

CLOSING THE REGIONAL
WET LAB GAP

WORKSHOP
INSIGHTS AND
CALL TO ACTION



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EXECUTIVE SUMMARY

BACKGROUND

As the investment attraction agency for the Toronto Region, Toronto Global has had a strong focus on increasing the number of life sciences investment opportunities in our pipeline and helping international life sciences companies establish operations in the region.

Too often, however, our team has run into this challenge: while the companies are interested in expanding here, the type of real estate they need to operate is essentially non-existent in the Toronto Region. **The lack of lab space—and wet lab space in particular—hinders not only Toronto Global's, but all of Ontario's, ability to land international life sciences investments.**

To better understand the reason for the lack of space, Toronto Global released a white paper in May 2022, titled *At the Tipping Point: The Lack of Wet Lab Space in the Toronto Region* ([SOURCE](#)).

Toronto Global then engaged Santis Health to facilitate a series of three multi-stakeholder workshops over the month of August 2022 to further refine recommended solutions identified in the white paper and determine immediately actionable steps required to help close the wet lab gap.

More than eighty leaders from across the provincial life sciences ecosystem joined these sessions, incorporating the perspectives of real estate brokers, science and technology parks, developers, hospitals, universities, incubators and accelerators, start-ups and SMEs, and all three orders of government.

KEY FINDINGS

The lack of space is not an issue unique to the Toronto Region, nor is it an impediment only to international investment attraction. Jurisdictions across Ontario and Canada are similarly challenged. The issue also affects our collective ability to retain home-grown companies as they seek to expand and scale-up operations to develop innovative products for both domestic and global markets.

The lack of wet lab space, and specifically, multi-tenant space, most impacts companies in the so-called 'step-up' and 'scale-up' phases that need to move off the single bench at a hospital or university where they have been working and find 'graduation space' to grow their operations.

However, due to both the high cost of developing wet lab space and the pre-revenue, venture capital-backed nature of the prospective tenants, it is difficult to build a viable business case for developing wet lab facilities and for companies to invest their own (venture) capital to fit-out the required space.

It is important to note that the wet lab issue is only one component of a broader life sciences ecosystem challenge. Workshop participants cited other challenges, including access to capital, talent, commercialization, procurement, etc. as significant to sustainable sector growth.

However, without the required wet lab space, efforts to develop talent and increase the availability of capital may not result in the desired growth of the industry in Canada, Ontario, or the Toronto Region.

Solving the wet lab issue is the first order of business to help attract and retain companies, people and capital. If companies cannot find space here, they will move to foreign jurisdictions that offer it, taking with them the people, capital, government investment, intellectual property, exports and other economic development spin-offs, such as jobs, tax revenues, and more.



EXECUTIVE SUMMARY

INTRODUCTION

The wet lab issue is a tangible and timely opportunity to catalyze the formation of a consortium of life sciences champions to work toward a common cause: strengthening the life sciences sector.

This report lays out a three-part *Call to Action* to collaboratively address the wet lab space challenge and directly support the life sciences sector growth strategies at federal, provincial and municipal levels of government.

The *Call to Action* is built upon “what we heard” at the workshop sessions as well as more than a dozen one-to-one interviews with ecosystem leaders, all summarized at the end of this report to provide additional context and rationale.

While no single organization holds sole responsibility for this issue, it impacts many across the ecosystem. Therefore, we feel that a collective approach and vision for tackling this problem will lead to the greatest opportunity for change.

NEXT STEPS

We aim to identify a core group of approximately 10 stakeholder organizations willing to take a leadership role in one or more of the proposed *Call to Action* by contributing to a pooled fund to support action through coalition.

Several organizations have already expressed interest in contributing to this coalition, including Toronto Global, City of Toronto, University of Toronto, MaRS Discovery District, CBRE, McMaster Innovation Park (MIP), Toronto Region Board of Trade, Life Sciences Ontario (LSO), Ontario Bioscience Innovation Organization (OBIO), and Centre for Commercialization of Regenerative Medicine (CCRM).

Expressions of interest from other municipalities and organizations who would like to contribute resources, to help move forward on the *Call to Action*, or to share information regarding relevant initiatives are highly encouraged.

CALL TO ACTION

- 1 Streamline wet lab development in the Toronto Region**
- 2 Develop a proactive, coordinated approach to support investment**
- 3 Build a business case and develop an advocacy plan for strategic government support**

If you are interested in contributing to this coalition, please contact us:

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CALL TO ACTION

1 STREAMLINE WET LAB DEVELOPMENT IN THE TORONTO REGION

It is important to work with municipalities, provinces and the federal government to reduce red tape and ensure that local regulations are conducive to wet lab development.

A streamlined approach—if built through consensus and articulated with the backing of appropriate parties—would provide a public expression of confidence that wet lab developments are supported by the innovation ecosystem and by policymakers who support the life sciences community, helping to facilitate private infrastructure investment.

Throughout the workshops, reference was made to several prospective wet lab development and conversion projects that are being actively considered throughout the region, as well as to municipal employment land development initiatives that could be well suited for wet labs.

There is a unique and timely opportunity to use these examples as case studies to enhance knowledge and collaboration and to ensure wet lab projects are realized and successful. Specifically, it is to:

- **Map municipal, provincial and federal development, zoning, or permitting requirements**
- **Develop recommendations for all three levels of government to streamline the process and bring lab space to market faster or more cost-effectively by:**
 - + Identifying hurdles and who should be specifically engaged to remedy them
 - + Identifying local and international best practices to streamline lab space development (e.g. West Hamilton Innovation District, McMaster Innovation Park, etc.)
 - + Identifying opportunities to create or modify existing incentives (e.g. the City of Toronto's Imagination, Manufacturing, Innovation and Technology property tax incentive program) ([SOURCE](#))
 - + Identifying opportunities within city-owned real estate portfolios that lend themselves to wet lab conversion and support economic development objectives

2 DEVELOP A PROACTIVE, COORDINATED APPROACH TO SUPPORT INVESTMENT

To achieve the ambitious targets set out in Ontario's Life Sciences strategy, it is also important to develop—across a multitude of ecosystem players—a coordinated approach to attracting investment and assembling partnerships that will contribute to building the necessary supply-chains and value-chains to support successful multi-tenant wet lab facilities and the life sciences ecosystem in general. To move toward such an approach, it is recommended that, with the governments of Canada and Ontario, cluster leaders:

- **Map the value-chain—from infrastructure development to equipment requirements to lab space operators and service providers—to understand the pieces required to bring high functioning, multi-tenant lab space on-stream and to identify local ecosystem gaps and opportunities for private and public investment along the chain**
- **Map out specific, localized (municipal) life sciences strengths along with roles and responsibilities of relevant ecosystem players to develop a 'playbook' that will support a coordinated investment attraction and development process**

3 BUILD A BUSINESS CASE AND DEVELOP AN ADVOCACY PLAN FOR STRATEGIC GOVERNMENT SUPPORT

Several workshop participants noted government's role in establishing the success of competing Life Sciences clusters, most notably in Boston and New York. The Government of Canada's Biomanufacturing Strategy and the Province of Ontario's Life Sciences Strategy recognize the strategic importance of growing this cluster here.

However, for those strategies to succeed, we will require more lab space. Given the still nascent nature of the life sciences ecosystem and the challenge in building a viable business case for wet lab development, there is a potential role for targeted and strategic government intervention.

It is recommended that the partner coalition work together to build a business case for government support that considers the following insights.



BUSINESS CASE RECOMMENDATIONS

‘Graduation Space’ in the region is in highest demand.

The workshops reinforced that demand for wet lab space in the region is specifically being driven by an increased number of companies in the so-called ‘step-up’ and ‘scale-up’ phases that need to move off the single bench at a hospital or university where they have been working and find ‘graduation space’ to grow their operations. Such companies typically have Seed, Series A or B venture capital funding and require 2,500-5,000 square feet to advance pre-clinical and clinical validation studies of their products and services.

However, as these companies are still pre-revenue, they lack available capital to build their own facilities and do not have the necessary financial track record to provide cost intensive developer underwriting with stability on a long-term lease.

Multi-tenant developments are key.

Workshop participants agreed that multi-tenant developments were key to addressing demand as they provide flexibility for scaling tenants and create stability for commercial developers by spreading risk across numerous companies and decoupling the success of the lab space from the success of a specific company.

Participants also pointed out that successful multi-tenant lab space requires more than just a building. Multi-tenant

spaces are much more likely to succeed if they are managed by a third-party intermediary that helps manage supply, aggregate demand and provide financial reassurance to public and private sector partners.

Integrating the space with services—including, property management, lab support, procurement, shared equipment, meeting spaces, easy access to amenities, advisory services and other value-added programming—further contributes to the success of the facilities and the resident tenants.

Solutions should be focused on addressing demand-side challenges.

The substantial costs to build-out lab space are difficult for developers to justify when prospective tenants carry unconventional financial covenants in an unproven real estate sector. This situation was generally considered by participants as a structural real estate market failure created by this misalignment.

Lacking the security for private sector involvement, non-profit or public-sector institutions (such as University of Toronto, McMaster University, or MaRS Discovery District) are filling the gap, but have near zero-vacancy and are constantly looking to graduate companies out of their facilities to make way for the next cohort.

This dynamic highlights the fact that by supporting the demand side challenges, we can de-risk development and unlock desperately needed supply.



To ensure that we are contributing to building resilient and successful companies, the solution must not simply provide a 'rent-subsidy.' Rather, the solution could focus on underwriting and strengthening the financial covenant of prospective wet lab tenants or on supporting an intermediary or lab space operator who, in turn, can sublet or let out space to 'financially risky' step-up companies.

Further, coupling the physical space with a suite of services that will contribute to the success of step-up life sciences companies is an important component of the solution. A public-private partnership model could provide the right combination of risk allocation and public benefit.

¹This will require aggregating demand data from real estate brokers and key ecosystem players, including existing accelerators, institutions, and incubators, such as the University of Toronto, MaRS Discovery District, JLABS, and McMaster Innovation Park, and should encompass information with respect to rental rates, construction costs, inventory availability, the number of tenants-in-market and their respective sizes.

Additionally, there should be a differentiation between the companies that need affordable space vs. space at market rate. Demand data should be collected across Ontario, and segmented by geography.

The business case should include:

- Background, context, current business environment to provide clarity on the issue, including:
 - + Definition of terms (to pinpoint exactly the part of the business cycle we are targeting)
 - + Continuing to build and strengthen demand data, leveraging recent research published by CBRE (Lab Market Report)¹
- Key considerations of program design, including a long-term sustainable business model
- Examples of solutions in other comparable jurisdictions and lessons learned
- Options analysis and rationale for recommended option (i.e. cost benefit, economic, and business cost analysis)
- Risk identification and mitigations
- Identification of potential intermediate facilitators (hospitals, intermediaries, non-profits, accelerators, etc.) across Ontario's innovation ecosystems
- Defined roles and responsibilities of all involved parties
- How stakeholders will benefit, including an explanation of how wet lab space development contributes to fulfilling provincial and federal life sciences strategies and to achieving broader economic development objectives, such as domestic IP development, export growth, etc.
- Timeline, milestones and checkpoints
- How to measure success and return on investment



WHAT WE HEARD ABOUT THE PROBLEM

The *Call to Action* put forward was informed by the insightful comments and suggestions made throughout the facilitation process, which are summarized below to provide context and rationale:

There are gaps in both knowledge and funding for wet lab infrastructure.

There are few organizations in Canada that understand 'underwriting' the life sciences space, particularly in the real estate development sector. There is also a glaring gap between the demand for lab space in Canada (driven by institutions and private sector companies) and suppliers who focus on developing life sciences spaces and are willing to manage the associated risks. Other than JLABS—and potentially adMare BioInnovations in QC and BC—Canada has a shortage of third-party space aggregators and managers.

There are also no dedicated or structured government programs to support real estate costs for private companies. Grants seem to focus on other areas such as programming, equipment and research-related expenditures instead of building infrastructure. Furthermore, public sector funding programs tend to target public sector recipients—not those start-ups with the greatest need.

"Making the finances work" for wet lab development is difficult.

Developing wet lab space is significantly more expensive than a typical office development even before considering delays and challenges with respect to development approvals, zoning, etc. As a result, developers/landlords need to charge premium rents to make a business case viable, particularly when comparing against urban

residential and suburban industrial real estate development projects.

To further complicate the demand issue, although there may be a sufficient number of companies that can afford the space (i.e. those with Series A or B funding), these companies are typically pre-revenue—which means they don't have strong enough financial covenants to support the case for a developer to make significant investments into building on a tenant's behalf. However, those same companies have constraints on using their venture capital for significant real estate related investment themselves and their investors won't indemnify a lease obligation.

Developers/landlords cannot risk investing the substantial fit-out costs for a company that has a two-to-three year burn rate and therefore cannot support a long-term lease commitment. Developers/landlords therefore need to ensure there is sufficient demand for the space at those premium rents before they will build—but lack proof, resulting in a 'chicken or the egg' problem.

Real estate developers require concrete evidence of sufficient demand for space from tenants who can support the required rents to justify building speculative developments without an institutional or large pharmaceutical anchor tenant who is willing to commit for 10-15 years in the location. For landlords, a proof-of-concept project could help build a better understanding of demand. This may increase willingness to have shorter-term leases, knowing that there are several companies over the length of a typical longer-term lease who will fill in the space.



There is a need for better quantification of demand data.

Despite CBRE's recent H1 2022 Toronto Lab Market report ([SOURCE](#)) exploring lab space supply and demand across the Toronto Region and Hamilton, many groups of stakeholders expressed the need for better quantification of demand data, as they each require evidence of the pipeline of demand (i.e. if one company fails, how many more companies out there need the same type of space?) to support the long-term viability of a lab development. Similarly, stakeholders across different levels of government agreed that having a better grasp of demand specifically through metrics such as the number of companies in the pipeline and at what stage of development, the number of tenants-in-market, total square footage of demand, and the degree of absorption of companies in the region is essential for developing the case around government involvement. Another key piece is understanding the disconnect between 'theoretical demand' (i.e. demand for affordable space) and 'real demand' (i.e. demand for space available at market rates). Developers will simply not create space that has to be priced at below pro forma rate and take a loss.

Yet many prospective tenants struggle to afford the significant increase in costs that accompany moving beyond a hospital- or university-supported incubator. It is therefore essential to quantify how much demand is out there, specifically for market-priced space compared to affordable space, in order for infrastructure to be developed.

The wet lab space problem is one part of a broader life sciences ecosystem challenge.

The shortage of wet lab space is accompanied by other challenges in Ontario's life sciences ecosystem, including the need for management talent and capital. These obstacles are inter-dependent with the space issue as investment capital is driven by talent and demand to create space, and there is additional talent capacity needed to run such spaces.

Moreover, to effectively support mid-size companies and 'prime the pump,' physical infrastructure must be produced in conjunction with the life sciences cluster (i.e. proximity and access to hospitals, institutions, mentorship, commercialization programs, etc.). These elements are key for enabling company growth and generating Canadian intellectual property, which demonstrates return on investment to encourage future investment into the ecosystem. Some within the ecosystem do believe that by providing the infrastructure of physical lab space, we will effectively help in solving the issues of both capital and talent by simply enabling the growth of viable companies, generating a virtuous cycle that provides more opportunities to develop experienced management talent and build successful companies, which helps to attract more capital.

Both supply and demand are problems.

On the supply side, companies simply lack proximate access to lab space that combines growth flexibility with proximity to investors, employees and collaboration space. On the demand side, the space that *does* exist requires extensive retrofitting to be lab-compatible and is thus much more expensive than start-ups can afford in relation to their other essential business costs—and their funders generally prioritize spending on operations over spending on leasehold improvements.

Step-up companies suffer the most from the wet lab space shortage.

As the workshops made clear, the companies most affected by the shortage of lab space are those transitioning from an institutional 'home' to start-up through scale-up. Those firms generally need approximately 3,000-5,000 square feet of total space, with the option of expanding quickly depending on key milestones. Further, these companies are not in a position to build out spaces suited to their short term needs as they look to expand rapidly when milestones are achieved in their clinical timeline.

WHAT WE HEARD ABOUT THE SOLUTION

Multi-tenant developments are key to addressing the need for graduation space.

Stakeholders across multiple sectors agreed that multi-tenant developments yield several benefits and should be prioritized as a solution. Multi-tenant developments create stability for commercial developers by spreading risk across numerous companies while providing space and infrastructure flexibility. These developments also decouple the commercial fate of the lab space from that of a specific company since they service an entire pipeline of prospects, each with evolving real estate needs. They also provide emerging companies with flexible and expandable space.

Multi-tenant spaces are ecosystem assets that can help incentivize start-ups to remain on-site and in Canada. Furthermore, these developments support on-site (rather than remote) work and can play a role in revitalizing areas, such as the Toronto downtown core, that have not recovered to pre-pandemic levels of foot traffic.

Intermediaries play a pivotal role.

Multi-tenant spaces are much more likely to succeed if they have significant blocks of space and are managed by a third-party intermediary that helps manage supply, aggregate demand and provide financial reassurance to public and private sector partners. Multiple participants proposed a partnership model between private industry (i.e. operators or anchor tenants with specific expertise in outfitting and managing lab space), not-for-profit ecosystem players and government would provide the right mix of expertise, risk mitigation and public benefit. The benefit of having government partners is that there is less emphasis on generating direct profit, instead building equity by bolstering the wealth generating ecosystem. It is important that potential government support be structured in a way so that public funding is not simply subsidizing a private real estate enterprise, but is providing maximum benefit to ecosystem development.

Look beyond Boston for lessons learned.

Throughout these discussions, Boston's approach to the wet lab challenge was frequently raised as an example for the Toronto Region to emulate. However, as the workshops continued, it became clear that Boston is not be the best

comparator for the Greater Toronto and Hamilton Area (GTHA). Several other major diversified urban economies such as New York City, Los Angeles and Chicago would be better analogs. Cluster leaders should expand their comparator lens and take a deep dive into New York City's recent success growing and strengthening its life sciences sector as well as learn from its challenges.

From the experience of New York City, it appears that targeted public investment plays an important role in unlocking significant cluster development, if the demand is already present. The universal single payer healthcare system in Ontario lends itself to providing the public resources to help strengthen our life sciences offering—support existing companies, attract new international investment and address the demand shortage with a longer term commitment to the growth of the sector.

Effective advocacy must take an inclusive approach.

Building a robust and sustainable ecosystem requires multiple inputs: infrastructure, capital, talent etc. The push for more wet lab space must be part of an integrated approach to cluster support that involves the not-for-profit, private and public sectors. Ontario's emerging Life Sciences Strategy and the ongoing interest of the federal Ministry of Innovation, Science and Economic Development in the wet lab challenge are two key opportunities to leverage multiple levels of government attention to this issue. However, successful engagement with governments must include:

- Framing that emphasizes 'investments' over 'subsidies'
- Enhanced data and information on demand, including the cost associated with the various sub-categories within the lab space issue
- Evidence that any support program will do more than deliver increased profits to private sector developers and real estate investors by advancing policy goals of multiple federal and provincial government ministries
- Inclusion of the perspectives and needs of regions outside the GTHA
- A strategic and targeted 'ask' that will generate ongoing, sustainable cluster growth

FINAL THOUGHTS

As Toronto Global's workshops made abundantly clear, Canada, Ontario, and specifically the Toronto Region, suffer from a significant shortage of wet lab space—despite the presence of two exciting new anchor developments in the McMaster Innovation Park and the Schwartz-Reisman Innovation Centre at the University of Toronto. Closing the wet lab space gap will immediately address one of a series of interconnected challenges impeding the accelerated growth of the regional cluster and positively influence both capital and talent to stay and grow in this region.

From the need to attract and retain seasoned entrepreneurial talent, to the imperative of securing increasing pools of capital to support company creation and

development; and from the need to develop structured and sustainable 'off-ramps' to help start-ups move beyond their institutional walls; there are multiple speed bumps on the road to global cluster competitiveness.

The workshops demonstrated a broad desire among ecosystem leaders to work more closely together on all these issues, crystalizing collaboration with the potential to fundamentally shape and support Ontario's Life Sciences Strategy. Inspired by the conversations to date, Toronto Global welcomes the opportunity to help strengthen and sustain this collaboration by working alongside partners from the worlds of real estate, venture capital, life sciences associations, incubators and the regional SME community.



ABOUT TORONTO GLOBAL

Toronto Global is a government funded investment attraction agency. We accelerate business expansion into the Toronto Region by helping international companies establish operations and access talent in one of the most highly educated, diverse and fastest-growing labour markets in North America.

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Santis Health is a public affairs, strategic advisory, public policy, marketing and communication consultancy that is dedicated to providing first-class counsel and support for clients exclusively in the health care and life sciences sectors across the country.

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CONTRIBUTORS

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City of Toronto	MIP Labs (McMaster Innovation Park)	Toronto Region Board of Trade
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