

## Building a Stronger Dominion:

### A Civic and Industrial Mission for a Resilient Canada

In the United States, the venture capital community has rallied around the idea of “American Dynamism,” which champions tech startups tackling pressing national challenges. This philosophy, promoted by leaders at Andreessen Horowitz, is about builders revitalizing a nation through innovation in defense, infrastructure, education, and more.

Canada, too, faces a pivotal moment. Geopolitical tensions are rising, our allies are investing heavily in defense technology, and the global economy is shifting amidst tariffs, a focus on domestic industries, and energy independence.

It's been clearly recognized recently that it's time for a Canadian answer – a mission to build and support Canada's defense-tech ecosystem in our own way.

This article outlines a personal thesis and mission focused on two pillars: **Talent** and **Energy**. These are the dual engines that can drive a more secure and prosperous Canadian future. By mobilizing our **people** – especially entrepreneurs and experts – and our **power** – both natural resources and technological energy – Canada can chart a path forward that is ambitious yet realistic, inspiring yet grounded in common sense.

This isn't about blind jingoism or copying American ideas wholesale. Rather, it's about capturing a Canadian essence: leveraging our strengths (like world-class education, a diverse society, a rich resource base) while addressing our weaknesses (like brain drain and risk-averse culture). Much like Marc Andreessen's recent “Techno-Optimist” stance that celebrates technology and growth, this vision for Canada is optimistic about our ability to build. It's rooted in pragmatism – acknowledging current realities – but also aspirational in aiming for a more dynamic Canada. In short, think of it as a “Building a Better Dominion” mission for Canadian renewal, uniting the nation's talent and energy in service of national resilience.

I'll focus on what I've chosen as the two core pillars; Talent and Energy, explaining why each is critical and how focusing on them can catalyze a renaissance in Canada's defense tech ecosystem. I've taken some lessons from the concept of “American Dynamism” while proposing uniquely Canadian approach. The goal is to present a starting thesis for a future where Canada is not just keeping up with allies in defense-tech and critical industries but actually leading in select domains. Consider this a personal ‘thinking out loud’ for action. I'm not an expert by any means, but it's an area I'm building more focus on personally.

## Pillar 1: Talent – Reclaiming and Cultivating Canada’s Innovators

**Stopping the Brain Drain:** Canada has no shortage of brilliant minds – our universities and tech hubs consistently produce top talent. However, we’ve long suffered a brain drain of tech and engineering professionals to the United States, especially Silicon Valley. Many of my fellow Canadians have been drawn south by opportunities and salaries that can be 1.5x to 2x higher than those at home. In fact, a stronger domestic defense-tech sector would directly help prevent this talent migration by offering ambitious engineers and scientists compelling opportunities here in Canada. We need to re-capture Canadian talent abroad by creating an ecosystem that rivals Silicon Valley – not necessarily in size, but in offering meaningful, mission-driven work and competitive rewards. This could mean incentivizing Canadian expats to return (through targeted programs or simply through the pull of exciting projects) and better integrating with our diaspora networks. When Canadian innovators see they can tackle world-class challenges (like AI, cyber defense, space, or advanced hardware) from Toronto instead of San Francisco, they’ll be more inclined to bring their skills home.

**Empowering Homegrown Founders in Defense and Hard Tech:** Part of the talent mission is supporting local leaders who choose the tougher path – those building startups in defense, aerospace, advanced hardware, manufacturing, and other “deep tech” areas.

Traditionally, Canada’s startup scene (and the venture capital that fuels it) has skewed toward safer bets like enterprise software or fintech. By contrast, defense and hardware startups face higher hurdles: longer R&D cycles, complex procurement processes, and often a cultural stigma against military-related work.

The result is that many Canadian dual-use tech startups felt they had to pivot to U.S. markets or strictly commercial applications due to lack of local support. Changing this means creating a culture and infrastructure that celebrates mission-driven tech entrepreneurs.

We should expand specialized accelerators and incubators for defense tech, akin to the U.S. AFWERX or the UK’s DASA, so Canadian founders can get early grant funding, mentorship, and help navigating military procurement.

Encouragingly, there are signs of momentum: Canada has an “incredible pipeline” of deep-tech startups tackling defense-relevant problems, from nanotech camouflage to secure communications. In fact, Canadian startups made more applications to NATO’s new innovation accelerator (DIANA) than those of any other country in its first cohort – a strong signal that the talent and interest are here, if we can only hold onto them.

The government and private sector must team up to ensure these innovators aren’t told their tech is “too early” or left to slog through years-long procurement

cycles alone. Streamlining defense procurement and being an early customer to domestic tech (just as the U.S. military famously helped Silicon Valley in earlier eras) will give our brightest founders a reason to build in Canada first.

**Building “Dual Fluency” Talent:** A phrase I’ve from defense circles is “dual-fluency talent.” This refers to people who are fluent in both the language of technology and the language of defense (or government).

These are the bridge-builders who can translate cutting-edge tech solutions into practical tools for soldiers, or conversely articulate military needs to the startup and academic communities.

Right now, Canada needs more of these hybrid professionals – people who might have done a stint in the Forces or DND and also worked in a startup or studied AI/engineering. They are invaluable for solving the “last mile” problem of innovation adoption in government.

As the head of the U.S. Defense Innovation Unit observed, the “secret sauce is people” – specifically those who speak both “military-ese and technology-ese” and can bring creative teams together to solve real problems quickly. To cultivate dual-fluent talent, we could expand exchange programs (e.g. tech fellows embedded in DND, or military officers interning at tech companies), and create education pathways that combine engineering with public policy or security studies.

**Dual fluency** also means fostering respect and communication between uniformed personnel and civilian innovators. In practice, a dual-fluent Canadian could be someone like a reservist with a computer science background working on AI at a defense startup, or an aerospace engineer who regularly consults with the Air Force. As this community grows, they will form the connective tissue between our tech sector and national security establishment – helping ensure the Canadian Armed Forces can actually adopt homegrown innovations effectively, and that innovators build with national needs in mind.

**Leveraging Ontario’s Automotive and Manufacturing Talent:** Southern Ontario has been an industrial heartland for generations – home to automotive assembly lines, skilled trades, and a vast network of suppliers. This manufacturing base is a tremendous asset as we look to evolve into new industries like defense tech, electric vehicles (EVs), and advanced hardware. Rather than a hard pivot away from what we’ve done well, it’s about evolution: retraining and retooling to meet future demands.

We’re already seeing promising examples. In the automotive realm, Ontario has attracted major EV and battery investments, signaling an evolution of the auto workforce toward high-tech manufacturing. For instance, Volkswagen recently chose St. Thomas, Ontario for its first overseas EV battery “gigafactory,” a C\$20

billion project (jointly with government) that will create some 3,000 direct jobs and make Ontario a key node in the EV supply chain. This kind of project underscores how our existing talent in manufacturing and engineering can be redeployed towards strategic industries.

Now imagine applying a similar approach to defense manufacturing: Ontario's factories and know-how could be channeled into producing next-generation equipment – whether electric military vehicles, components for satellites and drones, or even modular housing and logistics systems for the Forces.

In a modern context, we can support companies that may venture into defense contracts or encourage new startups that marry automotive tech with defense needs. The key is to signal to both industry and workers that “building for Canada” is valued and viable.

Government can facilitate this by aligning procurement and industrial benefits policies to reward local production. If workers and firms see that investing effort in defense/critical industries has a stable payoff (rather than sporadic one-off deals), they'll be more willing to make the leap. Ultimately, we want the mechanical engineer in Windsor or Oshawa to consider a career designing the next armored EV or micro-reactor, not just the next sedan. By fusing our rich manufacturing heritage with the latest tech, Canada can become a leader in producing the hardware that underpins both economic and national security.

**Finding the Canadian “Palmer Luckey”:** This could be a controversial one. Palmer Luckey, the young founder of Oculus VR and later Anduril Industries, has become something of a poster child in the U.S. for new-wave defense entrepreneurship – a civilian whiz-kid who applied Silicon Valley innovation to defense and built a multi-billion-dollar company (Anduril) providing advanced drones and AI to the military.

Canada should aspire to cultivate our own visionary in the defense tech space – not to idolize one individual, but to inspire a generation. What would a “Canadian Palmer Luckey” look like? Perhaps a University of Toronto or Waterloo drop-out who pioneers an AI software for Arctic surveillance, or a young engineer in Montreal who invents a new surveillance drone or quantum encryption device and wins major contracts.

The point is talent thrives on success stories. When one bold founder shows it's possible to build a cutting-edge defense tech company on Canadian soil, it will encourage dozens more. To accelerate this, we should strengthen the funding ecosystem for defense startups. Right now, Canada lacks dedicated defense venture funds or a governmental In-Q-Tel equivalent. This often forces our brightest defense-oriented founders to relocate or seek U.S. funding.

It's also about storytelling: celebrating Canadian innovators in tough tech fields. For example, few Canadians realize companies like Reaction Dynamics (a Montreal-based rocket startup) or MDA (builder of the Canadarm and satellite systems) are doing world-class work. Highlighting these could inspire the next young techie to dream big in defense or aerospace.

My mission will be to seek out and enable such talent – to find that brilliant hacker or engineer in Canada with a crazy idea that just might become our Anduril or SpaceX equivalent. And when I find them, I want to help ensure they have the support to build here rather than feeling they must go to California or elsewhere.

In summary, the Talent pillar is about people: bringing back Canadians who left, empowering those who stayed, bridging gaps between sectors, and inspiring the next generation. If we succeed, Canada's defense-tech ecosystem will no longer be a minor league feeding talent to our neighbors – it will be a self-sustaining engine where brain drain turns into brain circulation, and where serving the national interest through innovation is a prestigious, exciting career path.

## **Pillar 2: Energy – Powering Canada's Future through Resources and Innovation**

**Energy Security as National Security:** In an uncertain world, energy is life. It underpins our economy, our daily comfort, and our military readiness. Technological optimists note that energy is the “foundational engine of our civilization,” enabling higher quality of life and growth. For Canada, a country blessed with abundant energy resources, this is both a strategic advantage and a responsibility. My mission's second pillar, **Energy**, refers broadly to harnessing Canada's resources and engineering prowess to secure a prosperous, sustainable future. This includes traditional natural resources (critical minerals, metals, uranium, etc.) and advanced energy technologies (nuclear power, renewables, storage). By focusing on energy, Canada can achieve **dual goals**: economic strength (through resource development and technology exports) and strategic autonomy (reducing reliance on foreign supply chains or technologies).

**Critical Minerals – Leveraging Canada's Resource Wealth:** In the age of electrification and high-tech defense, critical minerals are the new oil. These are the lithium, cobalt, nickel, graphite, rare earths, and other materials needed for EV batteries, semiconductors, fighter jet alloys, missile guidance systems – virtually all modern tech. Canada is in an enviable position here. We are **the** only nation in the Western Hemisphere with all the critical minerals required to manufacture EV batteries. We're already a top-3 supplier to the U.S. of many important minerals like tellurium, copper, indium, and more. This means Canada could become a supplier-of-choice for the free world's energy transition and defense production.

Recent analysis even suggests Canada has the potential to build the world's #1 battery supply chain, overtaking China, by capitalizing on our mineral endowment and favorable trade status. To seize this opportunity, we must aggressively implement the national Critical Minerals Strategy (backed by federal investments).

This includes fast-tracking mining projects (with environmental responsibility), building up refining capacity at home, and incentivizing downstream manufacturing (like battery plants, EV factories) so that we capture the full value chain. The Volkswagen battery plant in Ontario (mentioned earlier) is a direct result of such a strategy – combining minerals, clean energy, and manufacturing into one ecosystem. Another example: a Canadian graphite company signed a deal to supply anode material to GM's EV batteries, showing how our resources can directly feed high-tech industries.

Beyond economic gains, there's a security imperative: critical minerals are vital for defense technologies (from aircraft to night-vision goggles), yet right now much of the world relies on China for these inputs. By developing our own mines and processing plants, Canada can supply not just ourselves but also our allies, reducing dependence on geopolitical rivals. This is an area where our natural wealth aligns with the national interest.

**The Nuclear Edge – SMRs and Canadian Nuclear Leadership:** Clean, reliable energy is another cornerstone of the future – and here Canada possesses a unique edge: **nuclear expertise**. Ontario in particular has decades of experience operating nuclear power plants (the CANDU reactors), to the point that ~60% of Ontario's electricity comes from nuclear. Now, Canada is poised to lead the next wave of nuclear innovation through Small Modular Reactors (SMRs). These are compact, advanced nuclear reactors that promise safer, more flexible power generation, potentially at lower cost. Ontario is constructing what will be the first grid-scale SMR in the G7 – the Darlington SMR project, slated to connect 300 MW to the grid by 2030. This bold move puts us ahead of countries like the U.S., U.K., and Germany in deploying next-gen nuclear. The plan is to build four SMRs at the Darlington site, which collectively will add 1,200 MW of capacity – enough to power ~1.2 million homes with carbon-free energy. The implications for talent and industry are huge.

Building these reactors will create an estimated 18,000 jobs during construction and add \$35 billion to Ontario's GDP over their lifespan. It's sparking a revival in nuclear engineering skills, supply chains for reactor components, and R&D in areas like reactor safety, nuclear fuel, and waste management.

I see supporting nuclear energy – especially SMRs – as a national priority. It hits multiple goals: decarbonizing our grid (thus enabling all our high-tech industries to be powered cleanly), ensuring energy independence (nuclear plants run on uranium, which Canada has in abundance – we're the world's second-largest

uranium producer), and creating a high-skilled industrial base that overlaps with defense (nuclear know-how is strategic, and SMRs could even power remote military bases or Arctic communities in the future). Moreover, success with SMRs domestically opens up an export opportunity: many countries will be watching to see if Canada can pull this off.

If we do, Canadian firms can export SMR technology or consulting expertise worldwide, much like we did with CANDU reactors in the past. The federal government's recent SMR Action Plan and investments (nearly \$1 billion via the Canada Infrastructure Bank for Darlington, funding for SMR research in Saskatchewan, etc.) show there is high-level commitment.

Embracing nuclear is part of a common-sense mix for Canada's energy: we have vast land for renewables like wind/solar, yes, but nuclear gives steady, reliable power and could make us a net exporter of clean electricity (imagine Canada powering American cities with SMR-generated energy in a couple of decades). It's both visionary and practical – very much in line with the balanced optimism I think Canada needs.

**From Resources to Resilience – A Holistic Energy Strategy:** Energy in this context isn't only about electricity or fuel; it's also about the broader resource base that underpins an industrial economy. That means we must think about energy security in holistic terms. For example, Canada's prowess in traditional oil and gas shouldn't be ignored – while we transition to clean energy, our petroleum sector can be a source of capital and innovation (like investing profits into carbon capture or hydrogen). Our hydroelectric capacity (especially in Quebec, Manitoba, B.C.) is a competitive advantage for attracting energy-intensive industries (like data centers, aluminum smelters, or battery factories) with clean power.

The key is to treat energy as strategic. A country with plentiful, affordable, and clean energy is a country that can power its industries, keep its citizens prosperous, and also support its military in a crisis. We see in global conflicts that energy supply can become a weapon or a vulnerability – Europe learned this with natural gas, for instance.

Canada should ensure we're on the winning side of that equation: never experiencing an energy shortage that we can't solve internally. Part of this is hardening our infrastructure (grids, pipelines) against cyber threats or sabotage; part is maintaining strategic reserves and domestic production capability. The great news is that investing in energy innovation creates a virtuous cycle: it yields new technologies, jobs, and often exportable products. For example, if we develop world-leading expertise in battery recycling (to complement mining), that's a service we can export as the world's EV fleet grows. If we innovate in SMR manufacturing, we can build reactors for other nations eventually.

Another component is critical infrastructure and energy for defense – think of it as “operational energy”. The military will increasingly need portable and resilient power sources (for forward operating bases, disaster response, Arctic stations). This could be an area for Canadian innovation, perhaps adapting our expertise in remote mining power or our nascent SMR tech for deployable reactors. Ontario Tech University and others have looked into micro-SMRs that could, say, fit on a truck. Ensuring our forces have reliable energy in any scenario is part of overall readiness.

Ultimately, the Energy pillar of this mission aligns with the Talent pillar in a reinforcing loop: Developing cutting-edge energy projects (like SMRs or critical mineral processing) will itself attract talent – engineers, project managers, scientists – and give Canada a reputation as a place that builds big things. Conversely, having strong human talent in-country will spur more innovation in energy and resource development.

### From Manifesto to Mission: Bringing It All Together

So how do Talent and Energy intersect to create a new **Canadian Dynamism**? Think of Talent and Energy as the two key ingredients for national dynamism: **people and power**. A nation that harnesses the full potential of its people, and supplies them with abundant energy and resources, is one that can thrive and defend itself in the 21st century. The United States’ “dynamism” playbook recognized that technology and national interest must align. Our Canadian version must recognize that our talent needs opportunities at home and our natural strengths (like resources and energy know-how) must be leveraged in new ways.

Practically, I envision advocating and working on initiatives such as:

- **A “Reverse Brain Drain” Program:** collaborating with tech hubs in Toronto/Waterloo/Vancouver to identify Canadians abroad (in Silicon Valley, New York, London, etc.) who are building cutting-edge tech, and enticing them back with roles in new Canadian ventures, research chairs at universities, or startup funding for defense and critical industries. This might involve government support or private-public partnerships to co-fund salaries or company relocation costs. Every talented Canadian who comes home to build a company or lead a lab here will, in turn, mentor dozens of others and strengthen the ecosystem.
- **Defense Innovation Network in Canada:** building on things like the **NATO DIANA** involvement, push for a Canadian **Defense Technology Accelerator** (as recommended by experts). Imagine an incubator in Toronto that every year helps launch 10 dual-use startups – providing a bit of funding, a lot of mentorship (including from retired military officers and industry veterans), and direct fast-track access to DND for testing and contracts. It could be coupled with a government-run venture fund that



takes equity stakes in these companies (similar to how In-Q-Tel does in the U.S.). Over 5-10 years, this could seed dozens of companies, one or two of which might become huge successes, and nearly all of which would imbue new talent with entrepreneurial and defense know-how.

- **Cultural Shift and Narrative:** Encouraging a narrative that working on defense or hard tech is patriotic and future-oriented, not something to shy away from. We need to shed the old Canadian hesitance that views bold ventures as somehow too risky or “flashy.” Building physical things – whether it’s fighter jets or nuclear plants or AI software – is how we secure our standard of living and sovereignty.
- **Policy Alignment:** Pushing for policies that align with the talent-energy mission. For example, simplifying procurement so Canadian SMEs can actually sell to our government in less than geological timeframes (the current system’s slowness has been called “monumental” in its problems). Or, ensuring that **Industrial and Technological Benefits (ITB)** from major defense purchases (the offsets that foreign defense contractors owe us) actually funnel money into Canadian startups and manufacturing, not just a token project. There are billions in ITB obligations barely reaching startups now – that must change. On energy, it means regulatory certainty for mining and nuclear projects; if a company wants to open a lithium mine or build a reactor module factory, they should face a clear, efficient approval process – protecting the environment and indigenous consultation, of course, but without unpredictable delays.
- **Local Focus, National Impact:** While this mission is national, I’ll start where I stand: **Toronto and Ontario**. Toronto is Canada’s business and industrial centre and a tech powerhouse. It can become a nexus for defense-tech too. Meanwhile, Ontario’s manufacturing base is pivotal. It’s important this isn’t just a Bay Street or Ottawa conversation; people in Windsor, London, and Guelph need to see themselves in this future. Ontario has always been Canada’s economic engine; if we can pilot new approaches here (like the first SMR, or big battery plants), the model can be replicated across the country.

In essence, my personal mission is to be a **connector and champion** – connecting talent to opportunities in defense/energy, connecting capital to promising projects, and championing the narrative that Canada can and must build big, important things. It’s about ensuring that the next generation of Canadians can work on breakthrough technologies for Canada without feeling they have to move away or settle for less impactful jobs. It’s also about economic growth: by investing in these areas, we foresee not stagnation but vitality. More high-paying jobs, more intellectual property developed here, more strategic industries anchored on our soil.

To conclude, I’ll borrow a sentiment from the American context and give it a Canadian twist: we have insurmountable problems to solve, which means we need to become insurmountably inventive. From bolstering our Arctic security to

ensuring a stable energy grid to staying ahead in AI capabilities, the challenges are real.

I truly believe we can usher in a new era of Canadian dynamism – one where Canada punches above its weight in securing a better future for itself and its allies. The Dominion can be strong and free only if it's also dynamic, innovative, and self-reliant. Let's build that together.