

# Alternative Housing Solutions

A Model for Scaling Affordable, Sustainable,  
and Equitable Housing Solutions in Canada

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of the requirements for the degree of Master of Design in Strategic Foresight & Innovation

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# Abstract

For more than a decade, serious public concern has been growing over the cost of housing and the shortage of affordable options geared to low- and moderate-income households globally. Research has shown that a large and increasing share of the population cannot afford its housing costs. In Canada, the gap has increased between the number of households that need supportive housing geared to income and the number of these units the current housing system can deliver. Increasing demand for this type of housing has put incredible pressure on cities and social housing providers to try and meet demand. Cities have been depending on market-developers to provide affordable options through varied incentive programs, but uptake has been slow due to their lower profitability. Within the global context of unaffordability, we are seeing a re-emergence of alternative models of provision and ownership being piloted by cities and community groups around the world. These alternatives are largely based on principles of co-production and community ownership that recognize that housing can be both a strong driver of productive economic development as well as a means to improving social well-being and the quality of life for all. Such models include co-operatives and community land trusts. While these models are still seen as alternatives to mainstream supply, public and social housing operators have proven their viability and potential in helping fill the affordable housing gap.

Through a combination of research methods taken from the fields of design thinking, foresight, and systems thinking, this Major Research Project explores alternative housing models in Canada and abroad. A focus is made on building institutional resilience, by looking at emerging patterns of increased self-reliance, entrepreneurial strategies, and partnerships for the provision of new social housing. Additionally, this project considers new paradigms being explored in the housing and city-building space which acknowledge the complexity of varied perspectives in cities, as well as the climate-related emergencies and other factors that impact the housing ecosystem. Finally, this project proposes a conceptual co-production model of housing provision by leveraging public land.

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# Introduction

The shortage of affordable housing in cities around the world affects 1.6 billion people (one-third of urban population) and has been recognized as a key priority for policy change by the United Nations (Tsenkova, 2022). In the wake of the COVID-19 public health crisis, the need for sufficient access to affordable, safe places to live is more evident than ever before. The key to a city's long-term prosperity is an affordable, resilient housing market that can absorb and recover from such socio-economic shocks. Thus, housing affordability and availability have taken on greater importance as the pandemic has progressed. Cities have taken measures such as rent freezes, tenant protection, the provision of emergency shelters, the conversion of underutilised hotels and businesses into affordable housing, and the construction of more permanent solutions using modular and prefabricated technology. The problem has prompted governmental commitments and action in many cities to address the housing supply dilemma and provide a long-term range of affordable housing options. In the wake of the pandemic, there is a pressing need to view affordable housing as an essential piece of social infrastructure deserving of support and long-term investment in order to create a resilient ecosystem of housing providers. However, this direction stands in stark contrast to the general downward trend in funding for social and affordable housing that has persisted since the late 1980s (Tsenkova, 2021).

# Defining the Problem

The inability of Canada to provide adequate housing for its entire population is commonly referred to as a “housing affordability” problem (Hulchanski, 2005). The term “housing affordability,” however, is an inadequate way to frame the problem. The literature review indicates that the issue is systemic and much more complex than housing costs relative to income, which are merely symptoms. That’s why, before effective solutions can be properly defined, a clearer understanding of the issue(s) at hand is necessary.

Affordable housing is defined as housing that a household can afford while still having enough money left over for food, transportation, and healthcare. That means that what is considered affordable depends on a household’s income. According to Statistics Canada, “people in households that spend 30% or more of total household income on shelter expenses are defined as having a “housing affordability problem”. Hence, every family has a similar need for housing, even though what constitutes an affordable rent or mortgage varies from one to the next.

While the housing needs of many families are met adequately by the private market, a large and growing share of the population cannot afford its housing costs: in 2018, 11.6% of Canadian households were in core housing need. This means 1,644,900 households were living in housing that did not meet affordability and/or suitability standards (Statistics Canada, 2018). Since low- and middle-income families cannot afford market-priced housing without substantial government subsidy, they are largely ignored by for-profit market developers. This void is supposed to be filled by the social housing sector, but its ability to keep up with demand is contingent on receiving sufficient funding. Currently, the social sector is unable to provide the required number of units due to lack of funding and rising land and construction costs (Toronto Housing Market Analysis, 2019).

Within this context, housing policy experts have highlighted two key issues that have reached a tipping point: (1) housing provision in the affordable/social sector and (2) access to affordable housing for a wide income range of employed and younger households (Chisholm & Hulchanski, 2019). However, the literature reviewed suggests that we cannot continue to rely on the same sectors alone to deliver the types of housing options Canadians need. It is time to seek out alternative solutions.

A study into Canada’s housing policy history revealed that Canada’s housing system was most effective at producing adequate, appropriate, and affordable housing when the federal government supported capacity building in the social and community housing sector – which operated in parallel to the market-supplied sector. This pattern of strategic intervention by governments seeking to foster innovation and/or scale promising solutions was also visible in other countries, such as the US, Netherlands, and Australia. There is much to learn from taking a closer look at the housing innovations and alternative models of housing provision and ownership in Canada and abroad. This MRP contends that cities already have the resources, technology, and proven models necessary to solve these issues; but first, they may need to change their perspective on housing in order to unlock them.

# Purpose & Goals

This project explores alternative housing models in Canada and abroad. A focus is made on building institutional resilience, by looking at emerging patterns of increased self-reliance, entrepreneurial strategies, and partnerships for the provision of new social housing. Additionally, this project considers new paradigms being explored in the housing and city-building space which acknowledge the complexity of varied perspectives in cities, as well as the climate-related emergencies and other factors that impact the housing ecosystem. Finally, this project proposes a conceptual co-production model of housing provision by leveraging public land. The narrative was designed to engage the following conversations with municipalities' housing and planning departments, social/community housing stakeholders, and engaged citizens:

- How might we encourage collective learning across the system and ensure that strategic interventions can be developed and shared collaboratively?
- How can the land value generated by our collective contributions be captured and reinvested more equitably?
- What could our cities look like if we considered housing as an essential part of our social infrastructure?
- How can citizens be active participants in the conversation and implementation of housing solutions, rather than passive recipients of subsidies and services?
- How might we inspire those who are no longer served by the dominant housing paradigm to consider alternative models of investment and living?

On a personal note, becoming aware of my positionality and relative privilege within the housing system was an important first step in feeling engaged in the housing debate. As a new homeowner who recently transitioned from owner-occupant to landlord, I was interested in learning how to be a responsible participant in the housing system. Additionally, I wanted to use this project to critically unpack my journey using the tools and frameworks from the Strategic Foresight and Innovation toolkit while also attempting to add value to our collective understanding of housing opportunities in today's context.



# Research Questions

The research began with an open-ended inquiry into the “affordable housing problem” which quickly revealed the diversity of perspectives present in the literature and mainstream media. A review of the dominant narratives that exist in the public discourse led to these critical insights:

- The housing system is extremely complex, and the resulting ‘affordability problem’ or ‘housing crisis’ are used as blanket terms for a much wider set of interconnected problems that have their roots in the financial, legal, political, planning, development, and land systems. It is what some call a ‘wicked problem.’
- There is ongoing debate about policies for the housing system, and these debates are based on differing opinions relating to the role of market and non-market stakeholders, as well as the type, magnitude, and targeting of housing subsidies. This results in multiple competing narratives often driven by tactical politics rather than strategic policy approaches (Chisholm & Hulchanski, 2019).
- Housing’s importance to our economy and society’s well-being has been well established by research. The traditional and limited policy framework, however, fails to account for these vital factors. Consequently, the social perspective that positions housing as a human right and social benefit is often missing from the dominant housing policy narrative. Indeed, housing policy advocates have pointed to a need to reframe our understanding of the important role housing plays in our economy, in reducing carbon, in social inclusion and inequality (Chisholm & Hulchanski, 2019).

The next phase of the research was dedicated to some of these missing frames, particularly from a social inclusion and equity perspective. The goal was to better understand the tensions resulting from how housing impacts both economic and social outcomes. While the dominant narrative around housing is currently being driven by economic interests, this project’s aim was to contribute new narratives to the discourse around affordable housing issues. These preliminary lines of investigation focused the scope of this project on housing innovation in the social/community housing sector, as articulated in the following research question:

**How might we make what are currently seen as ‘alternative’ housing models a mainstream part of the supply?**

# Methodology

The project combines tools and methods from the fields of design thinking, foresight, and systems thinking. The information-gathering and analysis components of this project follow a series of phases of divergence (where new information is gathered) and phases of convergence (where information was analyzed and synthesized).

The project methodology mirrors the steps in the design thinking ‘double diamond’ process (figure 1): problem finding, problem framing, solution finding, solution selection, and solution implementation.

## Literature Review

An in-depth literature review was conducted to gain an understanding of the affordable housing problem in Canada, as well as the system dynamics present in our housing system. A broader review eventually led to a focus on the non-market housing models in Canada, as well as the history of how those came to be. A second focus was on housing innovation across key areas (social, technological, environmental, economic, and policy) and industries (real estate development, urban planning, construction, and design/architecture). This focus also extended to the affordable housing solutions landscape in Canada and abroad. This focus informed the design the case study.

## Case Studies

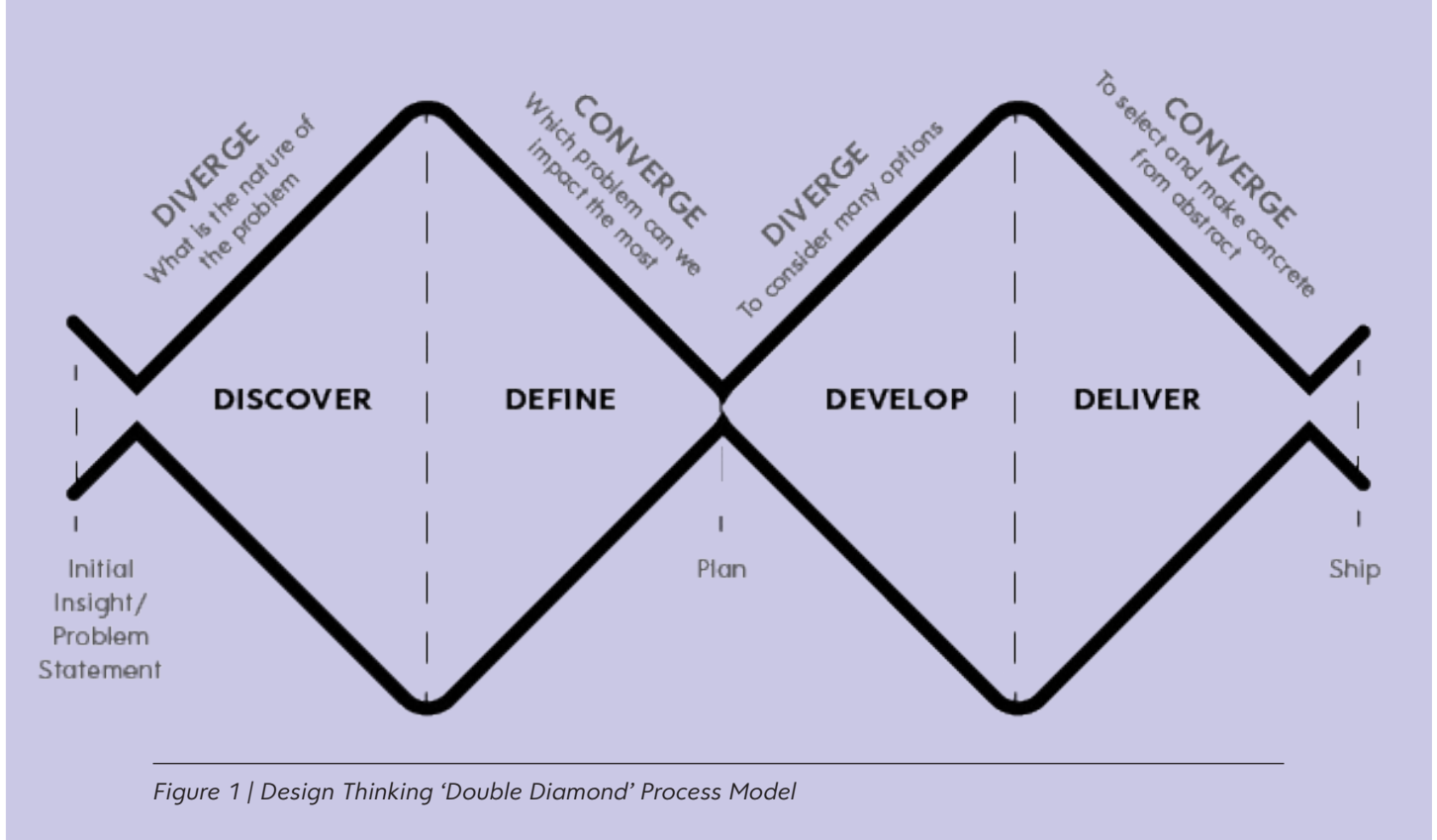
Following a comprehensive literature review of studies and projects addressing the affordability of socially inclusive housing from a variety of perspectives, ten cases were selected and explored in depth. Consideration of what is deemed innovative was grounded in the Canadian urban setting and driven by gaps and opportunities in the present housing market, such as new dwelling typologies, financing models, and tenure alternatives. Consequently, application and relevance to the Canadian housing market was a major factor in selecting the most relevant case studies. Other criteria for finding case studies included the following:

- Projects that challenge the dominant model of housing provision
- Projects that address gaps in the attainable and affordable housing market
- Projects that have been highly referenced in literature or media
- Projects with varying degrees of maturity, ranging from pilot projects to established ones
- Projects led by both cities and local communities (bottom-up)

The cases that were studied included a variety of projects delivering affordable housing units for a range of household incomes. Some targeted attainable homeownerships in the 200K to 300K range while others targeted low-income households needing subsidized rental units. It was important to capture a snapshot of the spectrum of options within the non-market housing continuum as they are all interconnected within the larger housing ecosystem.

## Data Collection

The selected cases had to have sufficient published qualitative and quantitative data corresponding to the unit of analysis. The data collection came from research journals, media articles, published interviews, and publicly available post-mortem reports. Each case needed to have sufficient information relating to local context, strategic approach and objectives, design considerations, type of stakeholders involved and their roles, financial model, and post-mortem results or insights.



## Information Synthesis

A method called Affinity Mapping was used to further understand the commonalities between the case studies. This exercise facilitated the recognition of patterns within the case studies and helped identify the major trends in affordable housing innovation. This process resulted in four notable thematic areas that can generally capture the various innovative tools that have been used to achieve housing affordability.

## Systems mapping

Drawing from the **Systemic Design Toolkit** and User Experience (UX) tools, visualisations and maps were generated to develop an understanding of the complex dynamics in the housing system and to begin identifying potential leverage points of intervention where alternative models might emerge.

## Business Model Canvas

The Business Model Canvas and Value Proposition Canvas (Osterwalder and Pigneur, 2010) were used to help develop the conceptual model and to articulate a deeper understanding of a housing value proposition for the citizen sector.

## Study Limitations

- The research scope was limited to understanding macro-structural influences that innovative mechanisms might have on economic, environmental, and social outcomes related to housing. It did not look at a particular vulnerable population – rather it focused on income-based segments of the population.
- The Canadian housing system has its roots in our colonial land system, which is interconnected with issues of land treaties on unceded territory, and reconciliation with First Nations People. While these critical perspectives are also missing from the debate around housing, they fell outside the scope of this project.
- The systemic examination of the social housing system in Canada was conducted through secondary sources, based on the abundance of research papers, policy and industry reports, case studies, and media coverage of this topic.
- There are many ways to approach and frame this topic. This approach was biased by personal and professional interests.

# Knowledge Base

## **The Housing Market Today**

According to *Shaping Futures* (2019), Canada's housing market was transformed by rising inequality and the increasing financialization of urban land and homes after the 2008 global financial crisis. Housing markets, which were formerly mostly local or regional, are now sites for speculation and safe havens to shelter funds (in the form of houses and condominium units). This is particularly the case in the Toronto and Vancouver regions, but many parts of the country are affected by a regional spillover effect. For instance, households being pushed out of the City of Toronto housing market are showing up in surrounding municipalities (Chisholm & Hulchanski, 2019).

As the wealth gap widens, many families who once considered themselves middle class can no longer find housing in their price range. A deregulated housing market, in which about 96% of the housing stock is subject to market pressures and only a tiny social housing sector serves as a supplement, was not designed to handle the loss of the middle class. Therefore, real estate prices that were once determined by the huge local/regional middle class are now dictated by a growing minority of high-income households in combination with global factors (Hulchanski, 2021).

# Key Reasons Why Housing is Unaffordable

In the housing system, real estate is a tangible asset made up of property and the land on which it sits, and while it is immobile, it is subject to **supply and demand**, just like other assets. This means that home prices, like stock and bond prices, are influenced by the law of supply and demand (when there is more demand, prices tend to rise; when there is more supply, prices tend to fall).

**Demand** includes existing and future renter and owner households; and investors and operators of residential developments.

**Supply** is characterized by three key elements: policy-making, real estate development, and financing. **Policy-making** includes departments in all 3 levels of government and its function includes producing zoning bylaws, policies and programs that create regulations and incentives for housing development and allocate funding for housing programs. **Real estate development** includes private, public, and non-profit developers; architects and planners; construction companies; property management companies; and other consultants like engineers and designers. Its main function is to create various outputs along the development process spectrum: from serviced land to architectural designs, to operational housing. **Financing** includes mortgage lenders; real estate asset management; and insurance providers. Its function is to produce the financing and insurance required to build, purchase, and operate real estate development projects (Pacini, 2017).

## Demand-Side

- Incomes for many workers are too low compared to the cost of housing. The belief that housing affordability challenges would be solved if all workers had a full-time job is a myth. In some housing markets, only workers earning hourly wages of \$30 or more can comfortably afford housing. In fact, there is no urban center in Canada in which full-time workers earning the federal minimum wage can comfortably afford the costs of a typical two-bedroom rental unit. The problem is worsening as incomes for low- and moderate-income workers have stagnated while housing costs have risen.
- For-profit developers generally don't respond to the demand for housing among lower-income households. What the low-income household can afford to pay in living costs is too low to cover the cost of developing and operating newly constructed housing. This issue is well articulated by David Hulchanski (2005): "Households that are unable to generate market demand for a basic necessity in a society that relies almost exclusively on markets are generating social need (or "non-market demand")." Meanwhile, the social sector who provides services to this segment of the population is required to pay market prices for land, materials, and labor without adequate funding.
- Land prices are driven by the exchange value rather than the use value. What Adam Smith has called the "Law of Rent" (Lackman, 1976): Everyone wants the best place on the map they can afford, and that depends on what others can afford. The price of a plot of land is not based on what it cost to produce, but on what the richest buyer can afford. That's why we saw such huge inflation in the 2000's, and again during the pandemic. Everyone was able to borrow more, so everyone could afford more; consequently, prices rose. It seems counterintuitive that land and property value begins with what people can afford and works backwards from that point. While a national land value reform is unlikely to happen given the role it plays in our economy, there are ways to capture some of this value and reinvest it into affordable housing.

## Supply-Side

- If the production costs of housing increase, the projects will consequently lead to higher priced units, or they could be cancelled outright. Certain types of government regulation contribute to raising production costs and reduce the overall supply of all types of housing. For example, limits on density restrict the number of homes that can be built on available land, and complicated approvals processes can slow down development and even cause developers to go elsewhere. The longer it takes for a project to be operational and revenue-generating, the more it costs to finance (in equity and in loan interest), the less likely a project will be viable, particularly for smaller-scale and affordable housing projects. (Kramer p.146-147, House divided 2019).
- In some cities like Toronto, the city's social and physical infrastructure is increasingly financed through the income generated by real estate transactions (planning fees, development charges, value capture, and land transfer taxes) rather than by property or income taxes. This creates a dependency on large corporate developers who can afford to pay these costs upfront, leaving out smaller or non-profit developers. There is also the risk of developers wanting to recover these additional costs by increasing the price of the units for sale.
- A phenomenon called the “financialization of housing”. Broadly, this can be defined as the application of financial instruments by institutions and investors in local housing markets (Andrea Nemtin et al., 2021), and typically refers to three dimensions: (1) the financialization of mortgages: the structural transformations of residential mortgage markets associated with the development of mortgage-backed securities, the growth of the mortgage market and the rise of household debt; (2) the financialization of home ownership: the rise of domestic and foreign investors in housing markets and the growing reliance on these investors for new rental supply; (3) the financialization of rental markets: the growth of institutional investors in purpose-built rental markets. Corporate financial firms buy buildings as investments and manage them to provide regular returns to investors. Sometimes called ‘financialized landlords,’ these firms include Real Estate Investment Trusts (REITs), pension funds, insurance companies, private equity funds, and similar investment vehicles. To deliver high profits to investors, a key business strategy of these firms is to raise revenues by increasing costs for tenants.
- Connected to the demand-side land price problem, there is the issue of land speculation. A multibillion-dollar land speculation market was created by letting landowners capture value gains. The business model is to buy potential development land cheaply, before it has planning approval, and sit on it until approval is granted. As soon as this happens, land value soars. Then homes are built as cost effectively as possible to maximise profits. Large housing developers have become adept at replicating this model, with suburban residential zones as being the most prominent examples.
- Another factor is the rising construction costs due to labour shortages. The issue is widespread in almost all the trades right now— from labourers to carpenters to electricians to plumbers. In its latest report, Statistics Canada recorded all-time high job vacancies in the construction sector, with employers actively seeking to fill 81,500 vacant positions in the first quarter of the year (Paglinawan, 2022), and the issue is not likely to resolve quickly with a large population of workers (boomers) starting to retire.
- A final problem is a lack of government funding to expand the availability of affordable homes. Housing policy reforms since the 1990s have moved away from bricks and mortar to demand-based subsidies and towards more market-oriented provision models (Tsenkova, 2022). In the 1990s, the provinces pushed for a withdrawal of the federal government in active housing programming management. They asserted that as providers of social programs, they would be better positioned to manage social housing. In the mid-1990s the federal government decided it would no longer play a role in social housing. It transferred its social housing stock and remained stream of subsidies to the provinces. While few provinces have remained active in housing provision, most have cut their own annual contributions to housing, relying instead on money from the federal government. This marks a significant divestment of senior government dollars in the non-market housing sector.



### **Spotlight on Ontario —**

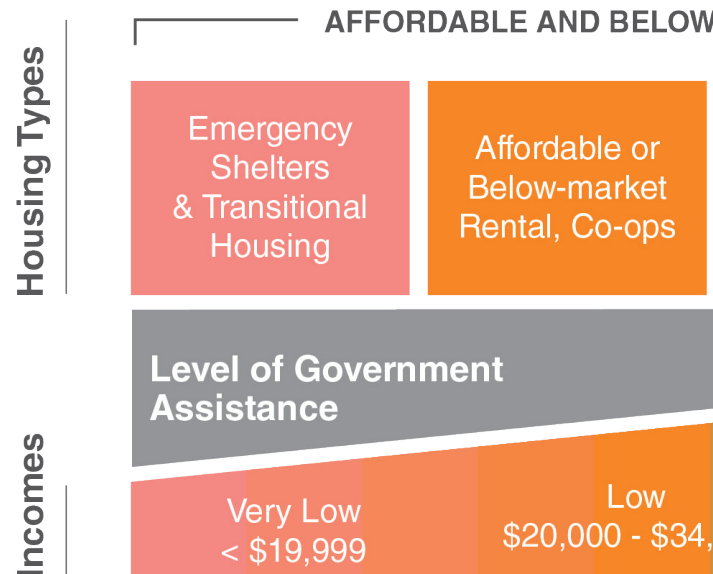
The devolution of social housing to local municipalities in Ontario is believed by housing providers to be the event that solidified a province-wide reframe of social housing as a welfare program. With this change came a shift from federal and provincial governments providing housing (by building and developing the bricks and mortar), to providing programs and incentives for the private market to take on this role in. It forced the policy debate to revolve around determining which level of government to hold accountable to which element of our housing system. In Ontario, hardly no affordable housing has been constructed since the 1990s. This policy shift was motivated in part by the growing awareness of the connection between housing outcomes and social determinants of health and the need for a systems-based approach to solving the unique problems faced by each municipality. However, housing advocates argue that the devolution represented a significant divestment of federal dollars in the non-market housing sector (Pacini, 2017).

# Supply of Affordable Housing

The **housing continuum** describes the range of housing opportunities that people can encounter in the housing market. It is meant to ensure that people of varying socioeconomic backgrounds and ages have access to suitable options. As demonstrated in figure 2, on one end are those without permanent residence, and on the other end is homeownership. There are pathways leading from one type of housing to another. Importantly, the lack of affordable supply on the higher priced end of the market will have a downstream impact on everything below it.

*Housing Advocates have criticized the linear housing continuum model arguing that its depiction of housing types in a progressive ascension from homeless to market homeownership is suggestive of a metaphoric social status ladder that one is meant to climb. Moreover, it positions homeownership as the end goal without recognizing that people can move between different types of housing needs for a wide variety of reasons depending on their unique needs (Fung et al., 2020).*

In the Canadian housing system, there are two types of affordable housing, and they are produced in two very different ways. The first type is *affordable and below-market housing* (also referred to as *social housing* throughout this report), which consists of dedicated units that are set aside for low- or moderate-income households. The unit's allocation is rationed, rents are heavily subsidized, and management carried out by public or non-profit housing groups. In Canada, the social housing has a residual role, and the small sector (less than 5%) operates as a safety net (Tsenkova, 2022). The second type, sometimes called *market-supplied affordable housing*, is market-supplied housing that is created without any direct government subsidy. These units may rent or sell at affordable levels, but they do not have legally binding affordability requirements.



## Affordable and Below-Market Housing

### Characteristics

- Dedicated affordable housing units are essential for ensuring affordability in neighborhoods where market rents are rising rapidly. They also are well suited to creating inclusive communities in providing affordable housing to households with very low incomes, such as seniors on fixed incomes, as well as those with special needs such as people with mental disabilities and formerly homeless individuals.
- Because they must remain affordable to a particular income group, dedicated affordable housing units typically have legally binding restrictions on who can reside there and for how long. These units may continue to serve low-income families for 30 to 50 years or longer. Therefore, it promotes stability for vulnerable individuals and communities by allowing individuals to reside in homes managed by an entity that will not evict them, raise the rent, or sell the property to a developer or investor.



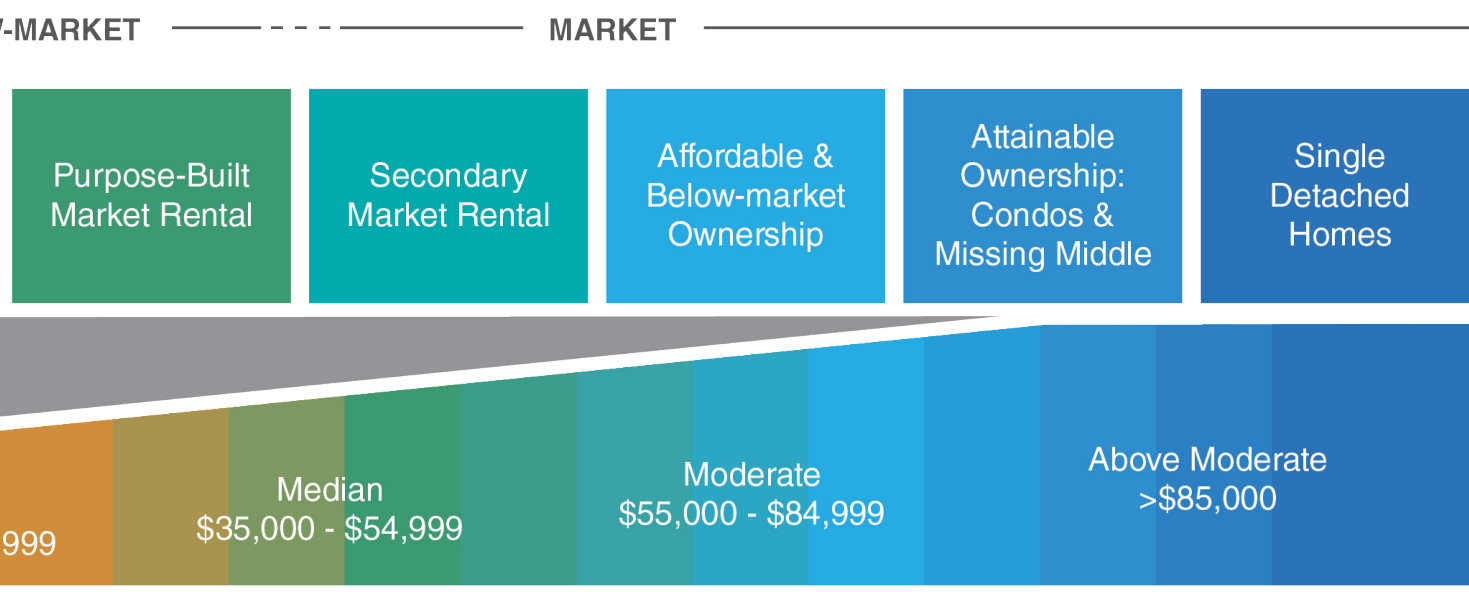


Figure 2 | Illustration of a Housing Continuum Model (City of Victoria, 2021).

### Supply

- Most of the dedicated housing stock in Canada was built prior to 1980, during an almost two-decade-long era of federal government funding and programs aimed at increasing the supply of affordable housing in urban centers, building capacity in the social sector, and building more socially integrated communities.
- Some dedicated, affordable units are created because of affordability requirements or incentives established by local governments. These units may be built by for profit developers who don't ordinarily focus on affordable housing, or willing to do so to get their projects approved. For example, a city may require that a share of the units in new market rate developments over a certain size be affordable. Or a city may offer incentives such as the ability to build at a higher density for developments that include affordable housing.
- Since the 1970s and 1980s, the development of dedicated housing in Canada has been characterised as a patchwork of responses pieced together over time as political climate, economic conditions, and public opinion shifted. For communities across Canada, partnerships are required to leverage the resources of diverse partners working towards a common goal: the adequate provision of affordable (primarily rental) housing (Tsenkova et al., 2022).

### Market-Supplied Affordable

Often these are older homes whose rents become affordable overtime as newer properties have come online. Other units are affordable by virtue of their location, age, or quality in many cases. The owners of older existing units often find that they need to lower their rents or sale prices to remain competitive. As a result, these older units become more affordable.

Both kinds of affordable housing are important. Millions of moderate- and low-income households live in housing that is not subsidized by the government and is affordable to them.

## Spotlight on the 70s and 80s of Canada's Housing Story

Sources: Chisholm & Hulchanski, 2019; Tsenkova, 2022

### 1969

Under the leadership of Pierre Elliot Trudeau, the minister of housing published The Report of the Federal Task Force on Housing and Urban Development recommending that the government formally adopt a set of 10 principles. The first two:

(1) States that housing and urban development are an urgent priority and must be treated as such by government.

(2) Declares housing a basic human right: "Every Canadian should be entitled to clean, warm shelter as a matter of basic human right."

Though the federal government does not immediately act on the recommendations in the report, the report is the first major national study to frame the issue of adequate housing as a human right and recommended a new approach to meeting the social need for housing, replacing government managed public housing with community based non-profit and co-operatives, leading to the very significant 1973 amendments to the National Housing Act.

### 1971

The Trudeau government also established the Ministry of State for Urban Affairs (MSUA). The MSUA (1971-1979) was an experiment in building a new kind of institution for policy development and for advising government on issues that cut across many departmental and governmental jurisdictions.

## Toronto Example

There were an estimated 123,450 social and affordable rental housing units in Toronto in 2018. Due to a patchwork of funding and multiple waitlists, it is difficult to get a precise figure for the social housing universe.

In the Toronto Housing Market Analysis (2019), it was reported that "if historical social housing production levels had been maintained, the social housing waitlist would be cut in half."(p.44). According to data from the City's Affordable Housing Office, Toronto added an average of approximately 13,000 social housing units to its rental housing sector during each 5-year period between 1971 and 1996 (before responsibility for social housing was devolved to the City of Toronto).

Figure 3 illustrates what Toronto's non-market (social and affordable) housing stock might look like today had we continued the 1970s to early 1990s trajectory. A scenario in which 13,000 non-market housing units had been added to Toronto's rental sector during each 5-year period since 1996, considering recent affordable housing construction activity. Under this scenario, Toronto would have had 136,300 social housing units in 2016, an additional 45,600 spaces that would have been sufficient to reduce the social housing waitlist by nearly 50%.

However, in the absence of new social housing units, the waitlist continues to grow. By 2031, the number of households on the waitlist will exceed the number of occupied spaces by 25% if no new units are created (Figure 4).

## Early 70's to late 80's

The set of programmes that emerged after changes to the National Housing Act in 1973 were innovative and unique to Canada in what they aimed to achieve. They were concerned with eliminating the stigma of public housing, settling well with the vernacular architecture of place and having a mix of incomes.

Housing would be developed and managed by community groups and non-profit, non-equity co-operatives. These remain for the most part, highly successful in the provision of well-maintained, well-located developments. About 300,000 households continue to benefit from a secure and affordable place to call home, better access to employment, schools and other community benefits. Until the federal government terminated the social housing supply programmes in the early 1990s, another major bout of fiscal austerity, for about two decades 10% of total housing production was non-profit, municipal non-profit, or co-operative housing (Suttor, 2017).

### Key Highlight:

The success of the smaller scale, widely scattered non-profit and co-op housing buildings given that they replaced public housing, was very high. Residents of these housing models reported having a sense of security and permanency, which allowed them to acquire training and move into the work force. Their children benefited from a stable environment in which to achieve in school and remain physically and mentally healthy. This is a powerful narrative that is similar in many ways to the homeownership narrative (Chisholm & Hulchanski, 2019).

## 1985+

- A shift towards neo-liberal values reignited a debate on the role of market and non-market stakeholders in supplying and allocating housing, as well as the type, magnitude, and targeting of housing subsidies.
- The handing-off of housing programs began with the devolution of housing program management from the Federal Government to the provinces.
- Once the economic downturn set in in 1985, interest rates rose to 20%. The Federal Government decreased its involvement and investment in providing mortgage assistance to Canadians.
- The federal government terminated the social housing supply programs in the early 1990s, another major bout of fiscal austerity.

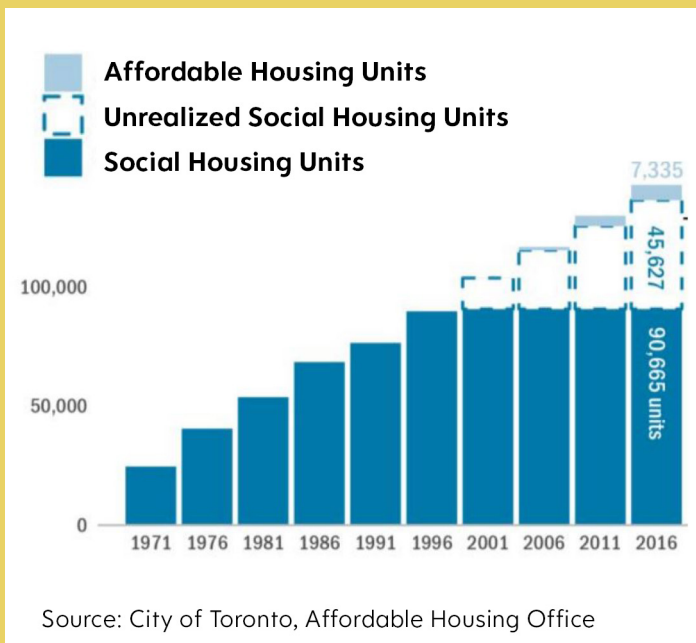


Figure 3 | Actual and Scenario if production levels from the 1970s to 1990s had continued (45,000 additional social housing units would have been created) (Toronto Market Analysis, 2019).

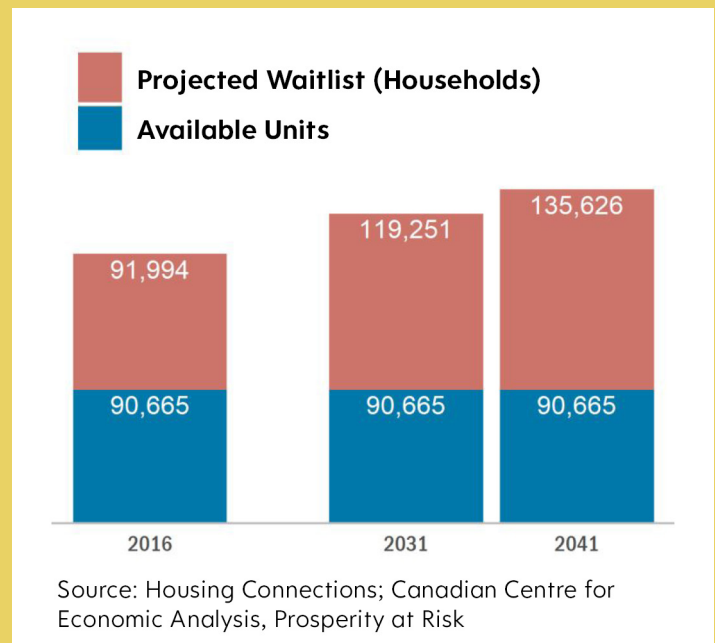


Figure 4 | Projected Demand for Social Housing, 2016 to 2041 (Toronto Housing Market Analysis, 2019).

## Patterns of Resilience

Given the devolution of government involvement in affordable housing, consensus emerged that an effective response requires a multi-sectoral approach, including all levels of government, the private for-profit and non-profit sectors, as well as local communities. This is perceived as the most effective way of producing affordable housing to meet growing local needs within limited resources and capacity (Scanlon, Whitehead & Arrigoitia, 2014; van Bortel et al., 2019). The last decade has seen large cities join their efforts with non-profit and private organisations to provide affordable rental housing in mixed-income, mixed-tenure projects. On a global scale, this shift triggered a range of experimental strategies to redevelop large-scale public housing complexes or to reinvent brownfield sites in cities into inclusive neighbourhoods emphasising social mix and integration (Tsenkova, 2019). Such solutions to the affordable housing challenge in cities demonstrated a viable alternative to address vulnerabilities in the housing market as well as make cities more inclusive and competitive.

## Key Challenges

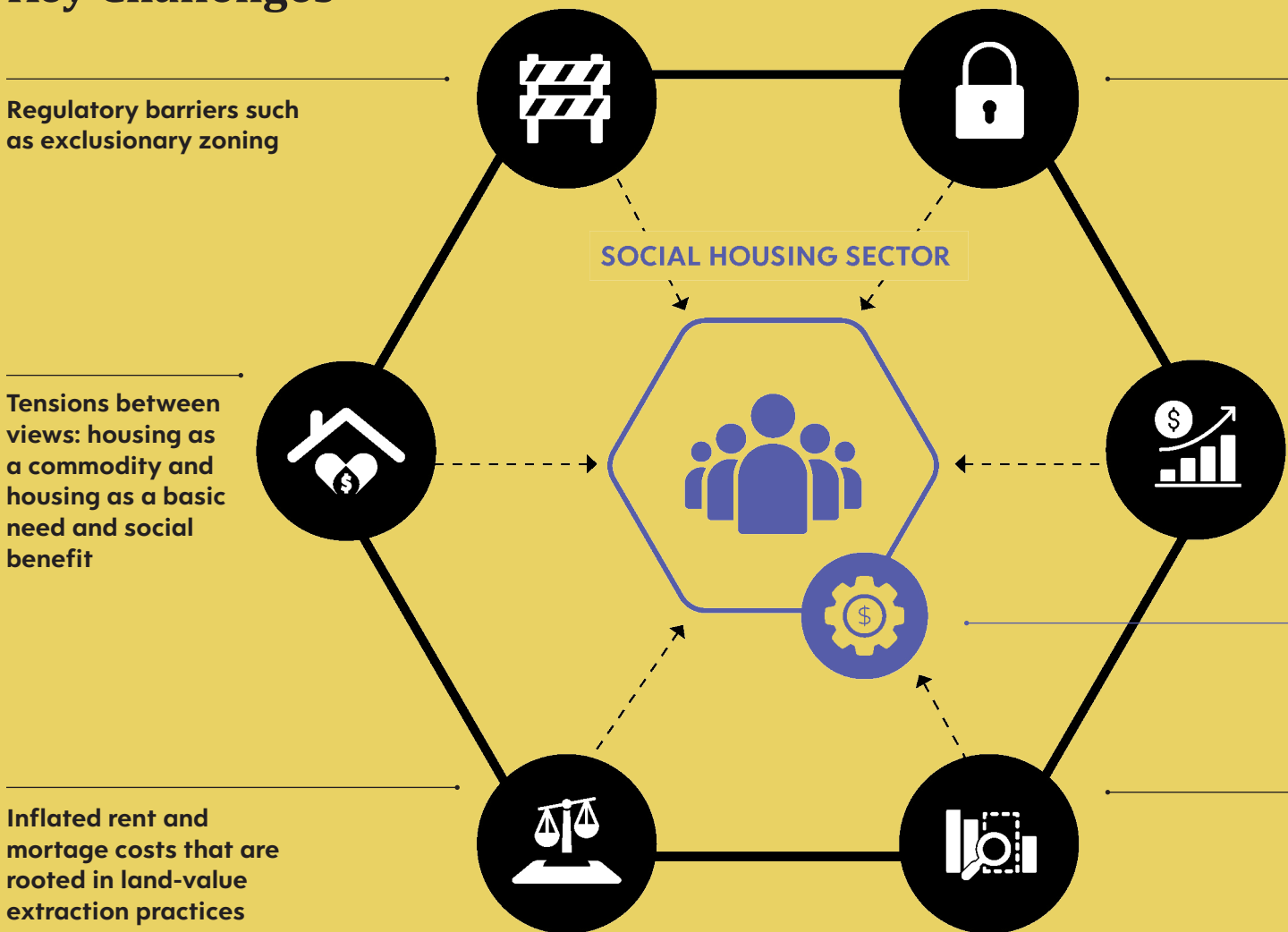


Illustration 1 | Key Challenges in the Canadian housing system

# Summary & Key Insights

**Opaque and complex approvals processes that delay development timelines**

**Prohibitive market-driven costs**

**Lack of capacity in the existing social housing sector**

**Funding gap largely left by divestment of the Federal government**

- Cities now carry the full load of responsibility when it comes to ensuring adequate housing for all its residents. Reforms and devolution of responsibilities between levels of government have formalized the city's role as leader, coordinator, and advocate, uniquely positioned to leverage a toolbox of municipal resources including funding, land, regulations, and policies. While cities still require support from senior levels of government, they must ensure a coordinated strategy between them.
- Canada's current housing system is the product of a century of policy directives; changes in societal values; and innovations across the construction, financial, and policy sectors. The level of commitment to social housing and alternative models of development has fluctuated over the decades. However the progressive policy interventions that came out of 70's and 80's era is evidence that housing paradigms can evolve under the right conditions.
- The households most in need are those with the lowest level of influence over supply because they are largely ignored by the market. There is an opportunity to redistribute power to this cohort, to provide policymakers with a richer understanding of their housing preferences, and to provide this group with the tools to design their destinies.
- Costs of providing housing are market driven. Non-market housing providers are strained to keep providing good quality housing and wraparound social supports as the social need grows, incomes stagnate, and the cost of housing/living continues to rise. Their clientele has limited cash-flow and therefore less of an ability to recover building and operating costs.
- We must break the mindset that frames social housing as a social safety net for the poorest and market ownership as the end goal. We must recognize the important social function that housing plays in society, as an asset to the community and the city.
- Partnerships are essential to providing affordable housing in today's context as they enable the sharing of funds, resources, and expertise.
- The housing market is based on land-based extraction, whether through mortgages or rent. This is not a new phenomenon, but it has intensified as real estate and housing have become more central to economic growth.

# A Need for a New Paradigm

Our housing system favors one ideology over others. The ideology in question is perhaps not as problematic as the power imbalance, where those who hold the power (land and real estate owners, as well as policy makers) are maintaining the structures that allow some stakeholders to have power over others. Policy reforms that led to massive divestment from social housing, removal of rental protections and vacancy decontrol have opened the housing market up to exploitation by financial firms, and interests. In Canada, the income of owners is now about double that of renters, up from about a 20% difference in the 1960s, making market provision of new rental very difficult (i.e., a condominium developer can always outbid a potential rental housing developer for land) (Chisholm & Hulchanski, 2019).

According to Dr. Anna Birney from the School of System Change, systems are repeated patterns of behavior. The 'power-over' model is wearing itself out in our systems (power over: a relationship in which one person/group/nation has power over another person/group/nation). Power is simply the perspective you hold, which then manifests itself in our behaviours, our relationships, and the structures we work with, thereby becoming our systems. At the root of system's change is working with people to change the way they think about the world, to change their relationships, to work with their 'power-with' (relational) and 'power-within' (agency) wherever they stand in the system to affect those structure changes. The goal is to enable flow and fluidity of different types of power and dismantling power-over models. If we can not block or erase power, the question becomes how we harness it in a way that is productive and generative. This includes embracing similarity, connection, and working with difference and conflict (Forum for the Future, 2021).



## Housing as a commodity / Land as an investment asset

### Characteristics

- Housing as a commodity: when housing is purchased not solely based on its suitability as a home but also for its potential as a financial asset (exchange value). The financialization of housing is the realization of Housing as a commodity thinking. It can be observed in the increasing encroachment of financial practices and strategies into previously non- financial sectors such as housing.
- Land as an investment asset: a commodity that grants its owner monopoly over a particular plot, including the right to use it or to charge economic rent for its use. As the economy grows, people can afford to pay or borrow more, so rents and land sale values increase. Through this lens, rising land prices mean rising national wealth.

### Beliefs

- Housing is a vehicle to building equity (for retirement, savings, or to supplement wages).
- Land and housing are viewed as good investment. They are treated as a measure of national economic health.

### Policy View

- The free market should manage supply and allocation of housing; no government intervention.



## Housing as a social benefit / Land as a platform

### Characteristics

- Housing as a social benefit: having stable, affordable and safe housing is essential to family wellbeing, mental health, food security and the ability to participate in our communities (use value).
- Land as a platform: the infrastructure on which our economy runs, much like roads or the worldwide web. Through this lens, rising land prices mean a rising cost burden on the economy and on society as whole. The higher the cost of land, the more of our hard-earned monthly pay cheque goes straight into the pockets of landlords or mortgage lenders instead of being spent or invested in the real economy (that is, productive enterprises providing goods and services).

### Beliefs

- Housing is a fundamental need and a social determinant of health, well-being, and prosperity. Thus, the lack of access to affordable housing has wider societal impacts such as income inequality, class stratification, and the formation of communities.

### Policy View

- The government should play a bigger role in helping Canadians obtain adequate, appropriate and affordable housing.

*" Changing how the real estate system works is hard because you're fighting against the dominant ideology, especially when that system has worked tremendously well for the people in charge of it for a very long time. The playbook is tried and true: buy low and sell high, even if the property is left vacant. Charge the highest rent the market can bear. Advocate for civic infrastructure that will increase property values, and fight like hell against anything perceived to threaten them. For investors, take as much collateral as possible on mortgages and loans, and make sure to be first in line if things go south. "*

– Future of Good columnist James Chan (2020)

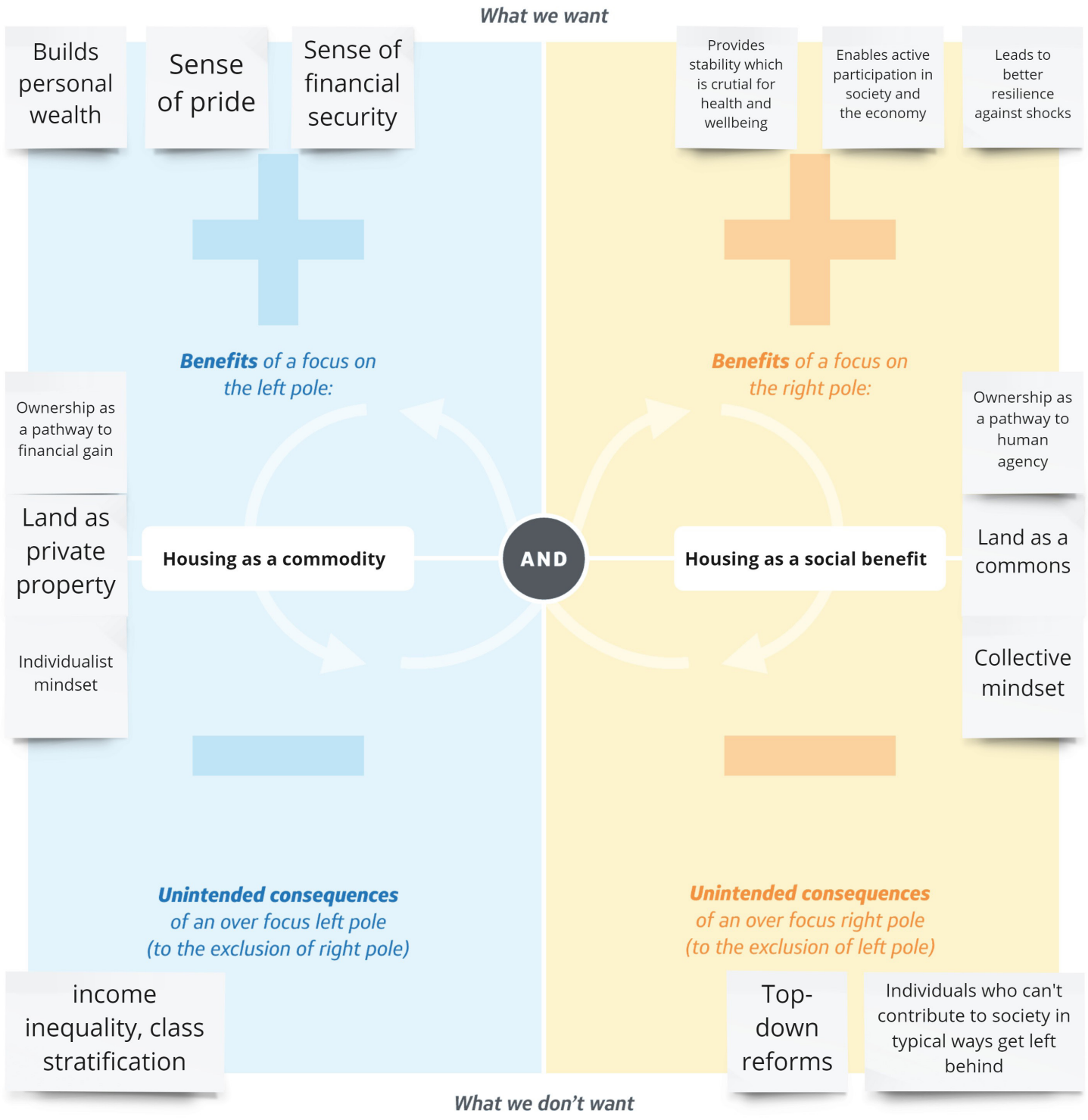


Illustration 2 | Polarity mapping between two orthodoxies in the Canadian housing system: Housing as a commodity and Housing as a social benefit.



# A Social Innovation Lens

The ultimate goal of social innovation is creating systemic change. It usually involves the interaction of many elements: social movements, business models, laws and regulations, data and infrastructures, and entirely new ways of thinking and doing. Systemic change generally involves new frameworks or architectures made up of many smaller innovations. Social innovations commonly come up against the barriers and hostility of an old order. Pioneers may sidestep these barriers, but the extent to which they can grow will often depend on the creation of new conditions to make the innovations economically viable. These conditions include new technologies, supply chains, institutional forms, skills, and regulatory and fiscal frameworks. Systemic innovation commonly involves changes in the public sector, private sector, grant economy and household sector, usually over long periods of time (Murray et al., 2010).

In practice, social innovation applies several methodologies to challenge orthodoxies that exist in a system in order to propose an alternative solution. Before we can begin changing minds, we must first name and manage tensions, such as ‘viewing housing for its exchange value’ and ‘viewing housing for its use value as a home’. Rather than framing this tension as a problem (two ideas that are in conflict), we can view them as polarities (two ideas that are complementary and interdependent) (The Joys of Polarity Mapping - UX Mastery, n.d.). Instead of picking one or the other, polarities help us highlight the strengths of both old and new toward a better outcome.

Recognizing the role that housing plays in economic and social outcomes is critical to finding new solutions. For example, our current system allows for individual landowners to capture most of the value uplift that is generated by our collective contributions to the local economy. Yet a portion of our population is priced out of the homeownership market and cannot benefit from this value. **How might we create the conditions to allow a more equitable distribution of power and resources in the housing system?**

There is a need to re-evaluate how and where housing gets built, and who has the right to it. Under a new paradigm, our housing system should be able to achieve a balance between taking care of people and planet’s needs while still creating opportunities for wealth and community prosperity. Continuing the same path will only grow disparities between owners and renters and continue to drive costs up in a market-driven system that aims for economic growth at all costs. We must consider alternatives to the status quo. Luckily, proven alternative models already exist all over the world. Models that exist in parallel to the dominant system and have the potential to thrive in a range of different cities providing certain conditions are met. **How might we make what are currently seen as ‘alternative’ housing models a mainstream part of the supply?**

# Solutions Landscape

## **A Focus on Alternative Models**

The case study technique was utilized to identify socially inclusive, affordable housing innovations in both a local and international context. According to Yin (1981), case studies are required whenever an empirical investigation must analyze a current phenomenon in its real-world environment, especially when the boundaries between phenomenon and context are unclear. In this instance, the case study technique was well-suited for exploratory research on emerging trends in the housing sector, notably for the supply of affordable homes. This research study employs multiple cases to better understand trends in both international and local contexts and to highlight important lessons that can be derived from each case study.

# Summary of Key Findings

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## Case Studies

*Throughout the document, case studies are used to provide evidence and explanation. The 9 case studies have been included in the appendix. They have been numbered 1 to 9 and will be coded as “(CS#)” in the following sections.*

Much innovation comes from the creative blending of ideas from multiple sources. Applied to the challenge of supplying affordable housing, the case studies showcase how combining policy, financial, planning, and design strategies can lead to viable and replicable housing models. For example, the Vancouver CLT (CS4) teaches us that no one piece of the financing structure unlocks affordability; rather, it is the collective impact of all the different kinds of investment, combined with cross-subsidies built into the business model that make it work. In particular, the City of Vancouver’s investment through the discounted land-lease along with the strong participation of social finance institutions stand out as critical features in the project’s funding (Patten, 2015).

Furthermore, the tools of innovation also develop through creative blending and recombination of disparate elements and ideas. For example, WikiHouse combines the distributive potential of the open-source framework with the burgeoning possibilities of digital fabrication, local community workshops, social housing agencies, and local businesses together to provide custom, efficient, and affordable homes in a matter of weeks (CS9).

Results suggest that achieving affordability in housing projects involves a combination of innovative strategies and tools spanning land use, planning, development, and finance categories. The ideal project will maximize the number of strategies used within the project’s lifecycle. Furthermore, cross-sector and/or cross-industry partnerships were identified in each case study as being the vehicle to deliver these strategies. However, bridging divides between sectors and industries to form collaborative partnerships is not a given; they are complicated to manage and require a common vision to function properly. Cross-sector partnership models included Public-Private-Social (CS2), Public-Social-Citizen (CS1), and Public-Citizen (CS7). There were also examples of cross-industry partnerships within the social sector, such as a non-profit-social enterprise-social finance institution model (CS4, CS5). In some cases, the municipality played a leading role while in others, it played more of a supportive role.

## Section Organisation

The range of innovative strategies that emerged from the ‘solutions landscape’ case studies have been categorised under four key areas of innovation: Land, Planning, Development, and Finance. In each of the areas, we explore the alternative models, tools & strategies, and key lessons and principles. The analysis and synthesis of these findings revealed a number of leverage points for potential intervention, which were framed as ‘opportunities’ in the section following this one.

# Summary of Key Strategies & Tools

Illustration 3 | Summary of key innovative tools and strategies that emerged from the case studies



## Land



## Planning

### Joint Development

Partnership between landowners and developers

CS1, CS2



### Leveraging Public Land

Repurpose public land for affordable housing development

CS1, CS5



### Participatory Design

Invite stakeholders into the process to better understand their needs

CS3, CS9



### Eliminating Parking Requirements

Reduce development costs near public transit

CS3, CS6



### Strategic Procurement

Give mission-driven developers priority access to Requests For Proposal (RFP) bids

CS1, CS4



### Land Value Capture

Recover and reinvest land value increases that result from public investment

CS8, CS9



### Streamlined Approvals

Reduce risk/timelines through systematic development and permitting practices

CS3, CS6, CS7, CS9



### Granting Additional Density

More density in exchange for dedicated affordable units

CS2



**LEGEND**  
Challenges/  
Barriers



LACK OF CAPACITY



TENSIONS IN VIEWS



REGULATORY BARRIERS

CASE STUDIES EXAMPLE



INEQUITABLE OPPORTUNITY



OPAQUE PROCESSES



HIGH COSTS



FUNDING GAP



## Development



## Finance

### Type of Construction

Missing middle housing that is affordable by design

CS3, CS6



### Reuse, Renovate, Retrofit

Upgrade existing housing stock and/or reuse their components

CS1, CS5



### Blended Social Finance Investment

Access to new sources of equity that are aligned with purpose

CS4, CS5



### Investing Directly in Residents

Empower residents to decide and/or build for themselves

CS3, CS7, CS8



### Offsite Construction / Prefabrication

Factory made homes built to specification

CS3, CS6, CS7, CS9



### Inclusive Labour

Train and certify new tradespeople using a social enterprise model

CS5



### Sweat Equity / DIY

Renovate, finish, and expand one's home when finances permit

CS2, CS3, CS7



### Shared Equity Mortgage

Share both the risk and the gains through shared ownership

CS2, CS7





# Land

Rethinking the way we use and allocate land is a powerful lever: it is essential to housing provision and generates a lot of value that can be captured and invested towards our housing, placemaking, and climate goal.

## Alternative Models

### Community Land Trust (CLT)

Housing becomes a community asset under the community land trust model (CMHC, 2022)

The Canadian Network of Community Land Trusts (n.d) defines CLTs as community led, non-profit organizations which acquire and hold land in the interest of their local community. CLTs operate on a variety of scales choosing to represent either neighbourhoods, cities, or regions. CLTs are long-term stewards of affordability, which work to ensure perpetually affordable housing, and to secure space for high social-benefit non-profit enterprises. They typically separate the value of the land from the buildings on the land – removing the land from the speculative market. CLTs include housing with private ownership, co-op ownership and rental and non-profit rentals. In home ownership models, the CLT owns the land, and the individual owns the home with resale formulas preserving the long-term affordability (dual ownership approach). In rental models, CLTS may own and run the housing or lease land on a long-term basis to a non-profit or co-op housing organization. CLTs are well established in the United States and Europe but relatively new in Canada (Patten, 2015).

In the case of private homeownership, CLTs typically maintain long-term affordability by building resale conditions into the long-term ground lease that accompanies purchase of the structure. The ground lease generally includes a formula that is used to establish the price of the home at resale and provisions that limit resale to income-eligible families and give the CLT a purchase option when the home is put up for sale. Resale formulas vary from one CLT to another and typically reflect a balance between the goals of preserving long-term affordability of the CLT units and allowing the homeowner to build wealth. Homeowners build wealth in two ways: through the forced savings gained by paying down the principal balance of their mortgage and through the share of home price appreciation allocated to them under the resale formula.

The Vancouver Community Land Trust has some of the features of the typical Land Trust model, including the commitment to preserving long-term housing affordability for low- to moderate income families (*CS4*). However, it defers in terms of its governance structure. Here, both the City and the Vancouver CLT are performing CLT functions in that the City is retaining ownership of the land over the long-term and is granting the Vancouver CLT right to use and develop that land through the long-term leases. As well, the city is taking steps to ensure perpetual affordability by writing affordability requirements into the lease agreement between the City and the Land Trust. These are functions that CLTs typically perform (Patten, 2015).

### Land Rent Scheme

The Land Rent Scheme (LRS) provides Individuals a way to access land at a below-market price, and then contract to build a house on the land. Rather than homeowners paying upfront for a perpetual right to land at market prices, the local authority provides a perpetual land lease to residents at an annual rental price of a certain percentage of the land value.

In Australia, the ACT Government LRS's land rental price was 2% of the land value (*CS8*). Compared with

buying the land with a mortgage paying 5.2% interest per year (the average at the time), this approximates a 60% discount on land price. In addition to providing direct procurement to individuals, the scheme was subsequently used to support supply to the local community housing sector, giving them the exclusive right to participate in developing/building on LRS lots. As a result, the community housing sector could expand their product range by offering LRS lots to eligible households, paying the land rent fees until construction has been complete, and assisting households with engaging builders.

### Joint Development

Many public agencies and community organizations have land that could be used to create affordable housing opportunities for low-income individuals and families. Through joint development, these partners can make land available for affordable housing projects that help to advance these agencies' goals. For instance, the 60 Richmond Housing Co-op in Toronto is the result of a partnership across several organizations, including the City of Toronto, Toronto Community Housing, the Co-Operative Housing Federation of Toronto, and labor unions representing hospitality workers. This mixed-use, mixed-income, 85-unit building provides both market-value and subsidized units to hospitality workers and their families; an important workforce who was being displaced from the inner city due to escalating prices and the lack of affordable options in neighborhoods close to their workplace *(CS1)*. Because well-located mixed-income and mixed-use development may effectively cross-subsidize affordable development, joint development in areas with strong housing markets has the potential to increase the total stock of housing, including affordable housing, with minimal subsidies.

## Tools & Strategies

### Leveraging public land

Particularly in high-value, amenity-rich locations, high land costs can make it extremely difficult to create new affordable housing for low- or moderate-income households. Local jurisdictions can help to overcome this obstacle by identifying public property that can be repurposed for residential use and making it available to developers who commit to creating and maintaining ongoing affordability. Development opportunities may be found on surplus or underutilized publicly owned land *(CS1)*, through the redevelopment of vacant municipal buildings, or on the same lot or even within public buildings that are still actively used for other purposes *(CS5)*. The property may be offered at fair market value, at a discount, or even at no cost.

Beyond identifying and prioritizing surplus properties for the creation of affordable housing, cities could consider other opportunities for new residential development on publicly owned land. This approach may include looking at existing sites that will continue to be used for their current purpose but could be developed more intensively—such as low-density buildings where additional floors could be added or surface parking lots adjacent to public buildings that could be redeveloped as housing that includes structured parking for both the residents and the adjacent public building—as well as new public projects where affordable housing units could be incorporated. For example, some cities have had success developing affordable housing on top of fire stations or public libraries. Others co-locate affordable housing and healthcare facilities; a strategy that may be particularly helpful for units targeting high-needs populations.

## Strategic Procurement

The housing department typically issues a request for proposals (RFP) after sites become available. RFPs can help meet affordability targets, expectations around the income level(s) to be served and the required duration of the affordability period, preferences for serving special populations, and other similar goals by adding parameters and terms under which the property or development rights are offered (e.g., seniors, families, formerly homeless individuals, etc.). In some cases, cities give affordable housing developers priority access at a fair market price. This approach helps non-profit and mission-driven developers avoid competition with for-profit developers who can bid up the price. However, in many high-cost cities that may not be enough to make affordable housing economically viable, particularly if the housing is targeted for very low-income families. To overcome this challenge, many cities offer surplus or underutilized property at a discounted price or with access to low-cost financing when used for affordable housing, allowing the swift development of high-quality affordable housing units with less initial financial burden *(CS1, CS4)*.

## Land Value Capture

Land Value Capture (LVC) is a process that allows communities to recover and reinvest land value increases that result from public investment and other government actions. Public-led land assembly is one of many LVC tools, and is commonly used in France, the Netherlands, and Germany. It occurs when local authorities act as the first movers and take the lead in assembling or buying sites. When a public authority takes the lead in assembling, servicing, and potentially altering the land use in partnership with developers or stakeholders, the windfall gains are best captured *(CS7)*. In the Netherlands, it is estimated that almost 90% of the uplift in land value is captured by municipalities and is used to help fund infrastructure and affordable housing (Given & Reisman, 2019).

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### *“Self-build”*

*In this report, the term ‘self-build’ is used to define citizen-led housing development where individual citizens or collectives are directly involved in the design and procurement of their home. This type of affordable development is often coordinated by the local municipality using public land.*

## Lessons & Principles

- The practice of separating ownership between the building and the land it sits on creates a new form of leasehold or co-ownership that precludes speculation and allows municipalities or non-profits to license land as a low-cost platform for society and the economy. This strategy has been used successfully in different models producing solutions that requires no government borrowing; no new legislation, and it can exist alongside the existing property market. Public agencies, as major landowners, could pioneer a new parallel land economy.
- Land value is created by all of us, the community, through our common consent for ‘new’ land to be made available for development, and by the public sector through its investment into community infrastructure, and their management of the growth of the local economy. City’s must find ways to capture the value that they create and use that money to invest in affordable housing.
- Local authorities may not have the capacity to manage a land banking and land release process at the scale required to have a significant impact on affordable housing development. It would likely require the creation of a new crown corporation or intermediary organization.





## Planning

It is cities and their planning departments that decide what gets built where, and by who. Land use (including zoning), density requirements, bylaws, and permitting processes are all part of a city's toolkit and have the potential to include or exclude people from participating in housing provision, or from accessing certain neighborhoods. As such, municipal stakeholders are central to any housing strategy.

### Alternative Models

#### Self-Build

Located in the Netherlands, Almere is one of the fastest-growing cities in Europe and has a history of pioneering social planning. Its latest project, Almere Poort, was initiated at the height of the financial crisis when housing providers had virtually stopped building. This master planned community was built on council land as part of the city plans to provide affordable housing for low-income households. Individuals can purchase a plot designated by the local authority. Once the plot is secured and a mortgage in place, the buyer is free to customise their home from a wide variety of different "ready-made" homes, many designed by in-house architects. Since the residents in Almere Poort oversaw the design and construction of their own homes, they were able to construct a home that meets their needs within their budgets. As a result, the town saw the construction of many small homes that were designed to keep costs low. Residents who wanted to live in an even more affordable home banded together to create a housing development on a singular plot of land, therefore decreasing the cost by increasing the number of units constructed on that plot (CS7).

In short, self-determination can help increase affordability while raising satisfaction and overall wellbeing. By creating template development models and tools, we can make it simple for local citizens, groups, and community organizations to propose, finance, and develop housing for themselves. For example, a municipality could decide to combine a land rent scheme with a 'catalogue-home' and 'a la carte components' approach where prospective occupants choose from a catalogue of homes/components designed by an architect, determined, and made available by the builder. User choice enables occupants to 'consume' only the type and quantity of features they currently require or can afford.

Self-build housing is increasingly celebrated as a positive means of increasing citizens' influence over the production of urban space. Throughout Europe, self-building housing is actively promoted as a means of addressing issues related to housing quality, affordability, and sustainability:

- On an aggregate scale, this could help achieve goals related to social and environmental sustainability.
- Offer flexibility in terms of urban development; a mode of incremental development that can help balance demand and supply.
- Maximization of 'living satisfaction over profit maximization and an increase in housing quality.
- It is argued that people are in the best position to design and develop housing according to their own needs, as needs are infinitely complex.

## Tools & Strategies

### Participatory Design

An approach that invites stakeholders into the design process as a means of better understanding their challenges and needs. Insights gained through this process will inform design strategies thus resulting in adapted solutions and greater community uptake. By not involving stakeholders early and often, a developer risks experiencing pushback from community advocates which can result in costly delays. This approach can be considered a proactive/mitigation measure.

The laneway suite case study in Toronto is exemplary of this strategy put in practice (along with many others listed in this section). Planning and design advocates had recognized the potential for Toronto's many laneway networks to be used for additional housing opportunities using smart compact housing designs at the rear of single-family home properties with access to a serviced laneway. To become a reality, this new concept required regulatory and zoning changes to be adopted by council. To speed up the process, a working group was formed between a design and planning firm, a non-profit organisation, and two city councillors to study the opportunities, issues and concerns around laneway housing and lead the development of performance standards for laneway suites in Toronto. As a collective effort, the team collaborated with stakeholders across the city to create a unique Toronto-made vision for laneway housing that addressed concerns. As part of their engagement effort, they reached over 3,000 residents through a combination of community consultations, direct correspondences, an online survey, and a workshop session (CS3).

Other planning tools that made the laneway suite successful were:

- Adopting as-of-right permitting to streamline the application process, provide clear design and scale parameters, and democratize permitting city-wide.
- Exempting this type of construction from development charges or permit fees
- Removing parking requirements – after conducting a minimum parking standard study, it was determined that it is unnecessary to require parking provision for Laneway housing in Toronto.

### Eliminating parking requirements

Eliminating parking requirement, particularly for smaller developments can make a significant difference in reducing costs. This strategy is particularly relevant to developments that are near public transit routes or in zones with accessible street parking. By eliminating parking spaces, developers can maximise the building's footprint and dedicate the space to additional or larger units. In other cases, developers can avoid having to excavate the site, which results in a less laborious and time-intensive project. A great example of the latter strategy is The Stack in NYC (CS6). This seven-story, mid-cost apartment tower in Manhattan's Inwood neighborhood, is the first prefabricated residential project ever undertaken in the city. The building consists of 56 modules, completed offsite and shipped for construction and assembly to the northernmost tip of Manhattan, where a crane lifted the modules into position. The 56 modules were erected in nineteen days with a single crane and crew of 14 workers.

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#### *As-of-right*

*Entitlement of the owner of property to use or develop it, without recourse to a public hearing process or a vote of municipal council, if the proposed use accords with the zoning by-laws (Epstein, n.d.).*

### Streamlined approvals

In some communities, developers of affordable housing on former publicly-owned land are automatically eligible for an expedited permitting process. Access to a streamlined process helps to further reduce development costs and shorten the timeline within which homes can be delivered. As seen in the Laneway Suite case study, the use of an as-of-right bylaw tied to a specific type of development (with pre-approved performance standards) is a way to systematise the development and permitting process.

### Granting additional density

Condo developers proposing new constructions are limited to a certain amount of units/density under municipal regulations. However, they can sometimes be granted permission to exceed the limit in exchange for a financial contribution that will benefit the local community where the development is being proposed (such as setting aside a certain number of units for dedicated affordable housing by partnering with a social housing operator). Artscape Triangle Lofts in Toronto is a condo-within-a-condo (70 units of affordable artists' live/workspaces within a much larger market-rate development). Among the most innovative aspects of Artscape Triangle Lofts is that the project's affordability was underwritten entirely by an additional 56,000 square feet of height and density and did not require government or philanthropic support (CS2).

## Lessons & Principles

- A new paradigm of 'housing as a service' is emerging with the success of self-build schemes in Europe and Australia. It suggests the viability of a new relationship between people and their local government. This relationship generates unique co-design and co-production networks where both citizens and public agencies are engaged in a conversation about what and, how to build.
- A plot passport like in Almere, or an as-of-right bylaw like in Toronto helps to streamline the permitting process and provides citizens with the tools and templates they need to develop housing for themselves. By democratizing development, we become less reliant on the same sectors, which can help accelerate the supply of new housing.



# Development

Regardless of the market segment, building a house requires a sizable financial investment. A proposition with the goal of maximising profit looks very different from one with the goal of breaking even or even building at a loss knowing that you can make up for that loss in some other way. Cost-cutting measures taken by both for-profit and non-profit developers are largely similar. The key distinction concerns who will enjoy the benefits.

## Alternative Models

### Purpose-driven business model

Supplying quality affordable housing starts with a different business model from the profit-driven model that we have come to expect in the housing market. The portion of the solution landscape surveyed for the purpose of this project included mostly public housing agencies (public sector) and private non-profit organisations (social sector), often working in partnership. They act as real-estate developers and operators of social housing. The non-profit developer does what any real estate developer does: find and acquire land, design, and build buildings, and either sell or rent units. The significant difference between ‘for-profit’ and ‘non-profit’ development is the objective. A market developer’s objective is to maximise profit, whereas a non-profit developer’s objective is to maximise benefit to the community in the form of housing – and maximise how affordable and sustainable they can make it. The economies realized in a for-profit development must be passed on to shareholders, whereas those realized in a non-profit development must be passed on to the community, i.e., lower rent for occupants.

Achieving viability and long-term sustainability is difficult without government funding or subsidies. In the absence of such support, the non-profit sector must find new ways of cutting costs, diversifying its revenue streams, and realizing efficiencies. One advantage of being a non-profit is having the flexibility to operate some buildings or units at a loss while realizing a profit with others. This strategy is called cross-subsidization and it can be used across units in a single building or across buildings in a portfolio of properties. Because there is a broad range of incomes in any community, there is a potential to create mixed-use and mixed-income developments that allow for cross-subsidization between lower and higher rents, or between commercial properties and residential ones. Not only is this an effective strategy for revenue generation, it is also considered to be a best practice for creating vibrant and diverse communities by housing experts (Tsenkova, 2022).

One of the key features in the Vancouver Land Trust case study (*CS4*) is the ‘portfolio approach’ – a single organization developing and operating the different sites as a portfolio, rather than single sites held by different organizations. This allows for cost-efficiencies in construction and operation of the four sites. For instance, a key opportunity is the redistribution of rental income between the Fraserview Coop housing on East Kent, a prime waterfront site where rents here will be 90% of market, and the other sites targeting lower income people which will be renting at much lower rates. In addition, a Commercial Retail Unit at the Kingsway site will be sold as a pre-paid 99-year sublease. The capital generated from the sale was used to reduce the amount required to finance the whole project. This business model helps deepen the affordability of units for lower income people, which Tikva, a partner in the project, describes as the ‘Robin Hood’ approach.

A cross-subsidizing strategy was also used by Artscape in its Triangle Loft project (*CS2*). By partnering

the City of Toronto and Urbancorp (a corporate developer), Artscape was able to purchase 70 units on the lower floors of the Westside Gallery Loft building at the cost of construction. Out of the 70 units, Artscape sold 48 of these units through an affordable home ownership program. The units were priced at the market value, but purchasers were offered no interest and no payment second mortgages for 25% of the purchase price thereby reducing the amount paid to below-market. Proceeds from these sales allowed Artscape to retain the balance as affordable rental units at rates 80% of Canada Mortgage and Housing Corporation's (CMHC) average market rents (or 20% below the City's benchmark for affordability). Here too, the capital generated from the sales of units was used to subsidize the remaining rental units and programming .

### **Non-Profit Housing Co-operative**

Housing cooperatives have existed in Canada for decades and represent something of a middle ground between renting and owning – security of tenure without the often-prohibitive costs of a down payment. Because they operate on a break-even basis, co-ops are often much cheaper than market rentals. They also tend to be more stable, because most cannot be sold.

In recent years, the development of new co-ops in Toronto has been far and few between. A notable example includes Local 75 (Hospitality Workers) Co-op at 60 Richmond Street East (*CS1*) which is the result of a partnership between Toronto Community Housing, the Co-operative Housing Federation of Toronto and Local 75, a hospitality workers' union. Built on surplus city land, the financing for this project came mainly from Toronto Community Housing and government grants (Toronto Community Housing, 2010). This project has been praised for providing large units to accommodate hospitality workers and their families, as well as for its onsite restaurant and skills training facility.

### **Diversifying the pool of developers**

Several of the case studies highlight that there is a need to diversify the development community for affordable housing, and therefore an opportunity for housing operators, CLTs, and social entrepreneurs to become developers in their own right. There are several considerations in making the shift from operator to developer considering how complex and capital intensive it is to develop in today's market.

- It requires a culture shift in how non-profit organizations see themselves – shifting from 'non-profits as recipients of grants', to 'non-profits as equity stakeholders', empowered to act as agents of business coming to the table with equity to invest, and expecting a return on that equity that be used to further the mission of the organization. Artscape and Vancouver CLT have achieved this shift by innovating their business and financial model and by forging strategic alliances and partnerships (*CS2, CS4*).
- It requires considerable capacity building given the existing gap in development experience and equity for pre-development phases (e.g., land cost, planning and design, feasibility study). Non-profits making this shift have started to hire in-house professionals with real estate management experience, as well as retained social entrepreneur consultants' services with complimentary experience.
- A way of building financial capacity is through the transfer of properties and low-density land with redevelopment potential from public institutions to non-profit CLT organizations allows this sector to capture the uplift of densification to benefit the community as opposed to private developers. The ability to capture some of

the profits of densification also helps solve the missing piece of pre-development capital. A non-profit acting as a developer can capture profits from one project that can then provide the pre-development capital to move the next project from concept to feasibility.

- Building the financial capacity of the social sector requires investment. There is a role for credit unions and other social finance institutions, as well as outcomes investors to support affordable housing development. By creating a track record in this type of investing, the hope is that over time, it will reduce the perceived risks, helping to attract additional private capital to affordable housing projects. Private equity also means that non-profit developers aren't dependent on public funding, which is an unsustainable source of funding given its politicized nature.

## Tools & Strategies

### Type of construction

While the market seems to be producing an abundance of condo towers housing many small one-bedroom units and micro studio units, zoning restrictions can often prevent developers from building “missing middle housing”: a range of multiunit or clustered housing types, compatible in scale with single-family homes, that help meet the growing demand for walkable urban living, that respond to shifting household demographics, and meet the need for more housing choices at different price points. This type of housing is affordable by design, which means that it can achieve affordable price points for rental or for-sale units without subsidies. It achieves this by increasing supply and filling the gap for neighborhood living; using simple, lower-cost construction methods; reducing reliance on automobile ownership; using land more efficiently with shared and smaller units; and providing more income opportunities for residents. All these factors result in an end-product that is much more attainable for households, typically those making 60 percent or more of the area median income, or middle-income households.

### Reuse, renovate, retrofit

Another way to save on costs while also reducing the carbon footprint of a project, is to reuse existing parts of a building when redeveloping a property. 60 Richmond co-op housing project in Toronto benefited not only from a discounted ground-lease on city surplus land, but also from reusing the previous building's foundation *(CS1)*. Foundations are both costly to make and a major source of embodied carbon due to the polluting process that goes into extracting cement, producing the concrete aggregate, and transporting it on site. Renovating or retrofitting an existing property that has fallen in disrepair, especially when donated or sold at a discounted rate, can be a great way to keep costs low. The Toronto-based Reside program does just this by acquiring vacant or underutilized properties that require renovations to create new sustainable, affordable housing for people who are at risk of becoming homeless *(CS5)*.

### Sweat Equity/Do it Yourself (DIY)

Under strained conditions, potential homeowners are finding that committing a smaller portion of their earnings to housing is a distinctly desirable option. Therefore, buying unpartitioned and unfinished space *(CS2)*, with the intention to upgrade and expand later when finances permit, is another affordability strategy that was used in the past and is currently considered by wary homeowners. A parallel, increasingly popular trend has been the opening of home renovation ‘supermarkets’ where homeowners are able to select from a wide range of tools and products that are easy to use and install. It enables them to renovate and expand their homes: a trend that directly complements

the idea of user involvement in their unit design (CS9).

## Prefabrication

Prefabrication is a building method that aims to reduce waste, speed up projects, and improve quality all while reducing the impact on the environment. Shortening the timeline between the start of construction and when the building is operational, and revenue-generating helps to reduce the perceived risk from a lending and investment perspective. Since prototyping is an integral part of the prefabrication process, there is the additional benefit of trying out novel building materials and methods on a small, controllable scale (Bowes et al., 2018).

The Ontario government has acknowledged the affordability benefits of this building approach (Building a Modular House, n.d.). Growing this industry locally could help boost to the economy and create new jobs. The Stack case study (CS6) highlights the potential for strengthening the NYC prefabrication industry by leveraging public procurement. Having seen the benefits of prefabricated projects such as The Stack, the NYC municipality specified prefabrication as a requirement in their RFP bid for a large-scale public housing project. Governments are well positioned to enact this type of strategy to maximise the economies of scale.

A different approach, better suited to small-scale developers, is to rethink the manufacturing process altogether. The WikiHouse Sheffield Case study (CS9) showcases a bespoke co-production approach between WikiHouse's open-source kit of parts, a non-profit housing agency, and a local community workshop with CNC capabilities. Once the house design is finalized, the digital files are sent to the community workshop who then cuts the wood panels to specification. The pieces are assembled as modules and then transported on site for final assembly. The WikiHouse Foundation is collaborating with housing providers to create a library of open-source designs that can be replicated and fabricated locally in communities around the globe. Examples like WikiHouse are intended for economies of scope, not of scale. On-demand local production bypasses the need for huge capital outlays and the subsequent necessity to "keep the machines running" night and day to satisfy the expectations of investors with over-capacity and over-production. Transportation costs — whether financial or ecological — are eradicated, while maintenance, fabrication of spare parts and waste management are handled locally.

Finally, another advantage of sustainable prefabrication is the long-term decrease in operating costs made possible using novel materials like digital wood skeletons, carbon fibre, 3D printed clay constructions, and other sustainable material technologies. Sustainable prefabrication, when combined with assistive and monitoring technology, reduces costs across the board, from monitoring and maintenance to heating and cooling. Additionally, occupants are cognizant of energy use and have the freedom to alter their consumption patterns.

## Inclusive labour

For any developer, but especially for a non-profit, labour is one of the most expensive components of a construction project, especially at a time where demand for skilled labour is high and the workforce is shrinking. One way to reduce costs is to diversify the construction team on a given project by pairing apprentices (at a lower wage) with an experienced worker. Not only can you save on salaries, but there is the added benefit of training and certifying new tradespeople. The social enterprise Building Up has perfected this model by undertaking property renovation projects to advance inclusion and employment for people facing employment barriers. Through the Reside program, Building Up has access to a pipeline of projects for which they can employ and train apprentices (CS5).

## Lessons & Principles

- Prefabrication is a building innovation that shortens construction timelines, makes development more predictable, and can be designed to meet pre-approved performance standards which could also help streamline the permitting process.
- Government is well positioned to serve as an 'early user' of new goods and services, demonstrating their value to the wider market. The government can provide revenue and feedback which can help organizations refine their products and services so that they can compete more effectively in the global marketplace. Often this may involve purchasing more costly options in order to accelerate cost reductions that can eventually benefit non-profit developers and citizens.



# Finance

The traditional ways in which we have financed housing do not recognize the integral role it plays in social and environmental outcomes. By acknowledging this multidimensional role there is potential to link investment and interventions that share common purposes. This would allow us to leverage what is already being spent and create spillover value throughout the system.

## Alternative Models & Social Finance Tools

### Aligning investment with social outcomes

The field of social finance is evolving, and new products and approaches are being pioneered in many countries including Canada. Impact investing (also called outcomes investing) is a general investment strategy that seeks to generate financial returns while also creating a positive social or environmental impact (Patten, 2015). The Vancouver Community Land Trust case is a good example of the innovative use of social finance investment to fill the funding gap left by the government (*CS4*). Two investors contributed equity for different phases of the project: Vancity Community Investment Bank and New Market Funds (a for-profit investment firm owned by a registered Canadian Charity and operates in the field of ‘impact investment’). According to New Market Fund’s CEO, the Land Trust deals would not have advanced without its innovative blend of social finance tools (Patten, 2015):

- The Vancity grants that were provided to build capacity in the pre-development phase can be characterized as “Venture Philanthropy” – grants tied to some very specific outcomes.
- The participating non-profit housing partners’ equity (co-investors), and the long-term discounted land lease provided by the City can be characterized as “Impact First” investments that specifically prioritize the community impacts and the returns of more market-based financial capital ahead of its own financial returns.
- New Market Funds’ project equity can be characterized as “Blended” investments where financial returns and community benefit share an equal status.
- The mortgage financing provided by VanCity can be characterized as “Financial First” capital in that the financial institution seeks financial returns first and foremost but will pursue opportunities where it does not sacrifice financial return to generate a community benefit.

### Investing directly in residents

In Almere, Netherlands, the municipality used a self-build scheme to provide affordable housing options to residents in designated areas of the city. They also provided additional support to eligible low-income households as part of the ‘affordable self-build’ program. These are people who would normally depend on social rent. The program offers an interest-free loan of 40% on top of their regular mortgage. In the case of negative income growth, affordable self-builders are required to only pay interest without repaying the loan (*CS7*). Rather than subsidizing a developer to provide affordable housing, the government is investing directly in its residents to develop housing for themselves. This approach shifts the power and flow of resources from companies to individuals.



## Shared equity models

The shared equity model explored in the case studies seeks to share both the risk and the gains between a non-profit organisation and a homebuyer. Options for Homes develops units and offers a down payment loan that is payment-free until the homeowner sells. This acts as a second mortgage on title. The down payment helps to secure a conventional mortgage and lowers the monthly carrying costs – making it affordable for the homeowner. When the homeowner wants to sell, the loan is paid back with appreciation that matches the percentage of the down payment received (between 10% to 15%). Artscape has developed a variation of the Options for Homes model (*CS2*) for the sale of its units. To receive a mortgage, qualified buyers were required to make a deposit against a down payment of 5% of the purchase price. In addition, Artscape holds a 25% mortgage on all units, which in effect provides buyers with a second mortgage of 25% which is interest and payment free for the life of the mortgage. The combination of these mortgages equals a 30% down payment on the purchase price which contributes to lowering the monthly payments for buyers. When an owner wishes to sell their unit, it must be sold through Artscape, to another qualified purchaser. Artscape manages this process and covers its costs by charging a 3% brokerage fee. Depending on the performance of the real estate market, the owner can realize an appreciation on their investment of up to 5% per annum for the number of years they have owned the unit. If the market has appreciated more than that, the additional appreciation on the owner's portion of the resale price (market value minus 25%) will be shared with Artscape 50/50. This shared appreciation plan will ensure that the unit remains affordable relative to the local real estate market when the property is re-sold to the next qualified purchaser.

## Lessons & Principles

- In addition to economics, access to investment equity outside the public sector may shift the power dynamics within funding relationships.
- Our social issues are interconnected yet we often work to address them separately. The housing sector can play a role beyond putting a roof over people's heads. It can be used as a vehicle to redistribute value and wealth while creating employment opportunities that provide stable income and a sense of purpose. This systemic approach produces tangible outcomes that can be defined and measured, thus creating opportunity for outcomes investment from public, social finance, and private philanthropy sources.

# Opportunities

Taking stock from the key innovation areas — land, planning, development, finance — in combination with key principles such as removing speculative activities from land, ensuring equitable allocation of resources, fostering agency and collaboration, and seeing citizens as allies, there is a clear opportunity to reframe our understanding of land and housing as commodities to **land as a platform** and **housing as a service**.

Moreover, public land combined with local authorities' purchasing power through innovative procurement strategies have proven effective levers in creating dedicated pipelines of land for development by social housing groups (*CS5*) or self-build schemes (*CS7, CS8*). This highlights an opportunity to create a parallel housing economy for non-speculative development by the social sector as well as self-builders. In Canada, there is a missing sector that includes individuals or groups of individuals who are willing to build for themselves if provided with the tools and templates. In this case, capacity lies not in the 'high peak' of a few large developers, but at the other end of the graph: the many local individuals, groups, and community development companies acquiring land and procuring homes for themselves as places to live, who collectively form the '**long tail**' of housing demand. They could be termed 'the citizen sector'.

### Long Tail Business Model

It works by selling a wide variety of niche products, which individually sell very little, but which in total generate high sales volume.

Nowadays, search engines have made it possible for consumers to find anything they want, no matter how specific their interests and tastes are. Before the internet and the world wide web, this connection was so much more difficult (Osterwalder and Pigneur, 2010).

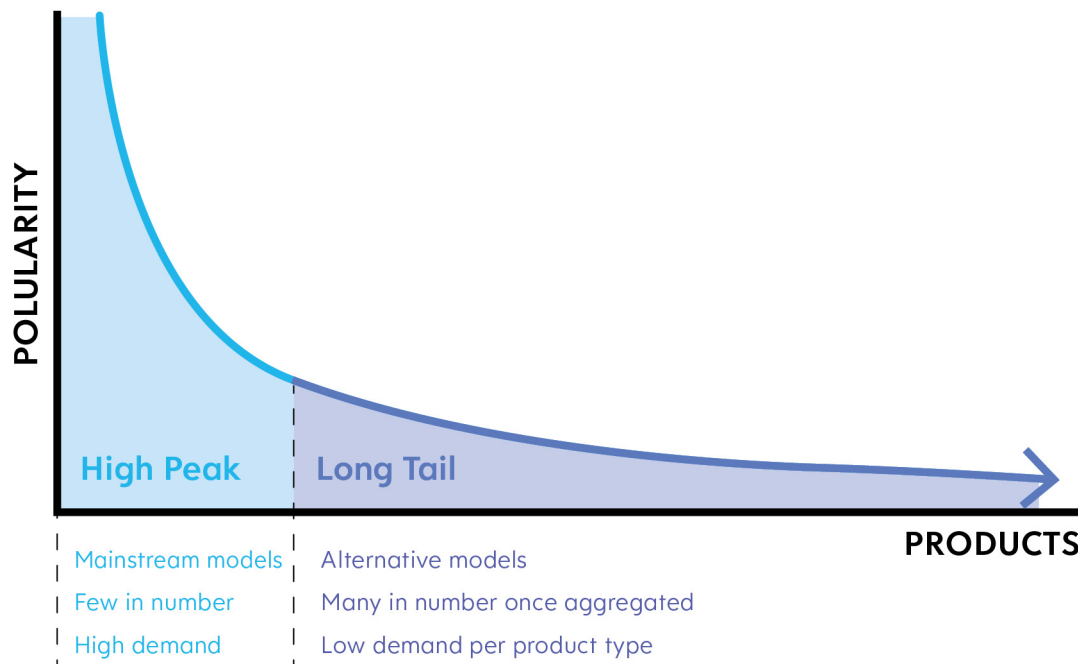


Illustration 4 | The Long Tail Opportunity

## The Citizen Sector

The citizen sector is largely misunderstood, which might explain why it has been overlooked. One of the things that has traditionally made it hard for policymakers to understand is that unlike speculative development it comprises not a single procurement model, but a diverse spectrum of possible models of procurement, delivery, investment and tenure. It includes:

- **Individual self-builders** – Individual families who purchase or rent a serviced plot of land and act as their own developer, opting either to do some or all the work themselves or hiring professionals to do so.
- **Building groups** – Groups of people or families who pool their resources and act as their own developers. Cohousing models, where groups decide how to live as a village and build shared community assets and amenities, are common. These cohousing models improve quality of life, build social resilience, and will be crucial in addressing the cost of elderly care in the coming decades.
- **Community development companies** – Organisations such as Community Land Trusts (CLTs) acquire land and build homes for rent or sale on the community's behalf. These often behave like Housing Associations and take a holistic view of housing as a service, beyond just providing a roof. Any surplus is recycled into the community and its infrastructure, creating resilient, self-sustaining neighbourhoods and reducing long-term public costs.

Despite its apparent complexity, the citizen sector's structural advantages over speculative development are deceptively straightforward, benefitting the economy, society, and government alike.

- **Eliminating market risk** – Custom and self-build development can simply be understood as direct procurement: cutting out reliance on the developer as an intermediary. Direct procurement removes the need for the developer to take a risk by constructing homes for unproven future buyers to make a profit. Those in need of a home can quickly and easily secure one by making a simple online request.

### Land as a platform

Rethinking the way we value, allocate, and manage land for the benefit of the community. The practice of separating ownership between the building and the land it sits on creates a new form of leasehold or co-ownership that precludes speculation and allows municipalities or non-profits to license land as a low-cost platform for society and the economy.

### Housing as a service

Rethinking the way we provide housing. Founded on the principles of co-production, in which end-users (individuals and communities) become active and collaborative partners in the process of housing provision. The housing agency's role shifts from product provider (house) to service provider (land, tools, and templates) helping citizens procure homes for themselves.

- **Viable** – With no profit margin or marketing costs to pay, direct development is viable long before speculative development would be, especially on small sites or in areas where land prices are not rising. It also means any cost savings through innovation are passed-on to the homeowner.
- **Affordable** – Low market risk and viability combined with opportunities to invest ‘sweat equity’, or to develop homes in stages over time, mean the same house on the same site can cost much less than the market price.
- **Bottom-up** – Because it is high quality, sustainable, and often benefits residents and their friends or families over speculative developers, citizen-led development tends to be more popular, making the planning process much less adversarial. The laneway suite case study and the as-of-right tool are good examples of this.
- **Investing in homes as infrastructure** – Citizen developers view quality and sustainability not as costs, but as investments, because this segment of the market invests in homes as long-term living spaces, as opposed to merely for resale.

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## Barriers to scaling this sector

As highlighted in the previous sections of this report, the development process is opaque, risky and costly (in money and time) and therefore very hard to replicate and scale. Most stakeholders, from planners to professionals to communities themselves, would regard mass small-scale development as simply ‘too difficult’, or would not consider it realistic. Some of these barriers include:

- Inexperienced clients
- Insufficient funds available to cover unexpected costs
- Low standardisation of housing designs
- Complicated relationship management
- High per-project overhead costs
- Securing financing without a sizeable down payment or assets to leverage
- Low trust / transparency in the approvals process
- Shortage and cost of labour

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## Connecting people, ideas, and resources



### The Role of Intermediaries

The Open Book of Social Innovation (2010) defines intermediaries as individuals, organisations, networks, or spaces which connect people, ideas, and resources. They can take a variety of forms – some incubate innovations by providing a ‘safe’ space for collaboration and experimentation; some connect entrepreneurs with the supports they need to grow their innovations; and others help to spread innovations by developing networks and collaborations.

Intermediaries also play a critical role at the stages of growth and diffusion. They are

often involved in designing, testing and evaluating projects, subsequently advocating their adoption by government, businesses and non-profit organisations. They help to establish markets for new services and projects, and to spread innovations by developing networks which highlight, promote and disseminate learning and best practice.

For instance, looking at innovation in the technology sector, we have seen how the supply of ideas, and demand for them, do not automatically link up. As a result, a vast variety of institutions exist to connect them better. They include specialists in technology transfer, venture capital firms, conferences, and academic journals.

In the housing sector, intermediaries could play a key role in reaching across boundaries that divide sectors (public, private, social, civil society), industry (tech, finance, development, construction), and disciplines (design, planning) to help spread innovations by developing networks, connecting innovators to resources, and fostering collaborations.



## The Role of Platforms

**Platforms** - There are different types of platforms, but in the main, they involve giving people the tools and resources they need to organise themselves. For example, think of micro-blogging service Twitter, personal publishing platform Wordpress, social networking sites such as Facebook, or collaborative projects such as Wikipedia. It is easy to see the generative potential of platforms: as more people get involved, the wider the scope and reach, and by extension, the greater the social impact .

**Open Source** - When it comes to the supply of affordable housing, there is a potential to open-source the most efficient and effective solutions. Resolving the same issues repeatedly is illogical. Every individual, small business, and housing organisation should be able to simply design and construct high-performance, low-energy houses, or earn a job by assisting others to do so. Sustainable, low-cost solutions should be, quite literally, common knowledge.



## The role of Digital Innovation

**Aggregating data** - Digital devices and the Internet have transformed our economy over the past two decades by distributing how we produce and share information. The “long tail” of small, frequently amateur players have joined or even replaced large, centralised players in today’s world. For example, AirBnB has managed to create one of the largest hotel chains in the world by enabling hundreds of thousands of individuals to rent out spare rooms. This technology is key to aggregating supply of land using a land banking strategy and matching it with demand on the development side.

**Sophisticated technology** - In the last two decades the web has transformed our economy and society. Today we already see how advancements in artificial intelligence, blockchain, and digital fabrication is transforming the way we produce and understand our built environment. For example, Delve is a new product developed by Sidewalks Labs that uses generative design and AI to quickly generate options (outputs) that meet specified constraints (such as financial targets, performance standards, minimum density, or maximum daylight exposure) (Delve by Sidewalk Labs | A Real Estate Generative Design Product, n.d.). Moreover, digital tools and open data can be used to make complex, multi-stakeholder processes more transparent, more replicable, less bureaucratic and simpler for everyone involved.

## Leverage Points

*These are places within the housing system where a small shift can produce big changes. While many barriers stand in the way of scaling the citizen sector, the research findings have highlighted opportunity areas through the use of innovative tools and strategies.*

### Land

**Barrier:** availability of land at a price most can afford.

**Opportunities:** There is an opportunity to aggregate a portfolio of properties (underdeveloped, properties, vacant homes that have fallen in disrepair) and urban sites that have been overlooked or were inaccessible to market developers because of zoning restrictions (small, irregular lots, surplus land). Then use this pipeline of sites to create a parallel market of serviced plots that can be rented or sold (with conditions) at a fixed price to non-speculative builders. Some sites could be designated for self-builders, and others for public, non-profit or community development.

There is also an opportunity to leverage alternative intensification strategies such as infill or small-scale redevelopment of single-family homes into multi-family units.

#### Strategies & Tools

- Leveraging public land
- Land Trust Model
- Self-build/direct procurement
- Splitting building from land
- Reuse, renovate, retrofit

**Implications:** New class of zoning for self-build

### Planning

**Barriers:** opaque, time-consuming, and often slow permitting process, which can scare off would-be self builders. Additionally, planning department's limited capacity to deal with hundreds of pre-application meetings and subsequent planning applications.

**Opportunities:** Greater use of design codes and planning in principle schemes. Local planners could assign outline design codes for individual sites, and permission in principle. These codes and regulations would be co-created alongside the community, industry stakeholders, councillors, and experts before being presented to council.

Like in Almere, a plot passport approach could be used to facilitate the allocation process of land to eligible applicants. This tool could exist as a website or application. A focus on education, transparency, and usability would be prioritized to ensure the process is as accessible and inclusive as possible.

#### Strategies & Tools

- Co-designed performance standards and guidelines that can be codified (CS3)
- As-of-right bylaw ; User-friendly plot passport tool

**Implications:** Requires regulatory changes

## Development

**Barriers:** Designing, costing, delivering, and certifying a home is still an opaque, uncertain process characterised by guesswork and escalating costs. Moreover, too few companies offer a high-quality, affordable turn-key model for custom builders.

**Opportunities:** The rise of digital and off-site fabrication is hugely exciting for this potential market, offering quicker, cheaper and better building techniques.

These technologies could be integrated into full 'smart supply chains', which make the design and development process simple and standardised across networks of businesses. Frontiers like The Stack and WikiHouse already see the potential to develop a new, high-tech construction industry in their countries, with wider employment (more local SMEs), faster training and more transferable skills, delivering homes with industrial scale efficiency and predictability, and having a huge economic multiplier effect in terms of local jobs and prosperity.

### Strategies & Tools

- Prefabrication
- Open source
- New technology
- Inclusive labor

**Implications:** Requires capacity building in local and regional prefabrication facilities

## Finance

**Barriers:** Securing financing without a sizeable down payment, assets to leverage, or much equity to bring to the table, especially to cover overhead costs in the pre-development phase of a project.

**Opportunities:** Local authorities can bring patient-capital (loans with lenient repayment terms) and act as market creators, but first they need to find significant sources of funding.

There is an opportunity to create a dedicated self-funded endowment through sharing in land value uplift, capturing spillover from social and climate funding, issuing land bonds and attracting social finance investment. The fund could be used for both long-term repayable investments to community developers, as well as low-interest or forgivable loans to low-income self-builders.

Also, by mitigating the risks involved in the development process (using the strategies discussed in this report), the citizen sector will be much more attractive to lenders.

### Strategies & Tools

- System financing
- Social finance
- Land value capture

**Implications:** Creation of a dedicated fund and the setting up of existing and new funding streams

# Conceptual Model

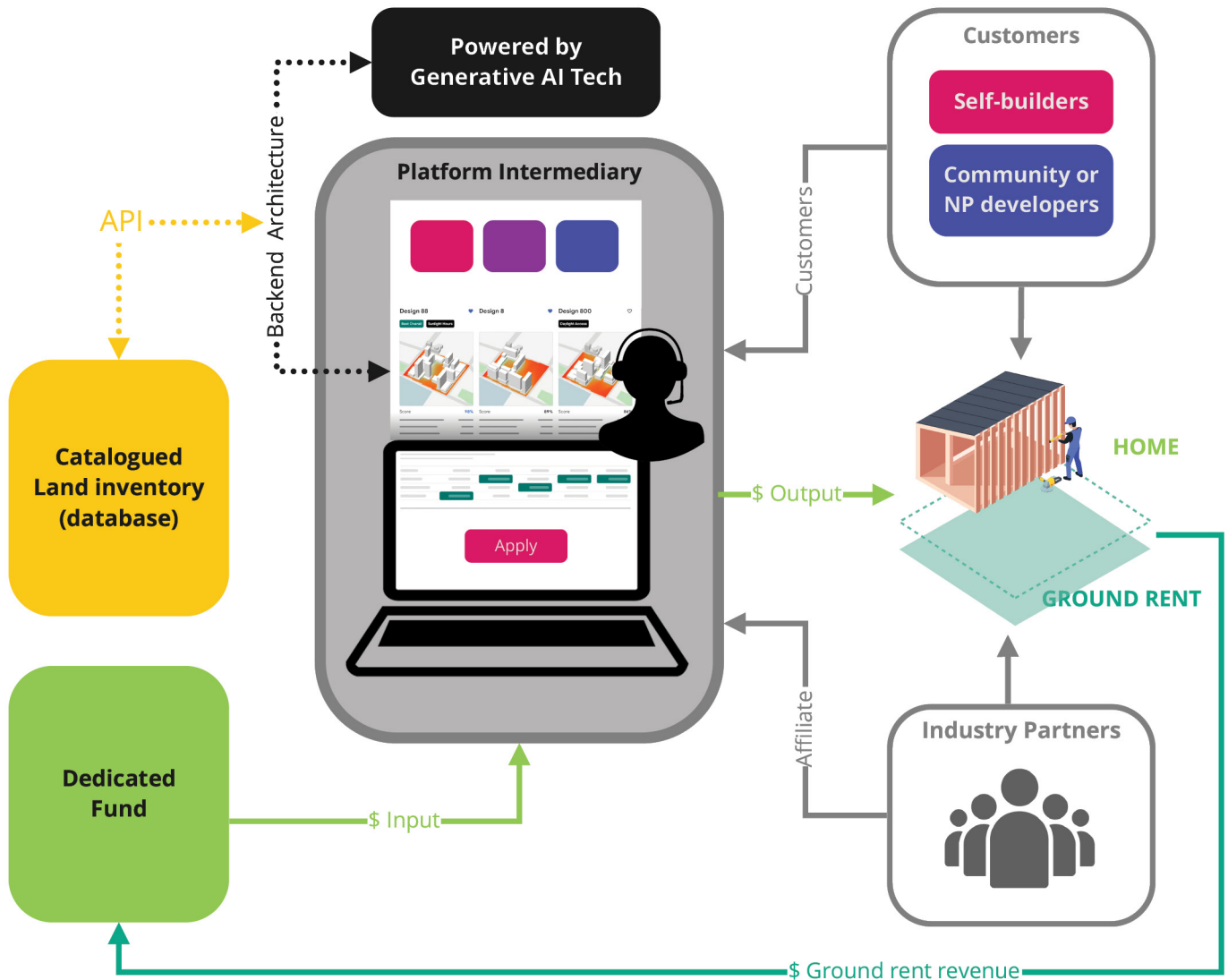


Illustration 5 | Conceptual Model illustrating a platform intermediary that exists to facilitate a self-build program for the citizen sector



## Normalizing Alternative Models

The proposed conceptual model offers a high-level examination of how an intermediary organisation might function in a scenario where funding and land (serviced plots with adequate planning permissions) are available, and where the legal and regulatory frameworks are in place to support a self-build program for the citizen sector.

The self-build program would allow individuals, groups, community, and non-profit developers to access serviced land that has planning permission for certain types of construction (in accordance with an as-of-right bylaw that sets performance and affordability standards).

The proposed intermediary takes the shape of a 'platform organisation,' meaning an organisation that engages employees and users directly via digital tools. The use of platforms enables the organisation to respond more rapidly to user demand (e.g., citizen sector). The intermediary stands in between local authorities/funders and self-builders, to help them navigate the as-of-right bylaw and site passport tool. The intermediary also stands in between the land release process, and the network of industry partners (designers, builders, contractors). In partnership with local housing authorities, the platform's employees offer technical assistance to self-builders who may lack development expertise, as well as helps connect them to their industry partners.

By interfacing with stakeholders from both supply and demand sides, the intermediary is well positioned to identify a range of opportunities, from joint development to promising new social ventures that could contribute to supporting the ecosystem.

## How the Model Works

### Customers

The platform would create value for two types of self-builders:

- **Individual families or groups of families** who are developing housing for themselves (likely with the help of an industry partner). Priority would be given to low- and moderate-income households. This segment could be referred to as homebuyers. Resale could function like a community land trust where the ground lease includes a formula that is used to establish the price of the home at resale and provisions that limit resale to eligible families. The resale market could be handled by participating non-profit housing association.
- **Social entrepreneurs and community or non-profit housing operators** seeking to build dedicated affordable and social rental housing. Once they are allocated a long-term land lease, they would be free to build and operate housing independently.

## Platform

Based on the principle of ‘housing as a service,’ the platform’s web portal would serve as a connector between affiliate partners (industry professionals) and customers to provide a one-stop-shop experience. As such, the portal consists of the main touchpoint for both target audiences: the customers and the affiliated partners. There would be a focus on usability (ease of use, pleasant to use) and accessibility (language, universal features) to accommodate a wide range of users. From a customer’s perspective this portal would also be their ‘site passport tool’ to search for available sites corresponding to the criteria they would have inputted. Once they have selected a site for which they are eligible, they could browse different home designs. Based on the available land data, customer input, and predetermined constraints (around pre-approved materials and catalogue home models), the artificial intelligence (integrated software) would generate several possible housing scenarios for consideration. The customer could request to meet with a platform expert to discuss options further. Once ready, customers would submit a proposal for development on the chosen site.

Platform employees would review the applications based on clear and transparent criteria that reflect the city’s needs and objectives (housing, economic, and climate). Once financing is secured by the customer, the plot would be allocated to the customer. Depending on their unique needs, customers may be connected to an affiliate industry partner.

The platform would also help customers finance their projects. Part of the funding offered by the platform would be to help customers pay for overhead costs such as designers, consultants, or site inspectors. Another part would be to subsidise the building’s sustainability features (e.g., solar panels). The customer, however, would be responsible to secure a mortgage through participating financial institutions (these too could be affiliate partners). For low-income households, there could be a shared-equity mortgage product managed by the government, a local financial institution, or a non-profit developer (like Options for Homes or Artscape).

## Revenues

The platform would be financed by a dedicated fund under public or non-profit management. The fund’s inputs could be a blend of public funding, private and social investments, revenues from issuing land bonds, and revenue from long-term land lease agreements (ground rent). Outputs would flow *through* the platform to help finance each project on a sliding scale of need, and *to* the platform to cover operational costs.

## Site Release

Public land and properties with redevelopment potential that are suitable for the self-build program would first need to be identified and catalogued in a land inventory database. This inventory would be removed from the speculative market and held in trust by a Land Trust organisation (publicly owned or independent). The Land Trust would manage the release of sites in collaboration with the intermediary. Long-term lease agreements would be issued to self-builders giving them the right to develop or redevelop the site (as-of-right) with certain conditions that are discussed in the following section: *The Way Forward*.

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*Note: More research would be needed to determine the best configuration, model, and governance structure for both the funding and Land Trust components.*

# The Way Forward

*The following recommendations suggest a roadmap on how to get started with the proposed conceptual model*

## 1/ Ensure a robust land inventory database

As a starting point, cities should create and maintain a land inventory (of surplus land, under utilized and underdeveloped properties) with key attributes of available parcels, making it easier to quickly identify sites that might be good candidates for the self-build program. Periodic audits of each city department can help to uncover parcels that can be added to the inventory, which may be available to the public or reserved for internal use only. Public agencies with a real estate portfolio should participate in efforts to identify opportunities for residential development through the identification of surplus or vacant land and buildings, or properties still in use that could be used more intensively.

Municipalities and provinces must work together to fill the data gaps, particularly around housing needs and land availability. Ontario's task force on housing affordability (2022) points to the inconsistent availability of land inventories, and the lack of information on how much land is permitted, how much housing is built once permitted, and how quickly (Report of the Ontario Housing Affordability Task Force, 2022).

## 2/ A new land use class for self-build

Local authorities only have a finite number of land assets at any given time. When they run out of new land, it may be that they will be able to recycle the proceeds (profits, development fees, community benefit contributions, etc.) of previous market-development transactions to purchase new land, capture the uplift themselves and act as plot promoters for further affordable self-build housing.

However, local planners may need a mechanism to designate areas of land for self-build development as part of a strategic plan, without directly purchasing the land themselves. This could be achieved through:

- Implementing inclusionary zoning reforms in key residential zones to enable 'missing middle' housing to be built under an as-of-right bylaw (**CS3**) that could be integrated into the speculative model's value proposition.
- Creating a new land use class, which recognises serviced plots as a fundamentally different economic land use type from speculatively developed properties. This new class would be defined as 'land that can be developed only by the end occupant or occupants of the dwelling(s)'. This would have the practical effect of creating a separate parallel land market (and therefore supply) for serviced plots. This would be a powerful new tool in local planners' toolbox, allowing local authorities to plan for self-build development as part of their planning objectives without needing to actively own the land themselves. These land use changes would have to be accompanied by legally enforceable covenants describing conditions and limitations attached to the ground-lease. Such covenants could state:
  - The ground lease would include a formula that is used to establish the price of the home at resale and provisions that limit resale to eligible families (**CS4**).
  - Any time the leasehold is offered for sale, the Land Trust could get first right of refusal to buy it back. This would give the homeowner security of tenure but allows the Land Trust to retain control of the land in future if they want to, and to update the original lease.
  - If the site is not under development within 1 year, and under occupation within 2, the lease could be repurchased automatically.
  - Rent prices for homes or workspaces could be limited to a certain affordability threshold.

### **3/ Start small and experiment**

Like a start-up, the new intermediary could start out as a small team working closely with City officials to oversee outreach and community engagement activities. Early discussions with key stakeholders would serve to test assumptions built into this model. Insights from these discussions would inform future iterations of the proposed model. In parallel, stakeholder engagement would be aimed at building a network of partners, large enough to test the model with pilot projects.

Once there is a proof of concept that is generating interest and attracting media attention, the model can start to scale by building out the portal's functionalities, growing the platform's team, growing its network of partners, and launching the portal.

### **4/ Garner interest for the self-build movement**

Pilot projects garnering the participation of early adopters will help to create showcase projects that can be promoted to generate media attention. Slowly people will start learning about the program by noticing new projects popping up in their neighborhoods, or hearing about it on their local news.

Another key aspect to building awareness is by inviting citizens into the design process. Design codes, performance standards, and site allocation criteria could all be crowdsourced using a similar process to the Laneway Suite case (*CS3*).

### **5/ Equitable and transparent land allocation**

This market would have to be based on a different measure of value than the private market. As with procurement in the social sector, one way to allocate lots could be based on the proposed level of benefit being provided to the community in each scheme. Based on this principle, an open and competitive bidding system could be used. Anyone could bid, and their bid would be assessed on its merit alone, not on who they are.

A transparent scoring system could be published along with every site. Points could be assigned to, for example, designated social rented homes, keyworker homes, first-time homes, older people's homes, emergency homes or just a private dwelling. Points could also be scored based on environmental or ecological performance, density, or contributing community amenities or low-cost workspace.

Effectively, this would create a kind of 'race to the top;' a free, fair, and transparent market competing not for the highest price, but on providing the greatest value to society. The more demand there is for a site, the higher the bar will be.

Local authorities can use the number and quality of unsuccessful bids as evidence of demand, validating the release of more rounds of land in future.

### **6/ Funding for enablers**

An additional smaller seed fund might be created to support any local or national initiative (primarily those that are owned by a non-profit or a social enterprise) that proposes to act in any way to make any aspect of the process simpler for businesses, communities, and self-builders.

## Final Remarks

The self-build program aims to empower individual households or collectives to develop housing for themselves, suited to their unique needs. It provides citizens the tools, resources, and templates to develop sustainable homes affordably, while ensuring affordability is preserved long-term through land use mechanisms. This program can function in parallel to the existing social- and market-supplied housing. Cities' response to housing supply should be an 'all of the above' approach, seeking to build capacity across all sectors. However, the citizen sector has the most untapped potential to help us improve and increase supply. This sector can become a politically popular and economically viable mainstream route for the provision of affordable homes.

Helping local authorities understand and unlock the power of the citizen sector is not easy — but it is possible. The Vancouver CLT case is evidence of a city willing to leverage public land through a long-term lease model in partnership with social housing providers (CS4).

Scaling the prefabrication industry sustainably could create a new, highly investable, highly scalable low-carbon house manufacturing industry that could export its services to a rapidly urbanising world. But the model aims to do more. It could also help create beautiful, affordable, equitable, and sustainable places that will stand the test of time as social, cultural, and economic infrastructure.

This new housing economy is based on co-production principles where end-users can (also) be considered as assets. When this happens, a new generation of housing as a service emerges, where people (individuals and communities) become active and collaborative partners in housing solutions. Through this lens, the housing conversation changes. We realise that housing is not an endless demand that requires endless debt, but an unstoppable, impatient force.

The government's next task is not to build houses for people, but to establish a strong market and civic framework in which every individual and community has the freedom and resources to construct their own low-cost housing .

# Conclusion

## The process

This project started by developing an understanding of the housing affordability problem in Canada. This included uncovering the missing narratives from the dominant housing discourse, a process that led to examining the non-market housing models more closely and recognising patterns of resilience and signs of innovation with potentially transformative potential, such as the community land trust model. A broader scan of the solutions landscape both in Canada and internationally revealed an exciting number of innovative interventions that offer an alternative to the status quo, addressing many of the challenges surfaced by the literature review. The case study technique was then used to take a deeper dive into examples highlighting the different tools and strategies utilized. The sensemaking process was done using visual mapping tools to help identify common patterns, relationships, and leverage points. This led to uncovering areas of opportunity which served as inspiration for a design intervention: the speculative model.

## Next steps

The conceptual model that was presented was an exercise in systemic design informed by the secondary research, solutions landscape scan, and case studies analysis and synthesis. This model is a prototype that has not yet been tested in the outside world. The next step would be to engage housing stakeholders from each sector (public, private, social, citizen) in conversation to test the assumptions presented in this model and see if it would meet their demands.

In closing, my hope is for this report to spur discussion and inspire action to approach the wicked problem of housing affordability in new ways; to change our mental models and our understanding of affordable housing provision in Canada; and to encourage all citizens to become active participants in our housing solutions.

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# Appendix — Case Studies

## How to read each case

**Case Study Name**

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**CS#** ← Case Study ID

**Image**

**Description**

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**Overview**

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**Partnership Model**

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**Housing Model**

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**Tools & Strategies**

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**Key Lessons**

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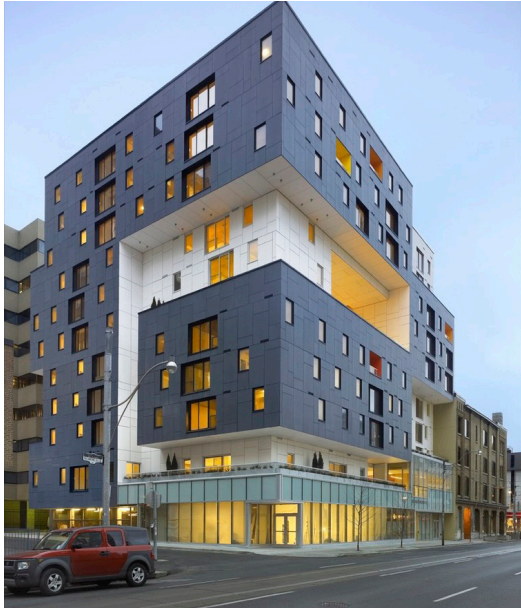
Overview includes:

- Location
- Date of operation
- Construction type
- Tenure type

# 60 Richmond

CS1

*A showcase in quality and environmentally sustainable purpose-built community housing. Its design was tailored to the unique needs of an underserved community – largely ignored by the housing market because of their low to moderate incomes, yet an essential workforce in Toronto’s hospitality and restaurant industry.*



Essential workers in our urban economy are priced out of the city. Their relocation to surrounding municipalities causes them to travel several hours each day to commute into work. The issue was raised by a local city councilor and the hospitality workers’ union Unite Here. Eventually, the City of Toronto requested that Toronto Community Housing work with Unite Here and the Co-operative Housing Federation of Toronto to develop a housing co-operative and training Centre on a surplus City site of 10,629 square feet. The result is a 11-storey 85-unit building that provides a blend of market-value and subsidized units.

This project acts as a catalyst for the future of urban infill and the demands of social housing. It reconciles urban structure’s utility with the environment’s sustainability and self-sufficiency, resulting in a new architectural expression that tackles the concerns of growing urbanization and depleting earth’s resources. 60 Richmond Housing Cooperative transforms into a full-cycle ecosystem by including its members in its ecological processes. Multiple outdoor gardens at various levels offer passive cooling and cleaning, rainwater collecting, and storm water management for the dwelling. Additionally, the gardens supply inhabitants with fresh, local food, resulting in a more self-sufficient, sustainable community. Additionally, the project includes a restaurant run and owned by residents of 60 Richmond Street. The result of these elements fosters a resilient, self-sustaining village within a building.

- Toronto, Canada
- 2010
- Urban infill, mid-rise built on surplus City land
- Mixed-income, Mixed-use, rental

## Partnership Model

- Joint development between public agencies and private labor union with support from social sector.

## Housing Model

- Non-profit housing

## Tools & Strategies

- Long-term discounted lease on surplus City land
- Grants under the affordable housing pilot program
- Public Funding & Subsidies
- Sustainable design (LEED Gold Standard)
- Roof top community garden

## Lessons

- From a financial perspective, quality public housing ensures long-term operational sustainability and is aligned with the City’s climate targets. Paired with a co-op model that fosters community engagement and participation, it also has a transformational potential on an individual scale, in that each occupant is held accountable for their carbon footprint.
- Organized advocacy and policy engagement can lead to innovative and purpose-built developments that are tailored to a local community’s unique needs.
- Those who have the money have the power, money contributions come with strings. This community doesn’t have money and are dependent on institutional/public funds.
- Creating a development for a housing co-op requires more staff time and additional financial resources.

*Photo Reference | Gil, S. (n.d.). 60 Richmond Housing Cooperative | ArchDaily [Photo]. Retrieved September 1, 2022, from <https://www.archdaily.com/85762/60-richmond-housing-cooperative-teeple-architects>*

# Artscape Triangle Lofts

*Artscape Triangle Loft offers a playbook for a replicable model that produces affordable ownership in perpetuity. It is exemplary of a truly collaborative partnership that balances the interests of all key stakeholders.*



The Queen West Triangle in Toronto’s modern arts district was designated a “regeneration zone” in 2004. The zoning change allowed construction on industrial warehouse sites with illegal artist live/work units. Sales centres for 20-story condo buildings soon followed, raising fears that they would displace workers, overrun the neighbourhood, and permanently change its character. This series of events sparked some of Toronto’s most contentious development disputes, pitting developers against community activists and the City. Despite widespread opposition and frustration, Artscape was able to bring together Active 18 and a condo developer. An agreement was reached to provide 70 units of affordable artist live/work units. The City agreed to give Urbancorp additional height and density via a Section 37 agreement to make the project viable. The agreement was a win-win-win for Urbancorp, the City, Active 18, and Artscape.

Artscape Triangle Lofts is a condo-within-a-condo that was created with the express purpose of providing affordable work and living space for the artists in the Queen West area in perpetuity. Artscape Triangle Lofts, which opened in 2010, consists of 20 affordable rental units, 48 below-market ownership suites, and a ground-floor community gallery space. Among the most innovative characteristics of Artscape Triangle Lofts is that the project’s affordability was entirely underwritten by an additional 56,000 square feet of height and density, with no government or philanthropic assistance required. Artscape is actively pursuing replication of this model in other parts of the city.

- Toronto, Canada
- 2010
- Former factory redevelopment with live/work loft-style units
- Mixed-use, mixed-tenure (rental/ownership)

## Partnership Model

- Joint development between private and social developers with support from the local public authority

## Housing Model

- Non-profit housing

## Tools & Strategies

- Shared equity mortgage
- Cross-subsidization between units
- Granting additional density
- Sweat equity/DIY

## Lessons

- Diversifying your revenue streams in a capital project comes with tradeoffs, but it can also lead to unexpected benefits.
- While managing a multi-stakeholder project is challenging, this project demonstrates the importance for the community to have ‘a stake’ in the planning process, whether it’s through a form of ownership or a voice at the decision-making table.
- Policymakers in Toronto have been slow to embrace affordable home ownership in part because of a perception that the affordability is not protected when the first-generation purchaser sells their unit. Through their shared equity mortgage program, Artscape Triangle Lofts demonstrates that it is possible to create affordable ownership housing that can be sold and re-sold at below-market rates.

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*Photo Reference | McArthur, G. (n.d.). Artscape Triangle Lofts – Artscape [Photo]. Retrieved September 1, 2022, from <https://www.artscape.ca/portfolio-item/artscape-triangle-lofts/>*

# Laneway Suites As-of-right

A crowd-sourced bottom-up initiative that has successfully added a new typology of housing onto the rental market and paved the way towards a more participatory approach to planning and housing provision.



Over 300km of laneways connect some of Toronto's most walkable, transit-oriented neighbourhoods. Laneways are an untapped resource for infill housing, say architects, planners, and urbanists. Over a dozen Canadian municipalities have recognised this opportunity and developed laneway housing policies to support modest intensification and encourage affordable rental stock.

Toronto approved and implemented as-of-right laneway housing by-laws in the summer of 2018 after 4 years of consultation with communities, planning professionals, city staff, and municipal leaders. 50 laneway suites are built, 131 are under construction, and 91 applications are pending. Hundreds of future applicants are consulting architects and builders (Chong, 2021).

As part of the Laneway Suites Initiative, the City of Toronto launched two programs to encourage eligible property owners to develop secondary/laneway suites, including the Affordable Laneway Suites Pilot Program which provides funding in form of a forgivable loan of up to \$50,000 for eligible property owners developing a laneway suite. Under this program, landlords agree to setting rents that cannot exceed the City of Toronto Average Market Rent, at any time during the 15-year affordability period.

- Toronto, Canada
- 2018
- As-of-right infill housing on private property adjacent to a laneway
- Market or below-market rental

## Partnership Model

- Direct relationship between public authority and citizen

## Housing Model

- Self-build

## Tools & Strategies

- Type of construction - affordable by design
- As-of-right bylaw
- Streamlined approvals
- Participatory design

## Lessons

- Strong industry advocacy and leadership/champions within City council are key to moving issues forward. Without this type of support, the project would probably have failed. There is a need for a more democratic and open process for sharing creative bottom-up ideas.
- Together, the city counselors, Evergreen, and Lanescape created a sort of innovation lab setting to incubate the laneway suite initiative. Creating a space to enable cross-sectorial collaboration and holding a diversity of perspectives is key to innovation.
- Participatory/crowd-sourced planning process is key to fostering trust and collaboration across stakeholders in the system.
- Participatory planning combined with standardized guidelines legislated through policy/by-law instruments can greatly accelerate the development process and improve the overall experience, encouraging greater uptake.

*Photo Reference | Sustainable TO. (n.d.). Withrow Park [Illustration]. Retrieved September 1, 2022, from <https://www.sustainable.to/withrow-park>*

# Vancouver Community Land Trust (CLT)

CS4

*A groundbreaking social-public partnership between a consortium of non-profit organizations, social finance institutions, and the City of Vancouver was the catalyst for CLT's growth and expansion, providing the scale needed to leverage additional opportunities and employ innovative strategies for housing development.*



The Mayor's Task Force on Housing Affordability was cited as the key policy document that created the opportunity for the Land Trust. The Taskforce, launched in 2012, focused on affordability solutions for moderate-income households. Importantly, it advocated for enhancing the City's and the Community's capacity to deliver affordable rental and social housing. It also identified the considerable land assets of the City as a critical component in addressing affordability, and recommended leasing land at a nominal rate to create new social and affordable rental housing. Finally, the report also identified Community Land Trusts as a potential vehicle for creating affordable rental and ownership options.

One of the key features in this project is the 'portfolio approach': a single organization developing and operating the four sites as a portfolio, rather than single sites held by different organizations. This has many benefits including: allowing for cost-efficiencies in construction and operation of the four sites, allowing the redistribution of rental income to help deepen the affordability of units for lower income people (cross-subsidization), and make the project financing more feasible.

- Vancouver, Canada
- 2018
- Portfolio of mid-rise rental housing on public land
- Mixed income rental

## Partnership Model

- Public-Social

## Housing Model

- Community Land Trust
- Co-op Housing

## Tools & Strategies

- Public procurement
- Leveraging public land
- Diversifying the pool of developers
- Social Finance
- Cross-subsidizing between units and buildings in the portfolio

## Lessons

- Impact investment represented the last bit of equity that unlocked the financing of the project. In addition to economics, access to investment equity outside the public sector may shift the power dynamics within funding relationships. Private equity has meant that the project was able to make the decision about whether to invite BC Housing in to participate in the financing of the project.
- Transferring low-density land from public institutions to non-profit CLT organisations would allow this sector to benefit from densification rather than private developers. Capturing densification profits can also provide pre-development capital. A non-profit developer can use profits from one project to fund the next's pre-development.
- Other BC credit unions can support affordable housing development. Beyond social finance institutions, New Market's CEO hopes a track record in this type of investing will reduce perceived risks, attracting more private capital to affordable housing projects.
- The entire portfolio can be leveraged for redevelopment, refinancing, or renovation. Churches, legions, community organisations, and municipalities can assemble individual buildings into a portfolio.

*Photo Reference | Community Land Trust. (n.d.). Vanness VAHA Site [Photo]. Retrieved September 1, 2022, from <https://www.cltrust.ca/portfolio/vanness-vaha-site/>*



# Raising the Roof's Reside Program

CS5

*A proven model for supplying quality affordable housing while simultaneously creating training and employment opportunities for marginalized populations, and scaling the trades based social enterprise ecosystem across Canada.*



Raising the Roof is a national charity dedicated to ending long-term homelessness. In 2021, it partnered with Building Up, a social enterprise that undertakes property renovation projects to advance inclusion and employment for people facing employment barriers. Together, these two organizations form the Reside Program, which renovates vacant or under-utilized spaces into energy efficient affordable housing through partnerships with social enterprise contractors and local housing providers. By creating employment opportunities and new units of deeply affordable housing with wraparound supports, Reside provides a tangible, targeted long-term solution to ending homelessness in Canada.

After two successful pilot projects in the GTA, Reside has received the funding and support needed to scale and expand their model onto 4 new projects in 3 municipalities. Their total impact to date has been to deliver 50 apartments, 4 cohousing properties, to house 81 people at risk of homelessness, and train/employ over 250 in building-related trades.

- Distributed across Ontario, Canada
- 2018
- Renovation and retrofit of donated, discounted, or awarded properties
- Mixed income rental, co-housing with wrap around services

## Partnership Model

- Inter-Social
- Public-Social

## Housing Model

- Non-profit housing

## Tools & Strategies

- Leveraging public procurement
- Leveraging public land
- Retrofit/Renovate
- Social finance
- Cross-subsidizing between units and buildings in the portfolio
- Inclusive labour

## Lessons

- Two of the properties that were added to the Reside portfolio were awarded through an federal request for proposal competition focused on affordable housing. In one case, the winning bid also came with a non-repayable grant. This highlights the role that government can play in fostering innovation in the housing sector.
- Our social issues are interconnected yet we often work to address them separately. The housing sector can play a role beyond putting a roof over people's heads. It can be used as a platform to redistribute value and wealth while creating employment opportunities that provide stable income and a sense of purpose.

*Photo Reference | Raising the Roof. (n.d.). Reside [Photo]. Retrieved September 1, 2022, from <https://raisingtheroof.org/reside/>*

# The Stack

CS6

*The Stack finds opportunity on a tight urban site through the alternative method of offsite construction. It served as a model for developing quality and economically viable housing, while strategically filling gaps unaddressed by outmoded approaches to building housing infrastructure in the city.*



The Stack, a seven-story, mid-cost apartment tower in Manhattan's Inwood neighborhood, is the first prefabricated residential project ever undertaken in the city. The building consists of 56 modules, completed offsite and shipped for construction and assembly to the northernmost tip of Manhattan, where a crane lifts the modules into position. The 56 modules were erected in nineteen days with a single crane and crew of 14 workers. The building techniques involved in this project can be applied at all levels, in all cities, at nearly any scale. The architects have applied this method to a large tower, as well as a school.

Recognizing its urgent housing needs, the city of New York is also making modular construction a priority. The administration called for its use in its recently released Housing New York 2.0 Plan, which aims for 300,000 new or preserved units of housing by 2026. The report says modular can “significantly reduce development time and cost, increasing the efficiency of the city’s affordable housing investments and bringing new affordable homes to the market faster.”

## Lessons

- Manhattan, USA
- 2014
- Private infill development on tight urban plot
- Mixed-income rental

## Partnership Model

- Private

## Housing Model

- Dedicated affordable housing with a portion of government subsidized units

## Tools & Strategies

- Prefabrication
- Type of construction - affordable by design
- Eliminating parking requirements

- Design plays an important role in ensuring units are desirable, which is an important first steps in public acceptance for new types of construction such as modular housing.
- Offsite construction methods allow development on small, irregular sites in urban areas that require densification - sites that large developers and governments would normally overlook because standard construction practises wouldn't work or the site is too small to produce the density needed to make the site viable.
- Developers can set lower rents while remaining profitable by using cost-effective construction methods like modular building. A big drop in construction costs could help non-profits move projects forward with less government assistance.
- Regulators buy-in is important as modular construction can lead to permitting problems when units do not conform with local regulatory requirements, such as minimum water heater sizes, fire and safety standards, and environmental requirements.

*Photo Reference | Barkow, A. (2015). The Stack by GLUCK+ [Photo]. <https://architizer.com/blog/projects/the-stack/>*

# Almere Poort

CS7

*Departing from the assumption that self-providing citizens will contribute to the diversification, quality and flexibility of the built environment, this case study demonstrates how planning tools can be used to foster human agency and creativity within an inclusive housing sub-system.*



Almere Poort is a borough of Almere, Netherlands. It is the newest part of what is a new city itself. This planned neighborhood counts almost 3,000 self-built dwellings on 100 hectares of municipal property. Large-scale citizen participation and bottom-up community development are driving elements in the community design. The most notable achievement was the establishment of a direct relationship between the local government and the homeowner using a plot passport tool. After obtaining a plot from the municipality and obtaining a mortgage, the buyer has the option of customizing their home or choosing from a variety of “ready-made” homes designed by in-house architects.

Initiated at the height of the financial crisis when housing providers had virtually stopped building, Almere Poort is part of the city plans to provide affordable housing for low-income households. The municipality had intended to showcase different varieties of self-building. It therefore created a plan that included different building typologies and plot sizes. Although all self-builders were required to comply with national building regulations, they also faced additional plot-based rules. The City also provided additional support to eligible low-income households as part of the ‘affordable self-build’ program. These are people who would normally depend on social rent. The program offers an interest-free loan of 40% on top of their regular mortgage. In the case of negative income growth, affordable self-builders are required to only pay interest without repaying the loan.

- Almere, Netherlands
- 2009
- Affordable ownership on undeveloped municipal land parcels
- Mixed low-rise houses, townhomes, and mid-rise apartments

## Partnership Model

- Direct relationship between public authority and citizen

## Housing Model

- Self-build for affordable ownership

## Tools & Strategies

- Prefabrication
- Self-determination, DIY
- Plot passport tool
- Streamlined approvals
- Mortgage assistance

## Lessons

- A model that caters specifically to a wide range of lower- and middle-income households, including households that would otherwise depend on social housing. Self-build projects embrace the idea that people will naturally build what’s best for themselves and their local community if strongly invested from the outset. It’s a notion that runs contrary to the paternalistic view of past social housing projects, i.e. that developers and urban planners are in a unique position to figure out what’s best for low-income families—rather than the low-income individuals themselves.

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*Photo Reference | Feary, T. (2015, December 15). Inside Almere: The Dutch city that’s pioneering alternative housing. The Guardian. <https://www.theguardian.com/housing-network/2015/dec/15/almere-dutch-city-alternative-housing-custom-build>*

# ACT Land Rent Scheme

CS8

*Financing land separately from building to create a new class of perpetual affordable housing. Combined with a self-build model, this approach to affordable ownership was successful in filling a significant gap in the Canberra housing market.*



Motivated by political concerns about rising house prices during the early 2000s price boom, the Australian Capital Territory (ACT) Government adopted a comprehensive Affordable Housing Action Plan (AHAP) in 2007. The plan included four main strategies to boost supply of affordable housing by leveraging the ACT Government's control of land supply, increasing home ownership for low-income groups, and supporting Community Housing Providers.

As part of their plan ACT introduced the Land Rent Scheme (LRS) to provide Individuals with a household income less than \$85,500 a way to access land at a below-market price, and then contract to build a house on the land. Rather than homeowners paying upfront for a perpetual right to land at market prices, the ACT government provides a perpetual land lease to residents at an annual rental price of 2% of the land value. Compared with buying the land with a mortgage paying 5.2% interest per year (the average at the time), this approximates a 60% discount on land price. Following review in 2010, the scheme was subsequently used to support supply to the community housing sector, giving them the exclusive right to participate in developing/building on LRS lots. As a result, the community housing sector could expand their product range by offering LRS lots to eligible households, paying the land rent fees until construction has been complete, and assisting households with engaging builders.

- Canberra, Australia
- 2011
- Affordable ownership on rented plots of undeveloped public land
- Mostly single family homes

## Partnership Model

- Direct relationship between public authority and citizen
- Public-Social

## Housing Model

- Self-build for affordable ownership
- Community housing intermediaries

## Tools & Strategies

- Prefabrication
- Self-determination, DIY
- Streamlined approvals
- Mortgage assistance

## Lessons

- While innovative, this was a top-down initiative imposed on community housing. From the ACT government's perspective, housing agencies were difficult to control and slow to buy into the AHAP. Asking agencies to change their policy direction is difficult because they have a lot invested in the status quo.
- Being able to guarantee increased land supply (and not just planning approvals for land development) as well as the price points of that land is a very powerful tool for a government trying to generate affordable outcomes.
- The ACT government allowed a long gestation period and extensive product testing with external stakeholders and housing experts. Allowing enough time for a long development cycle and field evaluations was key. This process is simple, but it requires good planning and a government willing to modify product designs based on stakeholder feedback.
- It's hard to maintain affordable housing without a political champion. Rapid government and political turnover will be a problem for affordable housing strategies. Effective strategies might be ones that deliver actions that are difficult to 'unravel'.

*Photo Reference | Chillistock Photography. (2017). ACT Land Rent Scheme fast-tracks home ownership in Canberra [Ariel View Photo]. <https://www.domain.com.au/advice/act-land-rent-scheme-fasttracks-home-ownership-in-canberra-20170626-gwyi96/>*

# Sheffield WikiHouse Pilot

CS9

*The largest housing association in the north of England was willing to test a new model of affordable offsite construction; a model it thinks could be part of the answer to the affordable housing crisis.*



Driven by the need to build more houses, better, and faster, the South Yorkshire Housing Association (SYHA) is open to trying new approaches and building techniques to deliver housing for its affordable rental portfolio. In partnership with the WikiHouse Foundation, SYHA is the first housing association to build a WikiHouse.

WikiHouse is an open-source project for designing and building houses. It endeavors to democratize and simplify the construction of sustainable, resource-light dwellings. Moreover, it is a form of offsite construction. The plywood frame is cut on a CNC machine using digital files and assembled like a jigsaw using a step-by-step manual. In collaboration with local manufacturers and builders they delivered two semi-detached homes on a tight, urban plot of land in Sheffield in under a month. The two homes were then rented through SYHA's affordable rental program.

## Lessons

- Sheffield, England
- 2018
- Two semi-detached houses on a tight urban plot
- Dedicated affordable rental

## Partnership Model

- Inter-social

## Housing Model

- Co-production

## Tools & Strategies

- Prefabrication
- Open source designs
- Type of construction
- Sweat equity, DIY
- Diversify the pool of developers
- Inclusive labour

- Open-source design: The design is digital, flexible, and open-source, so anyone can access it for free. WikiHouse is developing software to make it easy to adapt designs to different sites and stretch or reduce floor plans.
- Lower energy bills: The WikiHouse should be more affordable. Offsite construction methods, where houses are manufactured and assembled in factories, should result in better-built and less “leaky” heat structures. So they’re cheaper and easier to keep warm and dry.
- Lower maintenance costs: WikiHouse is easier to maintain and adapt because it comes with an assembly manual that shows where all the pipework, wiring, etc. goes. When the home maintenance team is involved in the construction process, they understand how it works which should make it easier.
- Local & distributed manufacture: On a small-scale, WikiHouse doesn’t need a big factory. It just needs a CNC cutter and a roof or tarp to keep the ply dry. This means that small local firms can make it, which cuts down on transport costs and fuel. Building at scale though requires a more robust supply chain or local capacity and a pipeline of work to keep it in business.
- New construction skills and jobs: There is a national shortage of construction labour but the WikiHouse can be built by joiners and even by relatively unskilled labour.

*Photo Reference | WikiHouse. (2018). WikiHouse Projects [Photo]. <https://www.wikihouse.cc/projects>*