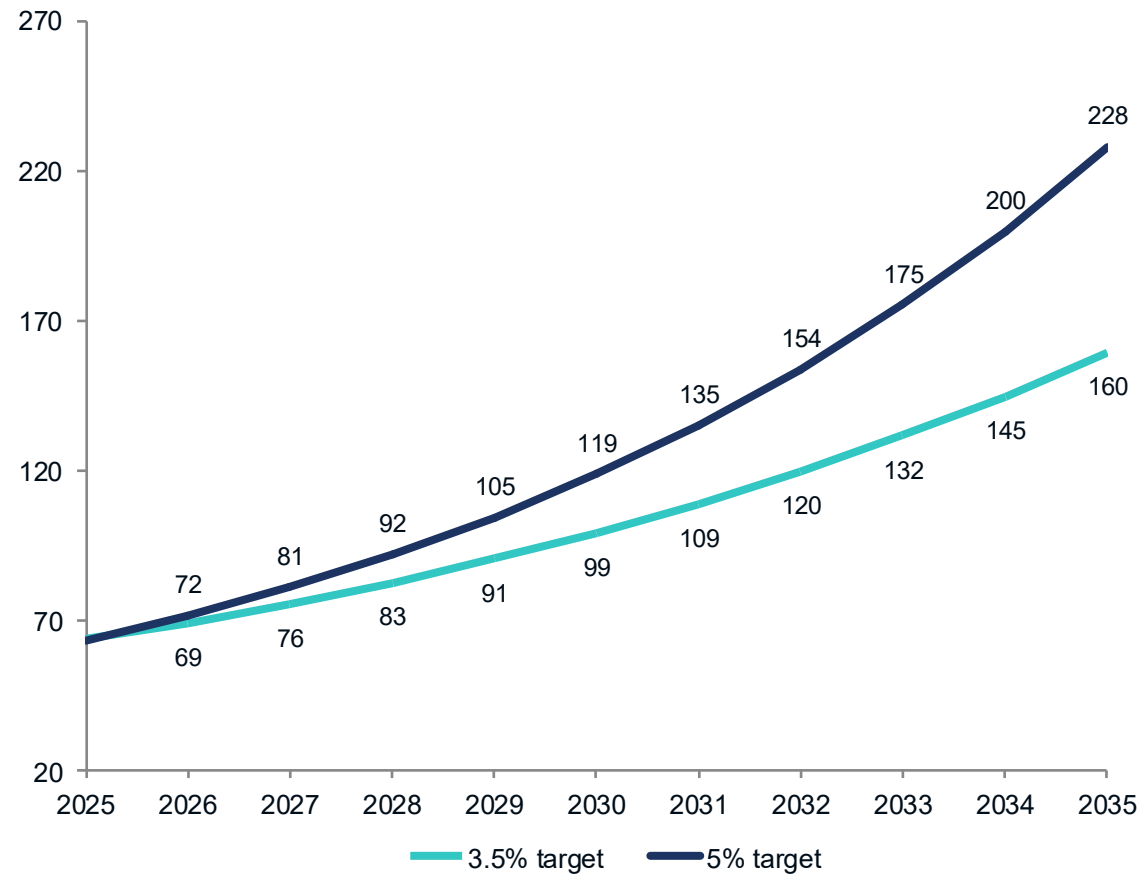
Chapter 4

The Path Forward

Choosing the path that builds Canadian capability and what businesses can do now.

Defence opportunity to exceed \$1T, more than doubling annual spend by 2035

Illustrative annual defence spending under NATO targets
Billions of Canadian dollars



\$1T +

Cumulative spending required to meet new defence targets by 2035.

2.5 – 3.6x

Range of growth required to reach the new NATO targets by 2035.

Under the new NATO defence spending targets of core (3.5%) with a supplemental security top-up (1.5%), Canada's defence build-up will be one of the largest opportunities for business to support Canada's defence capabilities, with over \$1 trillion in new spending over the next decade.

Core defence spending in Canada is forecasted to grow from \$64B (2025) to \$160B (2035). Meeting the 3.5% core defence target implies a 2.5x expansion in current defence spending. The additional 1.5% security spending would mean that should Canada commit to 5% of GDP target, defence spending is expected to reach \$228 billion in 2035.

Defence spending's share of federal government expenditures would increase from about 11% to nearly 30% in 2035 based on current growth in federal government expenses. This will increasingly put fiscal pressure on government finances, potentially leading to trade-offs between defence and other program spending.

Canada's Defence Industrial Strategy provides a framework to execute

Launched in 2026, the Defence Industrial Strategy (DIS) reframes defence as an engine of sovereign industrial capability. Anchored on a Build–Partner–Buy approach that prioritizes work for Canadian firms, its headline goals are achieving a 70% Canadian-firm revenue share, an 85% boost in defence R&D, increase defence sector revenue by 240%, increase defence exports by 50%, and create 125,000 jobs by 2035.

Five pillars that should guide how the strategy is delivered



The near-term opportunity for Canadian businesses

Under a capability-led path, speed and proven equipment are prioritized, with many of the initial platform equipment contracts flowing to proven prime suppliers. Near-term Canadian opportunities are therefore narrower and concentrated in the work that must be delivered, integrated and sustained here.

1

Sustainment, maintenance and overhaul



The clearest multi-year opportunity: maintenance, repair, overhaul, spares and in-service support as new major equipment enters service.

2

Construction & engineering



Place-based demand for bases, shipyards, airfields, ports, ranges and energy resilience—including across the North and Arctic.

3

Software, AI & autonomy



Canadian firms can integrate mission software, sensors, secure communications and autonomous systems into defence platforms, building on areas of strong domestic IP.

4

Prime supply chains



For many SMEs, the practical route to scale is supplying high-value components, testing, systems integration and specialized engineering to major defence contractors.

Conclusion

Canada is entering its new defence era. The international security environment has changed, NATO expectations have risen, and the Canadian Armed Forces are positioned to acquire modern equipment, infrastructure and technology. As Canada substantially increases defence spending over the next decade, the central question is whether that investment will primarily purchase capability from abroad or also build the domestic capacity needed to sustain, adapt and improve it. Because Canada cannot produce every defence capability at home, a capability-led scenario is the most likely path. This approach would address the CAF's short- and medium-term priorities at the scale and pace required, drawing on partnerships with allied countries and global defence firms to meet immediate needs.

That does not make the industrial objective any less important. Canada should build domestically where control, security of supply and long-term access matter most; partner with allies where interoperability and scale are essential; and buy abroad when speed or capability gaps leave no practical alternative. Even when major platforms come from foreign suppliers, procurement can still anchor Canadian activity in sustainment, components, software, systems integration and intellectual property, while creating new export opportunities. Indeed, some of the strongest near-term opportunities lie beyond the platforms themselves. New fleets and systems will require decades of maintenance, repair, overhaul and in-service support. Arctic and northern defence will require bases, ports, airfields, construction, engineering and resilient energy systems. Canada also has credible strengths in software, artificial intelligence, autonomy, sensors, space, simulation and specialized manufacturing. These are areas in which firms outside the traditional defence sector can participate—and in which Canadian capabilities can serve both domestic and allied markets.





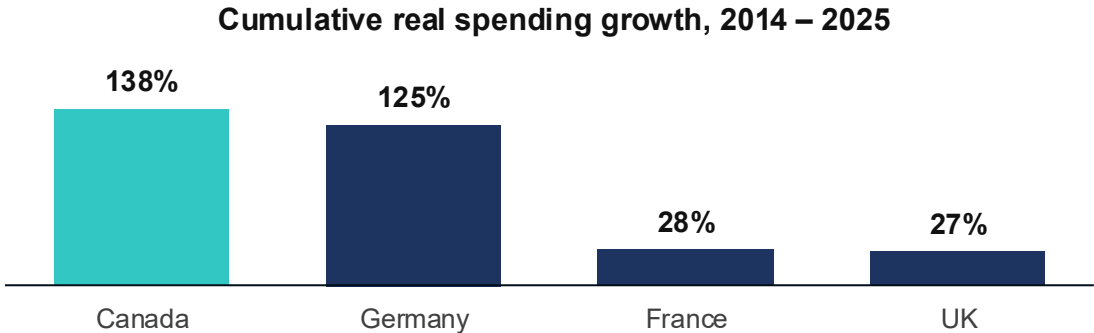
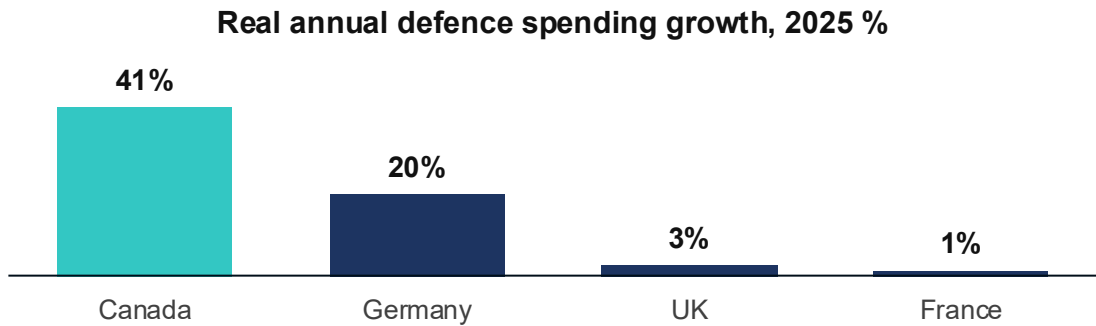
Turning these opportunities into a durable industrial base will require a more reliable connection between demand, innovation and procurement. The federal government must communicate long-term capability requirements, accelerate security clearances, simplify procurement, reward meaningful Canadian content and SME participation, and give firms the confidence to invest in facilities, workers and technology. Research funding must also lead more consistently to testing, demonstration and contracts, with intellectual property, integration authority and export rights structured to create long-term value in Canada. Businesses, in turn, have decisions to make now. Firms can align their products with defence priorities, obtain the necessary clearances, build relationships with prime contractors and research institutions, raise capital, and prepare to compete for procurement opportunities. For many SMEs, joining a prime contractor's supply chain will be the most practical first step. For others, the opportunity will lie in developing exportable technologies or delivering the services and infrastructure that must remain in Canada.

The Defence Industrial Strategy sets an ambitious direction. Its success will ultimately be measured less by how much Canada spends than by what the country can do when the spending cycle reaches peak momentum around 2035. If that investment produces stronger firms, skilled workers, secure supply chains, Canadian-controlled technology and globally competitive exports, it will strengthen both national security and the broader economy. If it does not, Canada will have passed up a generational opportunity to reindustrialize the Canadian economy.

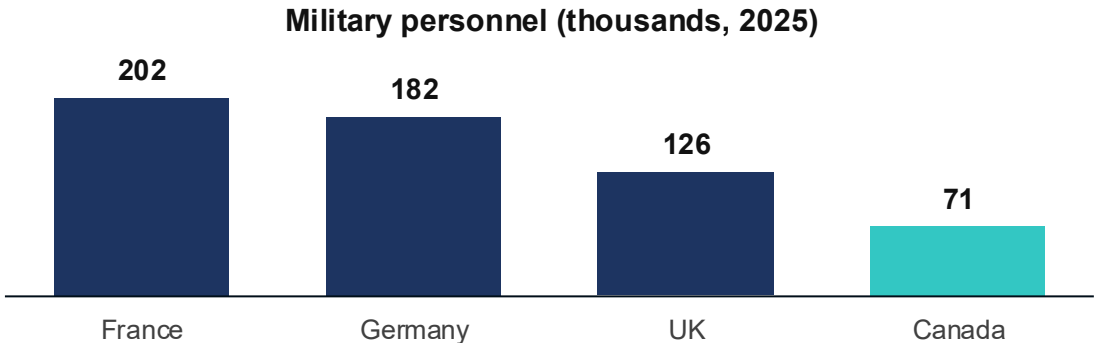
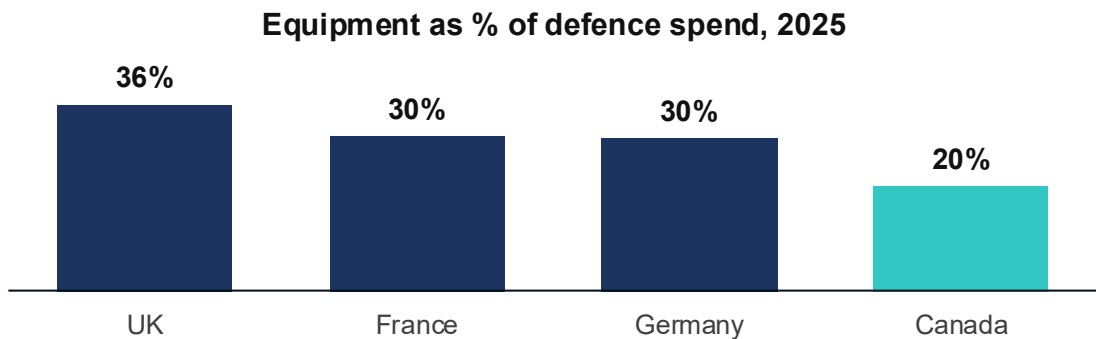
Appendix

Canada outpaces its peers on spending momentum, but lags on equipment share and force size

Where Canada leads...



Where Canada lags...



Source: NATO Secretary General's Annual Report 2025, Annex III Statistical Tables.
2025 NATO spending data is an estimate.

Acknowledgments

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