Accelerating Housing Starts: Unlocking the Potential of Industrialized Construction in Canada



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Table of Contents

Introduction
Why Now: A Unique Window to Scale Industrialized Construction
Recommendations on How to Unlock Industrialized Construction in Canada \dots 4
1. Financing for Manufacturing and Supply Development 5
1.1 Establish Industry Fund
1.2 Recast Housing Support Programs
1.3 Derisk Offsite Production
1.4 Derisk Factory Investment
1.5 Allow for Portfolio-based Tax Credits
1.6 Develop a National Supply Chain Strategy 6
1.7 Incentivize Innovation
2. Procurement and Demand Aggregation 6
2.1 Prequalify Suppliers and Builders
2.2 Commit to Purchases
2.3 Support Procurement Process
2.4 Aggregate Demand
2.5 Account for Manufacturing in Payment Terms
2.6 Attract Private Capital
2.7 Integrate Infrastructure Planning into Procurement

3. Regulatory, Permitting, and Inspection Reform 8		
	3.1 Commit to CSA A277	
	3.2 Streamline Permitting	
	3.3 Align Permitting With Digital Standards	
	3.4 Support Worker Transition	
	3.5 Commit to Collaboration and Harmonization	
Conclusion	n	
Appendix A	A: Benefits of Industrialized Construction	
Appendix E	8: Additional Enablers for Sustained Success	
Indige	nous Housing Sovereignty and Economic Development 14	
Workf	orce Development and Innovation Enablement 15	
Climat	te and Sustainability Alignment	
Appendix (C: Resources	
Members.		



Introduction

In response to the urgent need to scale housing delivery, the Canadian Industrialized Construction Coalition (CICC), launched by Assembly Corp., has come together to unite the factory-built housing industry around a bold ambition: enabling Canada to meet its target of building 500,000 homes per year through smarter, faster, and more climate-resilient methods. The federal government is uniquely positioned to activate this sector in a way that produces immediate housing starts and ignites a new economic stream.

This document presents a comprehensive set of policy and program recommendations to the federal government to help scale and strengthen the Industrialized Construction sector and bring the government's housing ambition to life. These recommendations have been developed and endorsed by coalition members across the country. The recommendations are designed to work together to unlock throughput, investment, and innovation across the sector supply chain.

Importantly, this brief is intended to inform the design and delivery of Build Canada Homes. By aligning Industrialized Construction policy with procurement, permitting, and investment strategies, Build Canada Homes can serve as the national platform to unlock rapid, scalable housing delivery across urban, suburban, and rural contexts.

To jump start the sector and get it on track to move quickly, we urge the federal government to prioritize recommendations that focus on the following:

- **1. Financing for Manufacturing and Supply Chain Development.** Strategic government investment in factories, advanced materials, and technologies will strengthen domestic capacity, reduce foreign dependence, and drive innovation.
- 2. Procurement and Demand Aggregation. Canada must use its purchasing power to create market certainty for manufacturers. Coordinated and aggregated procurement through Build Canada Homes will unlock scale, reduce costs, and accelerate delivery.
- **3. Regulatory, Permitting, and Inspection Reform.** Harmonized regulations, digital permitting, and pan-Canadian design standards will remove bottlenecks, accelerating housing starts at scale.



These three priorities are the fastest way to catalyze the sector, but they are not standalone solutions. The brief includes a broader set of recommendations (see Appendix B) that support and depend on these initial steps, covering workforce development, Indigenous housing sovereignty, climate alignment, and long-term infrastructure planning.

Industrialized Construction offers a powerful path to reconciliation and Indigenous housing sovereignty. First Nations, Métis, and Inuit communities are driving efforts to build fabrication hubs, train local workers, and create culturally appropriate housing. With aligned federal support, Canada can foster inclusive economic growth, speed up housing in remote areas, and empower Indigenous communities as co-creators of their housing future.

Why Now: A Unique Window to Scale Industrialized Construction

Factory-built housing is not a new idea. It's a proven solution that has been around for decades, contributing to a small portion of residential construction when compared with traditional methods. The current Canadian landscape is creating a unique opportunity for the offsite construction sector to strategically scale to transform and accelerate housing production in Canada. Industrialized construction holds the potential to transform affordable housing production in Canada. The following factors are fuelling growth and productivity in the sector:

Urgent and abundant demand: Canada faces a housing crisis requiring rapid and abundant production of quality housing units. The federal government has set a goal of 500,000 housing units per year. With this level of demand and a government mandate to enable factory-built housing, there is incentive for investment in the supply chain and innovation required to build housing at unprecedented levels.

Emerging technologies: Industrialized Construction will take full advantage of robotics, AI, open data, and emerging software tools to enable faster digital permitting, generative design, optimization across the supply chain, and real-time coordination with consultants, contractors, trades, supply chains, and permitting entities. Emerging technology allows for reduced construction costs and time when compared with traditional construction.

Economic growth and workforce development: Industrialized Construction is a catalyst for inclusive economic growth with new entrepreneurial and employment pathways to high-quality jobs available to urban, rural, and indigenous communities.

Demonstrated success: Successful industries have been built in leading countries with similar geographies, climates and societal values - namely Sweden, Germany, Japan and the United Kingdom. In Sweden, government-enabled Industrialized Construction sector scaling was an essential success factor in realizing housing ambitions. Successful pilots across Canada are starting to scale.

With a pipeline of projects, productivity-enhancing innovation, and a sector that is ready to build, conditions are ideal for the Industrialized Construction sector to address the housing crisis.



Recommendations on How to Unlock Industrialized Construction in Canada

To realize the full potential of Industrialized Construction to build housing, create jobs, and grow the economy, we recommend that the federal government act on the recommendations below. **Short-term** recommendations focus on deploying the sector now to build housing rapidly. **Longer-term** recommendations focus on strengthening the Canadian Industrialized Construction sector for long-term economic gain.



1. Financing for Manufacturing and Supply Development

Canada must build the infrastructure to support Industrialized Construction at scale. Strategic investment in factories, advanced materials, and technologies will strengthen domestic capacity, reduce foreign dependence, and drive innovation.

Short-Term Actions:

1.1 Establish Industry Fund.

Establish a \$1 billion Strategic Industry Fund (equity) within Build Canada Homes or through BDC to build out Canada's factory-built housing ecosystem. This fund should support domestic production of prefabricated components, upgrade existing facilities, and invest in enabling technologies such as generative design, digital coordination platforms, Al-driven fabrication, and green building materials.

1.2 Recast Housing Support Programs.

Modernize, consolidate, and streamline federal housing support programs by refinancing the Rapid Housing Initiative, MLI Select, the Apartment Construction Loan Program, and redesigning the Multi-Unit Residential Building Program. These programs should prioritize Industrialized Construction to accelerate delivery and reduce costs. Federally funded housing projects should be required to meet a minimum prefabricated component threshold of 20%.

1.3 Derisk Offsite Production.

Involve the Canada Infrastructure Bank or adjust Export Development Canada's Trade Expansion Lending Program for domestic use (as was done in 2008 during the financial crisis) to create a backstop or loan guarantee program supporting offsite production until it is sufficiently derisked for commercial banks. Federal programs should coordinate with provincial agencies like the Building Ontario Fund for unique project, inventory and construction financing solutions.

1.4 Derisk Factory Investment.

Provide financial tools to reduce the risk of factory investment, such as loan guarantees and accelerated depreciation for early adopters in offsite manufacturing. By guaranteeing all or part of a loan from a financial institution, the federal government can help manufacturers secure funding to build new factories or upgrade existing ones. Accelerated depreciation enables faster write-offs of capital investments, boosting early cash flow and mitigating the upfront financial risks tied to industrial housing production.



1.5 Allow for Portfolio-based Tax Credits.

Offer portfolio-based tax credits across grouped housing projects to incentivize scale. This approach pools projects into portfolios, allowing investors to claim credits based on total affordable units delivered across several developments.

Long-Term Actions:

1.6 Develop a National Supply Chain Strategy.

Develop a national strategy with industry to build a resilient supply chain ecosystem and incentivize reshoring strategies to reduce dependence on foreign components. This strategy should link multiple federal government departments and levels of government and include key sectors such as lumber, steel, robotics, and digital design.

1.7 Incentivize Innovation.

Revise SR&ED or introduce simplified research and development incentives tailored to offsite innovation. Expand qualifying research and development criteria to cover process and operational innovation typical in offsite construction, such as new factory workflows, digital integration, and scalable production improvements and digital thread tooling. Consider a complementary Capital Investment Tax Credit for innovative manufacturing equipment and automation essential for offsite construction scaling.

2. Procurement and Demand Aggregation

Canada must use its purchasing power to create market certainty for manufacturers. Coordinated procurement through Build Canada Homes will unlock scale, reduce costs, and accelerate delivery. Procurement programs must be delivery-model agnostic, explicitly supporting all forms of Industrialized Construction, including volumetric modular, panelized, sub-assemblies, and 3D-printed solutions. Bulk orders, advanced market commitments, and offtake agreements must enable the full spectrum of Industrialized Construction solutions.

Traditional procurement models such as Design-Bid-Build can disadvantage industrialized construction delivery. To unlock speed, certainty, and innovation, procurement policy must shift toward Industrialized Construction-by-default approaches and evaluate bids based on total lifecycle cost, not just upfront square footage pricing.



Short-Term Actions:

2.1 Prequalify Suppliers and Builders.

Build Canada Homes should establish multi-year, multi-provider framework agreements (i.e., standing offer arrangement, master service agreements) that qualify several factory-built housing providers and product suppliers who meet defined criteria (e.g., quality, sustainability standards, Canadian-sourced materials). Projects brokered by Build Canada Homes would have to select vendors from this list. This will streamline procurement and create a vetted marketplace for the industry.

2.2 Commit to Purchases.

For prequalified suppliers (see Recommendation 2.1), Build Canada Homes should commit to minimum purchase quantities (e.g., through pre-purchasing or volume guarantees). This will reduce supplier risk and encourage rapid scaling and investment in local factories. It will also ensure that supply matches demand, and will lead to greater predictability of project costs.

2.3 Support Procurement Process.

Traditional project procurement practices begin with RFPs for architectural design to permit and are followed by an RFP for selection of a general contractor. If the architectural design does not consider manufacturability up front, the design may not be amenable to offsite construction solutions. Build Canada Homes should support procurement of factory-built housing projects with contract templates and procurement guides. This will ensure that the procurement process aligns with factory-built housing solutions.

2.4 Aggregate Demand.

Build Canada Homes should broker joint procurement arrangements with local governments or housing agencies to aggregate demand and create a larger pipeline for factory-built housing at the regional level. All federal housing programs should either be administered by Build Canada Homes or link to Build Canada Homes to maximize demand and economies of scale.



2.5 Account for Manufacturing in Payment Terms.

Traditional construction contracts time payments according to materials delivered to the project site, along with work done on the project site. These traditional payment milestones do not align with capital requirements in factory-built housing projects where the bulk of the work (30-40%) is done before components start arriving at the construction site. For projects brokered through Build Canada Homes, milestone payment amounts and timing should align with manufacturing schedules. All federal funding for housing should also consider this alternative timing when planning disbursements.

Long-Term Actions:

2.6 Attract Private Capital.

Incentivize public-private partnerships to co-develop housing using industrialized methods, with Build Canada Homes/Canada Infrastructure Bank acting as anchor buyer and co-investor.

2.7 Integrate Infrastructure Planning into Procurement.

Broaden procurement strategies to encompass essential community infrastructure—such as schools, healthcare clinics, and workforce housing—to foster holistic, sustainable development in expanding regions. This approach ensures that housing investments are supported by the services and facilities needed to build thriving, resilient communities.

3. Regulatory, Permitting, and Inspection Reform

Canada's permitting and inspection systems must be updated to reflect the realities of factory-built housing. Streamlined, harmonized regulations and processes will reduce bottlenecks and enable interprovincial delivery. Inspection regimes must be modernized in parallel. Without reform, municipal site inspections will become a critical barrier at scale.

To ensure consistent delivery, local authorities must be trained and equipped with QA/QC frameworks and templates tailored to Industrialized Construction. While zoning and code changes must respect regional differences, standardized application frameworks for different categories of offsite construction (e.g., panels, pods, volumetric) can be federally endorsed and tied to CMHC programs. This standardized approach will allow for national consistency without undermining local autonomy.



Short-Term Actions:

3.1 Commit to CSA A277.

CSA A277 certification should serve as the national baseline standard for factory-built housing, with federal support to help municipalities adopt and trust this framework. The federal government should provide risk assurance mechanisms (e.g., indemnification or insurance guarantees) to municipalities that accept projects with CSA-certified components, reducing perceived liability.

3.2 Streamline Permitting.

Create a federal fast-track permitting digital pathway for Build Canada Homes projects based on certified designs using prefabricated components. This should support automated approvals and real-time tracking.

3.3 Align Permitting With Digital Standards.

Build Canada Homes should adopt a national Building Information Modeling (BIM) interoperability standard (e.g., ISO 19650) and create a digital library of CSA-approved, code-compliant, and repeatable components and designs. Provinces, municipalities, and CMHC can reference or embed these elements in their own catalogues (e.g., DASH in British Columbia). Support and funding for implementation could be provided by the Digital Supercluster.

Long-Term Actions:

3.4 Support Worker Transition.

Train municipal inspectors, planners, and permitting officials on Industrialized Construction methods. Provide standardized QA/QC templates to reduce friction and avoid delivery delays due to red tape.

3.5 Commit to Collaboration and Harmonization.

Establish a National Industrialized Construction Code Council to harmonize building codes across provinces, continuously update standards, and integrate emerging technologies.





Conclusion

Achieving long-term impact will require more than targeted investment. It demands intergovernmental alignment, standardized data protocols, performance benchmarking, and enduring public-private collaboration. Market enthusiasm alone is insufficient. What is needed is policy clarity, sustained procurement commitments, and a unified national mandate.

The federal government should formally recognize Industrialized Construction as a priority sector within its housing and infrastructure strategy. This designation would unlock coordinated support across funding, regulation, and innovation, enabling the sector to scale rapidly and deliver on Canada's housing ambitions.

Appendix A: Benefits of Industrialized Construction

Why It Works

Industrialized Construction is more than a building method—it's a strategic solution to Canada's housing and climate challenges. Its proven advantages make it a powerful lever for transformation:

- Cuts Build Time: Factory-built components and streamlined assembly are estimated to reduce construction timelines by up to 50%, enabling faster occupancy and quicker returns on investment.
- Reduces Costs: Standardization, automation, and reduced on-site labor are estimated to drive down costs, making deeply affordable housing financially viable at scale.
- Improves Quality and Energy Performance: Controlled environments ensure precision, minimize defects, and enable integration of high-performance building systems.
- Enables Year-Round Productivity: Unlike traditional construction, industrialized methods are not constrained by seasonal weather—especially critical in northern and remote regions.
- Supports Circular Economy and Net-Zero Goals: With an estimated up to 22% emissions reduction compared to conventional builds, Industrialized Construction aligns with Canada's climate commitments and promotes material reuse and waste minimization.

Accelerated Housing Delivery

Industrialized Construction is uniquely positioned to meet the urgency of Canada's housing targets:

- Supports the Federal Government's Goal of 500,000 Homes/Year: Prefabricated housing solutions offer scalable, repeatable delivery models that can be rapidly deployed across urban, suburban, and rural contexts.
- Repeatable and Reliable: Standardized designs ensure consistent quality and reduce variability across builds, supporting long-term durability and occupant satisfaction.



Cost Efficiency and Scale

The economics of Industrialized Construction unlock new possibilities for housing delivery:

- Standardized Components and Benchmarking: Repeatable designs and centralized production allow for better tracking, reduced risk, and predictable outcomes.
- Integration of Architects and Engineers Early in the Process: Collaborative design-build workflows foster innovation and reduce costly rework.
- Canada's Leadership in Al and Robotics: With global leadership in advanced technologies, Canada is poised to export both intellectual capital and physical solutions, creating new economic streams.

Climate Action

Industrialized Construction is a climate-forward solution that complements Canada's environmental goals:

- Contributes to 2030 and 2050 Climate Targets: Energy-efficient designs and low-carbon materials reduce operational and embodied emissions.
- Aligns with Federal Climate Funding: Programs like the Climate Action and Awareness Fund (\$206M) can be leveraged to accelerate adoption and innovation in factory-built housing.

Program Integration

Existing federal programs can be optimized to support factory-built housing delivery:

- Rapid Housing Initiative (RHI) and Multi-Unit Residential Building (MURB): These
 programs can be redesigned to prioritize factory-built solutions, unlocking immediate
 market impact.
- **Federal Government's Housing Plan:** With \$10B in low-cost financing and \$6B in grants for supportive and Indigenous housing, offsite construction offers a ready-made delivery mechanism to maximize impact.



Global Leadership

Canada has the opportunity to lead globally in construction innovation:

- Join Global Leaders: Countries like Sweden, Japan, the UK, and Germany have demonstrated the power of Industrialized Construction, Canada can build on this momentum.
- Open-Source Data and Digital Coordination Platforms: These tools enable scalable, collaborative innovation across jurisdictions and sectors.

Workforce and Economic Development

Industrialized Construction is a catalyst for inclusive economic growth:

- New Employment Pathways: From manufacturing and logistics to digital design and robotics, the sector opens doors to high-quality jobs.
- **Diversifies Talent Pipelines:** Opportunities in rural, Indigenous, and underrepresented communities can be expanded through targeted workforce development.
- **Spillover Benefits:** Growth in factory-built housing drives demand in infrastructure, commercial real estate, and environmental systems, creating a ripple effect across the economy.



Appendix B: Additional Enablers for Sustained Success

While the core recommendations focus on direct interventions, such as regulatory reform, financing mechanisms, and procurement strategies, enablers address the broader ecosystem: Indigenous leadership, workforce development, and climate alignment. These are not standalone policies but essential levers that unlock long-term impact, equity, and innovation. We are recommending that the federal government focus on the following enablers to ensure that Industrialized Construction is not just adopted, but embedded in a way that reflects Canada's values, diversifies economic opportunity, and accelerates climate resilience.

Indigenous Housing Sovereignty and Economic Development

Industrialized construction offers a powerful tool for Indigenous communities to lead their housing solutions, on reserves and in urban settings. Federal policy must support Indigenous-led manufacturing, design, and delivery.

Short-Term Actions:

- Allocate dedicated funding within the Strategic Industry Fund (Recommendation 1.1) to support Indigenous-led fabrication hubs and workforce development.
- Fund community-driven housing plans that integrate Industrialized Construction with traditional knowledge and land stewardship. These plans should outline associated social and critical infrastructure needs (e.g., water infrastructure, health services).
- Ensure Indigenous representation in the governance and delivery of Build Canada Homes, including procurement, design, and permitting decisions.
- Support flexible delivery models that respect the diversity of Indigenous housing needs across remote, rural, and urban settings.

Long-Term Actions:

- Establish an Indigenous Housing Innovation Fund to support experimentation with new materials, cultural typologies, and delivery models.
- Create intergovernmental agreements to support long-term housing pipelines for Indigenous communities, with Build Canada Homes acting as a delivery partner.



Develop export strategies for Indigenous-led factory-built housing to serve other remote and climate-challenged regions globally.

Workforce Development and Innovation Enablement

Industrialized Construction unlocks new employment pathways across manufacturing, logistics, robotics, and digital design. Strategic workforce development is essential to scale the sector and ensure inclusive economic growth.

Short-Term Actions:

- Partner with trade schools, colleges, and Indigenous entities to deliver factory-built housing-specific training programs, including assembly, automation, and digital coordination.
- Pilot inclusive workforce development programs in rural, Indigenous, and underserved communities to expand talent pipelines and support local employment.
- Leverage existing federal skills funding (e.g., Union Training and Innovation Program, Canada Training Benefit) to support training in robotics, digital design, and offsite construction technologies.
- Launch a national Industrialized Construction skills challenge to attract youth and mid-career workers into the sector through competitions, micro-credentials, and employer partnerships.

Long-Term Actions:

 Establish a National Centre of Excellence for Industrialized Construction to lead research, workforce innovation, and curriculum development in partnership with academia and industry.

Climate and Sustainability Alignment

Industrialized Construction supports Canada's climate goals by reducing emissions, improving energy performance, and enabling circular economy practices. Embedding it into climate policy will accelerate adoption and impact.



Short-Term Actions:

- Prioritize factory-built housing in climate and housing funding programs, including the Green Building Strategy, Housing Accelerator Fund, and Indigenous housing programs.
- Support lifecycle emissions benchmarking for factory-built housing to quantify efficiency gains and inform procurement and permitting decisions.
- Advance the National Building Code/National Energy Code 2020 energy tiers toward net-zero factory-built buildings by 2030, with incentives for early adopters and performance-based certification. Sweden used a low-carbon agenda to mandate engagement with Industrialized Construction, and there are local green standards that could support this work (e.g., Vancouver's Zero Emissions Building Plan, Toronto's Green Standard.)
- Fund pilot projects that integrate Industrialized Construction with low-carbon materials, renewable energy systems, and climate-resilient design.

Long-Term Actions:

Embed Industrialized Construction into Canada's net-zero and circular economy strategies, including material reuse, waste minimization, and embodied carbon reduction.



Appendix C: Resources

Benefits of Industrialized Construction

Modular construction: From projects to products (McKinsey & Company)

Streamlining permitting

Permit Connect Navigator (BC) (provincial)

BC Building Permit Hub (municipal)

<u>Edmonton Auto-Review system</u> (CTV article overview), <u>main page for permits</u> (New Commercial Buildings - plexes, apartments, New Home Construction - single-family homes)

Standards (CSA A277, building codes, BIM, digital)

Exploring the Existing Regulatory Framework for Modular Construction in Canada (CSA Group)

GTHA Prefab Regulatory Framework (TAF, DRAFT)

Digital/BIM

BIM Maturity at Scale: enabling digital transformation across the Canadian construction industry (NRC)

Digitally Accelerated Standardized Housing (DASH) Initiative Overview (BC)

Investment Approaches

The Hamilton Transit Oriented Affordable Housing Lab Final Lab Report

A Housing Trifecta: How governments can tap private capital to improve supply, sustainability and affordability (RBC)

Banking on Buildings Program: Financing solutions to accelerate low-carbon, resilient real estate (Affine Climate Solutions) (Proposes portfolio-based tax credits involving multiple housing projects)





Insurance/bonding

<u>Surety Bonds Could Unleash Billions Toward Canada's \$2 Trillion Housing Need</u> (<u>Missing Middle Initiative</u>)

Sector Opportunity (full supply chain)

Roadmap to Transform the Canadian Construction Industry (UNB, NRC, UofAlberta, Cast)

End-to-End Housing Production Overview (Digital Supercluster)

Offsite construction: Ontario Offsite Construction Opportunity Study (Government of Ontario)

Wood: Wood requirements for single-family home and 6-story residential building (CRIBE & SVMA)

Building products: <u>Advanced Forest-Based Biomaterials for the Building Industry - Opportunity Roadmap for Ontario (CRIBE & SVMA)</u>

Procurement

<u>Procurement Guidance for Prefab Housing - Submission to City of TO (Assembly Corp.)</u>

<u>InfraGuide - Selecting a Professional Consultant (NRC & FCM)</u> (this is a good example of procurement guidance that can be provided to municipalities)