

CANADA'S INDUSTRIALIZED CONSTRUCTION ADVANTAGE

Michelle German | Derek Eaton

BUILDING CANADA'S INDUSTRIALIZED CONSTRUCTION ADVANTAGE

Authors

Michelle German
Senior Advisor, StrategyCorp

Derek Eaton, PhD
Director of Future Economy,
The Transition Accelerator

About the CIP

Canada's nation-building mission hinges on ambitious industrial strategies for defence, housing, automotive, and critical minerals. Building competitive industries is difficult enough, but these strategies also must achieve multiple goals at once, diversifying trade, securing geopolitical autonomy, achieving climate competitiveness, and producing tangible economic benefits for Canadians.

To deliver, Canada needs integrated analysis informed by high-quality information. The Centre for Industrial Policy will work with the country's best analytical talent to understand what's working and what's missing in Canada's economic strategy. It will connect systems-level strategy to innovative indicators that track progress towards tractable goals.

The CIP exists to bring the bigger picture into focus, helping create a more ambitious vision for Canada's economic future, and supporting implementation by translating that vision into smart policy design.

An initiative of the Transition Accelerator, the CIP will be built on collaborations with industry, civil society, government, Indigenous communities and organizations, and other experts.

About the Transition Accelerator

The energy transition is disrupting global power. The Transition Accelerator is here to help Canada win — economically and geopolitically.

Working with 300+ partners in industry, government, civil society, and beyond, we help build out pathways to a prosperous low-carbon economy and avoid costly dead-ends along the way. By connecting systems-level thinking with real-world analysis, we're enabling a more affordable, competitive, and resilient future for all Canadians.

For more information or interview opportunities please contact
communications@transitionaccelerator.ca

CONTENTS

Overview.....	iv
1. Industrialized Construction as a Strategic Manufacturing Sector for Canada	1
Industrial Policy Context: Productivity, Manufacturing Capacity, and Economic Competitiveness	1
Industrialized Construction as Manufacturing	3
Structural Barriers to Productivity and Industrial Scale	5
2. Canada’s Position in the Global Ecosystem.....	7
Defining the Global Technology Frontier	7
Lessons from International Industrialized Construction Leaders	8
Canada’s Comparative Advantages.....	10
Strategic Opportunity: Why Now?.....	11
3. Current Policy Landscape and Limitations	13
Emerging Federal Leadership: Build Canada Homes and the Shift Toward Demand-Side Industrial Policy	13
Persistent Structural Fragmentation Despite Recent Progress	14
Selected Federal Programs Relevant to Housing Supply, Industrialized Construction, and Mass Timber Development	15
Strategic Significance: Procurement as Industrial Policy.....	17
4. Industrial Commons and Supply Chain Development.....	18
Industrialized Construction as an Integrated Manufacturing Ecosystem	18
Supporting Infrastructure: Standards and Workforce.....	19
New Financing Models	20
Industrial Commons Require Coordination.....	21
5. Industrial Strategy Recommendations.....	22
Recommendation 1: Canada needs a sustained federal commitment to industrialized construction as a strategic manufacturing sector.....	22
Recommendation 2: Establish a permanent industry-state coordination platform.....	23
Recommendation 3: Alignment of the policy mix across supply-side and demand-side tools.....	23
References.....	25



Overview

Canada has an opportunity to build industrialized construction into a strategic domestic manufacturing sector that improves productivity, supports housing delivery, and creates greater value from its forest resource base. At present, however, Canada's policy environment remains fragmented: innovation, housing, standards, procurement, and industrial development tools are not yet aligned around a coherent scale-up strategy. This paper argues that Canada should treat mass timber and modern methods of construction as a coordinated manufacturing ecosystem, and should use sustained policy commitment, industry-government coordination, and aligned supply- and demand-side tools to build globally competitive production capacity.¹

1 This paper draws on three main sources of evidence. First, it synthesizes prior industry and policy work led by the Transition Accelerator and the Canadian Industrialized Construction Coalition, including roadmap development processes, workshops, and stakeholder consultations undertaken in 2024 and 2025. Second, it draws on targeted desk research reviewing Canadian federal and provincial policy frameworks, industry reports, and international examples related to mass timber, offsite construction, industrial policy, and construction productivity. Third, it incorporates insights from informal consultations undertaken through the development of the *Mass Timber Roadmap*, early Canadian Industrialized Construction Coalition convenings, and focused industry discussions, including workshops with major manufacturers and public-sector actors related to Build Canada Homes and modern methods of construction.



1. INDUSTRIALIZED CONSTRUCTION AS A STRATEGIC MANUFACTURING SECTOR FOR CANADA

Industrial Policy Context: Productivity, Manufacturing Capacity, and Economic Competitiveness

Canada faces a persistent productivity challenge that threatens long-term economic growth and competitiveness. Labour productivity growth has slowed substantially since 2000, and Canada now ranks near the bottom among advanced economies. Canada's business-sector labour productivity was 73% of the U.S. level (Statistics Canada, 2025). One area contributing to this is Canada's inability to scale high-value manufacturing sectors and translate its natural resource base into globally competitive industrial capacity. The forest sector offers a helpful example, where Canada relies heavily on export markets for relatively unprocessed wood products, especially the United States, while capturing a small share of the higher-value manufacturing associated with engineered wood systems, prefabricated components, and industrialized building products. Canada's total forest product exports were valued at \$45.6 billion in 2022, with the majority destined for the United States (Natural Resources Canada, 2025). This pattern, evident in the forest sector and in several other resource-based industries, has constrained Canada's

Strengthening Canada's economic resilience and productivity will require industries to transform natural resources into high-value manufactured goods through coordinated industrial policy and ecosystem development

ability to build globally competitive manufacturing sectors rooted in domestic innovation, processing, and scaled production. Canada's export structure remains heavily concentrated in natural resource products, accounting for more than 55% of total exports, a specialization that can reduce incentives to develop higher-complexity manufacturing industries and advanced value chains (Martin, 2025).

Strengthening Canada's economic resilience and productivity will require industries to transform natural resources into high-value manufactured goods through coordinated industrial policy and ecosystem development (Southin, 2025). Canada can harness its forest resource base, engineering capacity, and domestic housing demand to establish an integrated manufacturing ecosystem around engineered wood products, digital design systems,

automated offsite production, and repeatable building platforms (Transition Accelerator, 2024; Natural Resources Canada, 2023b).

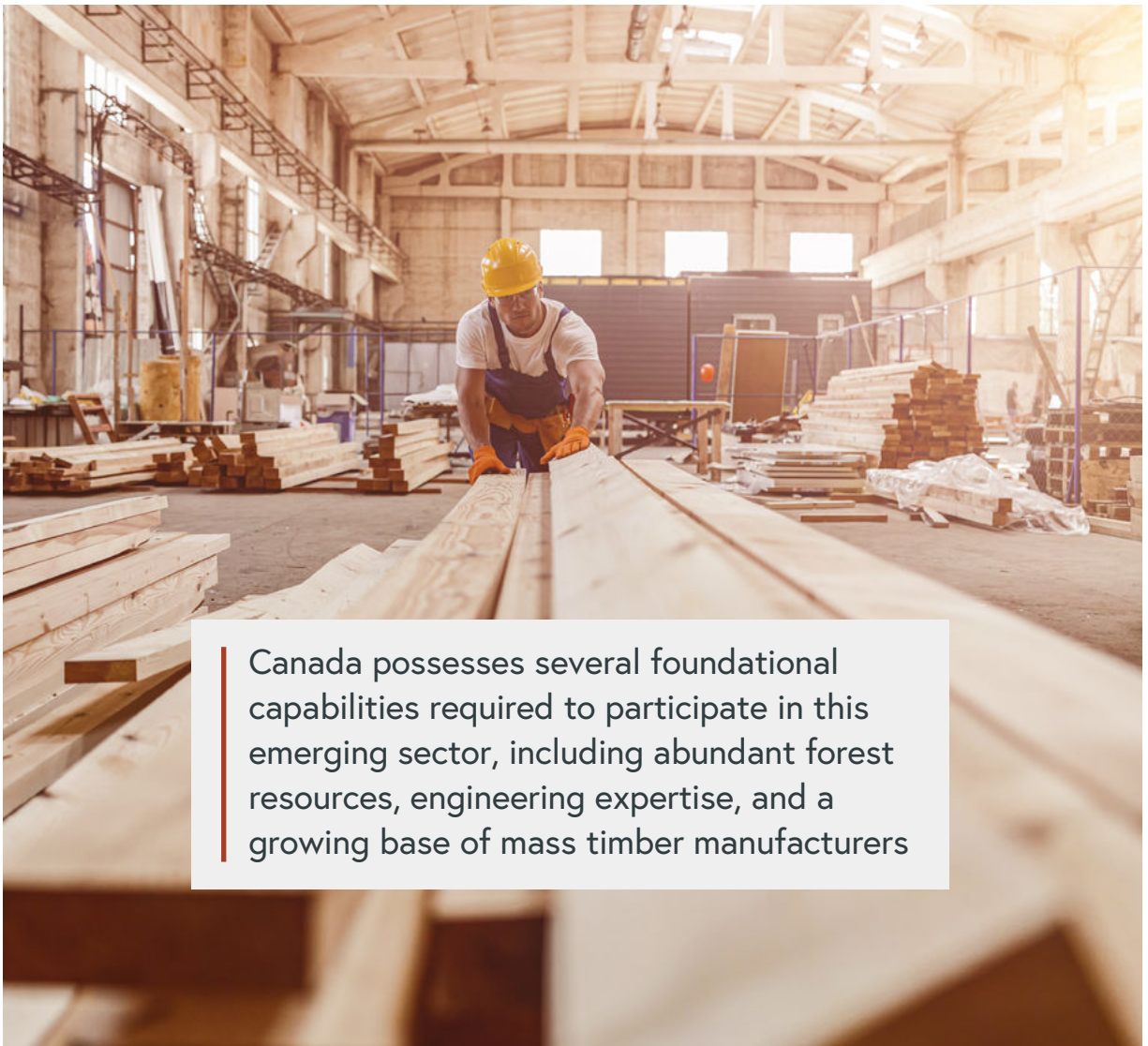
Meanwhile, Canada's construction sector has experienced stagnant or declining productivity relative to the broader economy, reflecting the inefficiencies of fragmented, site-based delivery models (Statistics Canada, 2026). Industrialized approaches such as prefabrication and mass timber systems claim to be able to reduce construction timelines by at least 25%, by overcoming things like variable on-site conditions, including weather, sequencing, labour availability, and permitting delays and allowing things like process improvement, standardization, robotics, and workflow optimization in ways that conventional project delivery cannot do (McKinsey & Company, 2019). At the same time, mass timber manufacturing can strengthen productivity in wood product manufacturing and create higher-value demand for upstream forestry inputs, reinforcing gains across the supply chain (Southin, 2025). These effects position industrialized construction as both a manufacturing opportunity and a strategic lever for broader economic productivity.

Industrialized construction represents a particularly timely opportunity for Canada. Both the forestry and construction sectors are under increasing pressure to improve productivity, reduce exposure to traditional market risks, and innovate in response to structural constraints. Emerging federal policy tools and growing political support for modern methods of construction, particularly through initiatives such as Build Canada Homes, suggest a greater willingness to use procurement and financing mechanisms to support sector development. These dynamics coincide with mounting pressure to improve housing delivery and affordability. If scaled effectively, industrialized construction's faster and more productive building systems could help address these housing challenges while supporting the development of a stronger domestic manufacturing ecosystem.

Industrialized Construction as Manufacturing

Industrialized construction represents a fundamental shift from fragmented, site-based building toward integrated, manufacturing-driven production systems. Traditional construction relies on manual, project-specific assembly, high variability, and limited opportunities for automation (McKinsey & Company, 2019; DIGITAL Supercluster, 2023). In contrast, industrialized construction relocates much of the production process into controlled factory environments, where automation, robotics, and digital design integration enable greater efficiency, consistency, and scalability (DIGITAL Supercluster 2023; Canadian Industrialized Construction Coalition 2025).

This model encompasses an integrated production system, including engineered wood manufacturing such as cross-laminated timber and glulam, digital design and Building Information Modelling, automated prefabrication and panelization, and coordinated logistics and assembly. Buildings can be designed digitally, manufactured in standardized components or modules, and assembled efficiently on-site. Construction in this way becomes a manufacturing and logistics process rather than primarily a site-based craft activity (Transition Accelerator, 2024; DIGITAL Supercluster, 2023).



Canada possesses several foundational capabilities required to participate in this emerging sector, including abundant forest resources, engineering expertise, and a growing base of mass timber manufacturers

This production model aligns construction more closely with the productivity dynamics of advanced manufacturing sectors, where automation, standardization, and continuous process improvement can increase productivity. Industrialized construction also supports economies of scale, investment in automation technologies, and production standardization in ways that traditional construction cannot (McKinsey & Company, 2019; Transition Accelerator, 2024). Countries including Sweden, Austria, Germany, and Japan have developed globally competitive industrialized construction sectors through coordinated industrial policy, automation investment, and repeatable production systems (Transition Accelerator, 2024).

Canada possesses several foundational capabilities required to participate in this emerging sector, including abundant forest resources, engineering expertise, and a growing base of mass timber manufacturers (Natural Resources Canada, 2023b). However, realizing this opportunity will require a coordinated industrial strategy to scale manufacturing capacity, integrate automation and digital technologies, and align regulatory, financing, and procurement systems with industrial production models.



Structural Barriers to Productivity and Industrial Scale

Despite its potential, industrialized construction adoption in Canada remains constrained by regulatory fragmentation, institutional barriers, and ecosystem gaps. Building codes and regulatory frameworks were developed primarily for traditional site-based construction and often struggle to accommodate emerging industrialized production methods (CSA Group, 2022). Prescriptive regulatory approaches can limit flexibility by specifying how buildings must be constructed rather than establishing performance outcomes that allow different production methods to compete on their merits (CSA Group, 2022).

Standards such as CSA A277 provide an important pathway for factory-built construction by establishing consistent manufacturing and inspection requirements. However, incomplete harmonization and uneven adoption across jurisdictions limit manufacturers' ability to scale standardized production nationally (CSA Group, 2022; DIGITAL Supercluster, 2023).

Fragmented permitting processes and inconsistent regulatory requirements increase project risk, reduce repeatability, and undermine economies of scale.

Canada also lags in the widespread use of digital design and production tools that are increasingly treated as core productivity infrastructure in leading jurisdictions. Digital coordination, common data environments, and production-ready building information models are becoming standard features of industrialized construction systems abroad. In Canada, by contrast, adoption remains uneven and often project-specific.

These barriers were reinforced by two workshops held in Toronto and Vancouver in 2025 that brought together leaders from government, industry, and finance to explore how modern methods of construction can accelerate housing delivery in Canada. Participants consistently identified code interpretation, permitting fragmentation, and uneven recognition of factory quality-assurance systems as practical constraints on scale. Industry participants also emphasized that offsite construction does not fail first on technology, but on the lack of repeatable approvals, predictable project pipelines, and financing structures aligned with factory production schedules (Canadian Industrialized Construction Coalition (CICC), 2025; Modern Methods of Construction Workshop, 2025). For instance, an offsite firm is currently required to apply for approval for its productions of its sites in every municipality in order to get an exception from the respective building code, particularly for wood-based systems. Current financing practices in construction only pay suppliers upon final delivery to site, which creates considerable cashflow challenges for offsite constructors. And the lack of volume in project pipelines, as well as their seasonal fluctuations, makes it difficult for companies to expand and scale capacity (CICC, 2025).

Labour constraints further reinforce the need for industrialized approaches. Canada's construction workforce is aging, and labour shortages are increasingly limiting housing delivery capacity (BuildForce Canada 2023). Workshop participants argued that industrialized construction also changes the labour model itself: it requires hybrid skills that combine construction knowledge with machine operation, digital

coordination, quality assurance, and logistics. This points to the need not only for more workers, but for different training pathways embedded in trade schools, colleges, and employer-led upskilling programs (Canadian Industrialized Construction Coalition, 2025; Modern Methods of Construction Workshop, 2025).

Productivity measurement challenges also obscure the benefits of industrialized construction. Inconsistent metrics and project variability make it difficult to assess performance improvements and scale effective production models (CSA Group, 2022). Establishing standardized performance metrics, harmonized regulatory frameworks, and coordinated manufacturing ecosystems will therefore be essential to unlocking the sector's productivity potential.



2. CANADA'S POSITION IN THE GLOBAL ECOSYSTEM

Defining the Global Technology Frontier

The global technology frontier in construction is defined by the transition from fragmented, site-based processes to integrated, automated manufacturing systems capable of producing buildings with industrial efficiency and precision. Leading jurisdictions have achieved this transformation through automated offsite manufacturing, robotics-enabled fabrication, and integrated digital design-to-production workflows that coordinate engineering, manufacturing, logistics, and assembly (Transition Accelerator, 2024; McKinsey & Company, 2019).

Countries such as Sweden, Austria, and Japan have established leadership through the coordination of technological advancement and policy environments that made industrialized production viable over time (Transition Accelerator, 2024; Natural Resources Canada, 2023b).

Sweden is especially instructive. Recent Nordic policy research reports that roughly 15–20% of new multi-storey buildings in Sweden are built in wood, and that as of 2020 approximately 97% of multi-storey wooden-frame buildings were fully or partially prefabricated. Swedish practice combines prefabrication, repeatable product platforms, and nationally implemented Eurocode-based standards, creating the kind of stable production environment that allows firms to invest in industrialized building systems over the long term (Nordregio, 2023; Canadian Industrialized Construction Coalition, 2025).

Japan provides another example of construction industrialization. Since the 1960s, major firms such as Sekisui House, Daiwa House, and Misawa Homes have developed factory-based housing production systems that combine standardized product platforms, automated manufacturing, and integrated supply chains. In some segments of Japan's housing market, factory-built homes account for more than 15% of annual housing starts, with manufacturers producing large portions of the building in controlled factory environments before rapid on-site assembly (Barlow and Ozaki, 2003; Gann, 1996). Government housing policies, standardization frameworks, and sustained demand for high-quality housing have supported the development of these industrialized production systems over several decades.

Austria has built a globally competitive mass timber manufacturing sector supported by strong forestry management, advanced wood engineering capabilities, and coordinated research and industry institutions. Austrian firms such as KLH and Binderholz have developed highly automated cross-laminated timber production systems and export engineered wood products worldwide. This industrial ecosystem has been supported by sustained research investment, standardized timber engineering practices, and strong integration between forestry, manufacturing, and construction sectors (Schuler and Adair, 2003; Natural Resources Canada, 2023b).

These international examples show that industrialized construction leadership does not emerge from technology alone. It depends on coordinated ecosystem development that aligns manufacturing investment, regulatory frameworks, workforce development, and sustained demand.

Lessons from International Industrialized Construction Leaders

Experiences in Sweden, Japan, and Austria suggest that leadership in industrialized construction comes from a mix of technological innovation and the coordinated development of manufacturing ecosystems in which policy frameworks, market conditions, and industry capabilities evolve together. Several lessons from these jurisdictions are particularly relevant for Canada.

Industrialized construction requires stable and predictable demand pipelines that allow manufacturers to invest confidently in factory capacity, automation, and product development. In Sweden, sustained housing demand combined with standardized building systems enabled firms to scale prefabricated wood construction to roughly 15–20% of new multi-storey buildings (Nordregio, 2023, SABO Kombohus, 2013). Similarly, Japan's factory-built housing sector grew within a policy environment characterized by consistent housing demand, standardized building systems, and long-term industry investment (Barlow and Ozaki, 2003; Gann, 1996). This contrasts with Canada's current market structure, where construction demand is fragmented across projects and procurement systems. Without predictable pipelines of repeatable projects, firms face difficulty justifying the fixed costs associated with factory-based production. Build Canada Homes has signaled an intent to fill the project pipelines, but this requires a stronger emphasis on funding repeatable models and simultaneously

addressing regulatory barriers. As of April 2026, members of the CICC report that despite these strong signals from the federal government, there have not been firm commitments to pipeline development for developers to expand their operations.

International experience also shows that standardized building platforms and repeatable product systems are fundamental to achieving industrial scale. Japanese housing manufacturers operate with product platforms that allow houses to be customized within standardized structural and production frameworks. Swedish industrialized wood construction similarly relies on repeatable building typologies and modular design systems.

In Canada, by contrast, building projects are often treated as bespoke designs, limiting opportunities for standardization and manufacturing efficiency. Moving toward repeatable building typologies, particularly in segments such as mid-rise housing, student housing, and public buildings, would help create the conditions necessary for industrialized production.

The presence of clear regulatory pathways and harmonized technical standards is also important. Sweden's use of Eurocode-based structural standards and nationally coordinated building regulations provides predictable rules for manufacturers and designers. These frameworks reduce regulatory uncertainty and make it easier for industrialized systems to be deployed across multiple projects.



Canada's regulatory environment remains more fragmented, with varying interpretations of building codes, permitting processes, and inspection regimes across provinces and municipalities. This fragmentation increases project risk and makes it difficult for manufacturers to produce standardized systems for national markets.

Successful jurisdictions also demonstrate the importance of integrated industrial ecosystems. Austria's mass timber sector, for example, developed through close coordination between forestry management, engineered wood manufacturing, research institutions, and construction firms. This integration allowed Austrian companies to develop globally competitive engineered wood products and export them to international markets (Natural Resources Canada, 2023b).

Canada possesses many of the individual components of such an ecosystem, including abundant forest resources, engineering expertise, and emerging mass timber manufacturers, but coordination across the supply chain remains limited.

Governments often play an important role in coordinating ecosystem development, even when private firms lead technological innovation. In each of these jurisdictions, public policy has supported the sector through combinations of research funding, housing policy, building standards, and industry coordination mechanisms. These interventions have helped reduce uncertainty and align investments across the value chain.

For Canada to win, construction needs to be understood as an industrial ecosystem development problem requiring coordination across housing policy, forestry and materials production, manufacturing investment, workforce development, and regulatory modernization.

Canada's Comparative Advantages

Canada possesses significant upstream and midstream advantages within the industrialized construction value chain. Canada's forest resources represent the largest certified sustainable forest base globally, providing a foundational input for engineered wood manufacturing (Natural Resources Canada, 2023b). Canadian firms such as Element5, Nordic Structures, and Kalesnikoff have already developed advanced mass timber manufacturing capabilities and are expanding production capacity to meet growing demand.

Canada also benefits from strong engineering, architecture, and digital design capabilities that support integration between design and manufacturing processes (DIGITAL Supercluster, 2023). This matters because industrialized construction depends on materials production and the ability to connect product design, code compliance, manufacturing, and building delivery within a coordinated production system. The examples from Japan and Sweden showcase how they were able to combine materials expertise with strong design and engineering capacity, allowing building systems to move efficiently from digital design through factory production to on-site assembly.

Taken together, Canada's advantages are unusually well aligned with the requirements of industrialized construction. The country combines abundant forest resources, technical and design expertise, an emerging base of mass timber manufacturers, and a large unmet domestic market for housing and infrastructure. This configuration creates a credible pathway from existing capabilities to scaled manufacturing capacity. Canada currently counts about 850 supplying companies, working across more than 1,100 locations, with 170,000 employees and \$76 billion in annual revenue (Scius Advisory, 2025). In industrial policy terms, this represents the type of sectoral opportunity where targeted coordination and market development can plausibly translate existing strengths into globally competitive production systems.

The domestic market opportunity is particularly important. Canada faces housing shortages alongside strong population growth and rising infrastructure needs. These conditions create the possibility of sustained domestic demand for faster and more productive building systems (Canada Mortgage and Housing Corporation, 2023; Canadian Industrialized Construction Coalition, 2025). If supported by the right procurement strategies and financing tools, this demand could provide the stable pipeline required for manufacturers to invest in factory capacity, automation, and standardized building platforms.

Industry-led roadmaps also provide a clearer sense of the scale that could be achieved under supportive policy conditions. *The Mass Timber Roadmap* identifies a scenario in which Canada's mass timber sector serves approximately 25% of the global market by 2030, supported by roughly one million cubic metres of domestic production capacity across glulam, CLT, DLT, and NLT, expanding to two million cubic metres by 2035. The roadmap also proposes a domestic adoption target in which mass timber and prefabricated elements account for roughly five percent of all construction materials and gain meaningful market share in multifamily and non-residential buildings (Transition Accelerator, 2024).

Targets of this kind play an important role in industrial strategy. They provide a shared reference point for industry and government, helping coordinate investment decisions, policy design, and market development. When credible and widely supported, they can help align public policy with the scale of ambition required to build a competitive manufacturing ecosystem (Transition Accelerator, 2025).

Strategic Opportunity: Why Now?

Without a coordinated strategy, Canada risks remaining positioned primarily as a supplier of raw timber and semi-processed inputs rather than as a leader in manufactured building systems (Southin, 2025). The strategic opportunity is to use a moment of pressure in housing, construction, and forestry to build a domestic value chain that combines engineered wood production, digital design, offsite manufacturing, and repeatable building platforms.

Canada faces acute housing delivery pressures, driven by rapid population growth and a widening structural gap between housing supply and demand. The Canada Mortgage and Housing Corporation estimates that restoring housing affordability will require

approximately 3.5 million additional housing units by 2030 beyond what is already projected to be built, implying that Canada may need to build as many as 5.8 million homes this decade to close the gap. At the same time, recent analysis suggests that achieving affordability may require 430,000 to 480,000 housing starts annually for the next decade, nearly double recent construction levels (Canada Mortgage and Housing Corporation, 2023; Parliamentary Budget Officer, 2025).

These conditions create an unusually strong domestic market rationale for more productive building systems. Unlike many industrial strategies that rely primarily on export demand, industrialized construction in Canada could scale initially through domestic housing and infrastructure needs if procurement, financing, and delivery programs are designed to support repeatable, factory-based production systems.

At the same time, parts of the forestry sector face growing pressure from high costs, trade exposure, and weaker traditional demand conditions, increasing the urgency of moving toward higher-value products and new market applications.



3. CURRENT POLICY LANDSCAPE AND LIMITATIONS

Emerging Federal Leadership: Build Canada Homes and the Shift Toward Demand-Side Industrial Policy

In recent years, the federal government has begun to signal a more explicit recognition of housing delivery as a national economic priority and of industrialized construction as one potential contributor to addressing Canada's housing shortage. This shift has emerged through a combination of political commitments to expand housing supply, significant public investment in housing and enabling infrastructure, and the creation of new delivery mechanisms intended to accelerate construction. Taken together, these developments suggest a growing willingness to treat housing not only as a social policy issue but also as a productivity and industrial capacity challenge.

The National Housing Strategy, launched in 2017 and subsequently expanded, represents a more than \$82 billion federal commitment over 10 years to support affordable housing construction, repair, and financing programs (Canada Mortgage and Housing Corporation, 2023). More recent federal budgets have added additional supply-focused measures, including the Housing Accelerator Fund, a \$4 billion program designed to support municipal reforms that increase housing supply, and the Apartment Construction Loan Program, which provides more than \$55 billion in low-cost financing for new rental construction (Department of Finance Canada, 2023; Canada Mortgage and Housing Corporation, 2024). Complementary programs

supporting housing-enabling infrastructure, innovation in construction, and low-carbon building materials have also expanded across departments such as Natural Resources Canada, Innovation, Science and Economic Development Canada, and the National Research Council.

Within this broader policy environment, the creation of Build Canada Homes represents an important institutional development. Announced in 2025 with an initial capitalization of approximately \$13 billion, Build Canada Homes was established to accelerate housing delivery through a combination of land development, project financing, and partnerships with public and private developers (Prime Minister of Canada, 2025). While Build Canada Homes is primarily structured as a housing delivery mechanism, its mandate introduces tools that could support the wider adoption of industrialized construction approaches. In particular, the agency's ability to aggregate demand across projects, coordinate development on federal lands, and align financing with construction timelines creates potential opportunities for factory-built, modular, and prefabricated systems to achieve production scale.

Recent federal engagement with industry reflects this broader orientation. Build Canada Homes has issued national requests for information to firms specializing in modular, panelized, and prefabricated construction systems, signalling interest in incorporating modern methods of construction into future housing delivery programs (Housing, Infrastructure and Communities Canada 2026b). At the same time, other federal initiatives continue to support elements of the industrialized construction ecosystem. Natural Resources Canada's GCWood program, for example, has committed more than \$100 million to demonstration projects and code development for mass timber construction (Natural Resources Canada, 2023a), while the Strategic Innovation Fund and the Global Innovation Clusters initiative, including the DIGITAL Supercluster, have supported research and commercialization efforts related to advanced manufacturing and digital construction technologies (DIGITAL Supercluster, 2023).

Mechanisms such as Build Canada Homes are best understood as one component of a broader industrial policy that could enable industrialized construction to scale. The combination of political commitment, sustained public investment, and delivery platforms capable of coordinating procurement and financing may create conditions that are more favourable for sector development than at any point in recent decades. Whether these conditions translate into a durable domestic manufacturing ecosystem will depend on how effectively these tools are coordinated with regulatory modernization, workforce development, and industry investment.

Persistent Structural Fragmentation Despit Recent Progress

Despite these developments, Canada's broader policy landscape remains fragmented across housing, industrial innovation, climate policy, and natural resource development. Several federal programs support pieces of the industrialized construction ecosystem, but they do not yet add up to a coherent industrial strategy or a clear view of who in government is accountable for realizing this vision.

Selected Federal Programs Relevant to Housing Supply, Industrialized Construction, and Mass Timber Development

INITIATIVE	AGENCY	FUNDING COMMITMENT	ACTIVE PERIOD	RELEVANCE TO INDUSTRIALIZED CONSTRUCTION
Build Canada Homes (BCH)	Housing, Infrastructure and Communities Canada	~\$13 billion capitalization	2025–present	Federal housing delivery entity designed to accelerate housing construction through financing, land development, and partnerships. Its ability to aggregate demand and coordinate development pipelines could support wider adoption of modular, prefabricated, and mass timber construction systems.
Apartment Construction Loan Program (ACLP)	Canada Mortgage and Housing Corporation (CMHC)	~\$55 billion in low-cost financing authority	2017–present (expanded 2023)	Provides low-cost financing for purpose-built rental housing projects. While not targeted specifically to industrialized construction, it can support projects that use prefabricated or mass timber systems.
Housing Accelerator Fund (HAF)	Housing, Infrastructure and Communities Canada	\$4 billion	2023–2027	Supports municipal zoning reform, permitting modernization, and other supply-enabling measures that can improve the regulatory environment for modular and prefabricated housing delivery.
Strategic Innovation Fund (SIF)	Innovation, Science and Economic Development Canada	~\$8 billion allocated across funding streams	2017–present	Supports commercialization and manufacturing scale-up projects, including automation, robotics, and advanced materials relevant to prefabrication and mass timber manufacturing.
Global Innovation Clusters Initiative (including DIGITAL Supercluster)	Innovation, Science and Economic Development Canada	\$950 million federal funding (matched by industry)	2018–present	Funds collaborative R&D projects focused on digital design integration, BIM workflows, supply-chain platforms, and advanced manufacturing systems applicable to offsite construction.
Clean Technology Investment Tax Credit	Department of Finance Canada	Estimated ~\$6–7 billion in tax expenditures over first decade	2023–2034 (phase-down begins 2034)	Supports investment in clean manufacturing equipment and technologies that can be used in low-carbon building materials and industrialized construction production systems.

INITIATIVE	AGENCY	FUNDING COMMITMENT	ACTIVE PERIOD	RELEVANCE TO INDUSTRIALIZED CONSTRUCTION
Productivity Super Deduction	Department of Finance Canada	Estimated \$1.5 billion in tax over 5 years	2026-2030	Supports investment in machinery, equipment, and facilities that can be used in building materials and industrialized construction production systems.
Canada Growth Fund	Department of Finance Canada	\$15 billion capitalization	2023–present	Provides project financing, guarantees, and other financial tools to support large-scale low-carbon industrial investments, including manufacturing facilities and materials production relevant to construction.
Green Construction through Wood (GCWood) Program	Natural Resources Canada	~\$115 million committed	2017–2027	Supports demonstration projects, research, and code development for mass timber buildings, helping reduce early adoption barriers and expand engineered wood markets.
Energy Innovation Program – Site Construction Challenge	Natural Resources Canada	~\$38 million	2021–2026	Supports innovation aimed at improving construction productivity and reducing emissions through technologies including modular and offsite construction systems.
Construction Research Centre	National Research Council Canada	~\$50–60 million annual research funding (approx.)	Ongoing	Provides research and testing capacity for building systems, materials, and code development relevant to mass timber, modular construction, and building performance.

Other relevant federal supports include the National Research Council's Construction Research Centre, which provides research capacity related to building systems and performance, and Natural Resources Canada's Energy Innovation Program Site Construction Challenge, which has supported innovation in construction productivity and low-carbon building approaches (Natural Resources Canada, 2023a; Natural Resources Canada, 2025). This is part of a broader structural weakness in Canadian industrial policy. Canada has often emphasized early-stage innovation support without pairing it consistently with the demand-side tools needed to help industries scale. The result is a recurring pattern in which technologies are supported at the development stage but commercialized and scaled elsewhere (Transition Accelerator, 2025).

Despite the numerous programs and investment, CICC members report that it is challenging to navigate the programs, access funding in a timely manner, and stack incentives in a way that can give them confidence that the pipeline of projects they are developing is confirmed. The federal government will need to create a much clearer process with strong accountability within one of the ministries or agencies to administer a joined-up set of initiatives that actually move this sector forward.

Strategic Significance: Procurement as Industrial Policy

The creation of Build Canada Homes marks a potentially important change in Canada's industrial policy approach. By aggregating demand, using bulk procurement, and prioritizing factory-built systems, Build Canada Homes introduces the kind of demand-side policy logic that has been central to industrial scale-up in other sectors and jurisdictions (Transition Accelerator 2025).

This is especially important in light of Canada's historical underuse of demand-side industrial policy tools. The experience of other countries in scaling wood-based, industrialized construction demonstrates the clear role of instruments to provide demand side certainty (Hurmekoski, Jonsson, and Nord, 2015). Without market creation, innovation support is unlikely to produce a durable domestic manufacturing ecosystem.

If effectively implemented and coordinated with existing supply-side programs, Build Canada Homes could begin to address one of Canada's longstanding industrial policy gaps: the absence of sustained demand aggregation mechanisms capable of enabling domestic firms to invest confidently in production scale. Its success will depend on whether it is embedded within a broader industrial strategy that also addresses automation, skills, standards, and cross-government coordination.



4. INDUSTRIAL COMMONS AND SUPPLY CHAIN DEVELOPMENT

Industrialized Construction as an Integrated Manufacturing Ecosystem

Industrialized construction depends on the coordinated development of shared industrial capabilities, often described as the industrial commons. These capabilities include manufacturing infrastructure, technical standards, workforce skills, digital design tools, and institutional coordination mechanisms that allow firms across the value chain to operate efficiently and scale production. Industrial commons form the foundation of globally competitive manufacturing sectors and typically emerge through sustained coordination and investment rather than through market forces alone (Pisano and Shih, 2009; Transition Accelerator, 2025).

In the case of industrialized construction, these shared capabilities span the entire building production system. The sector functions as a vertically integrated ecosystem in which upstream materials production, midstream manufacturing, and downstream building delivery must evolve together in order to support industrial scale.

Upstream, engineered wood manufacturing and forestry processing provide the foundational inputs for mass timber building systems. Canada possesses abundant forest resources, but capturing greater economic value requires expanding domestic capacity to produce engineered wood products such as cross-laminated timber and glulam. These products incorporate manufacturing expertise, digital design integration, and automation, transforming raw materials into higher-value industrial goods (Natural Resources Canada, 2023b; Transition Accelerator, 2024).

Midstream, manufacturing automation and digital integration are central to productivity and scale. Industrialized construction relies on advanced manufacturing technologies, including robotics-enabled fabrication, CNC machining, and digitally integrated design-to-manufacturing workflows. These systems enable repeatable production processes, improve quality consistency, and reduce production costs over time (DIGITAL Supercluster, 2023; Transition Accelerator, 2025). This layer of the ecosystem is where Canada will ultimately compete on manufacturing sophistication rather than relying solely on its natural resource endowment. The next frontier would be to find streamlined ways to integrate and then streamline all of the existing processes and technologies. Creating efficiencies across the production system from design, development all the way through permitting and building is where the cost savings and speed will be uncovered.

Downstream, offsite building production depends on standardized building platforms and coordinated delivery systems. Industrialized construction produces repeatable building components rather than bespoke, one-off designs. Standardization enables manufacturers to achieve economies of scale, invest more confidently in automation, and improve efficiency across successive production runs (Transition Accelerator, 2024). Without repeatability in building design and delivery pathways, manufacturing scale is difficult to achieve.

The next stage of industry development will therefore depend less on iconic demonstration buildings than on proving that ordinary, repeatable, cost-sensitive buildings can be delivered efficiently through industrialized systems. In other words, the sector now requires credible demonstrations of the “boring building,” housing typologies that can be manufactured, financed, approved, and constructed repeatedly at scale.

Supporting Infrastructure: Standards and Workforce

Supporting infrastructure plays a very important role in enabling industrialized construction at scale. Technical standards and certification systems, such as CSA A277, provide regulatory pathways that allow factory-built building components to be approved efficiently across jurisdictions. Harmonized standards reduce regulatory uncertainty and enable manufacturers to produce standardized products that can be deployed across multiple markets (CSA Group, 2022).

Workforce development is equally critical. Industrialized construction requires skills in advanced manufacturing, robotics, digital design integration, and automated production systems. As construction shifts toward manufacturing-based production, workforce training systems must evolve to support new skill requirements (Transition Accelerator, 2025). This transition is technological, institutional, educational, and organizational. There are emerging efforts in this area, including initiatives supported through GCWood that aim to build education and training pathways for modern methods of construction (Natural Resources Canada, 2023a; Natural Resources Canada, 2025).

New Financing Models

Financing mechanisms are also required to provide demand-side certainty and long-term industrial investment. Manufacturing facilities require significant upfront capital investment in automation equipment, production lines, and digital infrastructure. Without access to appropriate financing, including long-term capital and investment support, firms face substantial barriers to scaling production capacity (Transition Accelerator, 2025). This challenge is exacerbated by the highly cyclical nature of the construction industry, which is currently facing considerable market headway in Canada, amid stagnant real estate prices and broader market uncertainty.

Build Canada Homes should focus on securing and supporting delivered projects, while reducing any resulting incentives to real estate price speculation. This requires maintaining investment levels when real estate markets are slow or in decline. One mechanism that should be explored is for BCH and partners to guarantee a price floor for projects, combined with a profit-sharing condition to provide upside returns for the government when prices appreciate. Such an arrangement could provide a guaranteed minimum return for developers and also provide demand certainty up the supply chain to manufacturers of components and mass timber. This should influence the terms provided by commercial lenders to match better the upfront capital outlays of offsite developers. Judicious use of sourcing requirements and technical conditions also need to be worked out to promote the scaling of Canadian suppliers and forward-looking energy efficiency performance.


Currently much of the grants and financing tools are designed to be deployed at the end of a project, when most of the investment has already been put forward by industrial actors. Federal grant and financing actors, such as BCH, CMHC or NRCAN, should find a way to retool their financing and grant programs to provide industry with working capital—money that can be funnelled into the projects immediately and applied where needed. This adjustment in how funding is provided would meet the moment of industrialized construction, where proponents need additional support in the short term to scale up their manufacturing capabilities.

Insurance for developers needs to catch up with these challenges. One aspect is linked to codes and standards for building materials. Another concerns the different expenditure profile for off-site construction, requiring more up-front outlays and a perception of higher risks. Solutions have been developed in other countries, with the U.K. frequently mentioned as instructive. Again, solutions can be adapted from other countries, as the technology is relatively mature. However, financing and insurance solutions need coordination to be catalyzed.

Industrial Commons Require Coordination

Both theory and evidence indicate that markets alone do not reliably create the shared capabilities required for industrialized construction manufacturing. Industrial commons involve coordination challenges, shared infrastructure, and network effects that require deliberate institutional support. Individual firms cannot easily justify investing in ecosystem-wide capabilities, such as standards development, workforce training systems, or supplier coordination, without confidence that complementary investments will also occur across the system (Pisano and Shih, 2009).

Industrialized construction presents Canada with an opportunity to build these shared capabilities and establish globally competitive manufacturing capacity. Realizing this opportunity will require coordinated investment in manufacturing infrastructure, workforce development, standards harmonization, and ecosystem coordination. Developing the industrial commons is therefore not a peripheral component of industrial strategy. It is the central task required to transform industrialized construction from a series of promising projects into a scalable manufacturing sector capable of delivering productivity growth and economic competitiveness.



Developing the industrial commons is therefore not a peripheral component of industrial strategy. It is the central task required to transform industrialized construction from a series of promising projects into a scalable manufacturing sector capable of delivering productivity growth and economic competitiveness.



5. INDUSTRIAL STRATEGY RECOMMENDATIONS

Successful industrial policy in Canada and abroad suggests that three conditions are essential. Governments must first signal a sustained commitment to a strategic sector. They must then establish durable industry-state coordination mechanisms capable of surfacing what firms and institutions need in real time. Finally, they must align the policy mix so that supply-side and demand-side instruments evolve alongside the industry rather than operating in isolation. Applied to industrialized construction, this means treating mass timber and modern methods of construction as a strategic manufacturing opportunity that warrants deliberate and coordinated policy support (Transition Accelerator, 2025; Canadian Industrialized Construction Coalition, 2025).

Recommendation 1: Canada needs a sustained federal commitment to industrialized construction as a strategic manufacturing sector.

The federal government should explicitly identify industrialized construction, including mass timber, prefabrication, and automated offsite production, within Canada's broader industrial policy framework. That commitment should be reflected in a limited number of clear public targets tied to domestic production capacity, market development, housing delivery, and supply chain capability. This would signal to firms that the federal government intends to support the sector over a long enough horizon to justify

investment in factories, automation, workforce development, and standardized product systems. It would also help discipline public policy by creating a common frame through which governments can align procurement, regulation, and industrial supports. The *Mass Timber Roadmap* already provides one model of this approach by proposing targets for production capacity, domestic market uptake, and global market share (Transition Accelerator, 2024). A broader industrialized construction strategy should build on that model and adapt it to the wider ecosystem of engineered wood products, repeatable building systems, and factory-based production.

Recommendation 2: Establish a permanent industry-state coordination platform.

Canada should establish a durable coordination mechanism that connects manufacturers, designers, builders, regulators, standards bodies, public buyers, labour and training institutions, and governments (recognizing multijurisdictional complexities). The purpose of this platform would be to provide a structured and ongoing forum through which the sector can identify constraints, coordinate solutions, and inform policy design as industry needs evolve. Policy needs to be calibrated iteratively based on timely and high-quality information about what firms actually need to scale. This information should be exchanged through bodies that are close enough to industry to understand operational problems but sufficiently independent to avoid narrow capture (Transition Accelerator, 2025).

In industrialized construction, this matters especially because the sector depends on interlocking decisions across the value chain. Forestry and engineered wood producers need to understand downstream manufacturing demand. Manufacturers need repeatable product pathways and financing tools. Designers need standardization and code confidence. Public buyers need practical guidance on what to procure and how to do so. The *Mass Timber Roadmap* and the development of the Canadian Industrialized Construction Coalition both point to the need for a stronger coordination function (Transition Accelerator, 2024; Canadian Industrialized Construction Coalition, 2025). What is needed now is an institutional structure that can operate continuously rather than episodically, and that can serve as the real-time interface between industry needs and public policy design.

Recommendation 3: Alignment of the policy mix across supply-side and demand-side tools.

Canada already has many of the component parts of an industrial strategy, including innovation programs, tax credits, housing finance, demonstration funding, and an emerging demand-side instrument in Build Canada Homes. What is missing is alignment. Supply-side support remains essential because the sector requires investment in manufacturing automation, factory modernization, robotics, digital design-to-manufacturing integration, repeatable product development, and workforce training. Federal programs should therefore be more intentionally deployed to support factory expansion, automated fabrication, digital workflows, and the skills needed to operate advanced production systems.

At the same time, demand-side tools are equally important. Build Canada Homes offers a potentially important platform for market creation through procurement, standardized delivery pathways, public land development, and financing. However, that role will only be realized if procurement is structured to create repeatable demand for domestic producers rather than simply funding projects one at a time. Stable demand signals reduce investment risk and make it more realistic for firms to invest in automation and production scale. The most important demand side tool is government bulk purchasing of completed projects, particularly in the residential sector, which will stimulate financing and investment in new production capacity. This pipeline of guaranteed projects is lacking. The government needs to develop the tools to provide the working capital, particularly given current market conditions in the construction sector. One option is to use advance market commitments through a loan facility operated by Build Canada Homes and CMHC with a negotiated sale price floor and profit-sharing agreements with developers. Bulk purchasing that incentivizes industrialized construction should be a BCH priority, but currently this commitment is not visible to market players.

Policy alignment must also extend to standards and regulatory pathways. Harmonization around tools such as CSA A277, broader movement toward performance-based code pathways, and more coordinated approaches to permitting and inspections would reduce fragmentation and support repeatability. This alignment demands active leadership and engagement of a designated taskforce at the federal level, working also with provinces.

Workforce development and financing should similarly be treated not as secondary supports, but as core parts of the industrial policy. The objective is not simply to create more programs. It is to ensure that the programs Canada already has, together with emerging tools such as Build Canada Homes, are coordinated around a common purpose: building a domestic industrialized construction ecosystem capable of competing on productivity, quality, and scale.

Taken together, these recommendations amount to a simple but important shift in approach. Canada should move from treating industrialized construction as a set of promising but disconnected innovations to treating it as a strategic manufacturing ecosystem. That requires governments to commit to the sector, establish institutions that connect industry and policy in real time, and align the policy mix to support production scale. Without those conditions, Canada is likely to continue supporting innovation while missing the opportunity to build a globally competitive industry around it.

REFERENCES

- Allan, Bentley and Eaton, Derek. 2024. *The Mass Timber Roadmap*. The Transition Accelerator, Forest Products Association of Canada, Canadian Wood Council, and Energy Futures Lab.
- Barlow, James, and Rie Ozaki. 2003. "Achieving 'Customer Focus' in Private Housebuilding." *Housing Studies*.
- BuildForce Canada. 2023. *Construction and Maintenance Looking Forward: National Forecast 2023–2032*. Ottawa: BuildForce Canada.
- Canada Growth Fund. 2024. *Canada Growth Fund*. Toronto: Canada Growth Fund.
- Canada Mortgage and Housing Corporation. 2023. *Canada's Housing Supply Challenge: Restoring Affordability by 2030*. Ottawa: Canada Mortgage and Housing Corporation.
- Canada Mortgage and Housing Corporation. 2024. *Apartment Construction Loan Program Overview*. Ottawa: Canada Mortgage and Housing Corporation.
- Canadian Industrialized Construction Coalition. 2025. *Accelerating Housing Starts: Unlocking the Potential of Industrialized Construction in Canada*. Toronto: Canadian Industrialized Construction Coalition.
- Canadian Industrialized Construction Coalition. 2025. *Factory-Built Housing Event, July 30, 2025: Workshop Materials and Presentation Deck*.
- CSA Group. 2022. *CSA A277: Procedure for Certification of Prefabricated Buildings, Modules, and Panels*. Toronto: CSA Group.
- Department of Finance Canada. 2023. *Budget 2023*. Ottawa.
- Department of National Defence. 2026. "Government of Canada Investing in Historic Military Housing Expansion to Support CAF Members and Families." <https://www.canada.ca/en/department-national-defence/news/2026/02/government-of-canada-investing-in-historic-military-housing-expansion-to-support-caf-members-and-families.html>
- DIGITAL Supercluster. 2023. *Offsite Construction Opportunity Study*. Vancouver: DIGITAL Supercluster.
- DIGITAL. 2025. *Housing Growth Innovation Program Presentation, CICC Factory-Built Housing Event*. July 30, 2025.
- Gann, David. 1996. "Construction as a Manufacturing Process?" *Building Research & Information*.
- Housing, Infrastructure and Communities Canada. 2026. *Backgrounder: Introduction of the Build Canada Homes Act*. <https://www.canada.ca/en/housing-infrastructure-communities/news/2026/02/backgrounder-introduction-of-the-build-canada-homes-act.html>
- Hurmekoski, E., Jonsson, R., and Nord, T. 2015. "Context, Drivers, and Future Potential for Wood-Frame Multi-Story Construction in Europe." *Technological Forecasting and Social Change*, 99, 181–196.
- Martin, Julien. 2025. *Canada's Productivity Challenge: The Hidden Costs of Resource Abundance and U.S. Dependence*. School of Public Policy.
- McKinsey & Company. 2019. *Modular Construction: From Projects to Products*. New York: McKinsey & Company.
- Modern Methods of Construction Workshop. 2025. *Vancouver Workshop Summary, November 18, 2025*.
- National Research Council Canada. 2025. *Roadmap to Transform the Canadian Construction Industry through Industrialized Construction, Research and Innovation*.
- National Research Council Canada. 2026. Construction Research Centre. <https://nrc.canada.ca/en/research-development/research-collaboration/research-centres/construction-research-centre>
- Natural Resources Canada. 2023a. *Green Construction through Wood (GCWood) Program*. Ottawa: Government of Canada
- Natural Resources Canada. 2023b. *Mass Timber Construction in Canada*. Ottawa: Government of Canada.
- Natural Resources Canada. 2025. *Evaluation of the Green Construction through Wood (GCWood) Program*. Ottawa: Government of Canada.

Natural Resources Canada. 2026. “Energy Innovation Program: Off-Site Construction Challenge.” <https://natural-resources.canada.ca/funding-partnerships/energy-innovation-program/site-construction-challenge>.

Nordregio. 2023. *Innovation Dynamics in Multi-storey Wood Construction in Sweden and Finland*. Nordic Council of Ministers.

Parliamentary Budget Officer. 2025. *Household Formation and the Housing Stock: Estimating the Housing Gap in 2035*. Ottawa: Office of the Parliamentary Budget Officer.

Pisano, Gary P., and Willy C. Shih. 2009. “Restoring American Competitiveness.” *Harvard Business Review* 87 (7–8): 114–125.

Prime Minister of Canada. 2025. “Prime Minister Carney launches Build Canada Homes to supercharge homebuilding across the country.” September 14. <https://www.pm.gc.ca/en/news/news-releases/2025/09/14/prime-minister-carney-launches-build-canada-homes>

SABO / Swedish Public Housing. 2026. “Public Housing Sweden’s Kombohus.” <https://www.sverigesallmannytta.se/in-english/public-housing-swedens-kombohus/>

Schuler, Albert, and Craig Adair. 2003. *Demonstration of Cross-Laminated Timber Technology in Europe*.

SciUS Advisory. 2025. Prefab Construction Navigator. <https://sciUSadvisory.com/prefab-construction-nav/>

Southin, Travis. 2025. *The Productivity Benefits of High-Value, Low-Carbon Investment*. Calgary: The Transition Accelerator.

Statistics Canada. 2025. *The role of firm size in the Canada–U.S. labour productivity gap since 2000*. <https://doi.org/10.25318/36280001202501200002-eng>

Statistics Canada. 2026. *Firm size and labour productivity growth in Canadian residential construction*. <https://doi.org/10.25318/36280001202600200003-eng>

The Transition Accelerator. 2025. *Building the Future Economy*.



