

Jun-Jul 23
Invitation & Pre-Read

Jul 23
#CiFi Gathering

Aug-Sep 23
Learning Report participant sharing

Oct 23
Learning Report public sharing

Learning Report
to the

7GenCities:
#CiFi Gathering on

What Futures for Civic
& Social Infrastructure
Financing?

Q1 24
Learning Report 1st revision

??
Learning report future revisions

Learning Report for 7GenCities #CiFi
gathering: Work in Progress and Con-
tinuously Evolving

This document has been put together by Dark Matter Labs as a Learning Report to the 7GenCities: #CiFi gathering on “What Futures for Civic and Social Infrastructure Financing?” in Toronto on July 10-12, 2023.

The Mi'kmaw Native Friendship Centre and Evergreen are partners in this work and co-hosted the gathering.

We are grateful for the energy that participants brought to the gathering and for the insights that emerged. We have tried to convey the themes and ideas in this report, and have included anonymous comments from participants in the sidebars. Of course, we at Dark Matter Labs take responsibility for any errors.

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EVERGREEN

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THE GATHERING

Dark Matter Labs, the Mi'kmaw Native Friendship Society, and Evergreen were delighted to host an in-person gathering at the Brick Works in Toronto on July 10-12, 2023. The gathering was part of an ongoing effort by the partners to contribute to field building regarding the future of financing civic and social infrastructures, and in ways that embed Truth and Reconciliation. The work aims to address both the urgency of now as well as the deep systemic work of long term futures, consistent with the collaborative work of [7GenCities](#). Participants from not-for-profit organizations, governments, municipal agencies, foundations, investors, and financial institutions joined the conversation and were encouraged to hold paradoxes of:

Critical mind	→	Generative Mind
Urgency	→	Long-term Change
Building from Experience	→	Challenging Assumptions

The gathering centered around the calling question of: “How can the holistic outcomes of civic and social infrastructures be invested in to build stronger community and societal resilience, and in ways that embed Truth and Reconciliation?”

Four questions helped to frame the discussions during the gathering.

- Q1. What is the next generation of civic & social infrastructure?
- Q2. What novel financing mechanisms are required to invest in these new types of infrastructure?
- Q3. What does it mean, and make possible, to begin to decolonize capital allocation?
- Q4. What concrete and practical opportunities could constitute the way forward?

01

INTRODUCTION

This learning report serves to set some context, provide some working definitions and examples, and stimulate further thoughts following a convening of rich discussions and exploration. The document presents insights that were unearthed during the gathering and the hypotheses will continue to be tested, iterated, and dismantled as we move along in our learning journey on the topic of civic and social infrastructure finance. We intend to strengthen and improve over time what is set out in the following pages. This deck provides some of the material that was presented during the gathering.

Why do new civic and social infrastructure matter, and why do we need to rethink these now?

In this ongoing inquiry we are particularly focused on the critical role of a class of provision and outcomes we refer to as civic and social infrastructure (a terminology we are open to adapting). This class of infrastructure needs to play a vital role in addressing societal risks and liabilities while building future resilience and anti-fragility. Perhaps most critically in the Canadian context is to invest in infrastructures that embed Truth and Reconciliation.

While the Truth and Reconciliation Commission launched Calls to Action in 2015-2016, there is a significant journey ahead to fully embrace the possibilities and implications for what it means in terms of both investment and the need for new forms of infrastructure.

The provisions and outcomes of civic and social infrastructure (sometimes also referred to as commons infrastructures) can be either tangible, such as [urban tree canopies](#), or intangible, i.e. [the mental health of a city](#). They operate at the intersection of economies of scope and scale – helping communities both build locally and regionally contextual responses with care and contribution, such as neighborhood food forests and Friendship Centres – while also materially contributing to outcomes at the population level to grow societal resilience, public health impacts, and so on.

We recognize that across public discourse views are shifting to increasingly acknowledge the deep entanglement of social, economic, and ecological systems. We see a growing need to embed and operationalize this entanglement in how we address complex societal challenges. The enabling infrastructures for the new

civic economy to support that shift are becoming central tools in re-evaluating how to make our financial systems more future-fit, more resilient and systemically inclusive.

We know we urgently need to strengthen the commons (i.e. public goods, collective cultural and social assets, nature), which raises multiple questions, such as:

- **How do we develop an economy that actually allocates sufficiently towards common goods?**
- What kind of civic and social infrastructure is required now, and how do we develop, support, sustain, and adapt that infrastructure in the decades ahead?
- How do we redefine, assess, capture, share, and steward the concept of 'value' in this context?

By seeing civic and social infrastructure as operating at the scale of population and place and with simultaneous and multi-beneficial social, environmental, and economic impacts, their provision shifts focus towards outcomes, e.g. from the development of thousands of homes to hundreds of communities, and where schools represent not just buildings, but the multigenerational outcomes of climate-resilient school grounds and social capital.

During the gathering, challenges and possibilities of financing future-fit civic and social infrastructure were explored, as well as pooled liabilities management, community resilience and value creation in the context of the polycrisis and shifting societal needs.



Anonymous
12:15 PM Aug 25

Is it worth highlighting the difference between traditional allocative investment frameworks and complexity-inspired dynamic frameworks? The key difference between dynamic and allocative frameworks is that an allocative framework aims to make the optimal use of fixed resources at a single point in time, whereas a dynamic framework seeks to use resources to enact desired changes. Such frameworks therefore draw on complexity and systems thinking in their design and purpose. For example, by accepting the fundamental uncertainty of working within emerging contexts, dynamic frameworks reject the concept of optimality and instead prioritize adaptable policy choices that can be adjusted as additional uncertainties unfold. Marianna Mazzucatto and others at the IIPP have been looking at this in detail.

02

WHAT DO WE MEAN BY CIVIC AND SOCIAL INFRASTRUCTURE?

“Infrastructure, at its most fundamental level, is not about roads and bridges, cable and concrete. It’s about who we are, what we value and what kind of society we want to create.”

Eric Klinenberg 2018

Systemic risks are accruing at an enormous scale and speed. And as societies feel the impacts of the multiple crises and their rapidly cascading effects – climate, housing, inequality, biodiversity loss, polarization, and more – there is increasing recognition that some of the infrastructures that were part of shaping the current conditions of crisis need to be augmented by the infrastructures we build for the future. If we are to rise to the challenges of this age, we will need to redefine what constitutes future-fit infrastructure, so that infrastructure investments moving forward lay new foundations for economic, social, and nature regeneration across society.

Discussions on future-fit infrastructure for public good are becoming more central in governance discussions. For example, in the context of the US spending infrastructure proposal of 2021, Secretary of Transportation Pete Buttigieg stated that “physically robust infrastructure is not enough if it fails to foster a healthy community; ultimately, all infrastructure is social.” Increasingly countries are counting social infrastructure as critical and seeing it as entangled with natural and built physical infrastructure as well as institutional infrastructure.

For the purposes of the July gathering, we put forward the following working definition for civic and social infrastructure, recognizing that communities, governments, and investors may have other definitions for these terms. The following definition – with three key facets – is a mere starting point.

- Facet 1 – Civic and Social Infrastructure is foundational to supporting and sustaining life.

21st century civic and social infrastructures are a function of a portfolio of interventions (in space and typology) which drive public outcomes and provide multiple benefits. They consist of the publicly accessible systems, amenities, physical spaces, services, organizations, movements,

and programs, as well as the networks across and within physical and social spaces where people come together (e.g. libraries, Friendship Centres, community centers, shared kitchens, art hives, playgrounds, parks, etc.). These infrastructures construct multiple tiers of value with direct, aggregative, and system-level outcomes (see Figure 1). They are holistically regenerative and have the potential to foster civic interactions and enable individuals, families, groups, and communities to meet their social and collective needs, maximize their potential for flourishing, and improve community wellbeing, vitality, and resilience, now and into the future.

Tiers of Value

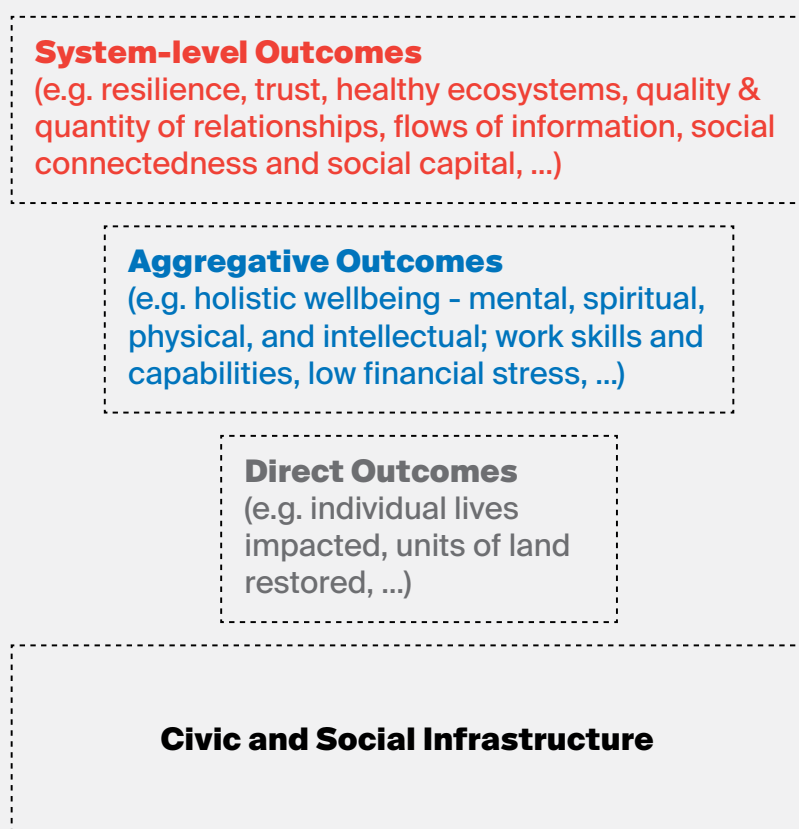


Figure 1 – Tiers of Value of Civic and Social Infrastructure

The infrastructure definition expands to include nature and nature-inspired infrastructure – including tree canopies, biodiversity, parks, community gardens, neighborhood-scale renewable energy, as well as the laws, processes, and governance systems that support stable opportunities for people to participate in everyday societal life. These infrastructures are currently not (yet) treated as economic assets, although the function they provide holds enormous economic value and mitigates society-level liabilities.

We propose that civic and social infrastructure is critical to building community and societal resilience, trust, and healthy civic engagement; to addressing collective action problems; and to creating good conditions for embedding Truth and Reconciliation in ways that invite in and engage both Indigenous and non-Indigenous peoples. Civic and social infrastructure influences the way we are in relationship with one another and therefore the directions we take as communities and societies.

Sources: [Aldrich \(2023\)](#), [Engle, Britton & Glode-Desrochers \(2022\)](#), [Nabatchi & Leighninger \(2015\)](#)

The following table (Figure 2) provides a typology of infrastructure as: Gray, Blue/Green, and Social. For the purposes of this conversation, we are focused more on a new class of outcome-oriented infrastructure which prioritizes multi-value outcomes over single points of optimization of a project (regardless of their size and scale) and which has dynamic and intersectional nodes that provide aggregative benefits across a system. For example, rather than (or in addition to) building one large urban forest adjacent to a city, there would be 600 forests (e.g. gardens, rain gardens, micro forests, food forests, neighborhood cooling grids etc.) created by different communities. These can be thought of as examples of dynamic, distributed infrastructures, i.e. micro interlinked civic-led systems that contribute to a wider value shift rather than a single-response model, and are examples of infrastructures driven by solidarity economy actors in local contexts and when aggregated provide higher impact multi-value outcomes.

Type of infrastructure	Examples	Influenced by	Benefits
Gray	Roads, bridges, ports, dams, electrical, gas, water and waste management systems	Government regulation, construction industry demand and lobbying, zoning laws, building ordinances	Standard form of critical infrastructure necessary for transportation, supply chain management, flood control, heating and cooling etc.
Green also labeled blue/ green)	Floodable parks, roof gardens, rainwater harvesting, biomimicry in streets	Progressive urban planners, engaged local citizens, urban threats	Less expensive and environmentally damaging form of managing flood risks, cooling down heat islands
Social	Community centers, libraries, walking trails, parks, cafes, dog walks, basketball courts, museums, public spaces, synagogues, mosques, churches	Citizen demand, civil society pressure, philanthropic giving	Enhances residents' capacity to interact, coordinate, develop relationships horizontally and vertically

Figure 2 – Typology of Infrastructure, Aldrich 2023

- Facet 2 – Expanding how we understand civic and social infrastructure also requires us to expand our notion of the civic economy beyond short-term thinking focused largely on the prosperity of the current generation, market mechanisms centered on the growth of material wealth, which has led in many cases to mass exploitation, extraction, and inequality. Instead, we need to shift our thinking to incorporate the well-being of humans and other-than-humans, in space and in time -- for seven generations ahead. This expansion invites fundamental questions as to the nature of our instruments and tools for financing, contracting and governing. And it imagines a new economic model that emphasizes interdependence over competition, and prioritizes sharing and equal opportunities over ownership, aiming for the prosperity and growth of people and local communities. ([Link](#))

- Facet 3 – We use the term CiFi as a shorthand for Civic and Social Infrastructure Financing. It is a recognition of the need to restructure for multiple outcome value flows generated by civic and social infrastructure assets and involves a growing group of practitioners from around the world. We see this provision as vital to unlocking and establishing next-generation investment markets for civic and social infrastructure assets.

03

EVOLVING APPROACHES TO FINANCING CIVIC & SOCIAL INFRASTRUCTURE

Challenges in Financing Civic & Social Infrastructure

Our civic and social infrastructure is massively underinvested and, often, gains in value are privately harvested. The gap between the needs of communities and the incentives of financial actors seems to be widening - for example, cities lament the shortage of capital, while investors highlight the shortage of investable projects, based on their traditional or outdated metrics of risk and allocations that for the most part ignore systemic risks. We must find new ways of understanding, representing, aggregating, and crystallizing risks to close the investment gap.

Traditional approaches also ignore the scale of the need for investment in civic infrastructure and the commons. For example, the 2021 seminal "[Dasgupta Review](#)" called for transformative change in economic, financial, and governance structures to align with the goal of sustainable development and the protection of biodiversity. This landmark study was commissioned by the UK government to assess the economic implications of biodiversity loss and offer recommendations for policy action. The Report underscores the urgent need to reassess our relationship with nature, placing biodiversity and ecosystem services at the center of economic decision-making and long-term economic prosperity. It fundamentally advocates for transformative changes in policies, markets, and societal values to achieve a sustainable and inclusive future for both humanity and the planet through collective action, innovative partnerships, and strengthened international frameworks that protect and restore ecosystems.

This opens up the need to explore new pathways for financing these futures from smart perpetual bonds, asset-backed currencies, smart bills of exchange as examples of liquidity and money creation mechanisms, smart covenants as examples of value uplift sharing instruments, as well as recalibrated monetary level instruments such as Smart-QE (Quantitative Easing) or Differential Interest Rate Instruments such as CBDCs (Central Bank Digital Currencies) for targeted monetary interventions in transition infrastructure investment. The following [link](#) provides some examples of multi-horizon CiFi instruments under development at Dm Capital, with their use cases and applications.

'Value' and Civic Assets

In this context, we recognize that while there is a need to find new means of structuring the supply of capital for civic infrastructure, we also and perhaps more critically need new means for **structuring** the multi-benefits value of 21st century intersectional infrastructures. We need new means for structuring the economic, social, and environmental value that is generated by civic and social infrastructure and is accrued on a societal level and distributed across multiple actors. We need to remake how these allocations are attributed on public balance sheets, beyond liabilities, in order to recognize the fact that the co-benefits and value uplift is often captured by private actors (see study on New York High Line below).

The New York High Line

The significant public investment in projects like the High Line is justified by the expectation that the increased value created will eventually be captured through taxes. However, in the case of the High Line, property taxes have only captured a small portion of the value directly contributed by the project. Properties within a 500-meter radius of the park have seen their combined market value increase by \$9.1 billion between 2007 and 2018, compared to an estimated \$5.7 billion increase if they had followed the average trend in Manhattan. This means that the High Line has contributed an additional \$3.4 billion in value to properties within its vicinity, while property tax revenue has only increased by \$103 million. This disparity amounts to a significant gap of \$3.3 billion, representing public investment that has not been recouped by the public purse. ([Link](#))

Our cities and communities/places, policy, and science increasingly understand the value of critical commons – be it air quality, sound quality, biodiversity, security etc. Increasingly we value culturally green walkable streets; zero carbon transport; high quality homes; well funded schools and hospitals; neighborhoods that run on renewable energy, and drinkable water that are resilient and encourage us to be engaged, socially inclusive and caring. The challenge we face is converting this value into **price**; building a new civic economy includes developing investable common goods and systematically recognizing the value created by those common goods.



Anonymous
12:34 PM Aug 25

Structuring or demonstrating? I suppose this has to do with increasing the fluidity of the problem space to make it more appealing for investment. From my perspective, there is something about the idea of structuring entangled value that clashes with the intention



Anonymous
12:36 PM Aug 25

Whilst protecting the baseline intrinsic value.

This civic economy needs to be developed on a purpose-built foundational infrastructure, which we call CiFi, the elements of which are derived from:

- Common goods being recognized as the foundational source of long-term value that need care, growth, and maintenance.
- New tools, instruments, and mechanisms in finance, governance, and management; for example, moving towards instruments that more accurately reflect the fluid systems context, take a more holistic approach to both value assessment and sharing, and steward the interests of both investors and communities over time. It is important to consider intersectional and layered infrastructure investment approaches to capture unpriced value and risk and the spillover benefits of different infrastructures through an integrated model.
- Managing common goods through the development of transition governance mechanisms and capacities (e.g. seeing systemically, embracing a long-term orientation, recognizing entangled value flows).

New Asset Codes

Hence, a new typology of asset codes (see [Building Civic Capital report](#), [Bridging the Impact Investment Gap: Infrastructuring Tomorrow and Elements for a way forward](#)) is needed to structure and finance both direct, aggregative, and system-level outcomes. In our analysis, the next generation infrastructure will include tangibles such as tree canopies and community centers as well as intangibles like mental health and collective intelligence. All of which are currently considered liabilities on public balance sheets (and not assets) due to their investment and maintenance costs and the lack of a framework to account for the multiplicity of spillover benefits they provide to the public. Hence, we aim to expand the scope of how we define 'economic assets'.

One could say that economic assets do not behave as stores of value that contain rights, but from which economic benefits may be derived by trading and matching them to liabilities holders and beneficiaries. New economic assets are created through investing in common goods or assets that can be pooled together to match societal liabilities. It is this matching function that creates a new class of economic assets. In this future, the commons is itself a self-sovereign asset, which contains generative assets for mass multi-party benefit (see TreesAI and FreeHouse examples in section 05). When pooled together, these common goods create a new class of non-equity based assets that exhibit hybrid capital flows to match liabilities.

A new definition of economic assets like this is critical to shifting significant flows of capital into new forms of civic and social infrastructure.

A Boring Revolution

We want to recognize that the full development of this class of outcomes-based infrastructure provision requires a fundamental, [“boring” revolution](#) — such as remaking property rights, building system business/value cases, mass multi-actor value attribution and matching systems, creation of place based pooling of risk institutions, common liability pools etc. — all massively assisted by [computational bureaucracy](#). The purpose of acknowledging this here is to prevent our limiting the vision of what is necessary to our current bureaucratic capacities. We also envision this systemic layer of capability will become even more critical to develop as this work continues.

Grants, Revenue Financing & Multi-Currencies

Since the infrastructures that we are proposing to strengthen are not sufficiently coded yet in financial and accounting systems, many providers of such civic and social infrastructure are almost exclusively dependent on philanthropic or government grants. Capital, in this case, is deployed as a (conditional) gift, not as a generative investment. **Participants of the July gathering** described a) how grant application writing and management takes up an enormous proportion of their average work week; and b) how subservient the applying institution becomes to fulfilling the requirements of the grant-making institution. In many ways, participants confirmed the challenges that have been written about at length in recent publications such as ([Ashoka, 2020](#)), ([Ashoka, 2023](#)), ([r3.0, 2022](#)), and ([Rockwool Foundation, 2022](#)); including:



Anonymous
6:30 PM Sep 12

We have a philanthropic “investing” infrastructure that’s been built over the past 100 years (with requisite practices, assumptions, norms, and behaviors) largely to buy direct outcomes and to fund single-point interventions. Primarily to address “tame” and technical challenges rather than truly grapple with wicked problems. We can no longer operate under the illusion that linear input-leads-to-output logic models are going to drive differential impact. We need a new logic for financing now. We need the ecosystem of change financiers to catch up and understand a more nuanced version of the tiers of values/ outcomes (enabling, supportive, system level) and the processes required to support this kind of tiered change work that’s essential to drive system-level health not continue to support a range of disaggregated and isolated interventions. If you want your investment in the more proximate outcomes to be sustainable, then you have to attend to the conducive conditions that can help lock in more fundamental system outcomes.

- Short funding horizons;
- Limited financial resources from each funder, hence, a very scattered pool of funders;
- Strict guidelines on what funds can be used for, quite often forcing fundees to adapt their programs to funder's requirements;
- Requirements for clearly measurable and ideally predictable impact outcomes (linear theories of change), no funding for learning, discovery, piloting, relationship building, and alike;
- Power asymmetries and transactional relationships of control and accountability between funders and fundees;
- High bureaucratic/ administrative/ overhead costs for writing proposals with high uncertainty of getting funding granted, as well as for managing and reporting on successful grants.

In order to shift from (conditional) gift capital to investment capital, it becomes necessary for receiving institutions to generate returns, under the current system. Financial returns to investors are usually covered through revenue generation of some sort. Revenue financing, however, is not per se a natural fit for organizations who primarily deliver a type of value that can currently not be captured or expressed in monetary terms. Hence, the need for a fundamentally new notion and understanding of 'value' emerged as a common thread from the gathering in order to be able to easily convert from one form of currency (e.g. care) to another (i.e. financial currency).

Foundational for easy convertibility between the different currencies are robust metrics and evaluation systems to capture outcomes and impacts either qualitatively or quantitatively.

»The basis for success is building a robust evaluation system that showcases the impacts of the project in a way that translates into general positive outcomes, not only for the children using the school ground but the community and municipalities, which could make private and public investors see the big picture.« – CiFi Participant

New Portfolios

The outcomes and impacts of single projects and organizations are usually too small and inefficient from a due diligence costs perspective for many large private or institutional investors to consider. It is becoming more apparent that an aggregation of projects into intersectional portfolios is needed to achieve private capital participation. This would not only bundle smaller projects of civic and social infrastructure into investable assets, but also has the potential to lift systemic spill-over values within the investment portfolio (see Figure 3).



Anonymous
2:17 PM Aug 30

I recognize that the intention of the project is for dramatic system changes - but these challenges of grant funds, while very real, can also be overcome by adopting practices such as trust-based and participatory philanthropy.

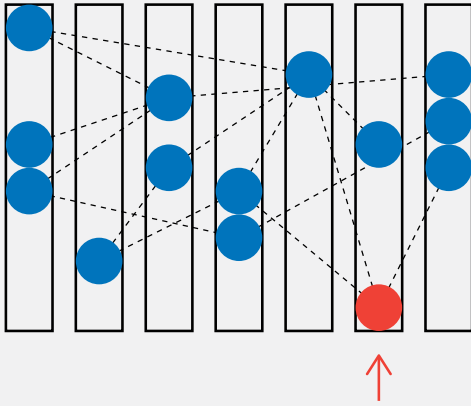


Anonymous
3:00 PM Aug 30

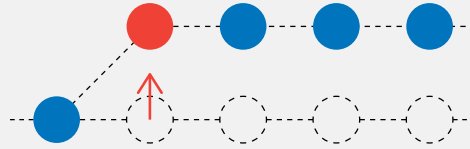
We find that there is a lack of understanding with investors and funders of what social infrastructure is and therefore difficult to leverage funding to sustain the work.

Grant-Making and Impact Investing

Capital Allocation

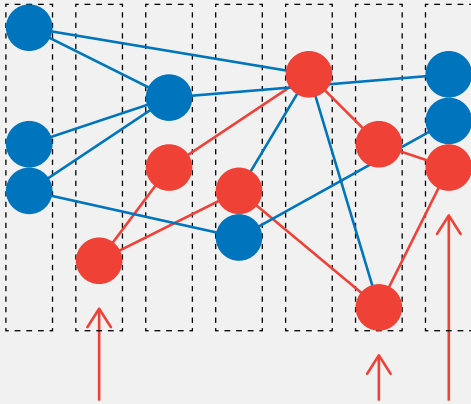


Realised Impact



Systems Investing

Capital Allocation



Realised Impact

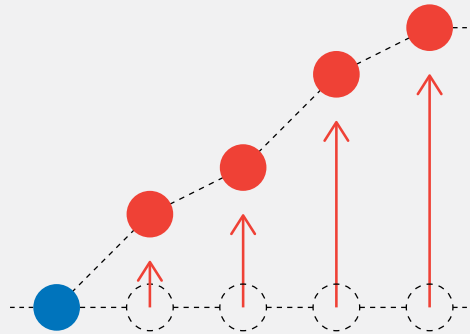


Figure 3 - Systemic Investing in Portfolios of Civic and Social Infrastructure

The upper part of Figure 3 is a simplified illustration of the paradigm of single point interventions in contemporary grant-making and impact investing. Despite the natural interconnection of issue areas, capital providers often work in silos and allocate capital to address single problems. The consequence in terms of impact is, at best, merely an incremental path correction.

In contrast, the emerging paradigm of systemic investing (as depicted in the bottom part of Figure 3) transcends organizational silos and focuses on the natural interdependencies of issue areas. Capital providers strategically invest in portfolios of multiple intervention points with a high possibility of triggering systemic shifts. Contrary to conventional investment logics of diversification, in systemic investing, capital providers are deliberately looking for correlation among the assets to leverage systemic impacts through combinatorial and spill-over effects. The resulting change is obviously not linear but influenced by the dynamic properties of complex systems such as emergence, positive and negative feedback loops, and tipping points.

In addition to the need for bundling individual projects in portfolios, a deepened understanding emerged at the July gathering about the importance of investing in the 'spaces in between' projects and the connection / weaving across them to leverage compound learning effects, and opportunities for scaling, replication, and leap-frogging. Learning, leadership capacity, and relationship outcomes were identified as equally valuable and desirable as impact outcomes, requiring dedicated financing for each type of outcome.

New Roles and Responsibilities

As outlined above, it became very clear that the way that civic and social infrastructures are financed today is very inefficient. Many social innovators and community leaders spend their time administering 100+ grants a year, all requiring different documentation and reporting as opposed to doing what they do best: orchestrating deep and systemic value creation for the community. With the emerging outlines of a new financing facility (see Figure 4 below), the community leaders will be able to focus on building resilience, creating change, and delivering impact – as opposed to securing the next cycle of funding.

Further discussions at the gathering evolved around questions of systemic transformation, for example:

- how foundations can be insurers of outcomes for public and private outcome buyers;
- how insurers become investors in risk mitigation (e.g. investors in natural and resilient infrastructure);
- the importance of engagement with community groups who provide stewardship value;
- how crystallization of outcomes buyers may be critical to mobilizing capital at scale; and
- how to deal with the fact that costs and savings are not accrued in the same place, which makes it challenging to execute outcomes financing contracts.

Decolonization of Capital Allocation

The topics of the gathering – infrastructure and finance, are by no means neutral. They are part of systems and institutions which have contributed to structural inequality and have played a role in colonization and displacement of Indigenous and racialized peoples. We barely began to scratch the surface of this incredibly important set of issues through a group discussion that raised more questions than it answered.



Anonymous
12:45 PM Aug 25

I wonder if this could be described as an ecosystem investment.



Anonymous
3:33 PM Aug 30

I like this too and would also suggest that we need a financial investment infrastructure that is responsive to unique community needs and is designed with the community.

How do we finance the future – not based on the predictive and colonial capacity of capital allocators, but instead allocate to support the generative discovery of value led by communities? How do we finance a future in which capital is the servant to community development not its master? How do we finance a future in which the generative allocation of capital for discovering the future is not the just domain of start ups but communities, civics and cities?

In our sessions, we began to explore:

- What does it mean, and make possible, to begin to decolonize finance and capital allocation?
- How do we decolonize capital when we are governed by institutions that were built for a different era and based on logics of colonialism?
- How to finance assets with different ways of seeing ownership?
- How could capital allocation be more discovery oriented to give communities freedom to explore, prototype, iterate, and build for the long term?
- How to ensure that all future infrastructure investments apply an equity lens, for both current and future generations?

These questions and many more will be part of the work going forward. We also recognize structurally de-colonizing financial investment requires a multi-dimensional response.

- 1 Recoding finance as part of a multi-currency economy structurally recognizing other economies of gifting, care and love.
- 2 Exploring bioregional governance of multi-valent currencies to recouple our means of exchange with biophysical stewardship.
- 3 Shifting capital “allocation” from centrally predictive to contextually exploratory and enabling value discovery in context and in time.
- 4 Optimizing for **system-balance sheet** and associated **surplus / profits**, recognizing the entangled nature of value.
- 5 Decentralizing and distributing the very production of money.

In the context of 7GenCities, we are committed and striving to embed Truth and Reconciliation principles and actions throughout our work. This requires much unlearning and relearning and a recognition that we are on an important relationship journey together and intend to act in ways that build trust, reciprocity, and shared understanding with one another, and to gift one another the patience and love that that will require. Truth and



Anonymous
12:55 PM Aug 25

It could be good to recognize that the whole point of a balance sheet is that it represents a snapshot in time. I think if we want to use them to represent flows and stocks of value then we need to talk about integrated value models or probabilistic models (e.g. Bayesian statistics).



Anonymous
12:52 PM Aug 25

Is profit an appropriate signal of value? If we accept that a true signal of value cannot be time or geographically bound in its conception, then any mechanism that calculates value without recognizing entanglement (i.e. profit in its current form) is at best artificial and more often violent and extractive.

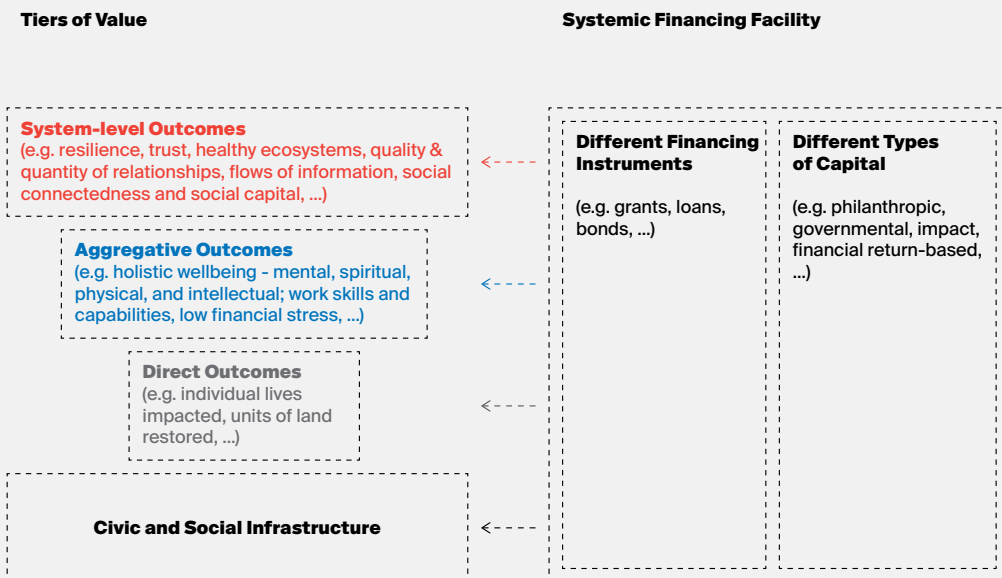
Reconciliation is a lifelong journey engaged by Indigenous and non-Indigenous peoples to reckon with the legacies and impacts of colonialism and colonial policies on Indigenous Peoples, most notably Indian Residential Schools established by the Canadian Government. Reconciliation is the process of truth-telling, and repairing and rebuilding relationships with Indigenous Peoples, and with Earth.

We are committed to long-term reconciliation and all that that invites and requires, including working to invest in civic and social infrastructure that embeds principles of Truth and Reconciliation.

A New, Systemic Approach to Financing Civic and Social Infrastructure

We also explored what a novel outcomes financing facility (see Figure 4) might look like, which could deploy different types of capital (e.g. philanthropic, governmental, impact, financial return-based etc.) to civic and social infrastructure directly, as well as to its three tiers of derivative value (as introduced in Figure 1). Conceptually, it would do so through a multitude and blend of different financing instruments, tailored to the specific context and needs of the asset (e.g. grants, loans, bonds etc.). The facility would also be able to perform the pooling and bundling function to construct systemic portfolios for investment.

Figure 4 – New Systemic Financing Facility for Civic and Social Infrastructure



We are still very much in an exploratory / discovery phase, and we are cognizant of the structural challenges notwithstanding the key ingredient that is needed for such an instrument to benefit - the buy-in from public and private markets.



Anonymous
3:40 PM Aug 30

I wonder if it is not only using different financial products and means but to using grantmaking dollars more strategically to mobilize and influence new ways of financing.



Anonymous
3:45 PM Aug 30

We also need systems leaders across the philanthropic sector to pool funds that transcend individual goals to one that is shared - to experiment and create innovative capital mechanisms for systems change- we could create a new system capital fund to support relational social infrastructure etc.



Anonymous
2:22 PM Aug 30

One group to tap into for insights may be blended finance practitioners. Although blended finance has yet to reach the scale many wish to see, there are likely significant lessons learned by practitioners that could apply both the right and left side of Figure 4 - i.e. how to get different types of capital to work together for a common goal and how to target different tiers of value with blended capital.

Next Steps

The 7GenCities #CiFi gathering and this report are intended as the start of an ongoing conversation that we hope will inspire a great deal of action and new forms of investing in future-fit infrastructure critically needed for the age of existential risk we now inhabit.

In the short-term:

- We invite your bold ideas and additions to this report as well as questions and challenges. Please fill out [this form](#) to provide input.
- We are exploring ideas for different financing approaches, including
 - an outcomes financing facility;
 - a next generation infrastructure fund; and
 - a catalyst granting lab.
- You may be planning other follow up steps ... please do share!

Please fill in [this form](#) if you'd like to be part of future discussions and/or receive more information as it becomes available. We also invite you to let us know what you're learning so far and what ideas you have for this work and community moving forward.

Thank you!

04

LIST OF PARTICIPANTS

Ilse Treurnicht	TwinRiver Capital
Tracey Robertson	Ontario Trillium Foundation
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Andrea Barrack	RBC
Todd Jaques	MakeWay
Rob Woods	Wiyotisiwin Investment Management Company
Rob Ricigliano	The Omidyar Group
Anna Muoio	New Capitalism Project
Tom McGuire	Mi'kmaw Native Friendship Centre/ 21FSP
Pam Glode-Desrochers	Mi'kmaw Native Friendship Centre/ 7GenCities
Aimee Gasparetto	MNFC/ Every One Every Day Kjipuktuk-Halifax
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05 CIVIC & SOCIAL INFRASTRUCTURE FINANCING PROJECTS

The following section provides a sample of social and civic infrastructure work that the hosting team and 7GenCities partners are involved with—some are built projects and programs, and some are speculative. There are many more inspiring examples out there; this is but a small selection of some current real-life manifestations of social and civic infrastructure, and some of the ways to support building them.

Mi'kmaw Native Friendship Centre ([link](#))



The Mi'kmaw Native Friendship Centre (MNFC) has a 50-year history supporting urban Indigenous peoples in Halifax and beyond. People who work at the Centre are caring and dedicated to improving people's lives and centering Truth and Reconciliation through the provision of 55+ programs including housing, education, employment, Elders and youth.

MNFC has secured funding for the construction of a new Friendship Centre on land in the iconic location at the foot of Citadel Hill. [The new Friendship Centre, 'Weje'winen'](#) will provide a new platform for Every One Every Day Kijipuktuk-Halifax and 7GenCities more broadly across programs and partnerships to support Truth & Reconciliation in Halifax and beyond.

[Every One Every Day Kijipuktuk-Halifax](#) is a social infrastructure that invites residents to create, learn, and grow together. Neighbors lead projects that involve sharing their ideas, skills, and capabilities through activities like batch cooking, community meals, and sharing cultural knowledge and traditions, as well as making, crafting, building, repairing, sewing and much more. [The latest story from Every One Every Day is Weaving Cohesion through Inclusive Social Infrastructure.](#)

Evergreen Brick Works and Evergreen Climate-Ready Schools

[\(link\)](#)



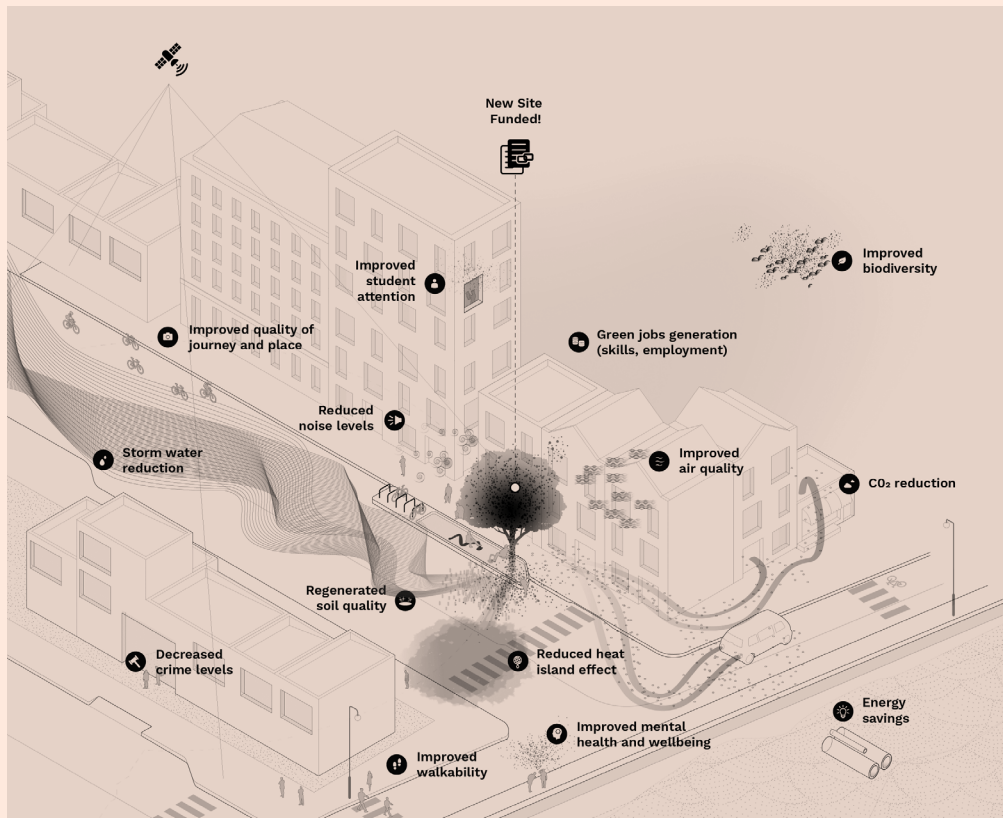
Evergreen is a leader in placemaking and urban sustainability. As a national not-for-profit, it has been facilitating change in communities across Canada for over 30 years. Evergreen believes that cities can be powerful levers for change, and that public spaces within our cities can work harder for both people and our planet. Once an industrial brick factory, the Evergreen Brick Works [the venue for this 7GenCities #CiFi Gathering] is now an internationally renowned showcase of green design, an award-winning public space and a test site to pilot ideas that can be scaled across the country to shape our cities and public spaces for the better. Evergreen's Climate Ready Schools builds on a 30-year legacy of transforming school grounds across Canada into nature rich play and learning environments for both children and their community. Though Canadian school grounds cover hundreds of thousands of acres of land and are found in nearly every municipality, they are an underappreciated asset hiding in plain sight. Currently, Canadian school grounds are mostly covered with asphalt and concrete, significantly contributing to the Urban Heat Island Effect. Within the larger global context of climate change, Canadian school grounds are also becoming major hotspots for flooding during storms. Therefore, it is essential to build climate-resilience within our communities and cities to ensure that these landscapes serve a deeper ecological purpose. Canadian school grounds need to be redesigned for our children, communities and the natural world. Through a participatory design process, the Climate Ready Schools program engages with the entire school community in creating and championing a tailor-made solution for their school grounds.

Toronto's Ravine Loop Trail ([link](#))



Toronto is home to one of the largest ravine systems in the world. Spanning more than 11,000 hectares and encompassing 17 % of the city, this unique topography has shaped and been shaped by the growth of Toronto. Traveling over, under and across the entire city, the ravines and its tributaries play a vital role in many facets of the city. The ravine system is home to almost 90% of Toronto's wildlife, while also housing major infrastructure including roads, rail, pipelines and utility infrastructure. The majority of the city's water infrastructure relies on the ravines to absorb and filter stormwater and play a key role in flood protection. Simultaneously, the ravines provide a natural retreat from city life to refresh, restore and enhance residents' quality of life. In a rapidly growing city, the importance of the ravines only grows.

The Loop Trail aims to create a continuous, 81-kilometer off-road, multi-use ring trail through this vast system, one that connects a diverse group of neighborhoods as well as linking the city's core to Rouge Urban National Park, enabling an active transportation network mostly immersed in nature. Discussions are underway concerning the stewardship of the Loop Trail.



Trees As Infrastructure (TreesAI) is a cloud-based platform, establishing nature as a critical part of urban infrastructure, alongside bridges, roads and rail, enabling investment, profitability and sustainability. Urban forests regulate a number of ecosystem processes (e.g. water and air quality) and provide tangible and intangible benefits vital for living environments. Trees produce goods such as food and timber; and are deeply connected to our societies and cultures functioning as powerful symbols. TreesAI accounts and values a number of tangible benefits—relating to carbon, water, health, energy, biodiversity and the economy—while acknowledging social and cultural co-benefits. TreesAI has so far been piloted in cities in Europe, and discussions are in process with potential partners in Africa and Canada.



The South Saskatchewan River flows through the heart of Saskatoon and has nurtured its many surrounding communities for generations. Stewardship of the river valley corridor has ensured space and amenities exist for people to experience, learn about and look after prairie grasslands, wetlands and habitat in an urban environment. The Saskatoon region's leadership in stewarding the river valley has now been recognized. Through the new National Urban Parks program, Parks Canada is working with local partners to consider how significant urban greenspaces, like the Meewasin Valley, can enhance the conservation of nature, connect people with nature, and advance reconciliation with Indigenous peoples.

Canada's National Urban Parks Program

Parks Canada is collaborating with local partners, including First Nation and Métis leaders and organizations, to create a network of national urban parks in Canada's large urban centers. Together, these parks will create a network with a shared vision to conserve nature, connect Canadians with nature and advance reconciliation with First Nation and Métis Peoples.

The network of national urban parks will involve unique places across Canada, each with their own governance model. Each national urban park's approach to governance will be determined by local circumstances, in collaboration with partners. At this point, Parks Canada anticipates that any national urban park in the Saskatoon region would be governed under some version or evolution of the existing model used by the Meewasin Valley Authority.



The project aims to demonstrate the potential impacts of obtaining legal personhood for the River Dôn. This has been achieved in several other countries (New Zealand, Ecuador, Spain and India), but not yet in the UK. By innovating on the current legal model of ownership and governance as well as attaining enhanced rights for the River Dôn, the project aims to change the way we interact with and value the river - socially, economically, politically and environmentally. Further exploration is needed to determine how to finance civic infrastructures (e.g. large-scale water systems that run through multiple local authorities, cities, and countries) through entangled value accounting, relational balance sheets, tech enabled value mapping (e.g. large scale smart sensing), multi-capital currencies, multi-value business planning, and outcomes-based financing.

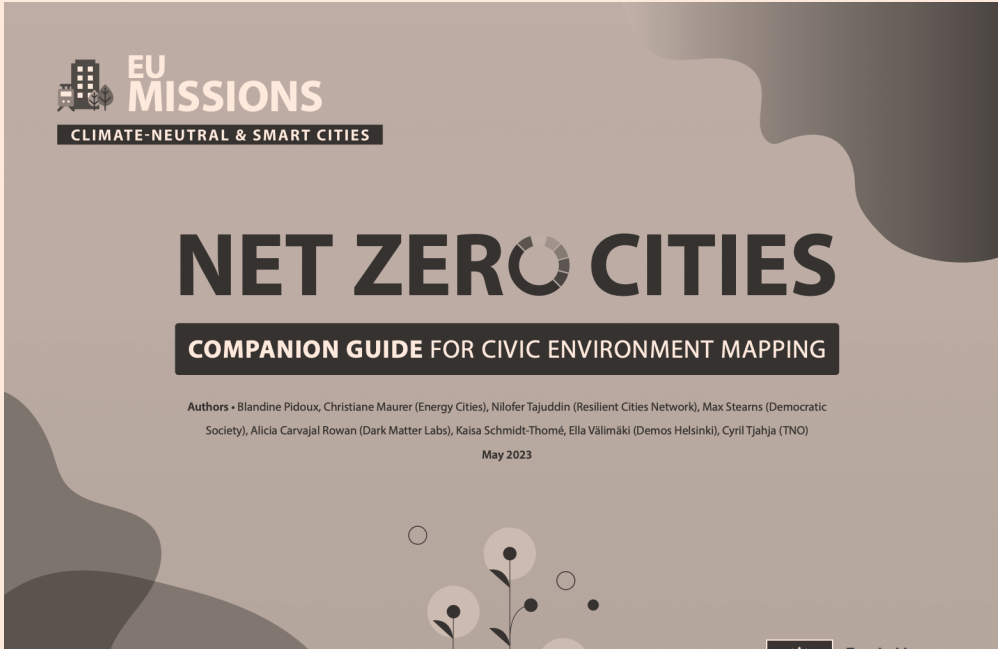


Enabling Water Smart Communities tackles the complex challenges that arise at the intersection of housing development and integrated water management. The project aims to foster cross-sector collaboration between private (e.g. private housing developers), public (e.g. local authorities, housing associations, non-profit organizations), community-led housing groups, and water companies. The project explores the themes of rethinking value, asset typologies, roles, and evidence as a framework to uncover challenges and opportunities.

Grindstone Creek Watershed Restoration

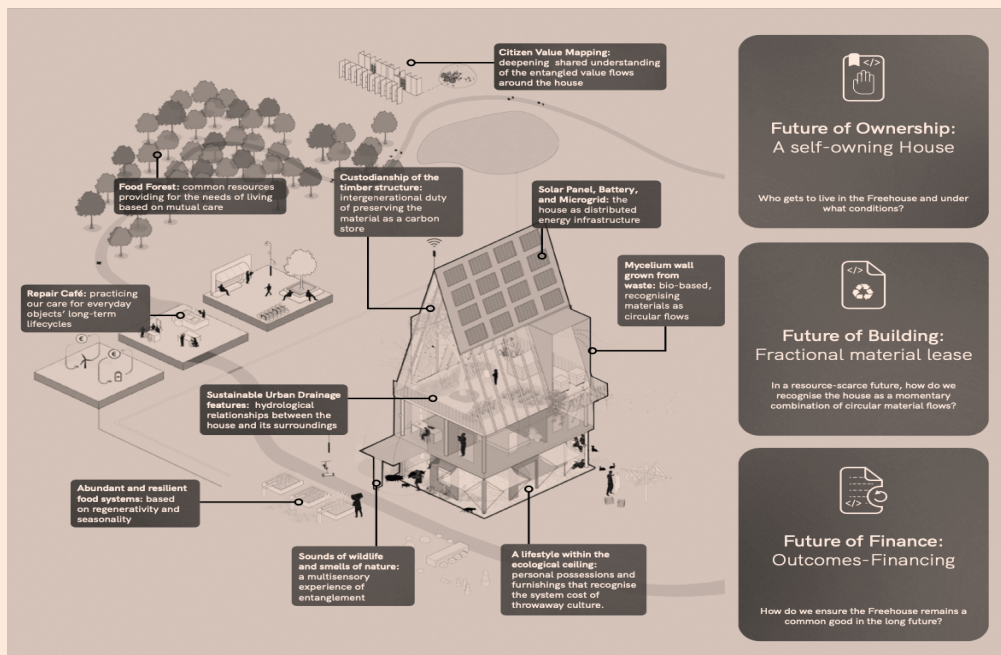
The Grindstone Creek Watershed Natural Asset Project is the first of its kind in Ontario, bringing partners from across jurisdictions to address their shared watershed. The Municipal Natural Assets Initiative (MNAI), with support from the Greenbelt Foundation, partnered with the Cities of Hamilton, Burlington, Conservation Halton and Royal Botanical Gardens (RBG) to explore the value and condition of natural assets in Grindstone Creek and to incorporate them in local financial planning and asset management.

Net Zero Cities - Companion Guide for Civic Environment Mapping ([link](#))



In order to accelerate transition to climate neutrality, cities need to cooperate with their full local ecosystem of actors - including citizens, civic groups and stakeholders from the private and public sector. Together, they will need to build new governance models, co-create new solutions, co-decide upon and embrace climate action for change as a whole community and in a systemic civic environment. This guidebook describes how the use of simple and intuitive civic environment mapping tools, as well as a better understanding of mapping approaches and key principles, will help cities and Transition Teams develop the necessary system thinking skills to navigate the richness and complexity of their local ecosystem. Net Zero Cities is a European Union program supporting 117 cities to reach climate neutrality by 2030.

Learn more here: <https://netzerocities.eu/>



The FreeHouse project is a speculative idea for a new tenure model for housing; combining the concepts of stewardship, perpetual bond finance and zero-carbon construction. The project is aimed to build a single prototype house as a demonstrator of this new reality, with the home itself being represented as a digital autonomous organization and held by a civic trust. FreeHouse sits at the crossroads of a new circular biomaterial economy, open distributed manufacturing capabilities, and a new relationship between home and human, based on reciprocal care and stewardship. The overall aim would be to create a new housing market for high quality, zero carbon homes that become cheaper over time. This housing model could create a new template for public housing provision – one that’s both genuinely affordable, materially circular, and civically governed. FreeHouse acts as a borrower, issuing perpetual bonds through a public trust. With this capital, it can acquire land and select a construction partner. The residents become legal custodians through a stewardship contract, responsible for the home’s maintenance and well-being. Further exploration is underway to determine how to finance civic infrastructures (e.g. a collection of FreeHouses) through entangled value accounting, multi-value business planning, and outcomes-based financing.

ABOUT

7GenCities

7GenCities is a new initiative rising from growing interest in trans-formative thinking and action for future city and community building and Earth stewardship. We are forming as an open collective of partners drawing from multiple disciplines and sources, including those in the book Sacred Civics: Building Seven Generation Cities. Initial activities include hosting a 7GenCities Learning Community and #CiFi (civic infrastructure financing) gathering to help build the field of social and civic infrastructure financing that embeds Truth & Reconciliation, as well as field building events and activities. For more information visit www.7GenCities.org

Evergreen

Evergreen is a leader in placemaking and urban sustainability. As a national not-for-profit, we've been facilitating change in communities across Canada for over 30 years. Evergreen believes that cities can be powerful levers for change, and that public spaces within our cities can work harder for both people and our planet. We're excited to welcome you to our headquarters at Evergreen Brick Works nestled in Toronto's ravine system. Once an industrial brick factory, it is now an internationally renowned showcase of green design, an award-winning public space and a test site to pilot ideas that can be scaled across the country to shape our cities and public spaces for the better. For more information on Evergreen visit www.evergreen.ca

Mi'kmaw Native Friendship Centre

MNFC has a 50-year history of supporting and providing services to urban Indigenous peoples in Halifax and the wider community, serving approximately 7,000 people per year. MNFC has the support of all Mi'kmaw Chiefs in the region. People who work at the Centre are caring and dedicated to improving people's lives and centering principles of Truth and Reconciliation through the provision of 55+ programs including housing, education, employment, Elders and youth, and Every One Every Day Kijipuktuk-Halifax. The Mi'kmaw Native Friendship Centre has secured funding for the construction of a new building for the Friendship Centre on land in the iconic location at the foot of Citadel Hill in Halifax. The new Friendship Centre will provide a platform for Every One Every Day Kijipuktuk/Halifax and 7GenCities more

broadly across programs and partnerships to support Truth & Reconciliation in Halifax and beyond. Executive Director of MNFC, Pam Glode-Desrochers is also the Vice President of the National Association of Friendship Centres (NAFC), which is a network of 119 Friendship Centres and Provincial/Territorial Associations that comprise the Friendship Centre Movement in Canada. NAFC is the most significant national network of self-determined Indigenous owned and operated civil society community hubs offering programs, services and supports to urban Indigenous Peoples. For more information on the new Friendship Centre visit www.wijewinen.ca

Dark Matter Labs

At Dark Matter Labs, we're working to create institutions, instruments and infrastructures for more equitable, caring and regenerative futures. We believe in taking on planetary-scale challenges via a new, civic economy, exploring how ownership, legal systems, governance, accountancy and insurance might begin to change. We're working to initiate a boring revolution that will propel wider societal transition. We began as a five-person experiment in London and we've become a global, multi-disciplinary, 60-person team with specialisms ranging across financing and lawmaking to regional innovation, participatory futuring, data science, community retrofits and urban transformation. Dm Capital is a capital structuring function to support Dark Matter Labs with building the agreement structures, business model structures, and institutional structures for financing a regenerative economy based on a radically new perception of value. To learn more, please visit www.darkmatterlabs.org

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