



CityHive

HOW MUNICIPALITIES AND YOUTH CAN CO-CREATE CLIMATE ACTION AND SOLUTIONS

A CITYHIVE RESEARCH PROJECT FOR THE EVALUATION OF THE ENVIROLAB AND
ASSESSMENT OF MUNICIPAL CLIMATE ACTION NEEDS



SUMMARY REPORT
MARCH 2022

THIS REPORT IS A SUMMARY OF THE RESEARCH PROJECT AND FINDINGS OF
CITYHIVE'S ENVIROLAB IMPACT AND CLIMATE ENGAGEMENT RESEARCHER,
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EXECUTIVE SUMMARY

CityHive is a **youth-led non-profit organization on a mission to transform the way that young people are engaged in shaping their cities and civic processes**. We engage youth in urban planning, city making and decision-making processes in Metro Vancouver. In just 5 years, CityHive has run close to 80 programs and workshops throughout Metro Vancouver and educated and engaged with over 20,000 youth. **CityHive does this by working directly with municipalities to deliver youth engagement strategies** and processes, by delivering knowledge-to-action civic education programs, **and by hosting innovation labs and civic action programs including the Envirolab**.

The Envirolab is a **cohort-based innovation lab program for youth ages 18-30** from a variety of cultural, academic, and professional backgrounds and lived experiences. **Participants learn about and take action on urban environmental and sustainability challenges while enhancing their skills to meaningfully participate in climate action in their communities across Metro Vancouver**. A total of five cohorts were delivered 2019-2022. Rooted in community-based learning, relationship-building and action planning, this program supports youth to collaborate with municipalities and civic institutions, all while learning and creating bold projects to address sustainability challenges.

In 2021-2022, CityHive embarked on an impact measurement process and needs assessment to determine the next steps for the program. **We wanted to better understand how the Envirolab can address urban sustainability and climate change issues while meeting the needs of youth and enabling meaningful co-creation with local governments**. This program evaluation and municipal needs assessment identified gaps in the current urban lab program model, investigated local needs, re-envisioned the program structure, and explored different approaches of bringing together local governments and youth. This research process was exploratory and iterative in nature and was conducted in three main steps:

1. **Study** of the previous and current Envirolab programming and evaluations, including a needs assessment;
2. **Research**, including an impact and evaluation literature review, to find common impact evaluation examples in similar programs and case studies; and
3. **Conduct interviews** with local municipalities and organizations in Metro Vancouver.

This report is a summary of this research, which intends to provide a roadmap to guide the next steps and direction for CityHive's innovation lab programming that brings together local governments and organizations with youth to create climate action. **This research has enabled us to redesign our lab programs to create more room for experimentation as we deepen existing relationships and build out a more rigorous evaluation and impact framework for these labs**. The intent in sharing this publicly is to share our learnings with municipalities, organizations, and other entities interested in implementing a lab model to create a collaborative space for youth and municipalities to work together on climate action.

AN OVERVIEW OF CITYHIVE

CityHive is a Metro Vancouver-based non-profit organization on a mission to transform the way that young people are engaged in shaping their cities. We engage youth in urban planning, city making and decision-making processes in Metro Vancouver. We work directly with civic institutions to make their youth engagement more meaningful and inclusive, while also delivering knowledge-to-action civic education programs, and hosting innovation labs and civic action programs like the Envirolab.

INTRO TO ENVIROLAB & THE NEED FOR THIS WORK

The Envirolab was designed in 2019 to fill a gap – while municipalities were seeking to address complex urban sustainability issues (like climate adaptation, circular economies, reducing household footprints, and climate communications), youth felt they had too few opportunities to collaborate with decision makers to learn and co-design the solutions.

The Envirolab is a think-and-do-tank for youth to **explore complex and challenging urban sustainability and climate issues with municipal partners, while learning and practicing the skills needed to meaningfully engage in their communities on those issues**. It is a 12-week, cohort-based lab for youth ages 18-30 from a wide range of identities and backgrounds – cultural, academic, professional and lived experiences. Participants deepen their knowledge on sustainability issues and work collaboratively to create projects and activations in their communities. **The program exists in partnership with local organizations, decision makers and thought leaders to enable the cohort to grow their network and deepen their knowledge on each topic**. Working in this way ensures that each project that youth create in the program is relevant and meets real-world issues.

The Envirolab is **rooted in community based learning, relationship building and action planning**. The Envirolab is a meaningful way for youth to collaborate with municipalities, civic institutions and community organizations, all while learning, building capacity, and creating bold actions to address pressing sustainability challenges.

This program was designed at a time when no municipality had yet declared a climate emergency. Since 2019, the Envirolab has been able to adapt to the changing landscape of sustainability and climate action work across Metro Vancouver. This program has been able to package information in ways that make tackling urban sustainability challenges feel approachable and less daunting to reach a wide range of youth while also working to create solution-driven projects to address a range of sustainability challenges.

The magic of the Envirolab is the **connection and relationships formed that empower participants to feel heard, understood and respected as sustainability and climate leaders**. Youth who complete the Envirolab have gone on to pursue work in sustainability sectors, bringing new modes of thinking, a deeper justice-based understanding of urban sustainability challenges in their communities, and the ability to work collaboratively with peers on impact driven projects.

OVERVIEW OF THE RESEARCH PROJECT

PURPOSE OF THIS WORK

In 2021, after 3 years of Envirolab programming, we embarked on an evaluation process and needs assessment to understand municipalities' and youth's evolving needs for real climate action to inform future program directions. With the support of the Pacific Institute for Climate Solutions (PICS), CityHive was able to hire a Researcher, Peyvand Forouzandeh, to lead this process, whose PhD Research is focusing on the role of urban living labs. We wanted to better understand how the Envirolab (and lab models more broadly) can address urban sustainability and climate change issues by meeting the needs of youth and enabling meaningful co-creation with local governments. This program evaluation and municipal needs assessment research focuses on identifying gaps in the current lab model, investigating local needs, reenvisioning the program structure, and exploring different approaches to working with local governments. This research is not an in-depth evaluation of the Envirolab itself; please refer to CityHive's website for the full Envirolab evaluation report.

As mentioned above, the Envirolab was designed at a time when no municipality had yet declared a climate emergency, and over its time, adapted to the shifting landscape of sustainability and climate commitments made by municipalities and institutions. Our work and evaluation leading into this process told us that:

- Municipalities and institutions are making climate commitments and climate emergency action plans, but lack the buy-in and direct support from the public (including youth) to accelerate the needed changes in meaningful ways (eg support at council meetings, participation in decision-making spaces or consultation processes);
- Youth are anxious about climate change and don't know how to engage on a local scale that feels meaningful and/or youth are leading climate movements but don't get meaningful seats at the table;
- Youth have bold ideas about what is needed to take climate action but lack the direct technical knowledge and skills to be heard when they are able to get to the table; and,
- Youth and municipalities/institutions don't have collaborative spaces to co-create climate solutions or advance climate action.

This research project had the following intended outcomes, as set out collaboratively by CityHive and the Researcher:

1. Learn about Envirolab's processes, methods, outcomes, and organization as an urban innovation lab project with a focus on sustainability and climate change topics in Metro Vancouver;
2. Investigate the direction for innovation lab evaluation and planning for the future evolutions of programming;
3. Learn about the possibilities and challenges of evaluating the impact of youth-led projects and perform research about deepening the program's impact;
4. Learn about the current local needs of municipalities for co-creation on climate action and possibilities to support innovation lab through conducting interviews with key informants and City officials in Metro Vancouver;
5. Provide recommendations for possible approaches to evaluate the impact and outcome of projects and labs, and learn about the possibilities to scale and disseminate innovation labs in Metro Vancouver and beyond.

WHAT ARE LABS?

Before we unpack the learnings from our research, we need to have an understanding of what a Lab really is and the role they play.

WHY ARE LABS POPULAR?

Local governments and urban planning processes are often criticized for their slow pace of change. These daunting bureaucratic mechanisms make fundamental and structural change difficult or sometimes impossible. In addition, city planning and urban design processes often lack meaningful public participation where community voices can genuinely impact the direction of plans and decisions being made. In recent years, innovations in urban governance to include new voices in the decision-making processes have become a key concept for accelerating urban systemic change and sustainability transition (Evans, Karvonen & Raven, 2016; Kuhlmann & Rip, 2014; Sengers, Wiczorek, & Raven, 2016). One specific type of experimental interventions that has gotten increasing attention recently around the world, are urban innovation labs or Living Labs (ULLs) (Marvin et al., 2018; Evans, Karvonen, & Raven, 2016; Voytenko, McCormick; Bulkeley et al., 2016). These labs highly focus on the model of partnerships between the public-private-people (or NGOs) or pppp (Quadruple Helix) that focus on urban innovation areas to address the pressing social and environmental issues. In Canada, there has been an increasing popularity for different types of collaborative experimentations, new lab partnerships, and co-creation models across the country, which predominantly focus on addressing complex social or institutional challenges (Radius, 2018; Cole, 2021). This rapid and diverse proliferation demonstrates both the increasing recognition of labs, and also the relative immaturity of the field. Furthermore, this rapid shift in popularity has been happening in diverse ways yet lacks infrastructure that would allow coordination, support and connection between those organizations.



HOW ARE LABS STRUCTURED?

More recently, labs have become more connected to the exploration of urban issues and are moving away from their origins in social enterprise and product development. Various governmental, philanthropic, non-profit and academic organizations are supporting these new urban governance models. In Canada, a large number of these labs are either established at municipalities or have very close relations to the local governments. Furthermore, in Canada, academic research has entered the territory of real-world experimentations through specific models such as Campus as a Living Lab (CLL), CityStudio and various departmental design and policy studios in partnerships with governmental and non-governmental organizations or local communities. These models create capacity, accountability and legitimacy for students, researchers, community members, and faculty to conduct real-world experimentations.

The literature shows a variety of approaches in classifying ULL typology. In one of the most comprehensive works about ULL typology, Marvin et al. (2018) categorized ULLs in three groups:

- (1) Strategic:** larger scale investments that build local capacity and enhance a broader competitive position, these tend to work with private partners and corporate funding.
- (2) Civic:** reflect the priorities of municipal governments and academic institutions and goals tend to have a strong local character and focus on urban priorities.
- (3) Organic:** often initiated by civil society and NGOs to address specific local and contextual issues through public-private-people partnerships on the community and neighbourhood level.

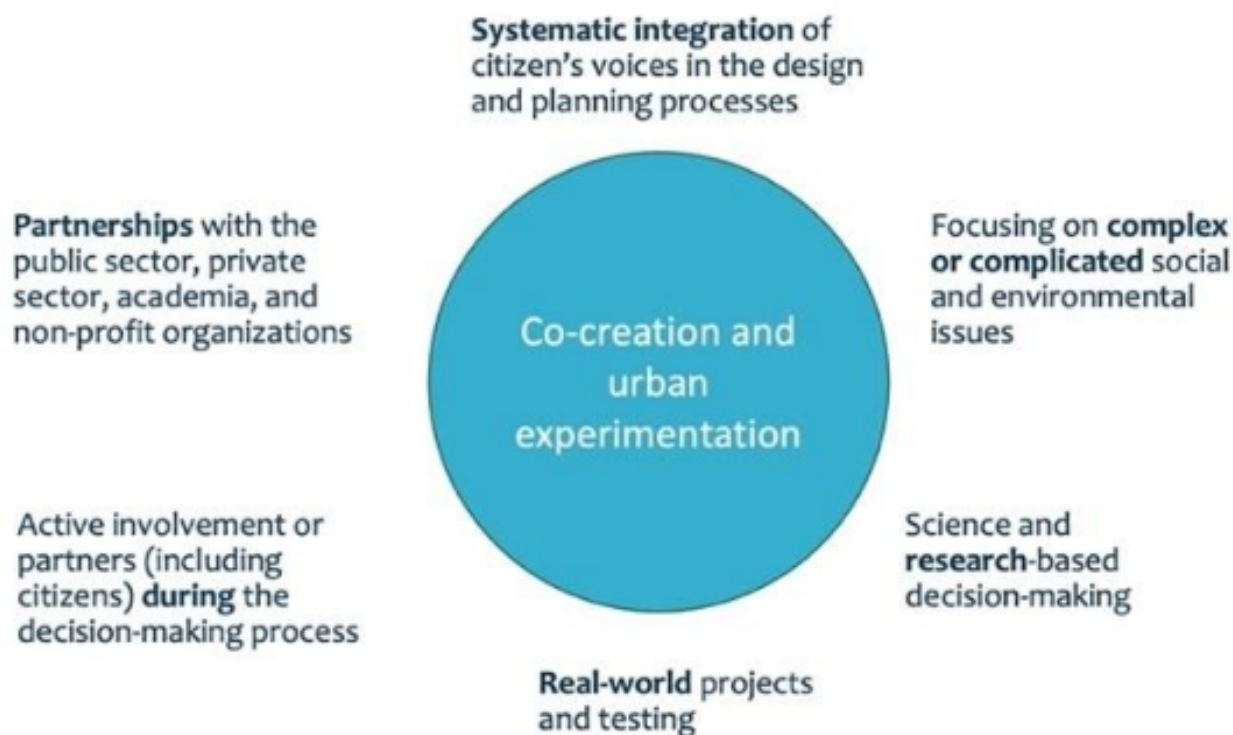
Urban Living Labs (as described above) can further be classified and distinguished according to the following characteristics, as defined by Juujärvi and Lund (2016): (1) ecosystem or networks of multiple stakeholders, (2) provide tools for enhancing and implementing public involvement, building relationships and sharing knowledge, (3) innovation management tools for building networks in urban development.

As the Lab model continues to grow in popularity, especially within Canada, there are several important driving factors to note:

- Urban experimentation supports the growing complexity, uncertainty, and required systemic change in the urban environments (Karvonen, A., & Van Heur, 2014; Mukhtar-Landgren, Kronsell, Voytenko Palgan, & von Wirth, 2019); and
- Systems thinking and complexity theory are two major theoretical motivating influencers for new partnerships and collaborations in labs. In addition, design thinking has also gained traction in recent years in areas related to social and environmental problems, policy design and technological developments (Van der Bijl-Brouwer & Malcolm, 2020; Roe, 2020; Rava, 2017).

These methods and theories often support collaborative and systemic problem definition, institutional change, new partnerships, transparency in decision-making, open innovation, and non-linear and iterative project development and planning in uncertain, unpredictable and complex contexts (Van der Bijl-Brouwer, 2019; Mulgan, 2006; Brown & Wyatt, 2010).

The image below provides an overview of the most commonly identified characteristics of urban innovation labs and is referenced in the internal summary document of the research project prepared for CityHive.



Caption: Most commonly identified characteristics of urban innovation labs. Graphic created by Peyvand Fourouzeh and referenced in CityHive internal Research Report.

RESEARCH METHODOLOGY

KEY STEPS IN THIS PROCESS

This program evaluation and municipal needs assessment research and learning process was exploratory and iterative in nature, with each phase of research meaningfully informing the next phase. The process often required clarification between stages to identify the main gaps and issues before proceeding to the next step.

Below you'll see a visual summary of each of the four phases and key steps in this research process.

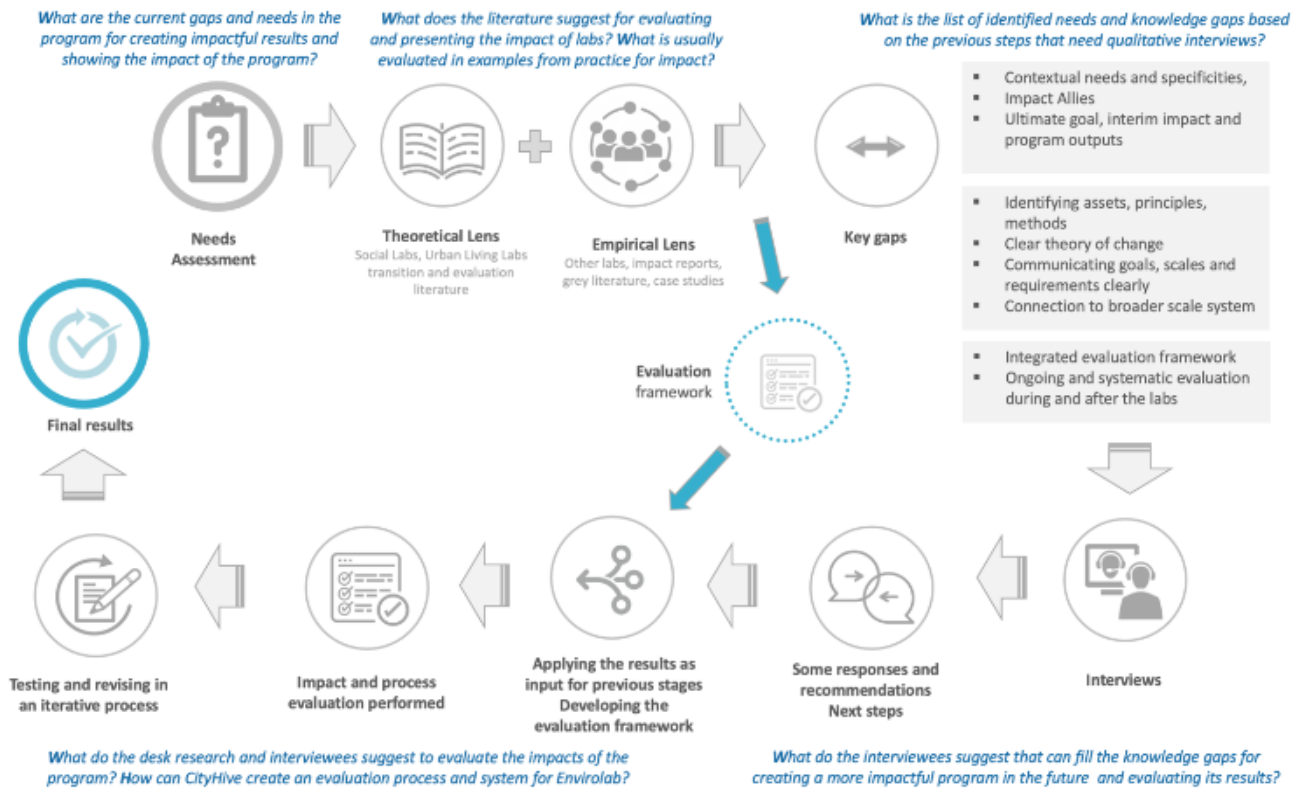
- 1) Needs assessment;
- 2) Research;
- 3) Identifying key questions and gaps; and
- 4) Conducting interviews and analyzing data.



RESEARCH METHODOLOGY

RESEARCH DEVELOPMENT

The image below demonstrates the connection between each of the steps and shows the progression of this process in ultimately building towards the interview phase of this research project. This graphic helps to illustrate the connections between program development and ongoing evaluation. There is room for further investigation to link the results from this research to develop a stronger evaluation framework for future iterations of lab programming hosted by CityHive. To ensure this research presents a full picture, interviews conducted here will need to be complemented by voices from other innovation labs' practitioners and youth organizations. In doing so, we will be able to present and understand a truly co-created and collaborative model when seeking to work with municipalities and local decision makers to tackle complex urban sustainability challenges.



Caption: Relationship between all pieces of the research process building towards the interview phase of this project. Graphic created by Peyvand Fourouzeh and referenced in CityHive internal Research Report.

KEY LEARNINGS & TAKEAWAYS

The first phases of research directly informed the development of the series of interview questions and held a strong focus on learning directly from municipal partners and community organizations. The focus on the interviews was to understand:

- Current needs of municipalities/city partners in the realm of climate action; and
- Current needs of municipalities/city partners for labs/collaborative processes.

There were 11 interviews conducted with municipal staff, elected officials and community organizations which revealed gaps, challenges and opportunities for the development of Innovation Lab programming. In this section, we will present several common themes from the interviews. It is important to note that the area of expertise for the interviewees encompass a wide range of backgrounds, familiarity with CityHive's Envirolab, and connection to existing climate policy. These interviews support our work by providing a larger picture of potential areas of connections between labs and municipalities.

THE INTERVIEWS AND RESEARCH ON URBAN LIVING LABS OUTLINED SEVERAL KEY LEARNINGS AND TAKEAWAYS :

1) The role of partner relationships in lab creation and development is vital to the impact, longevity and sustainability of labs as a program model.

Active participation from partners and collaborators will build a culture of co-creation and ongoing support for projects and skills development that are cultivated during the program. These relationships also work to foster a culture of collaboration that is rooted creating real world impact. Researchers in transition literature and living labs literature warn about the short-term project-based approaches of labs that can sacrifice long-term more impactful results in organizations and programs. In that sense, having a wide range of partners with different assets will provide a more unified vision for Labs and will create transparency when seeking out partners and collaborators to aid in achieving the desired outcomes.

2) The legitimacy of living labs is enhanced when it integrates research-based project ideation and outputs address real-world issues.

Doing research about the project context, existing plans and municipalities' goals, and testing and iterating the prototypes in the lab provide vital values for the acceptance and long-term success of projects. Focusing on complicated and complex urban problems and not just simple and technically complicated issues is very important in urban labs as simple or technical projects often seem to be easier to manage and evaluate.

3) Systemic integration of co-creation processes and citizens' voice into design and planning processes is often a missing point in conventional decision-making structures of local governments.

While local governments regularly consult or inform, they often lack built in structures to co-create with residents. Labs can promote this approach as, when designed for resident engagement, they provide input from communities to inform decision-making processes in co-creation approaches. This approach can also be effective in engaging underrepresented voices and underserved communities, when the lab is designed by/with those communities. CityHive's Envirolab is an example of a lab that also builds democratic engagement and trust amid an underrepresented audience -- youth -- and this can be a model for other labs

4) There is a need within local governments for mechanisms, methods and spaces to experiment, take risks and find new approaches to solving complex urban issues.

Interviewees shared insights into the risk aversion mindsets that exist within local governments, and yet a tension between the ability to experiment with new ideas and approaches to more effectively address social, environmental, economic and technological urban challenges. We know that decision making structures are bound by rigid bureaucratic processes and limited municipal resources and yet we've heard the need (and desire) for new approaches to innovative problem solving. This current structure creates gentle approaches to climate action and urban sustainability when bold actions are required. This poses a major challenge to be able to reach municipal climate targets and simultaneously highlights the importance of civic climate movements and support to demand bolder environmental plans and climate actions.

Despite the fact that there are systemic barriers for risk-taking and spending municipal budgets on experimental projects that may fail, there was also general understanding and awareness that experimentations may lead to results to show what works and what doesn't work. This research demonstrates a potential space for the common gap at municipalities where an external, legitimate and trustworthy expert organization in experimentations and community empowerment can take the responsibilities for risk-taking as a partner organization with municipalities.

(5) There is increasing urgency and pressure for municipalities to set ambitious climate goals and engage with the public to implement climate action plans effectively, and labs need to be designed to help amid uncertainty and complex challenges

In the face of increasing urgency and pressure for cities to take climate action while there are growing urban populations, a variety of complex social and economic needs, and environmental concerns, there are certain areas where future labs need to focus on in order to help municipalities address pressing issues.

In Metro Vancouver, housing supply crisis, financing and enabling building retrofit, sustainability transitions in the transportation systems, climate change adaptation (especially in regards to flooding and heat), water course stability, and protecting more at-risk residents, creating outdoor spaces and connecting people to those, and upsizing infrastructure are among the top challenges that municipalities require innovation and help on. Municipal officials reflected current and future challenges in implementing climate action/emergency action plans when residents play a key role in uptake or in behavioural change. We heard that there is often not enough courage or motivations from urban decision makers, elected officials and council members across the region to meaningfully act on municipal climate plans. Labs can offer a model to bring a diverse range of voices to the table.

There is a strong need for bringing underrepresented voices into the decision-making system. Lab models provide opportunities to make sure the rest of the community can come along in the face of urban transformations and municipal plans and actions. This requires also engaging the parts of the population that are not necessarily passionate about climate action and environmental issues in the urban labs (ie. taxpayers who do not care about climate action and environmental plans), and doing so in a way that resonates with their values and needs. CityHive's Innovation Lab programming plays an important role in engaging under-represented groups.

(6) There are unique values that youth participation and co-creation provide to urban sustainability transformation and climate actions in municipalities.

Youth hold a deep sense of urgency when it comes to climate actions. Interviewees noted that youth bring a lens of futurism, understanding the urgency of climate action, their unique generational perspective, more optimism, higher creativity, and less risk aversion. Youth in Metro Vancouver have been behind the climate emergency movement for several years and we heard that there has been a huge groundswell of understanding that youth need to be involved. These changes have created some possible space at municipalities for youth participation and can potentially support co-creation projects and efforts.

There are direct pathways for youth to take in order to influence municipal decision making. One of the most frequent suggestions from the interviews with the City officials was that in order to have impact in the municipal decisions, youth need to actively engage with the existing pathways of engagement at municipalities, including joining different committees, getting involved in youth policy councils (or advocating for it), speaking at city council or public hearings, voting, filling out the surveys, using youth volunteer opportunities, and showing up and taking up space at the council chambers. Being involved with the development of plans (for instance environmental sustainability plan and climate action plan) and early on in the projects and before it goes to Council are extremely important in order to include youth voice and needs. In addition to being involved, it is also important to make sure youth stay involved later on in the projects or plans. Interviewees also suggested that youth really need to educate themselves about how the municipal system works. Youth are currently not engaged in these existing processes for a number of reasons, many of which are systemic and require meaningful civic education and structural changes in engagement processes.

CityHive plays an important role as an intermediary organization in creating effective and meaningful connections between municipalities and its community members. CityHive can be an in-between facilitator between the government and youth to talk with both. Accessing community networks is a great value for these intermediary organizations in order to provide a clear picture for requirements and needs of youth as local governments' audience and be a facilitator for it. There was a general interest in partnering with trustworthy non-profit organizations to play the role of an orchestrator, convenor, connector, or community animator in order to take an important role for creating meaningful connections between youth and municipalities. An organization like CityHive can become a bridge between a larger and more formal institution, such as the City, to break down the barriers for less powerful communities with less resources, including renters, to create collective power to push the institution that has resources and power to move and make the change happen.

(7) The Lab model is crucial to foster and enable low level risk taking and experimentation. Labs present opportunities to engage communities in complex and system issues.

There is much value to lab models as a tool for effective collaboration and engagement. There is a significant emphasis on the potentials for community involvement and replacing conventional models of community engagement with living labs that can build trust and also get things done in a creative way to test, play, and do research. In addition to building trust, another value of labs is creating more transparency and an environment to learn and adapt the processes, which can be challenging given the normal processes and common risk aversion. With positive and impactful engagement results, labs can create a positive association around engaging and how to do it well. Furthermore, from a municipality point of view, since the lab and projects are driven by a community representative organization, such as CityHive, it can also be representative of the youth community and thus, increase the legitimacy of municipal plans as they include youth voices in the process.

The model and method of the lab has the possibility to include community voices in the co-creative processes to actively provide input in projects and plans. Co-creation means involving communities along the path and throughout the process and youth-led projects from the labs can effectively bring community voices closer to municipalities while also providing a positive impact on achieving municipal goals and targets for climate action and sustainability transformations. It was also mentioned that labs are spaces for great discussions, creating connections, brainstorming, and considering the needs for the future of the projects.

It will be important for Lab models to readily demonstrate the impact of the labs on both the participants as well as the policy to which the lab is connected to. Labs need to consider the long term impacts of their work, and have strong plans in place to support projects that are created during the labs.

Labs are spaces for ideation, brainstorming, emergence, innovation, and creativity. Essentially, they are in contrast to the predictable and structured processes and outcomes of the municipal plans. As a result, to create impact on the existing structures and plans while protecting the mission and legacy of lab models, there needs to be some level of autonomy for the intermediary organizations to guide the projects while bringing the City staff along the way to make sure that there are possibilities for connecting lab outcomes with existing plans and continuing them over time in an effective way.

(8) Labs require clear outcomes and a plan to accurately demonstrate their impact.

In order for innovation labs to get recognition in the urban decision-making structures or have positive impact on the real-world urban pressing issues and problems related to sustainability and climate change, they need to be able to demonstrate their impact and outcomes. Innovation labs focus on experimentations and collaborations that highly focus on complex and complicated systemic problems, creativity, problem definition, collaborative idea generation, facilitating collaboration among various types of partners, and testing and iterations in the real-world setting. They can even potentially be engines for implementation after neighborhood plans have approved potential growth or change in a specific area (such as Vancouver Plan). Showing what works and what didn't work are both very valuable in experimentations. Therefore, demonstrating impact, outcomes and outputs of the labs as well as selecting the key indicators of success in a legible way for more conventional organizations, such as local governments, are often challenges in labs.

The challenge in creating change at different municipalities in Metro Vancouver is the diversity of contexts and different scales of municipalities. This provides an opportunity for innovation labs to run multiple experimentations at different scales and possibly at the same time. As some municipalities are very progressive compared to others, experimentations and creating change at some Cities can be a proof for others to build more trust and setting examples for more comparable Cities.

THE IMPACT OF INNOVATION LABS & WHAT'S NEXT FOR CITYHIVE

The lab evaluation and municipal needs assessment research serves as a living tool for the CityHive team and partners to use in developing future program offerings that meet the needs of youth across Metro Vancouver while ensuring that outcomes are working towards municipal climate targets and are being done so with municipal decision makers. Over the 6 month duration of this research project, CityHive is taking away the following learnings:

- There is an important role for third party organizations like CityHive to create stronger models for co-created climate action with youth (and youth engagement in general) to meet the increasing demand and desire by municipalities to collaborate with youth;
- The conducted interviews highlight and reinforce the system within which CityHive (and other youth organizations) are working to innovate within and does not examine external leverage points for systemic change;
- Municipalities require partner organizations like CityHive to present explicit outcomes that are connected to existing policy windows and CityHive will need to work closely with a wide range of partners to design outcomes and key impact metrics that align with such policy windows to advance climate action across the region;
- CityHive's future Innovation lab programming will require a comprehensive evaluation strategy to articulate the impact our programs are having on municipal climate policy and within municipal youth engagement processes; and
- Future Innovation Lab programming should consider partnership models that include working with local educational institutions to leverage existing climate action research.

This research project provided a great opportunity for CityHive to investigate and deepen our understanding of the role that lab models play in urban sustainability and climate action at a critical time in the trajectory of our programs. It has been an influential research position for CityHive to better understand how to evaluate program outcomes while working to meet emerging municipal climate action needs across Metro Vancouver. In addition, the research on urban living labs was able to highlight some of the opportunities that CityHive can further explore as we refine and develop the Climate Innovation Lab model used by CityHive.

CityHive is committed to providing meaningful opportunities for youth to collaborate with municipalities, civic institutions and community organizations, all while learning, upskilling, and creating bold actions to advance a just transition and address climate challenges. We are excited about the development of the next iteration of the lab, set to launch later in 2022.

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