

METRO VANCOUVER REGIONAL DISTRICT INVEST VANCOUVER MANAGEMENT BOARD

MEETING

Thursday, May 23, 2024 10:15 a.m.

28th Floor Boardroom 4515 Central Boulevard, Burnaby, British Columbia Webstream available at https://www.metrovancouver.org

AGENDA1

A. ADOPTION OF THE AGENDA

1. May 23, 2024 Meeting Agenda

That the Invest Vancouver Management Board adopt the agenda for its meeting scheduled for May 23, 2024 as circulated.

B. ADOPTION OF THE MINUTES

1. October 13, 2023 Meeting Minutes

That the Invest Vancouver Management Board adopt the minutes of its meeting held October 13, 2023 as circulated.

2. February 2, 2024 Meeting Minutes

That the Invest Vancouver Management Board adopt the minutes of its meeting held February 2, 2024 as circulated.

- C. DELEGATIONS
- D. INVITED PRESENTATIONS
- E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER
 - Regional Talent Accelerator: Workforce Development Needs Assessment and Opportunities

That the MVRD Board:

a) direct staff to develop a business plan for a regional talent accelerator with the support of additional resources contingent through the budget process; and

pg 13

¹ Note: Recommendation is shown under each item, where applicable.

pg 57

pg 103

pg 109

pg 114

pg 118

b) direct staff to develop an outreach and engagement strategy to secure external support and identify a sustainable funding model for the regional talent accelerator.

2. High-tech Sector in the Metro Vancouver Region

That the MVRD Board receive for information the report dated April 22, 2024 titled "High-tech Sector in the Metro Vancouver Region".

3. Investment Attraction Update

That the MVRD Board receive for information the report dated April 22, 2024 titled "Investment Attraction Update".

4. Global Promotion and Regional Collaboration

That the MVRD Board receive for information the report dated April 19, 2024 titled "Global Promotion and Regional Collaboration".

5. Manager's Report

That the Invest Vancouver Management Board receive for information the report dated April 26, 2024, titled "Manager's Report".

F. INFORMATION ITEMS

- 1. Correspondence dated January 25, 2024, from the Province of BC re: Thank You for participation in the economic competitiveness of British Columbia.
- Correspondence dated April 23, 2024, from Asia Pacific Foundation of Canada re: pg 119
 Thank you for participation in the Canada in Asia Conference.

G. OTHER BUSINESS

H. RESOLUTION TO CLOSE MEETING

Note: The Committee must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.

I. ADJOURNMENT

That the Invest Vancouver Management Board adjourn its regular meeting of May 23, 2024.

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Membership:

Buchanan, Linda (C) - North Vancouver City Bains, Harry (VC) - Surrey Anderson, Bridgitte – Greater Vancouver Board of Trade Andrews, Janet - New Westminster and **District Labour Council** Bak, Andrew – scəẃaθən məsteyəx^w (Tsawwassen First Nation) Brodie, Malcolm - Richmond Choo, Queenie – S.U.C.C.E.S.S. Curry, Joanne - Simon Fraser University Dahl, Darren – Sauder School of Business, UBC Dao, Loc - DigiBC Davies, Trevor – CUPE BC Dhaliwal, Bob - International Longshore and Warehouse Union Canada

Dominato, Lisa – Vancouver Gambioli, Nora – West Vancouver Huberman, Anita – Surrey Board of Trade Hurlburt, Wendy - Life Sciences BC Jackson, Jeanette – Foresight Lang, Amy - North Shore/ Mammoth Studios Lee, Richard - Burnaby Lewis, Christopher (Syeta'xtn) -Skwxwu'7mesh Úxwumixw (Squamish Nation) McDaniel, Michael - Coast Mountain **Bus Company** McEwen, John – Anmore McNaney, Mike – Vancouver Airport Authority

Mihlar, Fazil – Ministry of Jobs,
Economic Development and
Innovation
Muir, Cheryl – Canada's Digital
Supercluster
Mustel, Evi – Mustel Group
Patel, Ajay – Vancouver Community
College
Stachova, Olga – MOSAIC
Stephenson, Diana – BC Hydro
Tsui, David – PacifiCan
West, Brad – Port Coquitlam
Xotta, Peter – Vancouver Fraser Port
Authority
Yu, Brian – Central 1

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METRO VANCOUVER REGIONAL DISTRICT INVEST VANCOUVER MANAGEMENT BOARD

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Invest Vancouver Management Board held at 9:02 am on Friday, October 13, 2023 in the 28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Chair, Mayor Linda Buchanan*, North Vancouver City

Vice Chair, Councillor Harry Bains*, Surrey

Robert Armstrong*, Coast Capital Savings Credit Union

Andrew Bak*, Indigenous Representative (arrived at 9:26 am)

Queenie Choo*, S.U.C.C.E.S.S. (arrived at 10:10 am)

Joanne Curry*, Simon Fraser University

Darren Dahl*, Sauder School of Business, UBC

Loc Dao*, DigiBC

Bob Dhaliwal*, International Longshore and Warehouse Union Canada

Councillor Lisa Dominato*, Vancouver (arrived at 9:13 am)

Councillor Nora Gambioli*, West Vancouver

Anita Huberman*, Surrey Board of Trade (departed at 9:53 am)

Wendy Hurlburt*, Life Sciences BC

Jeanette Jackson*, Foresight

Amy Lang*, North Shore/Mammoth Studios

Councillor Richard Lee*, Burnaby

Christopher (Syeta'xtn) Lewis*, Indigenous Representative

Fazil Milhar*, Ministry of Jobs, Economic and Development and Innovation (departed at 9:30 am)

Cheryl Muir*, Digital Supercluster

Evi Mustel*, Mustel Group

Chris O'Reily*, BC Hydro

Ajay Patel*, Vancouver Community College

*denotes electronic meeting participation as authorized by the *Procedure Bylaw*

MEMBERS ABSENT:

Bridgitte Anderson, Greater Vancouver Board of Trade

Janet Andrews, New Westminster & District Labor Council

Trevor Davies, CUPE BC

Kevin Quinn, Translink

Olga Stachova, MOSAIC

David Tsui, Pacific Economic Development Canada

Tamara Vrooman, Vancouver Airport Authority

Mayor Brad West, Port Coquitlam

STAFF PRESENT:

Jerry W. Dobrovolny, Chief Administrative Officer

Jacquie Griffiths, President, Invest Vancouver

Rapinder Khaira, Legislative Services Coordinator, Board and Information Services

1. ADOPTION OF THE AGENDA

1.1 October 13, 2023 Meeting Agenda

It was MOVED and SECONDED

That the Invest Vancouver Management Board adopt the agenda for its meeting scheduled for October 13, 2023 as circulated.

CARRIED

2. ADOPTION OF THE MINUTES

2.1 July 14, 2023 Meeting Minutes

It was MOVED and SECONDED

That the Invest Vancouver Management Board adopt the minutes of its meeting held July 14, 2023 as circulated.

CARRIED

3. DELEGATIONS

No items presented.

4. INVITED PRESENTATIONS

No items presented.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Strategic Industries Analytics Project: Discovering Opportunities in the Metro Vancouver Region's Export Industries

Report dated September 18, 2023, from Lejla Uzicanin, Vice President, Data, Research and Policy, Invest Vancouver and Gregory Freeman, Senior Economist, Invest Vancouver, providing the MVRD Board with information on the results of the Strategic Industries Analytics project.

Members were provided with an overview of the Strategic Industries Analytics Project.

9:13 am Councillor Dominato arrived at the meeting.

9:26 am Andrew Bak arrived at the meeting.

9:30 am Minister Fazil Milhar departed the meeting.

9:53 am Anita Huberman departed the meeting.

Presentation material titled "Strategic Industries Analytics Project" is retained with the October 13, 2023 Invest Vancouver Management Board agenda.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated September 18, 2023, titled "Strategic Industries Analytics Project: Discovering Opportunities in the Metro Vancouver Region's Export Industries".

CARRIED

5.2 Regional Economic Development Strategy

Report dated September 29, 2023, from Jacquie Griffiths, President and Bryan Buggey, Executive Vice President, Invest Vancouver, providing the MVRD Board with information on a key deliverable for 2023, a Regional Economic Development Strategy, that will guide and support the efforts of Invest Vancouver, member jurisdictions, and the broader community in the economic development arena for a 5-year time frame from 2025 to 2030.

Members were provided with an overview of the Regional Economic Development Strategy project.

Presentation material titled "Regional Economic Development Strategy" is retained with the October 13, 2023 Invest Vancouver Management Board agenda.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated September 29, 2023, titled "Regional Economic Development Strategy".

CARRIED

5.3 Investment Attraction Update – Third Quarter 2023

Report dated October 2, 2023, from Bryan Buggey, Executive Vice President, Invest Vancouver, providing the MVRD Board with an update on investment attraction activities for the third quarter of 2023.

Members were provided with an update on investment attraction in the third quarter of 2023, including investor prospects analysis.

10:10 am Queenie Choo arrived at the meeting.

Presentation material titled "Investment Attraction Update: Q3 2023" is retained with the October 13, 2023 Invest Vancouver Management Board agenda.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated October 2, 2023, titled "Investment Attraction Update – Third Quarter 2023".

CARRIED

5.4 Manager's Report

Report dated October 5, 2023, from Jacquie Griffiths, President, Invest Vancouver, providing the Invest Vancouver Management Board with an update on the Invest

Vancouver Management Board 2023 Work Plan, 2024 Annual Budget and 2024 – 2028 Financial Plan, Invest Vancouver's Innovation Ecosystem Profile, Key Industries Value Proposition Summary, Invest Vancouver/Metro Vancouver branding, and on outreach meetings since July 14, 2023.

It was MOVED and SECONDED

That the Invest Vancouver Management Board receive for information the report dated October 5, 2023 titled "Manager's Report".

CARRIED

6. INFORMATION ITEMS

6.1 Correspondence from the Honourable Brenda Bailey re Continued Collaboration following BIO International 2023

7. OTHER BUSINESS

No items presented.

8. BUSINESS ARISING FROM DELEGATIONS

No items presented.

9. RESOLUTION TO CLOSE MEETING

No items presented.

10. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED

That the Invest Vancouver Management Board conclude its meeting of October 13, 2023.

CARRIED

(Time: 10:41 am)

Janis Knaupp,	Linda Buchanan,
Program Manager, Legislative	Chair
Services	

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METRO VANCOUVER REGIONAL DISTRICT INVEST VANCOUVER MANAGEMENT BOARD

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Invest Vancouver Management Board held at 1:00 pm on February 2, 2024 in the 28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Chair, Mayor Linda Buchanan, North Vancouver City

Bridgitte Anderson, Greater Vancouver Board of Trade*

Janet Andrews, New Westminster & District Labour Council

Andrew Bak, scəẃaθən məsteyəx^w (Tsawwassen First Nation)

Mayor Malcolm Brodie, Richmond

Queenie Choo, S.U.C.C.E.S.S.

Joanne Curry, Simon Fraser University

Darren Dahl, Sauder School of Business, UBC

Loc Dao, DigiBC

Trevor Davies, CUPE BC*(arrived at 1:06 pm)

Bob Dhaliwal, International Longshore and Warehouse Union

Councillor Lisa Dominato*, Vancouver

Councillor Nora Gambioli, West Vancouver

Anita Huberman, Surrey Board of Trade

Wendy Hurlburt, Life Sciences BC* (arrived at 1:04 pm)

Jeanette Jackson, Foresight

Councillor Richard Lee, Burnaby

Michael McDaniel, Coast Mountain Bus Company

Mayor John McEwen, Anmore

Cheryl Muir, DIGITAL (arrived at 1:05 pm)

Evi Mustel, Mustel Group, Owner and President

Ajay Patel, Vancouver Community College

Olga Stachova, MOSAIC

David Tsui, Pacific Economic Development Canada (Pacifican)* (arrived at 1:01 pm)

Mayor Brad West, Port Coquitlam

Peter Xotta, Vancouver Fraser Port Authority

Bryan Yu, Central 1

MEMBERS ABSENT:

Vice Chair, Councillor Harry Bains, Surrey

Amy Lang, President, North Shore/Mammoth Studios

Christopher (Syeta'xtn) Lewis, Skwxwú7mesh Úxwumixw (Squamish Nation)

Mike McNaney, Vancouver Airport Authority

Fazil Mihlar, Ministry of Jobs, Economic Development and Innovation

Diana Stephenson, BC Hydro

STAFF PRESENT:

Jacquie Griffiths, President, Invest Vancouver
Heather McNell, Deputy Chief Administrative Officer, Policy and Planning
Sabrina Mann, Legislative Services Coordinator, Board and Information Services
Bryan Buggey, Executive Vice President, Invest Vancouver

The Chair welcomed members to the inaugural 2024 meeting of the Invest Vancouver Management Board and members conducted roundtable introductions.

A. ADOPTION OF THE AGENDA

1. February 2, 2024 Meeting Agenda

It was MOVED and SECONDED

That the Invest Vancouver Management Board adopt the agenda for its meeting scheduled for February 2, 2024 as circulated.

CARRIED

B. ADOPTION OF THE MINUTES

1. October 13, 2023 Meeting Minutes

It was MOVED and SECONDED

That the Invest Vancouver Management Board receive for information the minutes held October 13, 2023 as circulated.

CARRIED

- 1:01 pm David Tsui arrived at the meeting.
- 1:04 pm Wendy Hurlburt arrived at the meeting.
- 1:05 pm Cheryl Muir arrived at the meeting.
- 1:06 pm Trevor Davies arrived at the meeting.

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

^{*}denotes electronic meeting participation as authorized by the *Procedure Bylaw*

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

1. 2024 Invest Vancouver Management Board Meeting Schedule, Work Plan, and the Invest Vancouver 2024 Annual Plan

Report dated January 9, 2024, from Jacquie Griffiths, President, Invest Vancouver and Sue Mah, Vice President, Invest Vancouver, providing the committees' Terms of Reference, Work Plan, and annual meeting schedule.

Jacquie Griffiths provided members with a presentation titled "Invest Vancouver Management Board Work Plan, and 2024 Annual Plan."

In response to questions, Jacquie Griffiths noted:

- Invest Vancouver staff are working towards securing funding for research, marketing and strategic investments;
- there are plans to engage partners to identify industry needs for workforce development and to continue development of the Regional Economic Development Strategy;
- key performance indicators (KPIs) for new investment facilitated and retained in region was influenced by the large investment by E-One Moli Energy Canada Ltd; and
- Invest Vancouver will continue to work with the Invest Vancouver Advisory Committee (IVAC) to review progress and adapt for best results.

Members discussed consideration of exploring how to integrate macro-economic trends to guide global strategic investment, and to review KPI projections as part of the Invest Vancouver Work Plan.

It was MOVED and SECONDED

That the Invest Vancouver Management Board:

- a) receive for information the Invest Vancouver Management Board Terms of Reference and the 2024 Annual Meeting Schedule, as presented in the report dated January 9, 2024 titled "2024 Invest Vancouver Management Board Meeting Schedule, Work Plan and the Invest Vancouver 2024 Annual Plan"; and
- b) endorse the 2024 Committee Work Plan, and the Invest Vancouver 2024 Annual Plan, as presented in the report dated January 9, 2024, titled "2024 Invest Vancouver Management Board Meeting Schedule, Work Plan".

That the MVRD Board endorse the Invest Vancouver 2024 Annual Plan as attached to the report dated January 9, 2024, and titled "2024 Invest Vancouver Management Board Meeting Schedule, Work Plan and the Invest Vancouver 2024 Annual Plan".

CARRIED

2. Investment Attraction Update

Report dated January 9, 2024, from Bryan Buggey, Executive Vice President, Invest Vancouver, providing the Invest Vancouver Management Board with a review of

investment attraction activities for 2023 and an overview of the intended investment attraction approach for 2024.

Bryan Buggey provided members with a presentation titled "Investment Attraction Update".

In response to the presentation, members commented about:

- global economic impacts of the 2023 writers and actors strike;
- the importance of after care to the retention and growth of businesses that come to the region; and
- the need to engage global markets outside of the US market, which are also critical to the region.

In response to questions, Bryan Buggey noted:

- plans for Invest Vancouver and the IVAC to explore after care and how to support after care in the region;
- the ability for American companies to easily establish in the region;
- the need to engage with member jurisdictions, as well as industrial and commercial realtors to maximize knowledge of available industrial land; and
- that Invest Vancouver has a presence at select global events in key sectors and markets to market the region.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated January 9, 2024, titled "Investment Attraction Update."

CARRIED

3. Manager's Report

Report dated January 15, 2024, from Jacquie Griffiths, President, Invest Vancouver, providing an update on attendance at 2024 approved conferences, and 2024 CanExport community Investment Program grant funding.

Members were requested to contact Chair Buchanan and Jacque Griffith if interested in attending one of the two approved 2024 conferences. Members were notified the Chair has requested staff to reschedule the remainder of 2024 regular meetings.

It was MOVED and SECONDED

That the Invest Vancouver Management Board receive for information the report dated January 15, 2024, titled "Manager's Report".

CARRIED

F. INFORMATION ITEMS

No items presented.

G.	OTHER BUSINESS	
	No items presented.	
н.	RESOLUTION TO CLOSE MEETING	
	No items presented.	
l.	ADJOURNMENT OR CONCLUSION	
	It was MOVED and SECONDED	
	That the Invest Vancouver Management	Board adjourn its meeting of February 2, 2024.
		CARRIED
		(Time: 2:32 pm)
	Knaupp,	Linda Buchanan,
_	am Manager, Legislative	Chair
Servic	res	
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To: Invest Vancouver Management Board

From: Jacquie Griffiths, President, Invest Vancouver

Sue Mah, Vice President, Collaboration, Invest Vancouver

Date: April 19, 2024 Meeting Date: May 23, 2024

Subject: Regional Talent Accelerator: Workforce Development Needs Assessment and

Opportunities

RECOMMENDATION

That the MVRD Board:

- a) direct staff to develop a business plan for a regional talent accelerator with the support of additional resources contingent through the budget process; and
- b) direct staff to develop an outreach and engagement strategy to secure external support and identify a sustainable funding model for the regional talent accelerator.

EXECUTIVE SUMMARY

It is essential that a strong pipeline of skilled workers is readily available to support investment growth and prosperity in the Metro Vancouver region. The region's workforce must meet the immediate and future talent needs of a global economy. It is reported that the province is facing a labour market shortage in key industries. Addressing the risks associated with a skills shortage is crucial for the region's economic prosperity.

A regional talent accelerator is intended to be a workforce development centre of excellence that will work with employers, investors, levels of governments, and training providers to deliver customized real-time training solutions to build the workforce and provide a foundation for a stronger economy The concept for a regional talent accelerator was developed as a result of research, stakeholder engagement, industry feedback, and a direction from the Invest Vancouver Management Board. To execute this workforce development solution, this report proposes that a business plan, outreach and engagement strategy are needed to further develop the workforce development strategy, secure external partnerships and identify a sustainable funding model.

PURPOSE

To seek MVRD Board approval to develop a business plan and outreach and engagement strategy for a regional talent accelerator (workforce development initiative) as part of the region's economic development strategy to be globally competitive by maintaining and enhancing the region's talent supply.

BACKGROUND

This report is advanced in alignment and coordination with the approved Invest Vancouver Management Board 2024 Work Plan and the endorsed Invest Vancouver 2024 Annual Plan.

CONTEXT

British Columbia is facing a labour market shortage as the economy expands and its population ages; with projections of over a million job openings across various industries over the next decade and with the largest and fastest growth occurring in the Metro Vancouver region (Reference 1). Many residents and workers do not have the necessary skills to gain immediate employment or secure job enhancements due to the lack of resources and access to relevant and affordable programs. Others are facing career transitions due to declining industry sectors, and may not be able to secure jobs in future-focused industries where the region is best positioned for success. The risk is a major skills shortage and mismatch in the Metro Vancouver region.

The Metro Vancouver regional economy has the potential to grow stronger, increase its reputation for innovation and become more globally competitive in key sectors through foreign direct investment. However, multinationals often look to invest in locations where there is available talent and skilled workers, specifically, they seek specialized skills that match their *immediate* needs and *future* hiring needs. Multinationals have repeatedly cited that the acquisition of highly skilled talent is their main motivation factor for site selection in their expansion efforts.

Leaders in key sectors such as life sciences, high-tech, clean tech report a skills shortage and mismatch in their industries in the region. Many employees lack the right skills for the current and future economy, and industries need employees trained faster through programs that are responsive to their needs. With Metro Vancouver accounting for over half of the province's population and 61% of its GDP, addressing the skills challenge is critical for the region's economic prosperity.

The Metro Vancouver region holds a strategic position within Canada, serving as a gateway to the Asia-Pacific region and beyond. Despite its significance, both Canada and the Metro Vancouver region have struggled to keep pace with G7 counterparts in terms of innovation, investment and overall productivity. This reality poses a critical challenge for Metro Vancouver residents, particularly in an era where multinationals seek environments conducive to growth and innovation. Without an adequately skilled workforce, industries may hesitate to invest or grow in the region, and their investment will flow to other jurisdictions in Canada or abroad with more aligned, robust and developed talent. In short, the Metro Vancouver region needs to build and enhance its talent supply to ensure its continued competitiveness to attract international investments from future-focused industries and advance shared prosperity to the residents of the region.

INVEST VANCOUVER REGIONAL TALENT ACCELERATOR

In 2023, Invest Vancouver contracted Propero Learning Systems Inc. to conduct a needs assessment and develop a concept paper that would take a comprehensive approach to address workforce development (Attachment 1). Propero conducted research, interviewed more than 30 organizations from the private and public sectors, industry associations and others, and convened a strategic planning session with key stakeholders to seek their feedback on the region's workforce needs, gaps, challenges and opportunities.

Needs Assessment: Industry Interviews, Applied Research, and Stakeholder Engagement

Propero performed interviews with a range of organizations including Amazon, Microsoft, Digital Supercluster, UBC Sauder School of Business, Creative BC, Tap Network, Genome BC, First Nations Tech Council, and others to learn about their experiences, challenges and opportunities related to the region's talent and skills ecosystem. A recurring theme with each discussion was the need for a shift towards innovation and agility for tailored training programs that align with industry needs in a global economy.

Alongside the interviews, Propero also researched what other economic development organizations are doing in terms of programs related to workforce development. Their research found that many other economic development organizations focus on international talent recruitment and attraction, and some focus on talent development. For example, Calgary Economic Development operates and supports three successful upskilling and reskilling programs designed to evolve and adapt to new technologies, economic downturns and diversifications. These programs are equipped to ultimately create a more adaptable workforce to fill positions in high-demand industries (Reference 2). Other international examples such as Brisbane/Queensland's Region Workforce Strategy and SkillNet Ireland instituted successful programs that continue to grow a highly skilled workforce where multinationals seek to recruit their talent (Reference 3 and 4). These organizations that have applied workforce development initiatives with a sustainable funding model have increased their pipeline of skilled workers that meets the needs of the present and future economy; thereby increasing the supply of high quality employment prosperity for their residents through a stronger economy.

On February 21, 2024, Invest Vancouver and Propero hosted a strategic planning session that gathered 25 participants drawn from industry, crown corporations, post-secondary, and non-profits. The session drew consensus for a broad strategic solutions framework encompassing proactive collaboration and a culture of continuous learning. In addition, it was also identified that leveraging strengths, fostering industry partnerships, and embracing adaptability is crucial in building a workforce that is future-proof and resilient for the evolving labour market (Attachment 2). For example, one major biomedical company within the region hires many of their employees from Ireland due to their robust talent supply, which further confirms that the Metro Vancouver region's talent supply is lacking skilled workers to meet industry needs.

Concept Plan

Through findings and gathered input, Propero's concept plan proposes a *regional talent accelerator* (Attachment 1), a workforce development centre of excellence that will work with employers, investors, levels of governments, and training providers to deliver customized real-time training solutions to build the workforce and provide a foundation for a stronger economy. It is a solution that represents an opportunity to develop talent in the Metro Vancouver region and a network that drives innovative, responsive solutions to skills development and labour market issues in the region. By focusing on the strategic alignment of workforce development initiatives with the region's economic priorities, the talent accelerator will act as a hub for innovation, collaboration and excellence in workforce training and development.

A comprehensive approach to developing an effective talent pipeline and workforce development strategy needs to be industry-focused, tailors to the regional economy, broadly supported, and integrates talent development with economic development. Such an approach would include the following activities:

- Assess current and future needs;
- Collaborate with partners;
- Develop education and training programs;
- Identify incentives and support for businesses;
- Apply continuous evaluation and adjustment; and
- Conduct research and labour market information.

Invest Vancouver is well positioned to be an ideal founding partner of the regional talent accelerator as part of its role as a regional economic development service. As a convener representing 23 member jurisdictions, with demonstrated success in collaboration with member jurisdictions and a broad partner network on issues of regional importance, Invest Vancouver has the integrated network to foster partnership opportunities, a dedicated data and research team to conduct analysis, and a strategic investment team to confer the region's talent to prospective international investors. In addition, the talent accelerator would benefit from Invest Vancouver's current governance and corporate structure, where Metro Vancouver could advocate for incentives such as grant funding, tax benefits and support services on behalf of the regional economy.

Invest Vancouver has the opportunity to further develop and preserve the region's talent supply to maintain and grow its global competitiveness. A talent accelerator will provide a hub for employees, employers, investors and industries to access a concierge-like service that will help with upskilling or reskilling talent on an ongoing basis, and present opportunities for workers who are looking for job enhancements aligned with industry requirements for job placements.

OPPORTUNITIES FOR SKILLS ECOSYSTEM GROWTH

The regional talent accelerator will play a pivotal role in driving economic growth and innovation and attracting foreign direct investment into the Metro Vancouver region. The concept for a workforce development center of excellence has been socialized with other levels of government, industries and key stakeholders. Astounding support for the talent accelerator was received including a number of letters of support, demonstrating consensus that a workforce development strategy is warranted to drive innovative and responsive solutions to labour market issues, and that upskilling and reskilling programs help prepare talent for the in-demand jobs of the region's diverse and growing industry sectors (Attachment 3).

Business Plan

Although the Metro Vancouver region has been recognized by global rankings as an attractive place for people to live and for companies to locate, its full potential has not yet been realized. The concept for a talent accelerator was developed as a result of research, stakeholder engagement, industry feedback, and a direction from the Invest Vancouver Management Board. There appears to be strong support for a talent accelerator in the region to advance workforce development initiatives.

The next step in building the regional talent accelerator is to develop a business plan that provides details of how the talent accelerator will be structured, its scope of work and function, a detailed description of activities, the resources required for operation, and key performance indicators for measuring its success. The undertaking of such a business plan requires staff and resources to conduct research, investigate funding opportunities, and identify feasibilities for an operational model. Workforce development is broad in scope and will require dedication in sourcing information and testing potential modules that resonate with stakeholders. This work is not possible within the current resources allocated to Invest Vancouver.

Outreach and Engagement Strategy to Secure External Support

The success of the regional talent accelerator will be dependent on partnerships with key stakeholders. Although seeking grant funding to complement training programs is important, it will not necessarily sustain the service for the long term. A sustainable funding model similar to those found in other jurisdictions is necessary in order for the talent accelerator service to be effective in enhancing the region's talent supply that meets industry requirements and for the future-focused economy. To realize the potential of the talent accelerator for the region, staff will need to identify partnership opportunities to pool capabilities and resources as well as coordinated efforts. The importance of partnerships cannot be overlooked and will need to be further explored extensively as part of the outreach and engagement process.

The regional talent accelerator will need funding for operations, training programs, and special projects. To achieve this, staff will need to conduct outreach and engagement to explore and leverage partnership opportunities with other orders of government and the private sector. It is anticipated that engagement will include further meetings with other levels of government at the ministry and political levels.

ALTERNATIVES

- 1. That the MVRD Board:
 - a) direct staff to develop a business plan for a regional talent accelerator with the support of additional resources contingent through the budget process; and
 - b) direct staff to develop an outreach and engagement strategy to secure external support and identify a sustainable funding model for the regional talent accelerator.
- 2. That the MVRD Board receive for information the report dated April 19, and titled "Regional Talent Accelerator: Workforce Development Needs Assessment and Opportunities" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

The needs assessment and opportunities for the regional talent accelerator was undertaken through funding from the MVRD Board approved 2024 budget and work plan.

To action the concept plan, a business plan needs to be developed for MVRD Board approval in 2025, that details the objectives, activities and operation model of the talent accelerator. To achieve this, additional resources – contingent through the MVRD Board 2025 budget process – are

required for Invest Vancouver to explore the potential to include workforce development to increase innovation, investment and prosperity in our region.

CONCLUSION

Leaders in key sectors such as life sciences, high-tech, clean tech and others report a skills shortage and mismatch in their industries within the Metro Vancouver region. Many employees lack the right skills for today's economy, and industries need employees trained faster with skills that are relevant to their needs. With Metro Vancouver accounting for over half of the province's population and 61% of its GDP, addressing the skills shortage and mismatch is crucial for the region's economic prosperity as the talent pipeline is an important value proposition in securing foreign direct investment to grow the economy.

A regional talent accelerator will bring together employers, investors, governments, and training providers to deliver customized real-time training solutions to build a stronger and more resilient workforce and provide a foundation for a stronger regional economy. It is a solution that represents an opportunity to develop a skills ecosystem, a network that drives innovative, responsive solutions to skills development and labour market issues in the Metro Vancouver region.

To implement the regional talent accelerator, a business plan and outreach and engagement strategy will need to be developed with the support of additional resources contingent through the budget process. The business plan will detail its operational function and activities, and the outreach and engagement strategy will explore opportunities for partnerships and identify a sustainable funding model to ensure the regional talent accelerator's longevity for success over time. Staff recommend Alternative 1.

ATTACHMENTS

- Regional Talent Accelerator: Upskilling Talent to Support Economic Development in the Metro Vancouver Region
- 2. Workforce Development Industry Discussion
- 3. Letters of Support
- 4. Presentation re: Regional Talent Accelerator

REFERENCES

- 1. BC Labour Market Outlook 2023
- 2. Calgary Economic Development Edge Up Program
- 3. Queensland Workforce Strategy 2022-2032
- 4. Transforming Business Through Talent Statement of Strategy 2021-2025

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UPSKILLING TALENT TO SUPPORT ECONOMIC DEVELOPMENT IN THE METRO VANCOUVER REGION

MAY 2024

PREPARED BY: PROPERO LEARNING SYSTEMS INC.

PREPARED FOR: INVEST VANCOUVER





EXECUTIVE SUMMARY

The talent accelerator will act as a hub for innovative and responsive solutions to workforce development issues.

British Columbia faces significant labor market shortages as its economy expands and its population ages, with projections indicating over a million job openings across various industries over the next decade. This challenge is exacerbated by national concerns over dwindling productivity and inadequate skills development strategies. Learners and employees often lack the immediate job-ready skills necessary for employment, highlighting the need for accessible and rapid skills development pathways.

To address these challenges and bolster Metro Vancouver's competitiveness in the global economy, there is a pressing need for a regional talent accelerator. This proposed initiative, spearheaded by Metro Vancouver's Invest Vancouver, aims to bridge the gap between workforce demands and available skills through a comprehensive approach. By strategically aligning workforce development initiatives with economic priorities and fostering collaboration between stakeholders, including employers, workers, education institutions, and government entities, the regional talent accelerator will act as a hub for innovative and responsive solutions to workforce development issues.

The proposed talent accelerator will play a pivotal role in driving economic growth, attracting foreign investment, and positioning the Metro Vancouver region as a hub for skilled workers and talent with a focus on lifelong learning, digital skills development, public-private collaboration, and inclusion. The accelerator will contribute to the region's economic prosperity and resilience by ensuring the continued and targeted training and development needed to ensure a highly skilled workforce. Moreover, by providing labor market insights and connecting individuals with job opportunities, the talent accelerator will serve as a vital catalyst for regional economic development and global competitiveness.

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BACKGROUND



The Metro Vancouver region, as part of the Province of BC is experiencing significant labour market shortages, which will only grow as the economy expands and the population ages. Over the next decade, the province's economy will create 1,017,000 job openings across 64 industries in 500 occupations that span all seven of its economic regions. The largest and fastest growth will occur in the Metro Vancouver region, home to almost three million people.

This provincial and regional dynamic is unfolding within the broader national context, wherein the issue of dwindling productivity and the lack of a robust skills development strategy continues to gain attention. Recent statements from senior officials at the Bank of Canada have underscored the concerning trend of falling productivity, due in part to a lack of talent and skilled workforce, highlighting the urgency of the situation.

FIGURE 1 Sources of Labour Supply Change, B.C., 2023–2024

However, learners and workers often lack the skills necessary to gain immediate employment or secure more workplace responsibilities. Most are reluctant or unable to spend years gaining new skills at a post-secondary institution or cannot afford it. Many mid-career employees who seek job enhancements or face career transitions in declining labour sectors require additional training, and a growing number are frustrated by the complexity and lack of access.

Clearly, there needs to be a change in how skills training is delivered, and where new talent development strategies are needed to meet the region's labour market needs, in order to attract new international investments, and grow our economy. Simply put, employers and investors need more employees trained faster and with diverse skills.

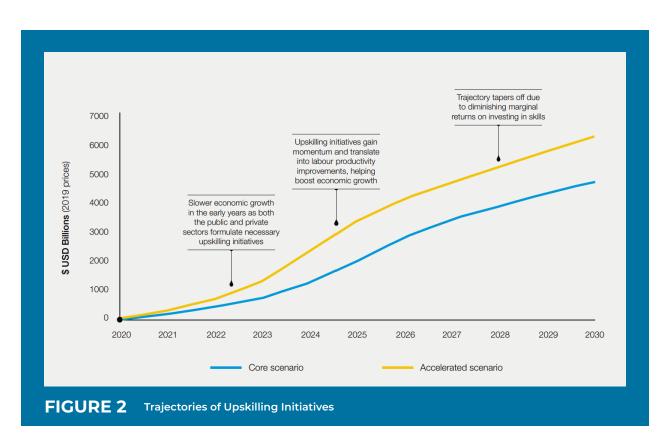
This change requires a comprehensive approach to workforce development, including employer engagement, deep community connections, industry-driven education and training and a connective tissue of networks. In other words, a paradigm shift that supports an array of job strategies, including sector and place-based workforce development strategies, adult education, and short and long-term training programs that are customized to different employers and job seekers.

OPERATING IN A GLOBAL ECONOMY

As a key player in the global economy, the Metro Vancouver region holds a strategic position within Canada, serving as a gateway to the Asia-Pacific region and beyond. Despite its significance, both Canada and the Metro Vancouver region have struggled to keep pace with their G7 counterparts in terms of innovation and productivity. This shortfall poses a critical challenge, particularly in an era where multinational companies seek environments conducive to growth and innovation. Without a skilled and adaptable workforce to support these endeavors, the risk exists that investment will flow to more favorable jurisdictions. Addressing the pressing need for talent development and skills enhancement is paramount to ensuring the regions continued competitiveness and attractiveness to multinational companies seeking to establish or expand their presence in the region.

GLOBAL CONTEXT

The World Economic Forum (WEF) report **Upskilling for Shared Prosperity¹** (2021), noted the global education and training sector remains fragmented and would benefit from the emergence of a more comprehensively interconnected ecosystem. The report also suggests that the upskilling initiative could have a positive global GDP impact of \$6.5 trillion. The more recent May 2023, World Economic Forum report entitled, **Putting Skills First: A Framework for Action²** indicates: 52% of CEOs believe labour and skills shortages will significantly impact profitability in their industry over the next 10 years.



WEF Upskilling for Shared Prosperity: https://www.weforum.org/publications/upskilling-for-shared-prosperity

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²WEF Putting Skills First: https://www.weforum.org/publications/putting-skills-first-opportunities-for-building-efficient-and-equitable-labour-markets

FUTURE JOBS

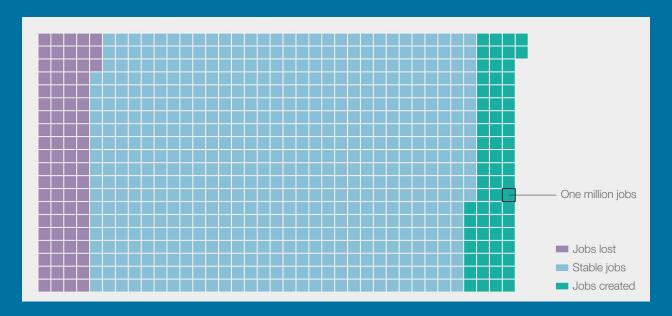


FIGURE 3 Future Jobs

The 2023 WEF Future of Jobs Report³ notes that organizations across all industries identify skills gaps and an inability to attract talent as the key barriers preventing industry transformation. It goes on to highlight that a "skills-first" approach to hiring and developing people has the potential to transform the way that labour markets operate, delivering significant benefits not just to business, but to our wider society and economy. It also suggests that approximately 85 million jobs could go unfilled globally because of a lack of applicants with the skills to take them, which could result in \$8.5 trillion in unrealized annual revenues.

More recently, the European Commission released the **2024 Pact for Skills**⁴ report that sets out four key building blocks for success: *Collective action, ensuring people have the right skills for jobs; supporting people in their lifelong learning pathways and unlocking investments in skills.* The report highlights best practices and trends associated with regional and national skills/economic development strategies in upskilling and reskilling initiatives worldwide. Strategies crucial for policy makers and industry leaders shaping the future of workforce and economic development.

The Pact for Skills report underscores the importance of adaptable and inclusive strategies in fostering a skilled workforce capable of meeting the challenges of a rapidly evolving global economy. Collaboration between policymakers, industry leaders, and educational institutions is essential to effectively address current and future workforce needs. The following highlights the noted trends and associated strategic steps:

3/15

³ WEF Future Jobs Report 2023: https://www.weforum.org/publications/the-future-of-jobs-report-2023

⁴ EU Pact for Skills Report/Best Practices: https://op.europa.eu/s/zkjw

GLOBAL TRENDS

TREND 01

FOCUS ON LIFELONG LEARNING

Countries recognize the imperative of lifelong learning to adapt to evolving job markets. Emphasizing continual skill acquisition is pivotal for individuals to remain competitive and agile.

TREND
02

EMPHASIS ON DIGITAL SKILLS

Policies prioritize digital skill development, crucial for navigating a technology-driven economy and bridging the digital divide, ensuring individuals are equipped for the demands of the modern workforce.

TREND

O3

PUBLIC-PRIVATE COLLABORATION

Close collaboration between public and private sectors facilitates tailored training programs, work-based learning opportunities, and apprenticeships, addressing specific skill gaps and enhancing workforce readiness.

TREND 04

RECOGNITION OF NON-FORMAL AND INFORMAL LEARNING

Acknowledgment of the value of non-traditional learning avenues such as online courses and experiential learning prompts efforts to validate these experiences, facilitating the accreditation of prior learning.

TREND

05

INCLUSION AND EQUALITY

Initiatives aim to mitigate barriers to access, promoting equal participation across diverse demographics, including addressing gender disparities and socio-economic inequalities.

TREND 06

INTEGRATION OF GREEN SKILLS

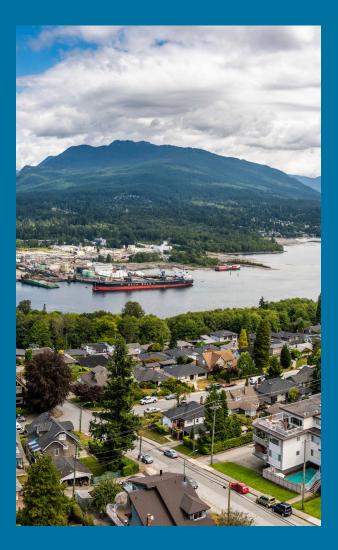
Countries prioritize integrating green skills into workforce development to address environmental challenges, fostering sustainability, and promoting renewable energy initiatives.

TREND
07

CONTINUOUS MONITORING AND EVALUATION

Robust monitoring and evaluation frameworks enable data-driven insights into program effectiveness, facilitating evidence-based decision-making and iterative improvement of upskilling and reskilling initiatives.

STAKEHOLDER ENGAGEMENT



BUILDING A RESILIENT SKILLS ECOSYSTEM IN VANCOUVER

While a global context and associated research build a foundation for strategic modeling, it is essential to place it in context to one's own regional dynamic, stakeholders, and participants.

Invest Vancouver and Propero coordinated two phases to engage stakeholders regarding their unique industry perspective, strategic framing, and steps forward. The first phase was a set of one-on-one conversations with over 12 industry and municipal representatives held in the fall of 2023. The second was a facilitated session with 25 participants drawn from industry, post-secondary, and regional governance in February 2024.

The discussions highlighted critical challenges facing the Metro Vancouver region's skills ecosystem, notably the wide range of skill gaps across sectors and the need to upskill and train mid-career workers amid technological advancements. A recurring theme was the need for a mindset shift towards viewing challenges as opportunities for innovation and agility to become more globally competitive.

THREE KEY STRATEGIES EMERGED FROM THESE DISCUSSIONS:

STRATEGY O1

Advocacy for tailored training programs aligning with industry needs.

STRATEGY
02

Maximizing agility and playing to strengths with available resources.

STRATEGY 03

Advocating for an actionfocused mindset valuing experimentation and iterative improvement.



WHAT ALSO EMERGED WAS A CONSENSUS THAT THE METRO VANCOUVER REGION NEEDS A BROAD STRATEGIC SOLUTIONS AND FRAMEWORK ENCOMPASSING THE FOLLOWING ELEMENTS:

- A collaborative effort is driven by industry outcomes and objectives.
- Development of programs with clear outcomes and integrating local innovation.
- · Implementing agile skills programs addressing specific industry needs.
- Establishing visible pathways for learners and fostering a culture of collaboration and innovation.
- · Creating centers of excellence to meet industry demands effectively.
- Continuous monitoring, evaluation, and adaptation to ensure programs meet both learner and industry needs, driving longterm success in workforce development.

The discussions to date highlight the urgency of addressing skill mismatches and outdated education models. There is also a need for proactive collaboration and a culture of continuous learning. Leveraging strengths, fostering industry partnerships, and embracing adaptability is crucial for building a workforce able to take on the challenges precipitated by rapid technological changes. Building a robust skills ecosystem requires a proactive and collaborative approach that leverages local strengths, embraces continuous learning, and aligns with evolving industry demands. By focusing on these key points, the region can create a future-proof workforce prepared for the challenges of tomorrow.

FRAMING AN ACTION PLAN

In response to these trends, research and global initiatives, Propero Learning Systems proposes a new regional 'talent accelerator' for the Metro Vancouver region, a center of workforce development that will work with employers, workers, investors, governments, and training providers to deliver customized real-time training solutions to build the workforce and provide a foundation for a stronger economy.

It is a solution built from the premise that to foster economic growth, economic development efforts must place greater emphasis on identifying the region's competitive assets and strategically invest in ways that fully exploit those assets, especially the skills and talents of the local labour force.

A regional talent accelerator represents an opportunity to develop a strong skills ecosystem, a network that drives innovative, responsive solutions to skills/workforce development and labour market issues in the Metro Vancouver region. By focusing on the strategic alignment of workforce development initiatives with the region's economic priorities, the talent accelerator will act as a hub for innovation, collaboration, and excellence in workforce training and development.

This hub would be designed to provide a concierge service that is pivotal in ensuring the efficient and effective deployment of resources, expertise, and opportunities to facilitate talent acceleration. This centralized service acts as a nexus, streamlining access to training programs, mentorship opportunities, and industry partnerships focused on key industries for Invest Vancouver as innovation to support important social priorities such as housing and healthcare. The hub enhances the agility and responsiveness of the ecosystem, fostering a culture of continuous learning and adaptation. Moreover, it serves as a catalyst for collaboration among stakeholders, forging stronger connections between industry, education, government, and community organizations to address evolving skill demands and workforce challenges proactively. In essence, the hub functions as the linchpin of the Talent Accelerator, empowering individuals, and organizations alike to thrive in a dynamic and competitive landscape.

STRATEGIC SOLUTIONS AND FRAMEWORK FOR THE METRO VANCOUVER REGION:

1. Assess current and future needs:

Start by understanding the talent requirements of existing local industries and identifying emerging industries with growth potential. This could involve engaging with industry leaders, conducting surveys, and analyzing labor market data. A clear understanding of talent gaps will help shape the strategy.

2. Collaboration and partnerships:

Engage stakeholders in key sectors/industries including workers, educational institutions, industry associations, workforce development boards, and local government entities. Collaborative partnerships can help align resources, share expertise, and create a cohesive strategy that addresses the needs of both businesses and job seekers.

3. Education and training programs:

Work with training service providers to design and offer relevant programs that equip individuals with the skills needed by local industries. This could include vocational training, apprenticeships, specialized certification programs, and curriculum enhancements. Encourage industry professionals to provide input and participate in program development.

5. Continuous evaluation and adjustment:

Regularly evaluate the effectiveness of the approach and economic development strategy to identify areas of improvement. Monitor key performance indicators such as job placement rates, industry growth, and feedback from employers and candidates. Adjust the strategy accordingly to adapt to changing market needs.

4. Incentives and support for businesses:

Facilitate access to incentives to businesses that invest in the development of local talent, such as tax credits, grants, or subsidized training programs. Provide support services and resources to help businesses with recruitment, onboarding, and retention of talent.

6. Research and labour market information:

A regional talent accelerator would gather and analyze labour market information to provide insights into industry trends, growth areas, and changing skill requirements and future opportunities. This information helps guide decision-making by education providers, policymakers, and businesses, supporting targeted economic development strategies.

Moving forward, the regional talent accelerator initiative is poised to make significant strides in addressing the pressing needs of the workforce, and industries and the regional economy. By connecting learners and employees to tailored training opportunities aligned with industry needs, the regional talent accelerator aims to create a pipeline of skilled workers equipped for success in both existing and emerging sectors.

Through robust strategic partnerships and innovative program delivery models, the accelerator will ensure efforts are responsive, efficient, and sustainable, leveraging the latest advancements in pedagogy and technology to enhance training experiences and prepare individuals for the evolving job market. Moving forward, the focus will be to utilize monitoring and evaluation frameworks to continuously assess and refine strategies, while nurturing strong collaborations across educational, industry, and governmental partners to build a resilient ecosystem for workforce development in the Metro Vancouver region.

OPPORTUNITY

The establishment of a regional talent accelerator is key to drive economic growth and resilience, and attracting foreign direct investment into the Metro Vancouver region. By fostering a talent development strategy, aligning training initiatives with industry needs, embracing innovation and technology, and conducting research, the regional talent accelerator will position the Metro Vancouver region as a hub for skilled workers and a destination of choice for global businesses. The regional talent accelerator's comprehensive approach will ensure the training and development of a highly skilled workforce, ultimately fueling the region's economic prosperity. Overall, a regional talent accelerator would bridge the gap between job seekers, industry, employers and educational providers, facilitating the development of a skilled workforce that supports regional economic development. By addressing skills gaps, connecting individuals with job opportunities, and providing labour market insights, that center/hub would play a vital role in fostering economic growth.⁵

⁵OECD Skills Outlook 2023: https://www.oecd-ilibrary.org/education/oecd-skills-outlook_e11c1c2d-en

APPENDIX I CANADIAN EXAMPLES

Workforce development programs focused on upskilling for changing labour market demands are less prevalent among Canadian Economic Development Organizations.

Most "workforce development" services and programs offered by Economic Development Organizations are related to international talent recruitment and attraction. Several organizations create opportunities to connect recent graduates and immigrants with regional businesses. Many economic development organizations provide recruitment support and resources to promote the advantages for businesses to attract talent. The following is an overview of national and regional economic development programs and initiatives.

CALGARY ECONOMIC DEVELOPMENT

Edge Up Program

The Energy to Digital Growth Education and Upskilling Project (Edge Up) is a short-duration, experiential-based learning program that upskilling professionals in the oil and gas sector whose roles may be displaced by the transition to a green economy. EDGE UP connects individuals to high-demand, high-growth digital technology employment opportunities across all industries in Calgary. It is funded by Future Skills Centre, a Government of Canada Program.

Trade Accelerator Program

The Trade Accelerator Program is supported by Calgary Economic Development and Edmonton Global, offering strategic development support for businesses to prepare them to expand into international markets. It is a four-session initiative, designed to accelerate the strategic development businesses to better prepare them for expansion into international markets.

TalentED YYC

TalentED YYC is a resource platform part of a pilot project supported by nine additional community partners. It was designed in collaboration with nine community partners to build Calgary's skilled talent pool by supporting employers in engaging post-secondary students in relevant work experiences. The pilot project (2022 to 2025) includes creating a secretariat team to provide guidance and support, launching TalentED YYC, a digital resource platform that offers a central portal to post student opportunities, and an independent evaluation to determine future scalability and expansion.

Jobs Now Program

The Jobs Now Program, the Work-Integrated Learning Pilot Program – developed in partnership with Calgary Economic Development, the Future Skills Centre, PrairiesCan and the Government of Alberta – aims to grow a skilled talent pool and equip students with real-world experience to thrive in the new, digital economy. By providing private and non-profit businesses with job supports through the Alberta Jobs Now Program, employers can apply for funding to offset the cost of hiring and training Albertans in new or vacant positions. Expanding parameters of eligibility to include youth, equity-deserving communities, and those currently residing outside of Alberta.

INVEST OTTAWA

Talent Sourcing

The talent sourcing program equips Ottawa's fast-growing startups, scale-ups, and SMEs with a talent advantage. It provides coaching and mentorship, access to global tech expertise, talent solutions, and support for every stage of growth. Regular virtual and in-person events bring together industry leaders, top talent, and global customers to network, learn, and expand Ottawa's vibrant business community.

TALENT MONTREAL

Recruitment Missions

TalentMontreal.com advertises job openings, which are provided on a subscription basis.

Ongoing Recruiting

Provide services to secure work permits for foreign workers and specialized training courses on various topics, including temporary work permits and compliance requirements for employers.

Assistance with immigration procedures

Provide services to secure work permits for foreign workers (conditions apply). Ability to signup for specialized training courses on various topics, including temporary work permits and compliance requirements for employers.

INVEST IN HAMILTON

Humanities Career Apprenticeship Program

A program to connect new graduates from the Faculty of Humanities at McMaster University with reputable Hamilton-based employers. Students can complete meaningful projects in a work environment that fosters learning, networking, and development, while companies can receive incentives.

EDMONTON GLOBAL

Trade Accelerator Program

The trade accelerator program provides local business with four-sessions designed to accelerate local strategic development and better prepare for expansion into international markets. The Toronto Region Board of Trade created the Alberta program as a part of of TAP Canada, which is supported by the Mobilizing SMEs to Export initiative to assist in delivering Canada's Export Diversification Strategy. Partners, including Calgary Economic Development and the TAP Alberts stewards.

ECONOMIC DEVELOPMENT WINNIPEG

Talent Attraction and Retention

The Economic Development Winnipeg talent team connects Manitoba employers with skilled and experienced workers from Europe, Latin America and the United States who wish to pursue a career in their city. The team provides advice, contacts and key resources to help fill jobs and grow businesses. Their services help attract and retain top talent and sell preferred candidates on the advantages of a career in Winnipeg, plus the high quality of life that the city has to offer.

Recruitment Missions

Economic Development Winnipeg hosts international delegations for Manitoba employers to connect with and interview skilled workers interested in establishing a career and life in Canada. This fall, an in-person international recruitment mission will be in Paris, France and Rabat, Morocco.

Work in Manitoba Job Portal

A one-stop platform that efficiently connects Manitoba employers with job seekers across Manitoba, Canada and from abroad based on qualifications and labour market needs.

Talent Toolkit

Compelling, high-quality videos, tailored images and data to help companies compete for skilled workers on a global stage.

WATERLOO EDC

Access Talent

Access Talent provides companies with recruitment and introduction services to co-operative education offices at each of the three local post-secondary institutions. The program connects R&D leaders with research offices and specific labs at each of the post-secondary institutions.

QUEBEC INTERNATIONAL

International Recruiting

Provides access to hundreds of qualified candidates by leveraging Quebec International's expertise, support, personalized service and training sessions to successfully attract, integrate and retain the right candidates.

LONDON ECONOMIC DEVELOPMENT CORPORATION

London Economic Development Corporation provides a range of connective programs supporting employers with training programs and professional development opportunities to help develop employees and company capacity.

GLOBAL TALENT STREAM

A toolkit on accessing the Global Talent program within the Ministry of Immigration, Refugees and Citizenship Canada to hire a permanent or temporary foreign worker.

LONDON MFG JOBS

A resource where employers can share their open positions, and jobseekers can explore open positions in the manufacturing and food processing sectors in the City of London, Middlesex, Oxford, and Elgin counties, and the region.

LONDON TECH JOBS

A free resource where employers can share their open positions, and jobseekers can explore open digital media and technology positions.

LONDON WORKS AND AREA

A community initiative to help employers highlight their open positions through a portal, weekly video series, and bi-annual job fairs.

JOB DEVELOPERS NETWORK (EMPLOYMENT SECTOR COUNCIL)

A forum for job developers, and those in similar roles, from ESC community employment organizations to meet, discuss, share information and opportunities, problem-solve issues, and strategize solutions that promote collaborative service delivery to job seekers and employers.

THE IVEY ACADEMY

Works with organizations globally to build leadership capacity, share insights on critical business issues, and drive real-world strategic impact through learning. The approach blends contemporary research with innovative teaching methods to create a social, interactive, inclusive environment for professional growth.

TORONTO GLOBAL

Talent Connections Program

Supports international companies in addressing their talent needs. This talent strategy includes facilitating introductions to universities and colleges, building brand awareness and talent attraction.

HALIFAX PARTNERSHIP

International Recruitment Program

Supports employers to recruit and hire national and international talent to address critical labour shortages, with a focus on skilled trade gaps impacting the construction industry and Halifax's housing supply. Provides local employers an opportunity to share their job postings with experienced candidates who are interested in, and ready to, immigrate to Halifax.

Connector Program

Supports new immigrants and recent graduates to grow their professional network in Halifax by connecting them with business owners, operators, managers, civil servants, and community leaders.

APPENDIX II INTERNATIONAL EXAMPLES

International economic development regions such as Ireland, Brisbane, and Los Angeles have exemplified visionary approaches in addressing their respective skills gaps, consequently bolstering their economic competitiveness on a global scale. Through strategic investments in workforce development initiatives, these regions have cultivated talent ecosystems that align with evolving industry demands, ensuring a steady supply of skilled workers equipped to drive innovation and fuel economic growth. By forging strong partnerships between government, industry, and educational institutions, they have created agile and responsive systems that adapt to changing market dynamics, thereby attracting investment, and fostering sustainable prosperity. These success stories serve as invaluable case studies for regions worldwide, illustrating the transformative power of targeted skill development in enhancing economic resilience and competitiveness in an increasingly competitive landscape.

QUEENSLAND (AUSTRALIA)

Brisbane Region Workforce Strategy, 2019-2024

"Supporting the growth of strong, resilient, and diverse regions is vital to the Queensland economy. As the engine room to their communities, a region's workforce can provide economic stability, social cohesion, and a space to collaborate and innovate. Regions that plan for the future are best placed to respond quickly and adapt to changes in local economic conditions, consumer driven markets, challenges in supply chains, and industry experience. A workforce planning and development plan is critical in shaping the future of a region's/industry's local business and workforce. With a suitably skilled and diverse workforce, many of a region's economic development strategies can be realized". *Brisbane Workforce Strategy*

IRELAND

Skillnet Ireland, 2018-2024

SkillNet Ireland is a business support agency of the Government of Ireland, responsible for advancing the competitiveness, productivity, and innovation of Irish businesses through enterprise-led workforce development. SkillsNet works to ensure that local businesses have the skills it needs to grow and expand. SkillNet currently supports over 22,500 businesses nationwide and provides a wide range of learning experiences to over 86,500 trainees. Their mission is to facilitate increased participation in enterprise training and workforce learning in Ireland.

UNITED STATES

Upskill Houston

Greater Houston and its employers need the finest skilled workforce in the world to be a great global city in the 21st century. UpSkill Houston — an employer-led initiative — mobilizes the collective action of more than 200 critical stakeholders to strengthen the pipeline of skilled workers that employers need and to create better pathways to opportunity and prosperity for all Houstonians.



Centre for a Competitive Workforce (LAEDC)

The Los Angeles County Economic Development Corporation is a non-profit organization focused on equitable economic growth in the Los Angeles region. It uses research to advance key industries, provide business assistance, collaborate with educational institutions to develop a robust workforce, and provide government officials with economic data to ensure the continued growth of L.A. County. LAEDC's workforce development program exists to create economic mobility and equity, support the talent needs of business, and align education with evolving industry trends. Workforce development is integrated into LAEDC's research, business assistance, industry council work — and the fabric of their mission. Works in both the strategic leadership capacity to support systems change and in a programmatic action level to drive progress.

Education Design Lab (Seattle, Austin, Tucson)

ED Lab works with educators and workforce groups to design, implement, and scale equitable approaches that put today's learners on a trajectory toward meaningful careers and higher wage earnings. ED Lab is on the ground applying research, creating proof points, and supporting institutions and municipalities as they transform their models to respond to the changing needs of learners and employers.

INTERNATIONAL REPORTS

European Commission 2024

Pact for Skills: Analyzing up-and reskilling policy initiatives and identifying best practices. https://op.europa.eu/s/zkjw

Only with the right skills can Europe strengthen its position in global competition and have a sustained economic and socially inclusive prosperity. It specifically means delivering on the European Green Deal, which is the EU's growth strategy, and in the strategic sectors and ecosystems identified in the EU's new Industrial Strategy. Skills thus represent one of the key priorities for tackling the current and upcoming challenges for businesses in the EU, and those are expected to stay at the high priority level for years to come. For this reason, the EU has developed a comprehensive framework for skills policies in the EU, the European Skills Agenda, and proclaimed the European Year of Skills, lasting from May 2023 to May 2024.

ABOUT PROPERO

Propero Learning Systems Inc. is a management consulting firm addressing skills development challenges and the need for employees to be trained faster with renewed skills that meet industry demands. Propero has three main areas of focus:

Research: creating competency-based learner solutions aligned with employers' needs by bringing elements of training systems together, identifying leading trends, and proposing innovative solutions.

Accelerate: Helping organizations expand programming, streamline learning through customized, curated courses and micro-credentials, and disrupt the status quo in skills training and learning.

Collaborate: building creative networks of people and ideas that result in innovative solutions while creating partnerships among education institutions, governments, economic development agencies, industry associations, and not-for-profit entities.

PROPERO FOUNDERS



CURTIS CLARKE

PhD

Curtis Clarke is a public policy expert with experience in change leadership and operational skills developed through executive portfolios in the Alberta Public Service. Former Alberta Deputy Minister of Advanced Education, Deputy Minister of Education (K-12), and Associate Deputy Solicitor General. Former professor at Athabasca University, an innovator in online education.



SCOTT MACDONALD

MBA, BEd

Scott MacDonald is an executive with significant leadership and organizational renewal experience in the British Columbia education system and public sector, including BC Deputy Minister of Education, Chief Executive Officer of a BC Crown corporation, and Assistant Deputy Minister of Labour Market programs and apprenticeships.

TALENT ACCELERATOR

UPSKILLING TALENT TO SUPPORT ECONOMIC DEVELOPMENT IN THE METRO VANCOUVER REGION

MAY **2024**

PREPARED BY: PROPERO LEARNING SYSTEMS INC.
PREPARED FOR: INVEST VANCOUVER





Workforce Development Industry Discussion

The workforce development engagement session was held on February 21, 2024 and included 25 top level executives from a variety of companies that operate within the Metro Vancouver region. Discussion and gathered insights were focused around the current gaps, solutions and program.

outcomes focus continuous engagement policy evaluate outcomes leverage technology regional limited resources government lack of communication connect companies retention scalability stakeholder technology adaptability regionally based alignment Workforce Development curriculum gap talent pool adaptability accessibility new career paths meet demand affordability mismatch unmatched credentials transferability inclusion multiple sectors evolving training engagement uneducated changing demand changing ecosystem lack of programs connect job seekers industry focused

Problem

- Skills mismatched
- Lack of resources
- Retention of talent
- Evolving technology
- Constant changing demand for skills
- Unmatched credentials in recent graduates
- Lack of educational programs available
- Curriculum gap in education model
- New career paths
- Affordability

Success Criteria

- Stakeholder engagement and alignment
- Sustainable Funding
- Regional integration
- Skill transferability among multiple sectors
- Program adaptability to changing ecosystem
- Scalability
- Research other similar programs
- Policy and government involvement
- Outcomes focus

Solution

- Meet growing demand for trained workers
- Adaptable curriculum to changing skills
- Industry focused
- Regionally based
- Connect job seekers and companies
- Continuous stakeholder engagement
- Evaluate outcomes
- Leverage technology
- Accelerated training
- Accessibility and inclusion

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March 22, 2024

Ref: 274530

Jacquie Griffiths, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6

Via Email: jgriffiths@investvancouver.ca

Dear Jacquie Griffiths:

RE: Letter of Support for Invest Vancouver's Talent Accelerator Project

It was a pleasure to meet with you to learn more about your recent initiative to establish a talent accelerator in the Metro Vancouver region. We understand that this is intended to be a workforce development program that would address talent shortages and workforce misalignment through skills development that would target industry needs.

Your proposed talent accelerator project has the potential to boost the provincial economy by strengthening its workforce and talent supply, an important endeavour for the benefit of all people living in British Columbia. With Metro Vancouver accounting for over half of BC's population and 61% of its GDP, addressing the skills shortage and mismatch is important for the province's economic prosperity. Your mandate to support the attraction of foreign direct investments in order to facilitate the creation of high-value jobs could help strengthen BC communities and future generations.

Stronger BC, the province's Budget 2024 commitment, highlights the need to build a stronger and cleaner economy. By working together through collaboration and joint efforts, we can create new opportunities and jobs that fortify BC's economy.

In this context, the Ministry of Municipal Affairs supports Invest Vancouver's talent accelerator project and look forward to learning more as the concept matures.

Sincerely,

Okenge Yuma Morisho Deputy Minister

pc: Bobbi Plecas, Deputy Minister, Ministry of Post-Secondary Education and Future Skills Fazil Mihlar, Deputy Minister, Ministry of Jobs, Economic Development and Innovation

Location:



April 3, 2024

Jacquie Griffith, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6

Via Email: jgriffiths@investvancouver.ca

Dear Ms. Griffiths:

Re: Letter of Support for Invest Vancouver's Talent Accelerator Project

First Nations Technology Council confirms its support for Invest Vancouver's talent accelerator project that strives to address the labour market shortage by fostering talent development, aligning training initiatives with industry needs, and embracing innovation and technology in the Metro Vancouver region.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment in order to facilitate the creation of high-value jobs to grow the Metro Vancouver regional economy and advance shared prosperity to the residents of its region.

The talent accelerator project has the potential to boost the regional economy by strengthening its workforce and talent supply. Through facilitated collaboration among industry leaders, community partners, investors and employers, Invest Vancouver's workforce development initiative will drive innovative and responsive solutions to labour market issues that are needed to attract strategic investment in order to grow the regional economy.

Yours sincerely,

Natiea Vinson
Chief Executive Officer
First Nations Technology Council



Carolynn Ryan Senior Vice President, People & Chief Human Resources Officer BC Hydro

Email: carolynn.ryan@bchydro.com

April 9th, 2024

Jacquie Griffiths, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6

Via Email: jgriffiths@investvancouver.ca

Re: Letter of Support for Invest Vancouver's Talent Accelerator Project

Dear Jacquie Griffiths:

BC Hydro is pleased to provide this letter of support for Invest Vancouver's Talent Accelerator Project. It was great to get an overview of this initiative last month. This initiative aims to tackle the labour market shortage by nurturing talent development, aligning training programs with industry requirements, and embracing innovation and technology within the region.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment in order to facilitate the creation of high-value jobs to grow regional economy and advance shared prosperity to the region's residents. This is very much of interest to BC Hydro as we look to electrify our province.

The talent accelerator project promises to contribute to the regional economy by strengthening its workforce and talent supply. Through collaborative efforts involving industry leaders, community partners, investors, and employers, this initiative will generate innovative and agile solutions to address labor market challenges, facilitating the attraction of strategic investments and driving sustained economic expansion.

Supporting talent development is an investment in the long-term prosperity of the community. As the regional economy grows, so do opportunities for all.

We look forward to witnessing the positive impact of this project and stand ready to support its success.

Sincerely,

Carolynn Ryan

Senior Vice President, People & Chief Human Resources Officer



Greater Vancouver Board of Trade World Trade Centre 400 – 999 Canada Place Vancouver, B.C. Canada V6C 3E1

Vancouver, B.C. Canada V6C 3E1 T. 604-681-2111 F. 604-681-0437 E. contactus@boardoftrade.com boardoftrade.com

> President and CEO Bridgitte Anderson, ICD.D

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8 April 2024

Jacquie Griffith, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6

Via Email: jgriffiths@investvancouver.ca

RE: Letter of Support for Invest Vancouver's Talent Accelerator Project

Dear Ms. Griffiths,

On behalf of the Greater Vancouver Board of Trade (GVBOT), I am writing to express our support for Invest Vancouver's Talent Accelerator Project.

Access to skilled labour has emerged as a critical concern for businesses across various sectors in the Greater Vancouver region. As indicated by our members and the broader business community, labor-related challenges are at the forefront of their minds, with a striking 51% of businesses in the region anticipating such hurdles.

In 2023, the GVBOT conducted a comprehensive analysis culminating in the release of the 2023 Solving B.C.'s Workforce Challenges Report. This report presented 65 recommendations for different levels of government, spanning initiatives such as promoting inclusive hiring, fostering industry partnerships with post-secondary institutions, and providing opportunities for upskilling and reskilling training, among others. The pillars of Invest Vancouver's proposed Talent Accelerator Project, centered around industry co-creation, collaboration, upskilling, and inclusive learning pathways, resonate closely with the recommendations outlined in our report.

We believe that this project could contribute positively to the development of a skilled labour force and position Vancouver as a focal point for innovation and economic vitality well into the future.

Thank you for your leadership to advancing talent development to bolster the region's economic growth. We look forward to gaining further insights into the potential of this project.

Sincerely,

Bridgitte Anderson

President and Chief Executive Officer Greater Vancouver Board of Trade



inclusive | innovative | independent

April 5, 2024

To Whom It May Concern,

RE: Letter of Support for Invest Vancouver's Talent Accelerator Project

The Surrey Board of Trade (SBOT) is pleased to provide a letter of support for Invest Vancouver's Talent Accelerator Project that strives to address the labour market shortage by fostering talent development, aligning training initiatives with industry needs, and embracing innovation and technology in the Metro Vancouver region.

The **Surrey Board of Trade** attracts business to Surrey and supports business in Surrey. We provide businesses and organizations with economic opportunity, workplace development and education, international trade support, government advocacy, and business connections. We believe that transportation and education are the two economic foundations of building our city.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment in order to facilitate the creation of highvalue jobs to grow the Metro Vancouver regional economy and advance shared prosperity to the residents of its region. The talent accelerator project has the potential to boost the regional economy by strengthening its workforce and talent supply. Through facilitated collaboration among industry leaders, community partners, investors and employers, Invest Vancouver's workforce development initiative will drive innovative and responsive solutions to labour market issues that are needed to attract strategic investment in order to grow the regional economy.

The Surrey Board of Trade recognizes the value that the proposed Talent Accelerator Project brings in addressing skills shortages that Canada is facing right now, and values how Invest Vancouver enhance participants' abilities to work independently, make informed decisions, and provide better customer service and is pleased to provide this letter of support for Invest Vancouver's Talent Accelerator Project.

If you have any questions, please contact me at 604-634-0342 or at email: anita@businessinsurrey.com.

Sincerely,

H. Captain (Navy) Anita Huberman President & CEO, Surrey Board of Trade



April 3, 2024

Ms. Sue Mah Invest Vancouver Metrotower III, 4515 Central Boulevard Burnaby, BC, V5H 0C6

Re: Support for Invest Vancouver's Talent Accelerator Workforce Development Initiative

It is my pleasure to express support for **Invest Vancouver to launch the Talent Accelerator workforce development initiative**. We are thrilled to hear that you are taking the lead in building a stronger workforce for today's economy as we transition to a net zero future.

Foresight is Canada's cleantech accelerator. We bring together innovators, industry, investors, government, and academia to address today's most urgent climate issues and support the global transition to a green economy. Metro Vancouver is home to diverse and thriving innovation and sustainability sectors. We are proud to be leading the transition to a net zero economy and welcome meaningful collaboration between employers, investors, governments and partners to advance shared prosperity for the region. We also have the opportunity to lead globally with a competitive workforce and business operating environment.

We will work with Invest Vancouver to support the Talent Accelerator workforce development initiative and ensure success in addressing labour market challenges across Metro Vancouver. We look forward to seeing how this initiative develops to grow our regional economy and be globally competitive.

Kindest regards,

Jeanette Jackson

Chief Executive Officer



5575 Boundary Rd. Vancouver, BC V5R 2P9 T. 604 254 9626 www.mosaicbc.org

April 11, 2024

Jacquie Griffith, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6 Via Email: jgriffiths@investvancouver.ca

Dear Ms. Griffiths:

Re: Letter of Support for Invest Vancouver's Talent Accelerator Project

MOSAIC confirms its support for Invest Vancouver's Talent Accelerator project that strives to address labour market shortages by fostering talent development, aligning training initiatives with industry needs, and embracing innovation and technology in the Metro Vancouver region.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment in order to facilitate the creation of high-value jobs to grow the Metro Vancouver regional economy and advance shared prosperity to the residents of its region.

The Talent Accelerator project has the potential to boost the regional economy by strengthening its workforce and talent supply. Through facilitated collaboration among industry leaders, community partners, investors and employers, Invest Vancouver's workforce development initiative will drive innovative and responsive solutions to labour market issues that are needed to attract strategic investment in order to grow the regional economy.

As one of the largest immigrant-serving organizations in Canada, MOSAIC strongly believes that newcomers to Canada represent a large, untapped potential of skills and expertise and that an all-society approach, as proposed by the Talent Accelerator project, will be highly beneficial in connecting employers with immigrant professionals and ensuring that training and upskilling programs prepare talent for the in-demand jobs in our diverse and growing industry sectors.

Yours sincerely,

Olga Stachova CEO, MOSAIC

ostachova@mosaicbc.org

Olga Stales





11 April 2024

Jacquie Griffith, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6

Via Email: jgriffiths@investvancouver.ca

Dear Ms. Griffiths:

Re: Letter of Support for Invest Vancouver's Talent Accelerator Project

Seaspan confirms its support for Invest Vancouver's talent accelerator project that strives to address the labour market shortage by fostering talent development, aligning training initiatives with industry needs, and embracing innovation and technology in the Metro Vancouver region.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment in order to facilitate the creation of high-value jobs to grow the Metro Vancouver regional economy and advance shared prosperity to the residents of its region.

The talent accelerator project has the potential to boost the regional economy by strengthening its workforce and talent supply. Through facilitated collaboration among industry leaders, community partners, investors and employers, Invest Vancouver's workforce development initiative will drive innovative and responsive solutions to labour market issues that are needed to attract strategic investment in order to grow the regional economy.

Yours sincerely,

David Hargreaves

J. Horgu

Senior Vice President, Strategy, Business Development and Communications

Seaspan Shipyards



April 12, 2024

Jacquie Griffith, President Invest Vancouver 4515 Central Boulevard, Metrotower III Burnaby, BC V5H 0C6

Via Email: <u>igriffiths@investvancouver.ca</u>

Dear Ms. Griffiths:

Re: Letter of Support for Invest Vancouver's Talent Accelerator Project

TAP Network confirms its support for Invest Vancouver's talent accelerator project that strives to address the labour market shortage by fostering talent development, aligning training initiatives with industry needs, and embracing innovation and technology in the Metro Vancouver region.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment in order to facilitate the creation of high-value jobs to grow the Metro Vancouver regional economy and advance shared prosperity to the residents of its region.

The talent accelerator project has the potential to boost the regional economy by strengthening its workforce and talent supply. Through facilitated collaboration among industry leaders, community partners, investors and employers, Invest Vancouver's workforce development initiative will drive innovative and responsive solutions to labour market issues that are needed to attract strategic investment in order to grow the regional economy.

Yours sincerely,

Stephanie Hollingshead

CEO

Tech+People Network



April 8, 2024

Jacquie Griffiths, President
Invest Vancouver
4515 Central Boulevard, Metrotower III
Burnaby, BC V5H 0C6
Via Email: jgriffiths@investvancouver.ca

Dear Ms. Griffiths:

Re: Letter of Support for Invest Vancouver's Talent Accelerator Project

I recently had the chance to participate in a very productive Workforce Development Planning Session organized by your team at Invest Vancouver, where we discussed the stark and significant labour market shortage facing Metro Vancouver.

What was glaringly made clear is the fact that as the BC economy continues to progress, the largest and fastest economic and job growth is taking place in the Metro Vancouver region.

With Metro Vancouver accounting for over half of BC's population and 61% of its GDP, addressing the skills shortage and mismatch in the region and making it stronger is imperative, and will lead to the enhancement of the province's economic prosperity.

At CPHR BC & Yukon, an organization representing over 8,500 members, we remain committed to working with all key partners to find tangible, practical, and applicable solutions that can help address, and over time, alleviate the labour shortages in the region.

Invest Vancouver, Metro Vancouver Regional District's regional economic development service, has the mandate to support the attraction of foreign direct investment to facilitate the creation of high-value jobs to grow the Metro Vancouver regional economy and advance shared prosperity to the residents of its region.

The talent accelerator project has the potential to boost the regional economy by strengthening its workforce and talent supply. Through facilitated collaboration among industry leaders, community partners, investors and employers, Invest Vancouver's workforce development initiative will drive innovative and responsive solutions to labour market issues that are needed to attract strategic investment to grow the regional economy.

We therefore confirm CPHR BC & Yukon's support for Invest Vancouver's talent accelerator project that strives to address the labour market shortage by fostering talent development, aligning training initiatives with industry needs, and embracing innovation and technology in Metro Vancouver.

Yours sincerely,

Anthony Ariganello, CM,FCPHR,FCPA,FCGA,ICD.D

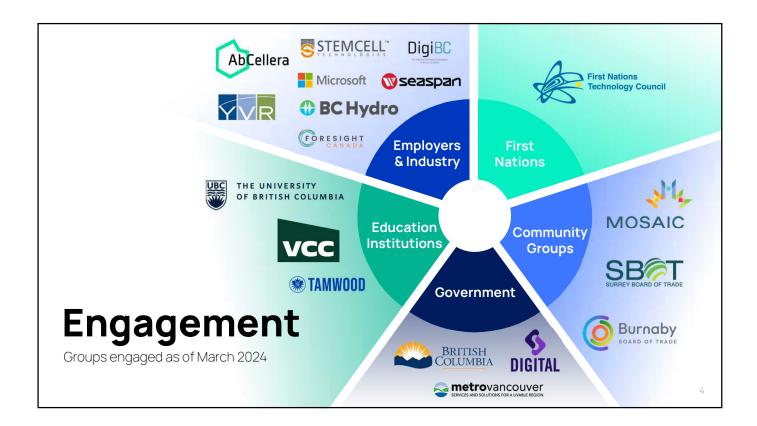
President & Chief Executive Officer CPHR BC & Yukon and CPHR Canada





Why it's Needed

- 1 Enhance Competitiveness for the Metro Vancouver region
- 2 Increase the Quality and Steady Supply of Skilled Workforce
- 3 Attract Foreign Direct Investment
- Build and Maintain a Resilient Regional Economy



Changing economy: Workforce factors *impacting* the Metro Vancouver region



Demographic Changes



Aging population



Urbanization

Immigration Policy

2.7 million

temporary workers

Reduce reliance on immigration to increase productivity

5

The Challenge

1,017,000 jobopenings across64 industries in500 occupations

over the next 10 years in BC, with the largest and fastest growth occurring in Metro Vancouver³

³BC Labour Market Outlook 2023

Businesses and whole industries with high quality employment are considering the Metro Vancouver region to grow and expand their businesses or make new investments.

These employers and investors will need:

- more skilled employees,
- trained **faster**, with
- better skills, and
- aligned with their needs.

The Solution:

A Regional Talent Accelerator

An integrated workforce development program for the Metro Vancouver region that will equip individuals and organizations to stay ahead through innovative upskilling and reskilling programs to meet the specific needs of our regional economy.

Calgary Economic Development





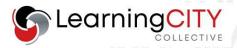
Leads talent programs:





Supports related work:

Calgary EcDev is a community partner of



And executes related work through



8







Opportunity, Amplified. In a region like no other.

W)



To: Invest Vancouver Management Board

From: Lejla Uzicanin, Vice President, Data, Research & Policy

Date: April 22, 2024 Meeting Date: May 23, 2024

Subject: High-tech Sector in the Metro Vancouver Region

RECOMMENDATION

That the MVRD Board receive for information the report dated April 22, 2024, titled "High-tech Sector in the Metro Vancouver Region".

EXECUTIVE SUMMARY

The Metro Vancouver Region's High-tech Engine: Boosting the Economic Landscape report is complete. The Metro Vancouver region is home to an emerging technology hub, which encompasses Digital Media & Entertainment, Life Sciences, High-tech Goods, and High-tech Services. The sector's employment grew by 75 per cent from 2009 to 2021, faster than the 33 per cent growth in the broader regional economy during the same period. Investment activity highlights the array of specializations thriving in the region. Occupations data confirms the presence of concentrations of skilled workers and provide compelling evidence of regional competitive advantages.

The report found that while scoring well on many factors critical to international firms looking to expand, including access to talent, established clusters, and competitive costs, these advantages are still not widely recognized globally, underscoring the need to promote the region's technology sector. The adoption of Artificial Intelligence (AI) could create further competitive advantages and spur economic development in the region if combined with expertise in domains such as mining, construction, and health care.

PURPOSE

To provide MVRD Board with the "The Metro Vancouver Region's High-tech Engine: Boosting the Economic Landscape" report (Attachment 1).

BACKGROUND

The report is a Q2 deliverable identified in the Invest Vancouver Management Board 2024 Work Plan. It is Invest Vancouver's fifth investigation into the region's key export-oriented industries. The report is included as Attachment 1.

FINDINGS

Invest Vancouver follows an expansive definition of the technology sector, developed by BC Stats, which encompasses Digital Media & Entertainment, Life Sciences, High-tech Goods, and High-tech Services as industries within high-technology sector. This definition aligns with the service's economic development and investment attraction mandate. The Metro Vancouver Region's High-

tech Engine: Boosting the Economic Landscape report examines the regional technology sector in three sections.

Section I – "Data-driven perspectives on the regional technology sector" employs data-driven perspectives to describe the emerging technology hub in the region.

- The province's technology sector is large, growing rapidly, and is concentrated in the Metro Vancouver region. From an industry-based perspective, Digital Media & Entertainment (+104%), Life Sciences (+95%), and High-tech Services (+74%) all added employment much faster than the broader regional economy (+33%) between 2009 and 2021.
- From an investment perspective, the billions of dollars flowing into firms headquartered in
 the Metro Vancouver region reveal a diverse technology sector with specializations in Life
 Sciences, Cleantech, TMT (technology, media and telecoms, which include many Digital
 Media & Entertainment firms), Software as a Service (SaaS), Cybersecurity, Internet of
 Things, FinTech (Financial technology), and Cryptocurrency/Blockchain. From the vantage of
 the target users of their products and services, firms specializing in information technology
 applications attracted the most investment. Significant investment was also channeled into
 firms developing applications in healthcare, energy, and materials and resources, reflecting
 the intersection between traditional (non-technology) industries and the technology sector.
- Firms looking for talent in high-technology fields will find it in the Metro Vancouver region.
 A labour-based perspective grounded in occupations data confirms the presence of
 concentrations of skilled workers in technology-related fields, and therefore regional
 specialization in the industries that rely on them. It also provides compelling evidence of
 regional competitive advantages. Both factors industrial specialization and a business
 environment that fosters competitive advantages are important considerations for firms
 making location decisions.

Although many factors that contributed to the sector's success are still in place, continued growth of the high technology sector is not a given. In particular, the region needs to ensure there is a sufficient number of workers with the appropriate skills to match industry needs. Additionally, the pace of growth may be hindered by:

- the rising cost of living, particularly for housing;
- lackluster export growth;
- not enough firms achieving scale in the region;
- weak productivity growth;
- scarce and expensive industrial land;
- greater competition for investment attraction; and
- disruptions caused by the integration of artificial intelligence into the economy.

Section II – "Location decisions and the regional technology sector" explores the region's technology sector through the lens of multinational enterprises navigating decisions to either expand or establish operations in new locales.

An evidence-based strategy for investment attraction requires understanding how firms evaluate potential locations for their expansion. According to seasoned location experts who work directly with multinational technology firms, the most important considerations guiding their decisions are:

- talent;
- an established cluster and supporting ecosystem;
- return on investment; and
- ease of doing business.

The Metro Vancouver region compares favourably on these factors.

The region's deep talent pool is, at present, one of its key assets, and access to high-quality talent is the primary reason multinational firms chose to invest in the region and, in some cases, further expand. To support the tech sector's continued growth, the region must ensure the supply of talent matches demand and evolves with industry needs. Concentrations of firms are evident in multiple technology industries, including motion picture production, animation, gaming, software, aerospace, networking, telecommunications, and semiconductors. Additionally, firms located in the region benefit from a robust innovation ecosystem that includes educational institutions, research institutes, accelerators, and industry associations, all underpinned by contributions from the federal and provincial governments. The reasonable cost of inputs, especially wages, along with government incentives, work in favor of attracting multinational enterprises. While lagging behind some competitors, the region is making progress in in implementing business-friendly policies.

However, despite clear benefits as a potential location, many international technology firms do not place the Metro Vancouver region at the forefront of their expansion plans. The large and growing technology sector notwithstanding, the region's global reputation often rests on its appeal as a tourist destination, not as an emerging technological hub. Moreover, the rapid expansion of the technology sector is a relatively recent development in the region compared to its historical roles in international trade and resource extraction, and perceptions are still adjusting. Nonetheless, many multinational enterprises have recognized the region's value proposition. This is particularly true among firms working in areas in which the region's specialized expertise puts it among the global leaders, such as hydrogen fuel cells and animation. Geographic proximity (particularly along the West Coast of the US) has also helped overcome reputational lag and make the region a known quantity. Promoting the Metro Vancouver region at key international technology events by investment attraction organizations such as Invest Vancouver will help elevate the region and strengthen connections to the global tech ecosystem.

Section III – "AI as an economic development opportunity" focuses on artificial intelligence. Hesitancy in integrating AI, could place individuals and firms on the wrong side of a new digital divide. At the same time, AI presents economic opportunities, particularly when deployed in domains where the region holds considerable expertise.

Uneven adoption of AI could create a new version of the digital divide, based on the capacity and willingness of individuals, firms, and countries to integrate AI into their systems and processes. Firms that embrace AI, especially those that move swiftly, stand to gain a competitive edge.

Growing evidence suggests that AI can make users more productive, and the job market will reward people who can use AI to increase their efficiency. The integration of AI in the workplace will enable automation of a wide variety of routine tasks, shifting the nature of many roles, and driving demand for training and upskilling. The urgency for AI adoption is acute for firms in both the province and Canada, where the prevalence of small firms and a more risk-averse business culture may hinder readiness to embrace AI. Multiplied across individuals and firms, reluctance to adopt AI could see Canada forego a much-needed productivity windfall.

Al is an enabling technology that businesses can leverage to enhance decision-making, automate processes, and unlock insights from vast amounts of data. People and firms that can pair Al with a deep understanding of a data-intensive domain will make the best use of the technology. The Metro Vancouver region and BC have such expertise in resource extraction, construction, and health care.

- The BC mining sector offers fertile ground for the development of best-in-class mining technology, especially in mineral exploration and processing. Mines are complex systems that generate vast data volumes, making them excellent candidates for AI-based improvements. In the region, firms like Hyperspectral Intelligence, Ideon Technologies, MineSense, and Novamera are already working on AI-driven mining solutions.
- The Metro Vancouver region could be at the leading edge of next generation, AI-based building techniques. UBC researchers have already designed AI-controlled drones for inspection work and real-time onsite mapping. Using a digital twin based on the mapping, a separate AI system can safely control equipment, such as a crane, to autonomously unload and place large cement blocks. The same lab is working on autonomously controlled excavators with ambitious plans for additional equipment. This work is at the leading edge of the coming transformation of the construction industry, which will make it possible to quickly build more housing with fewer people.
- Integrating AI with health services and harnessing health data could improve patient outcomes and bolster the Life Sciences industry. Fraser Health is prototyping and testing AI and other technology in the health system to improve patient experience, reduce physician workloads, simplify the clinical documentation process, and enhance the accuracy of colonoscopies. Providence Health Care Ventures is at the forefront of health data thanks to its Integrated Health Informatics Datalab, which enhances access to diverse datasets while upholding stringent privacy and ethical standards. This innovation-friendly effort is attractive to local and international firms. With support, it could foster industry clustering and the emergence of anchor companies.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report; associated activities were completed within the MVRD Board approved Invest Vancouver 2023 and 2024 budgets and work plans.

CONCLUSION

The Metro Vancouver region is developing into a technology hub, driven by a robust innovation ecosystem and extensive specialized tech talent. The technology sector has been a source of job creation and has attracted significant investments in diverse areas. The potential integration of AI into traditional industries holds opportunity for sparking further innovation and economic growth. Nevertheless, challenges like talent shortages, escalating living costs, and fierce competition for investment could impede this growth. To realize its full potential as a tech leader, the region must enhance its global presence, strengthen its brand, and tackle these pressing issues. Strategic initiatives to promote a business-friendly environment and foster innovation are essential for Metro Vancouver to maintain its trajectory toward becoming a global tech powerhouse.

Going forward, Invest Vancouver will use insights gained from the research report in strategic planning, investment attraction, and sectoral development efforts. This information contributes to data-driven investment attraction and advances the technology sector's value-proposition in the regional ecosystem.

ATTACHMENTS

- 1. The Metro Vancouver Region's High-tech Engine: Boosting the Economic Landscape report dated April 22, 2024
- 2. Presentation re: The High Technology Sector in the Metro Vancouver Region

67848812

Indigenous Territorial Recognition

Metro Vancouver acknowledges that the region's residents live, work, and learn on the shared territories of many Indigenous peoples, including 10 local First Nations: ά ićəŷ' (Katzie), ά wa:ńλ əń (Kwantlen), kwikwaλ əm (Kwikwetlem), máthxwi (Matsqui), xwməθkwəỳ əm (Musqueam), qiqéyt (Qayqayt), se'mya'me (Semiahmoo), Skwx wú7mesh Úxwumixw (Squamish), scəẃaθən məsteyəxw (Tsawwassen) and səlilwəta+ (Tsleil-Waututh).

Metro Vancouver respects the diverse and distinct histories, languages, and cultures of First Nations, Métis, and Inuit, which collectively enrich our lives and the region.

About Metro Vancouver

Metro Vancouver is a diverse organization that plans for and delivers regional utility services, including water, sewers and wastewater treatment, and solid waste management. It also regulates air quality, plans for urban growth, manages a regional parks system, delivers affordable housing, provides an economic development service through Invest Vancouver, and serves as a regional federation. The organization is a federation of 21 municipalities, one electoral area, and one treaty First Nation located in the region of the same name. The organization is governed by a Board of Directors of elected officials from each member jurisdiction.

About Invest Vancouver

Invest Vancouver is Metro Vancouver's regional economic development service. By attracting strategic investment in key export-oriented industries, conducting research and policy analysis, and fostering collaboration on a local, national, and global scale, Invest Vancouver is facilitating the creation of high-quality jobs to achieve a resilient regional economy that delivers prosperity for all residents of the Metro Vancouver region. Working closely with leaders across all levels of government in the region and beyond, Invest Vancouver is addressing regional concerns to increase economic resilience, strengthening strategic export-oriented industries, attracting word-class companies, and laying the foundation for a region where every resident can thrive in today's rapidly evolving global economy. Our data-driven, objective research aims to provide actionable intelligence to position the region for success in a rapidly evolving global economy.

For any questions about the report contact: info@investvancouver.ca

Acknowledgements

Invest Vancouver gratefully acknowledges funding from the CanExport Community Investment program.

1

DRAFT DRAFT

The Metro Vancouver Region's High-tech Engine: Boosting the Economic Landscape

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Executive Summary

The technology sector in the Metro Vancouver region encompasses a wide array of activities that Invest Vancouver groups into four industries: Digital Media & Entertainment, the Life Sciences, High-tech Goods, and High-tech Services. This expansive definition of the technology sector, developed by BC Stats, aligns with Invest Vancouver's economic development and investment attraction mandate. This report covers the regional technology sector in three sections.

Section I – The region's emerging technology hub

The Metro Vancouver region is home to an emerging technology hub. Employment in the sector is large and growing rapidly and investment activity highlights the panoply of specializations thriving in the region. BC's technology sector is concentrated in the Metro Vancouver region, which accounted for 77% of provincial employment in the sector in 2021. From 2009 to 2021, Digital Media & Entertainment (+104%), Life Sciences (+95%), and High-tech Services (+74%) all added employment much faster than the broader regional economy (+33%), underscoring the sector's importance.

A diverse mix of high technology sector firms headquartered in the Metro Vancouver region was involved in deals worth more than \$34 billion USD from 2018 to 2023, according to data from PitchBook. Based on the target users of their products and services, firms specializing in information technology applications attracted the most investment, totaling \$18 billion. Significant investment was also channeled into firms developing applications in healthcare, energy, and materials and resources, reflecting the intersection between traditional (non-technology) industries and the technology sector.

Although many of the factors that contributed to the technology sector's success are still in place, continued growth is not a given. In particular, the region needs to ensure there is a sufficient number of workers with the appropriate skills to match industry needs. Additionally, the pace of growth may be hindered by the rising cost of living, particularly for housing; lackluster export growth; insufficient scaling of regional firms; weak productivity growth; industrial land availability and cost; greater competition for investments; and artificial intelligence-driven economic disruptions.

Section II - Location decisions and the regional technology sector

An evidence-based strategy for investment attraction requires understanding how firms evaluate potential locations. Yet, many of the largest multinational enterprises work with global consultancies to select locations, and rarely explain their decision-making process. To gain insights into the criteria that influence these location decisions, Invest Vancouver worked with one such provider of site selection services.

The region's talent pool is, at present, one of its key assets, and access to high-quality talent is the primary reason multinational firms chose to invest in the region and, in some cases, further expand. Maintaining this advantage will require ensuring continued stream of graduates through the region's institutions of higher learning and workforce development initiatives. The favourable Canadian immigration process also helps firms fill labour market gaps.

The presence of a cluster, especially one that includes major multinational firms, implies the availability of necessary business inputs and resources. In the Metro Vancouver region, concentrations of firms are evident in multiple technology industries, including motion picture production, animation, gaming, software, aerospace, networking, telecommunications, and semiconductors. Additionally, firms in the region's high technology sector benefit from a robust innovation ecosystem.

Cost considerations are fundamental in any discussion of location decisions. The reasonable cost of inputs in the region, especially wages, along with government incentives, work in favor of attracting multinational enterprises, particularly for companies from high-cost locations. However, the region compares less favourably for firms requiring industrial space, due to the high market prices and low vacancy rates.

The ease of doing business matters to firms making location decisions. They favour regions that streamline regulatory processes and expedite business set up to facilitate early revenue generation. The Province of BC and other governments in BC are making progress in implementing business-friendly policies, but still lag behind metro regions such as Montreal, QC and Calgary, AB. Further efforts in this area could improve the region's chances of attracting investment in the technology sector.

Yet, despite clear benefits as a potential location, many international technology firms do not place the Metro Vancouver region at the forefront of their expansion plans. The large and growing technology sector notwithstanding, the region is still better known internationally as a tourist destination. To the extent that site selection is like a job search, many firms never even review the Metro Vancouver region's resume.

Firms that overlook the region may have an incomplete understanding of its capabilities. Building a reputation takes time, and the region's technology industries have only recently risen to prominence. Nonetheless, many multinational enterprises have recognized the region's value proposition. This is particularly true among firms working in areas in which the region's specialized expertise puts it among the global leaders, such as hydrogen fuel cells and animation.

For successful investment attraction, more international technology firms need to include the Metro Vancouver region on their respective short lists of possible expansion locations. Raising the profile of more specializations in the technology sector might lead firms to consider the region's comparative advantages and not just its scenic landscapes.

Section III - Artificial intelligence's transformative potential

Artificial intelligence (AI) stands at the forefront of technological innovation, with the potential to significantly reshape not only the technology sector but myriad aspects of business and everyday life. The rapid adoption of AI brings both risks and opportunities. One clear risk is that of missing out, i.e. the risk of not benefiting from the potential productivity gains of AI integration.

Uneven adoption of AI could create a new version of the digital divide, based on the capacity and willingness of individuals, firms, and countries to integrate AI into their systems and processes. People and firms that move swiftly to embrace AI stand to gain a competitive edge. The urgency for AI adoption

is acute in both BC and Canada, where the prevalence of small firms and a more risk-averse business culture may hinder readiness to embrace AI. Multiplied across individuals and firms, reluctance to adopt AI could see Canada forego a much-needed productivity windfall.

At the same time, the Metro Vancouver region has a growing cluster of applied AI firms. Embracing AI and fostering its application in areas of significant regional expertise could create economic development opportunities. AI is an enabling technology that businesses can leverage to enhance decision-making, automate processes, and unlock insights from vast amounts of data. People and firms that can pair AI with a deep understanding of a data-intensive domain will benefit most from its adoption. The Metro Vancouver region and BC have such expertise in resource extraction, construction, and health care.

Resource extraction is an excellent candidate for Al-based improvements. In particular, mining urgently needs enhanced sustainability and efficiency. The escalating global demand driven by the need for critical minerals to support the clean energy transition ensures firms specializing in mining technology have global reach almost from inception. In the region, firms like Hyperspectral Intelligence, Ideon Technologies, MineSense, and Novamera are already working on Al-driven mining solutions.

The Metro Vancouver region could be at the forefront of Al-based building techniques. UBC researchers have already designed Al-controlled drones for inspection work and real-time onsite mapping. Using a digital twin based on the mapping, a separate Al system can safely control equipment, such as a crane, to autonomously unload and place large cement blocks. The same lab is working on autonomously controlled excavators with ambitious plans for additional equipment. This leading-edge work will transform the construction industry, making it possible to quickly build more housing with fewer people.

Integrating AI with health services and harnessing health data could improve patient outcomes and bolster the Life Sciences industry. Fraser Health is prototyping and testing AI and other technology to improve the health system. Providence Health Care Ventures's Integrated Health Informatics Datalab enhances access to diverse datasets while upholding stringent privacy and ethical standards. This innovation-friendly effort is attractive to local and international firms. With support, it could foster industry clustering and the emergence of anchor companies.

Conclusion

The Metro Vancouver region is developing into a technology hub, driven by a robust innovation ecosystem and specialized tech talent. The potential integration of AI holds opportunity for sparking further innovation and economic growth. Nevertheless, challenges like talent shortages, escalating living costs, and fierce competition for investment could impede this growth. To realize its full potential as a tech leader, the region must strengthen its brand, address pressing issues, and capitalize on opportunities such as applied AI. Strategic initiatives to promote a business-friendly environment and foster innovation are essential for Metro Vancouver to maintain its trajectory toward becoming a global tech powerhouse.

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Report Overview

The technology (tech) sector in the Metro Vancouver region is a blend of locally headquartered firms and branch operations of multinationals enterprises. Many are developing solutions for mining, forestry, fisheries, agriculture, construction, and food processing. One such firm is Ideon Technologies, a world leader in the use of cosmic radiation (muons) to create subsurface imagery for mining (see box). Firms in the sector are often export-oriented. There is a worldwide market for critical delivery systems for molecular therapeutics, films with stunning visual effects, and environmental engineering services. This allows the sector to make an outsized contribution to the regional economy.

This report explores the technology sector in the Metro Vancouver region, as defined by BC Stats. This expansive view of the technology sector is a better fit with Invest Vancouver's economic development and investment attraction mandate than a narrower focus on just "deep tech", i.e. those firms focused on solving problems through innovative engineering or scientific advancement. Adopting the BC Stats definition enhances the compatibility of the report with other research conducted in the province, which is important given the many approaches to defining the high technology sector.

The report consists of three sections.

Section I - "The region's emerging technology hub" utilizes three different data-driven perspectives to describe the emerging technology hub in the region. From an industry-based perspective, the BC technology sector is large, growing rapidly, and is concentrated in the Metro Vancouver region. From an investment perspective, the billions of dollars flowing into firms headquartered in the region reveal the presence of multiple specializations in a diversified technology sector that is about much more than just "pure tech". Similarly, from a labourbased perspective, occupations data confirm the presence of concentrations of skilled workers (and therefore regional specialization

in the industries that rely on them) and provide compelling evidence of regional competitive advantages. The section concludes by identifying persistent and emerging issues that could jeopardize continued outperformance in the sector.

Section II – "Location decisions and the regional technology sector" investigates the region's technology sector through the lens of multinational enterprises navigating decisions to either expand or establish operations in new locales. According to seasoned location experts who work directly with such firms, the most important considerations guiding these decisions are: talent; an established cluster and supporting ecosystem; return on investment; and ease of doing business. Invest Vancouver evaluates the region's technology sector based on these factors, adding comparisons to relevant Canadian and US

Ideon Technologies, a product of the spinoff from the TRIUMF subatomic of British Columbia (UBC). The Richmond-based firm has raised \$10 million in non-dilutive funding from government and industry initiatives.

proprietary sensors, imaging systems and artificial intelligence, Ideon draws its workforce from a regional labour pool that includes concentrations in software, and engineering. The firm's 3D maps locate mineral deposits more precisely and less invasively, thereby minimizing mining's cost, waste, and greenhouse gas emissions.

¹ "Profile of the British Columbia Technology Sector: 2020 Edition", BC Stats, March 2021.

West Coast jurisdictions. The section concludes by analyzing why the region is not top of mind for many international technology firms – despite rating well on many location factors – and considers ways to raise the region's profile and increase investment attraction.

Section III – "AI as an economic development opportunity" discusses to artificial intelligence (AI). While AI has been in development for years, the release of OpenAI's ChatGPT has put the technology in the spotlight. The rapid adoption of AI will bring numerous risks and opportunities. One clear risk is that of missing out, i.e. the risk of not benefiting from the potential productivity gains of AI integration. This section contemplates the implications of a gradual approach to integrating AI, cautioning that such hesitancy could land individuals and firms on the wrong side of a new digital divide. It then pivots to areas of opportunity, highlighting the possibilities of embracing AI and nurturing its deployment in domains where the region holds considerable expertise. By leveraging AI in resource extraction, construction, and healthcare, the region could drive advancement in these critical areas and create economic development opportunities.

Methods and Sources: Preparation of the report involved considerable primary and secondary research. The primary research was both quantitative and qualitative. The quantitative portion relied on data from the Invest Vancouver Strategic Industries Analytics (SIA) project, additional tables from Statistics Canada and BC Stats, plus data from the commercial services including PitchBook, Lightcast, Capital Compass, and fDi Benchmark.²

The qualitative research consisted of structured interviews conducted with founders and executives from firms with operations in the region, as well as leaders, professors, and knowledgeable representatives from industry groups, accelerators, academic institutions, and investment funds. To improve coverage of such a large sector, Invest Vancouver engaged KPMG to conduct additional interviews for this project and drew upon original research conducted by the Deetken Group for Invest Vancouver's Tech Talent Guide.³ Additionally, Invest Vancouver worked with KPMG to gain access to their location experts and industry experts who provide guidance to international firms deciding where to establish or expand operations. Interviewees were offered anonymity to ensure candid assessments. The primary research was supplemented with secondary research that draws from academic, industry and government studies and reports, media coverage, presentations, and other public sources.

² The SIA used statistical techniques and information from multiple Statistics Canada tables to generate comprehensive, region-specific data sets for NAICS *national industries*. Invest Vancouver, "<u>Strategic Industries Analytics Project</u>" (November 2023).

³ Invest Vancouver gratefully acknowledges CanExport funding that supported this research.

Section I – The region's emerging technology hub

A remarkable expansion within the technology sector is driving economic development in the Metro Vancouver region. In this section, three data-driven perspectives highlight the growth.

- 1. Employment in multiple technology industries is outpacing the broader economy, as shown by data from the Invest Vancouver Strategic Industries Analytics project.
- The region's technology firms are attracting investment for innovations applicable to wide swaths of the economy, based on activity tracked by PitchBook.
- 3. Concentrations of workers with specialized skillsets and unique competitive advantages underpin the sector's growth, as demonstrated by trends in high-tech-related occupations.

The section concludes with some of the risks that could disrupt future expansion.

Employment growth in the high technology sector is outpacing the broader economy

The Metro Vancouver regional economy grew faster than the provincial economy excluding the Metro Vancouver region and the Canadian economy as a whole after the 2008 global financial crisis. Within the regional economy, some of the fastest employment growth has been in industry components of the high technology sector.

This report uses the BC Stats definition of the **high technology sector**. The sector is composed of a set of North American Industry Classification System's (NAICS) national industries, which Invest Vancouver describes individually as **'industry components'**. Invest Vancouver grouped the set of industry components into **four industries**: Digital Media &

Digital Media &	High-tech Services			
Entertainment Industry	Industry Industry Components: Engineering services Computer systems design Data processing and hosting etc			
Industry Components: Video game design Film & television production Post-production services etc				
High-tech Goods	Life Sciences			
Industry	Industry			
Industry Components: All other electrical equipment & component manufacturing Aerospace manufacturing Computer and peripheral etc	Industry Components: Pharmaceuticals and medicine manufacturing Research and development in the physical, engineering and life sciences etc			

Figure 1: BC's High Technology Sector

Source: Invest Vancouver and BC Stats.

Entertainment, High-tech Services, High-tech Goods and Life Sciences, as shown in Figure 1.

The large, rapidly growing high technology sector is concentrated in the region

Figure 2 presents employment in the technology sector by industry and growth since 2009 in the Metro Vancouver region and the rest of BC.

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⁴ For the divergence between Metro Vancouver regional economy and rest of the province and the Canadian economy over the last business cycle, see Figure 2.1 in the Invest Vancouver Strategic Industries Analytics report.

⁵ The BC Stats definition is based on *national industries*, the most specific category of the North American Industry Classification System (NAICS) used to organize firm level data. For industry-based data, Invest Vancouver used the same set of national industries as BC Stats. (There are two small exceptions: Invest Vancouver's data did not include *testing labs* or *R&D* in the social sciences and humanities.) For everything else, such as data covering investment activity, only the relevant categories that most closely aligned with the BC Stats definition were included, ⁶ The tech sector is also concentrated in the region based on GDP. The region accounted for 57% of total provincial GDP in 2020; in BC's high technology sector, it contributed 77% of GDP. ⁷ PitchBook tracks investment activity in US dollars and does not organize its data by NAICS codes. Deals were included based on congruence with the high technology sector as defined by BC Stats.

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Figure 2: Technology sector employment in the Metro Vancouver region and BC excluding MV (ranked by percentage change by industry in MV since 2009)

(**************************************							
	MV	MV Region		BC (excluding MV)			
	2021 Q4	% Change 2009-2021	2021 Q4	% Change 2009-2021			
Digital Media & Entertainment	20,509	104%	4,232	77%			
Life Sciences	15,519	95%	4,412	62%			
High-tech Services	79,908	74%	26,513	72%			
High-tech Goods	8,685	17%	2,408	10%			
Total - Technology Sector	124,621	75%	37,565	66%			
MV Region Economy – All Industries	1,293,948	33%	1,402,852	15%			

Source: Invest Vancouver Strategic Industries Analytics Project

The Metro Vancouver region's technology sector employed almost 125,000 people in 2021, an increase of 75% since 2009 and representing nearly one in every ten jobs in the region (9.6%). While the region

accounted for 48% of provincial employment across all industries in 2021, it contributed 77% of BC's high technology workforce, meaning the provincial sector is highly concentrated in the region.⁶

Investors are backing firms in the region working on solutions for a wide variety of industries

Access to financial capital is vital for established firms looking to scale up and for smaller ones moving towards successful commercialization. The investment activity itself can also indicate areas of regional specialization and interest to investors. This part focuses on the deal flows and investment activity. PitchBook investment data from 2018 through 2023, covering more than \$34 billion USD in deals involving firms from the high technology sector headquartered in the Metro Vancouver region. This figure understates total investment activity in the region because it does not include the activity of multinational enterprises (see box).

Activities of Multinational Enterprises

Investments by multinational enterprises are a poorly tracked but vital source of growth in the regional technology sector. Fortinet, a major cybersecurity company, Disney's Industrial Light & Magic, and Intel, for example, have been in the region for many years and have expanded their operations multiple times.

Microsoft expanded its cloud services operations in the region in 2020; added 500 technical positions in 2021; announced in 2022 plans for a new 20-storey office hub in downtown Vancouver; and has reportedly begun relocating artificial intelligence staff from China to Vancouver.

Electronic Arts (EA), one of the largest interactive entertainment companies in the world, added two new buildings at its Burnaby campus in 2021 to accommodate an additional 500 workers.

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⁶ The tech sector is also concentrated in the region based on GDP. The region accounted for 57% of total provincial GDP in 2020; in BC's high technology sector, it contributed 77% of GDP ⁷/_√ PitchBook tracks investment activity in US dollars and does not organize its data by NAICS codes. Deals were included based on congruence with the high technology sector as defined by BC Stats.

⁷ PitchBook tracks investment activity in US dollars and does not organize its data by NAICS codes. Deals were included based on congruence with the high technology sector as defined by BC Stats.

⁸ Except for purchases of existing firms headquartered in the region (which are tracked by PitchBook), no data source provides complete coverage of the many incremental investments by multinational firms expanding their operations in the region.

The data is presented in three ways:

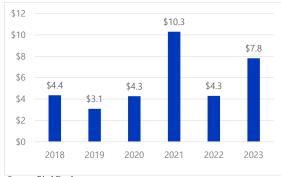
- 1. Annual investment totals to show broad trends in activity across the sector as a whole.
- PitchBook's "industry verticals" that group together firms that focus on a shared niche or specialized market spanning multiple industries. Verticals include areas such as "Cybersecurity", "FinTech", "Quantum Technology", and "Mobility Tech".
- 3. The **target industries** benefitting from the technology firms' solutions.

The distinction between the two more granular perspectives (industry verticals and target industry) is the difference between the views of an investor and investee. For example, a single transaction could be characterized as both "cleantech" (from an industry verticals standpoint) and "mining" (using the industry target approach). The former is the view of the investment manager who says, "My fund invests in cleantech firms." The latter is the perspective of the investment recipient firm, which says it "develops water treatment solutions for the mining industry." Thus, the transaction is an investment in a cleantech firm supplying solutions for the mining industry. Both perspectives provide insights into the diversity of technology specializations attracting investor interest in the region.

Robust investment activity despite the pandemic

Investment activity in the high technology sector is shown in Figure 3.

Figure 3: Investments in high-tech firms headquartered in the Metro Vancouver region (USD billions)



Source: PitchBook

In early 2020, the COVID-19 pandemic initially curtailed investment, but the pandemic effects are not visible in the annual investment total due to a strong rebound in the latter half of the year. The \$10.3 billion invested in 2021 marks a multi-year peak. In 2022, the sharp drop to \$4.3 billion mirrored declines in investment activity elsewhere in Canada and the US amid supply chain disruptions, rising inflation,

Notable Investment Deals, 2018-2023

Aspect Biosystems raised \$2.7 billion USD in 2023 in the largest technology deal in the region in the past 6 years. The firm develops "bioprinted tissue therapeutics" that are designed to replace, repair, or supplement biological functions in the body.

Galvanize, a SaaS company that develops governance, risk management and compliance software, was acquired by Diligient in April 2021, for \$1 billion USD.

Dapper Labs, a developer of blockchainenabled applications, has raised \$643.4 million USD since 2018.

Svante, a firm developing technology for efficiently capturing and purifying CO₂ from industrial emissions, raised \$439 million USD in three rounds of venture funding, 2018-2023.

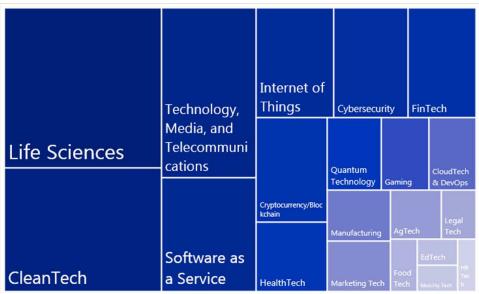
higher interest rates, and investor uncertainty. Even so, investment activity rebounded to \$7.8 billion in 2023, comfortably exceeding the annual totals in the two years immediately preceding the pandemic.

Investors are pursing deals in multiple regional specializations in high technology

Invest Vancouver reviewed all of the high technology transactions from 2018 to 2023 involving firms headquartered in the region. To avoid double counting, each firm was assigned to a single industry vertical that most closely matched their primary activity.

Figure 4 shows the 20 largest technology-related verticals by investment size in the Metro Vancouver region. The box size corresponds to the value of the deals in the vertical (larger boxes indicate more investment); however, the size is an approximation due to limitations with the PitchBook data. ¹⁰ Life Sciences, Cleantech, TMT (technology, media and telecoms, which includes many Digital Media & Entertainment firms), Software as a Service (SaaS), Cybersecurity, Internet of Things, FinTech (Financial technology), and Cryptocurrency/Blockchain are the high technology specializations that have attracted the most investment in firms headquartered in the region 2018 through 2023. ¹¹

Figure 4: Investment Activity by Vertical in Metro Vancouver (by value, total of 2018-2023)



Source: Invest Vancouver compilation of PitchBook data.

⁹ Aleksandra Sagan, "<u>IPO Outlook 2023: Will More Canadian Tech Companies Brave the Markets in the Year Ahead</u>?" *The Logic*, February 6, 2023.

¹⁰ PitchBook provides tags to help users quickly find companies working in areas they are interested in such as "cleantech" or "robotics and drones". The tags are not exclusive, however, as there is significant conceptual overlap between verticals, e.g. "cleantech" and "climate tech" and PitchBook assigns many firms to multiple verticals. In addition, the tags for verticals are assigned inconsistently and sometimes not all.

¹¹ Virtual reality/augmented reality (VR/AR), a growing specialization in the region, was the 21st largest vertical.

The investment verticals show how investors look at the technology sector, which is important when attracting new investment. To understand the linkages between the high technology sector and the rest of the economy, however, it is helpful to consider investment activity based on the industry of the end users.

Target industries indicate the diversity of the region's technology sector

In Figure 5, investment activity is organized in firms headquartered in the Metro Vancouver region, 2018 to 2023, based on the target industry of the technology firms. For example, the retail category shows the value of investments in firms providing software or other technology solutions to businesses in those areas. Firms focused on information technology drew the most investment activity, at \$18.0 billion. However, there were also significant investments in firms providing solutions in healthcare, energy, and materials and resources, reflecting the intersection between traditional (non-technology) industries and the technology sector. This investment variety demonstrates how technology firms are increasingly crucial to the innovation and advancement within traditional sectors.

Figure 5: Investments in the High-tech Firms Headquartered in Metro Vancouver by target industry (2018-2023, USD millions)

		3, 035 1111110113,	
Information Technology	\$18,016.7	Energy	\$1,335.0
Software	10,044.8	Energy Equipment	686.6
Communications and Networking	3,533.1	Exploration, Production and Refining	417.5
Computer Hardware	2,183.6	Energy Services	230.5
IT Services	1,941.7	Other Energy	0.4
Semiconductors	313.5		
Healthcare	\$7,648.1	Consumer Products and Services (B2C)	\$1,165.3
Pharmaceuticals and Biotechnology	6,294.7	Transportation	361.8
Healthcare Devices and Supplies	616.5	Consumer Non-Durables	234.8
Healthcare Services	499.7	Retail	130.0
Healthcare Technology Systems	237.2	Restaurants, Hotels and Leisure	126.7
Business Products and Services (B2B)	\$3,272.3	Services (Non-Financial)	103.9
Commercial Services	2,029.7	Media	99.5
Commercial Products	1,209.3	Consumer Durables	63.8
Other Business Products and Services	32.3	Apparel and Accessories	44.9
Commercial Transportation	1.0		
Materials and Resources	\$1,607.4	Financial Services	\$1,063.8
Metals, Minerals and Mining	1,178.4	Other Financial Services	758.7
Chemicals and Gases	188.0	Capital Markets/Institutions	254.4
Agriculture	115.8	Commercial Banks	29.2
Other Materials	75.1	Insurance	21.5
Containers and Packaging	50.2		

Grand Total: \$34,108.5

Source: PitchBook

Highly skilled talent is driving growth in the regional technology sector

Firms looking for talent in high-technology fields will find it in the Metro Vancouver region, which has significant concentrations of talent in multiple occupations related to technology. Concentrations of talent indicate regional specializations in the industries that rely on those occupations, and occupational growth patterns provide compelling evidence of regional competitive advantages. Both factors —

industrial specialization and a business environment that fosters competitive advantages – are important considerations for firms making location decisions.

The analysis in this section covers 51 occupations related to the technology sector. ¹² Employment increased in 46 of the 51 technology-related occupations, 2009 to 2023, and in most of the occupations, it grew much faster than the overall regional employment increase of 33%.

Talent is concentrated in the region in multiple high-technology fields

The "employment concentration ratio" is an effective economic tool for analyzing how focused an economy is on specific industries by comparing the share of the workforce in an occupation locally to the national share. The default assumption is that the share is the same, in which case the employment concentration is 1.0. The employment concentration value rises when an occupation's share of regional employment is higher than the national share, and falls when it is less. For example, a concentration ratio of 2.0 indicates that the occupation's share of regional employment is two times greater than its share of national employment.

In 2023, the Metro Vancouver region had significant regional talent concentrations in high tech occupations related to High-tech Services and Digital Media & Entertainment. In High-tech Services, the region has concentrations of *software engineers and designers* (concentration ratio of 2.6), *information systems testing technicians* (2.1), and *computer systems developers and programmers* (1.6). It also has mining-related engineering talent, including *geological engineers* (2.1), *mining engineers* (1.6), and *geoscientists and oceanographers* (1.6). The presence of hundreds of mineral exploration companies headquartered in the Metro Vancouver region helps explain these concentrations. ¹⁴ As one of Canada's principal centres for motion picture production, the region also has a high concentration of employment in related occupations, including those in film production (e.g., *motion pictures... assistants and operators* (3.8) and *audio and recording technicians* (2.1)), as well as visual effects and animation (e.g., *graphic arts technicians* (1.9)).

Employment growth patterns reveal regional competitive advantages

Further evidence for competitive advantages in high technology fields in the Metro Vancouver region can be found using "shift-share analysis", an economic technique for spotting regional comparative advantages and specializations using changes in occupation data. The technique compares "expected employment" (i.e. how much regional employment in an occupation would change if it followed national trends) with actual employment changes observed over a given period. The difference between these figures, the expected and actual changes, is the "competitive effect." This effect is generally

¹² Statistics Canada organizes occupation data using the 2021 National Occupation Classification (NOC) codes, a hierarchy that gets increasingly specific as it moves through five levels from 10 broad occupational categories to 516 unit groups. Invest Vancouver reviewed all 516 unit groups, identified the 51 most relevant to the high technology sector, and then analyzed regional data for those 51 from Lightcast.

¹³ The employment concentration ratio is also known as a 'location quotient'.

¹⁴ There are approximately 800 mineral exploration companies headquartered in the region, including two of the largest mining companies in the world, Teck Resources Limited and Goldcorp Inc. Vancouver Economic Commission, "Other Sectors" (September 7, 2022).

attributable to a unique combination of regional characteristics and trends. Identifying a competitive effect can indicate where to look for the regional strengths or weaknesses that produced it.

Invest Vancouver analyzed Metro Vancouver regional employment growth in 51 tech occupations from 2009 to 2023. The shift-share analysis revealed a competitive effect in many of the occupations, indicating an advantage for firms in the region in industries that rely on those workers. Of particular note, the analysis showed:

- A large competitive effect in many occupations related to High-tech Services, including software
 engineers and designers, software developers and programmers, computer systems developers
 and programmers and information system specialists.
- Evidence of strengths in the Life Sciences (biologists and related scientists) and connections between the regional technology sector and resource industries in the province (geological engineers and mining engineers).
- Other strengths, such as in mechanical engineers and industrial and manufacturing engineers.
 People in these occupations are often employed by consulting firms, which is a known strength in the region (professional, scientific, and technical services is the second largest industry by employment in the region).

Overall, the occupations-based analysis underscores the importance of the region's specialized tech workforce. The data show concentrations of talent in the region, indicating clustering in the industries that rely on those occupations, and strong competitive effects, confirming firms in those industries enjoy some form of competitive advantage.

Past performance is not necessarily indicative of future results

The empirical evidence reflects the notable advancements in the Metro Vancouver region's technology sector. Although many of the factors that contributed to the sector's success are still in place, continued growth is not a given. Below are some points that might interrupt or hinder the pace of growth:

- Talent supply could limit growth. Continued growth will depend critically on the sufficient
 supply of suitable talent, as determined by education and recruitment: the former to create new
 graduates and help existing workers improve their skills, the latter to attract skilled foreigners
 and expats who might be willing to return. Since many firms in the technology sector require the
 same or similar skillsets, there is competition for talent within the region, meaning growth in
 one industry might come at the expense of another. Similarly, there is global competition for
 talent, with regions vying to attract and keep talent.
- The rising cost of living could weaken the region's appeal. Persistent high costs in areas such as housing, if not offset by commensurately higher salaries, will leave residents with lower disposable incomes. If people feel priced out of the region, it could make it harder to attract and retain workers and therefore more difficult to attract foreign direct investment.
- Exports and outperformance go together. In the region, the technology sector has grown much
 faster than the overall economy. This could be due to exports spurred by global demand and/or
 the integration of new technologies and services into the other parts of the BC economy. While
 supplying other sectors with goods and services is an important contribution to GDP, exports

offer the best prospects for continued growth. Unlike population-serving firms reliant on local demand, competitive exporting firms can grow faster than the local population and economy.¹⁵

- Firms struggle to scale up in the region. In the Metro Vancouver region in 2021, only 2.6% of tech firms employed 100 people or more, and just 20 firms employed 500 people or more. A higher proportion of larger firms is desirable due to their tendency to allocate greater resources to R&D, exhibit higher productivity levels, offer higher salaries to their employees, and export more per employee compared to smaller counterparts.¹⁶
- Productivity growth has been weak. Since the early 2000s Canada has experienced relatively low labour productivity growth, ranking in the bottom third in the OECD from 2000 to 2019.¹⁷ If this trend continues, it could dampen the Metro Vancouver region's economic outlook and its competitiveness relative to jurisdictions with higher output per worker.
- Industrial land is scarce and expensive. The economics look very different for established firms
 with their own facilities and new entrants looking for space. In the high-tech sector, this is
 particularly true for manufacturers. Newer firms may be more likely to conduct research, design,
 and development work in the region, while physically producing goods at scale elsewhere.
- FDI attraction competition is intensifying. In Digital Media & Entertainment industry, each new production represents a location decision, making the industry highly mobile. BC's early move on tax credits was successful, but Quebec, Ontario, multiple US states, the UK, and Australia now offer competing incentives. Feature film activity is less frequent in the region as a result. Production activity and a skilled labour force complement one another, with concentrations of specialized talent attracting productions, and vice versa. If workers find there are long gaps between jobs, they tend to leave for areas with greater opportunities. Therefore, the industry's future is tightly bound to tax credit policy.
- Artificial intelligence is a wildcard. The adoption of AI could derail the pattern of growth in the
 region's high technology sector if its adoption eliminates (or reduces) the human requirement in
 certain types of work. Conversely, the practical application of AI by the region's technology
 sector (and even by firms in more traditional industries, such as mining) might boost growth and
 create entirely new activities.

¹⁵ BC has a large trade surplus in high technology services, i.e. the province exports more than it imports. The surplus widened, 2010-2019. BC has a trade deficit in high-tech goods, which widened from 2010 through 2019. BC Stats, "Profile of the British Columbia Technology Sector: 2020 Edition" (March 2021).

¹⁶ The prevalence of small firms in the technology sector reflects patterns in the broader BC economy, where 98% of all businesses employed 50 or fewer workers in 2022. Small businesses contribute 34% of BC's GDP, the highest proportion in Canada, and account for 51% of private sector employment, the second highest in the country. In the technology sector, many of the largest employers locally are branches of multinational enterprises, which further highlights the rarity of local firms scaling up. Province of British Columbia, "High Technology" (September 25, 2023); Ken Peacock and Jock Finlayson, "From Good to Great: The Benefits of Scaling up BC Business." Business Council of British Columbia, November 2017; BC Stats "Small Business Profile."

¹⁷ Canada ranked 25th of 36 OECD countries in terms of productivity growth from 2000 to 2019. David Williams, "<u>Low Productivity Growth Is Holding Back Canadians' Pay Growth</u>," Business Council of British Columbia, July 2021.

Section II – Location decisions and the regional technology sector

Developing an evidence-based strategy for investment attraction requires an understanding of how firms evaluate potential locations. ¹⁸ Many of the largest firms do not work with public investment attraction agencies (like Invest Vancouver), and if they do, the engagement happens after the shortlist of possible locations has been decided. Instead, these multinational enterprises work with one of the global consultancies that offer corporate site selection advice, and rarely explain their decisions or explain where the runners up fell short. Invest Vancouver created a project to investigate this process with the ultimate goal of increasing the success of investment attraction.

Invest Vancouver engaged KPMG to connect with their global network of location experts and technology industry specialists, i.e. the people with firsthand experience of how companies make such decisions. The objective was to discover which factors have the most influence on locations decisions, and where the Metro Vancouver region fits in the expansion plans of multinationals in the technology sector.

Invest Vancouver learned that the ranking of location factors varies widely among multinationals, even across the divisions of a single firm. The relative weighting of site location factors varies based on firm size, subsector, investment scale, operational models and the unique needs and priorities of individual firms. Nonetheless, despite these differences, there is consistency in the key elements sought by firms across the high technology sector.

In short, firms care most about access to suitable **talent**, followed by the presence of a **cluster** of firms engaged in similar activities, along with a supporting ecosystem, the potential **return on investment**, and the **ease of doing business**. ¹⁹ Surprisingly, the Metro Vancouver region is not at the forefront of international options for many expanding firms, despite scoring well on these considerations. The rest of this section elaborates on these site selection factors and outsider's perspectives on the region.

¹⁸ The focus here is on multinational firms looking to expand research, development and production, rather than those expanding their sales, support and distribution activities. The latter type of expansion decision is primarily driven by are market size and access. An expansion can come in many forms: an international firm might purchase a local one; establish an entirely new operation; or scale up their current activities. Whatever the form, these firms are making an additional investment in the regional economy that could have gone elsewhere.

¹⁹ Firms take factors such as government transparency (i.e. clear and accessible information on regulations; accountability in public services; and openness in government procurement processes) for granted outside the developing world. Similarly, modern infrastructure, including transportation links, reliable and sustainable energy, and high-speed internet are not typically competitive factors in location decisions, though affordable, clean power, for example, is an important consideration for many.

Talent is the top priority in investment decisions

Insight from location experts: Notwithstanding unique firm needs, the availability of skilled workers is generally the most important location factor. Specifically, firms seek specialised skills that match their immediate needs and confidence they will be able to meet future hiring needs. Firms often adopt a 'dual lens' when evaluating a location: it must meet their own needs for available talent while catering to the preferences of prospective employees seeking an attractive place to live.

Invest Vancouver findings: Interviews with senior executives of technology firms with operations in the region consistently confirm the attraction of the region's highly skilled workforce. International firms that have opened new branches in the region or purchased established local firms have repeatedly cited the acquisition of talent as their primary motivation.

The region's talent pool is a source of quality workers for the high technology sector.

Access to high-quality talent is the primary reason multinational firms choose to invest in the region. Many also expand for the same reason. CBRE, a global commercial real estate services and investment firm, provides further confirmation via its comparison of the technology labour pool in 50 North American jurisdictions. Based on market depth, vitality, and attractiveness to companies seeking tech talent and to tech workers seeking employment, the region ranks eighth overall (and second in Canada, after Toronto). Daintaining this advantage will require ensuring a continued stream of graduates through the region's institutions of higher learning, and workforce development initiatives.

The region's post-secondary institutions provide the technology sector with a steady stream of graduates. ²¹ Post-secondary institutions can play a greater role in upskilling and providing micro credentials as they respond to rising demand from workers facing technology changes and evolving job requirements, particularly the need to integrate emerging technologies like AI. ²²

The Canadian immigration process, which has a streamlined visa process and policies favouring skilled workers, helps firms fill labour market gaps. Multiple federal programs apply to the technology sector, providing a path to permanent residency, targeting US H-1B visa holders, and permitting the temporary hiring of specialized talent.²³ At the provincial level, the Provincial Nominee Program (BC PNP) and its technology variant, the BC PNP Tech Pilot, offer pathways for foreign skilled workers and graduates to become permanent residents, with the latter providing a streamlined process for in-demand tech roles.

Generally, the Canadian process is easier to navigate and more permissive than the American system for technology firms seeking to hire skilled foreigners. Thus, a location in the region can allow a multinational firm access to talent they might not otherwise be able to hire if they were located in a

²⁰ CBRE, "Scoring Tech Talent 2023" (July 17, 2023).

²¹ The BC Tech Association is working on a report on this talent pipeline with the BC Ministry of Post-Secondary Education and Future Skills, and the post-secondary institutions.

²² The World Economic Forum predicted in a 2023 that the core skills of 44% of workers will be disrupted over the next five years, largely due to the adoption of frontier technologies. World Economic Forum, "Future of Jobs Report 2023" (May 2023).
²³ These programs include the Federal Skilled Worker Program (FSWP), the Federal Skilled Trades Program (FSTP), and the Canadian Experience Class (CEC), H-1B Visa Holder Program, the International Mobility Program (IMP), and the Global Talent Stream (GTS).

different jurisdiction like the US. In interviews, Invest Vancouver heard that the region's high quality of life, ethnic and cultural diversity, and openness to immigrants also help attract foreign workers.

An established cluster and supporting ecosystem signal a favorable business environment

Insight from location experts: The presence of a cluster is an important factor in location decisions because it indicates the maturity and health of the broader ecosystem.

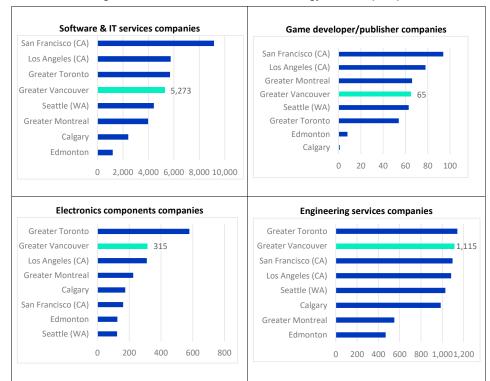
Invest Vancouver findings: A group of successful firms engaged in similar activities in close proximity implies that the necessary business inputs and resources are available and supported by a favourable regulatory environment. The presence of major multinational firms is a powerful indicator to other multinationals that the region could be fertile ground for their operations, too. The significance of clusters extends beyond current conditions. Over time, a cluster can catalyze a virtuous cycle wherein a growing workforce attracts more firms, which incentivizes a further increase in the pool of workers as more people stay or relocate in response to the greater demand for their skills.

The signs all point to emerging technology clusters in the region

The Invest Vancouver SIA project shows that many of the industry components that comprise the Life Sciences, Digital Media & Entertainment, and High-tech Services are growing much faster than the regional economy as a whole. Employment concentration data indicates that the Metro Vancouver region specializes in certain industries more than the national average. Shift-share analysis confirms the presence of the type of competitive advantages associated with clustering. Despite the region's size, it still stands out positively in total employment numbers compared to larger metropolitan areas.

Figure 6 compares the number of companies in several high technology industries in five Canadian census metropolitan areas (Vancouver, Toronto, Montreal, Calgary, and Edmonton) and three West Coast American jurisdictions (Seattle, San Francisco, and Los Angeles). These rankings, based on firm counts in 2021, represent the type of evidence of a cluster a firm might consider in the initial stages of a location search.

Figure 6: Number of firms in selected technology industries (2021)



Source: fDi Benchmark from the Financial Times based on Dun & Bradstreet Global Reference Solution. The data from fDi Benchmark is for 'Greater Vancouver', which includes Vancouver, Surrey, Burnaby, Richmond, Coquitlam, Langley, Delta, North Vancouver, Maple Ridge, New Westminster, and Port Coquitlam.

The signs of clustering are also evident in the corporate logos affixed to buildings across the Metro Vancouver region, which is home to branches of major multinationals engaged in motion picture production, animation, gaming, software, aerospace, networking, telecommunications, and semiconductors and more. Figure 7 shows a selection of the growing roster of multinationals operating in the region.

Figure 7: Selected multinational enterprises with operations in the Metro Vancouver region

[Figure showing selected MNEs operating in the region.]

An established innovation ecosystem supports high technology firms in the region

Firms in the region's high technology sector benefit from a robust innovation ecosystem. The supporting environment, summarized in Figure 8, includes educational institutions, research institutes, accelerators, and industry associations. Contributions from the federal and provincial governments underpin the ecosystem.²⁴

Figure 8: The Metro Vancouver region's high technology sector supporting ecosystem

Accelerators	Industry Associations	Post-Secondary Institutions and Specialty Schools	Public Sector	Research & Development
-Creative Destruction Lab (CDL) -Empowered Startups -entrepreneur@UBC (e@UBC) -Launch New Venture Academy -SFU Venture Labs -Spring Activator -Zen Launchpad	-Artificial Intelligence Network of BC (AInBC) -BC Tech Association -DigiBC -First Nations Technology Council -Frontier Collective -Motion Picture Production Industry Association of BC -Vancouver VR/AR Association	-British Columbia Institute of Technology (BCIT) -Capilano University -Centre for Digital Media -Douglas College -Emily Carr University of Art + Design -Kwantlen Polytechnic University -Langara College -Northeastern University -Simon Fraser University (SFU) -University of British Columbia (UBC) -Vancouver Community College (VCC) -Vancouver Film School (VFS) -Vancouver Institute of Media Arts (VanArts)	-BC Ministry of Jobs, Economic Development and Innovation (JEDI) -Business Development Bank of Canada (BDC) -Canada Innovation Corporation -Creative BC -DIGITAL -Global Affairs Canada -Innovate BC -Innovation, Science, and Economic Development Canada (ISED) -Mitacs -National Research Council (NRC) -Pacific Economic Development Canada (PacifiCan)	-Quantum Algorithms Institute -Stewart Blusson Quantum Matter Institute -TRIUMF Particle Accelerator

Source: Invest Vancouver

A strong **post-secondary education system** anchors the region's innovation ecosystem. The University of British Columbia (UBC) and Simon Fraser University (SFU) are internationally recognized for their focus on research and development. ²⁵ The British Columbia Institute of Technology (BCIT) emphasizes technical skills, problem solving, and real-world experience. These organizations and the rest of the post-second system are a crucial source of skilled workers, entrepreneurs, and innovation.

Complementing this educational foundation is a network of **accelerators** and **industry associations.** The accelerators help entrepreneurs and researchers transform innovative ideas into viable business ventures with financial support, mentorship, and strategic guidance. The industry associations serve as

²⁴ This is not an exhaustive list. For further information on the overall business ecosystem, see Invest Vancouver's <u>Innovation Ecosystem Profile</u>.

²⁵ In 2023, UBC was ranked in the top 5% of universities in the world by several prominent global university ranking agencies. UBC, "UBC's Instirutional Rankings." SFU was the most innovative university in Canada and 13th most innovative in the world in 2023. WURI, "Wuri Ranking 2023."

platforms for networking, knowledge sharing, and advocacy, and thus contribute to the sector's overall vitality.

The **public sector** plays a pivotal role advancing innovation, talent development, and investment. The public support extends to **research & development** organizations that focus on advancing technological innovation in frontier technologies such as quantum computing technologies and particle and nuclear science.

Maximizing potential return on investment is a priority for firms

Insight from location experts: Cost differences are implicit in any discussion of location decisions. Firms consider tax rates, labour costs, property costs, and the costs of regulatory compliance. While firms generally seek to minimize these costs, they may prioritize access to top-tier talent over lower costs in certain cases. Financial incentives (in the form of subsidies and tax breaks) can also be influential, though their significance varies among technology firms. Some firms consider such incentives crucial, while others regard them as supplementary rather than primary drivers of their decisions.

Invest Vancouver findings: Given the focus on maximizing return on investment, firms routinely scrutinize their cost structure. In interviews, firms providing services mentioned the region's relatively low labour costs as an advantage. Since labour is their largest input, the region's high office costs are not as much of an obstacle as they might be in other sectors. Land costs can be an obstacle for goods-producing technology firms, particularly for those that require a large footprint, because industrial land is scarce and expensive in the region. Both the provincial and federal governments have put in place incentives to help offset costs related to talent, R&D, and investment.

The cost of doing business in the region is attractive

The region is an attractive choice for companies in high-cost locations requiring a talented workforce and seeking strategic locations with relatively low labour costs. ²⁶ Compared to US technology hubs like Silicon Valley and Seattle, the Metro Vancouver region offers access to high-quality talent at attractive rates. The region is also competitive with other Canadian metropolitan areas.

Figure 9 illustrates the average annual operating costs (labour + office space) in 2023 for a representative technology firm in the Metro Vancouver region compared to Montreal, Toronto, Calgary, and Edmonton and high-tech hubs along the US West Coast.

²⁶ CBRE, "Scoring Tech Talent 2023" (July 17, 2023).

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Figure 9: Average annual operating costs for a representative technology firm (USD millions, 2023)

Jurisdiction	Labour cost	Office cost	Total costs	Office cost as % of total costs
San Francisco Bay Area	\$74.7	\$4.2	\$78.8	5%
Seattle	\$59.3	\$2.7	\$62.0	4%
Los Angeles/Orange County	\$53.3	\$2.6	\$55.9	5%
Calgary	\$37.5	\$1.3	\$38.9	3%
Toronto	\$36.0	\$2.1	\$38.1	6%
Vancouver	\$35.1	\$2.4	\$37.5	7%
Edmonton	\$32.6	\$1.5	\$34.1	4%
Montreal	\$32.2	\$1.6	\$33.9	5%

Source: Scoring Tech Talent CBRE Report (2023). Estimated one-year company costs based on an office space of 60K square feet, with 500 employees using metro area office costs.

The region's cost-competitiveness may be surprising to the region's residents accustomed to thinking of the region as expensive. Yet, operating costs in the Metro Vancouver region are significantly lower than in major centres on the US West Coast and land right in the middle among large Canadian metro areas. The region's office space is the most expensive in Canada, at almost double the low-cost leader, Calgary. However, office space is such a small component of annual operating costs for a typical technology firm that its cost is negligible as a competitive factor. Conversely, labour costs, which make up the greatest share of annual operating costs, are lower in the region than in Toronto and Calgary and dramatically less than in US jurisdictions.²⁷

Firms also consider additional costs beyond basic operating expenses in their location decisions. Such costs might include those associated with immigration (to address that skills gap, as discussed above) and healthcare. The Canadian immigration process is less expensive than the American equivalent, and interviewed firms mentioned these savings. Similarly, firms with US and Canadian locations noted that Canada's universal healthcare system saves them money on benefits packages for their employees.

Industrial land requirements reduce the low-cost advantage

The region compares less favourably for firms requiring industrial space. Demand for industrial land in the region is high, the vacancy rate is very low, the supply is constrained, and market prices reflect the resulting scarcity.²⁸ The cost of industrial land in the Metro Vancouver region is the highest in Canada and the third highest amongst the jurisdictions in the previous example.

In contrast to service-producing firms, where the cost of physical space is a small share of total costs, land costs for typical industrial firms can be substantial. For example, in the same set of metro areas, fDi

²⁷ Invest Vancouver replicated the CBRE cost comparison using fDi Intelligence from the Financial Times firms in various technology categories offered by fDi Intelligence, including software development, informatics R&D centre, video game design centre, engineering services, multi-media design centre, and film & TV and found the same result.

²⁸ Claire Wilson, "<u>Metro Vancouver's Industrial Land Shortage Threatens Future of B.C.'s Trade Economy,</u>" *Business in Vancouver*, September 21, 2023.

Benchmark estimates that industrial land costs for an electronic components manufacturer constitute 46% to 61% of a firm's total annual operating costs. Thus, finding suitable industrial land and absorbing the cost is likely to be an obstacle for new entrants to the region, making investment attraction more difficult.

Government and not-for-profits help firms in the region reduce their costs.

Support and incentives are important in attracting investment to the region. They are primarily provided through public sector and not-for-profit organizations and include various forms of assistance, such as funding, tax incentives, and programs for talent development. The supports loosely fall under talent; research & development; and business growth.

Firms in the tech sector have access to skilled labour, in part, due to programs aimed at upskilling and talent attraction and retention. They can benefit from financial support for R&D and programs that connect academia with industry as well as various incentives to increase capital investment, expand their operations, and adopt digital technologies.²⁹ Additionally, the Digital Media & Entertainment industry benefits from targeted tax incentives that have helped foster and grow media production, post-production, and video game design in the region by reducing the of qualified labour expenditures.³⁰

The ease of doing business matters to firms

Insight from location experts: Firms prefer not to waste time. Local municipalities and investment attraction agencies can enhance a region's attractiveness with custom services, such as organized site visits and one-on-one consultations. Sought after services include help accessing local resources, navigating administrative complexities, and swiftly resolving issues as they arise. Firms are more likely to favour regions that smooth out hurdles and provide a seamless and expedited path, thereby reducing their time to market and the start of revenue generation.

Invest Vancouver findings: Firms making location decisions behave like consumers. They try to minimize their expenses, which means avoiding situations where they have to pay interest and salaries while not earning revenue. Thus, they prefer jurisdictions with short, guaranteed permitting processes to those with lengthy, uncertain ones. In general, firms will prefer locations where the regulatory framework is simple to navigate, predictable, and stable. Creating business friendly policies can be a cost-effective way to improve a region's attractiveness, particularly when competing with regions that offer substantial incentive packages. Also, enhanced coordination among the Metro Vancouver region's local ecosystem players would ensure a streamlined experience.

Progress among all orders of government in BC in the race to catch up with other regions

The Province of BC and other governments in BC are making progress in implementing business-friendly policies. However, they lag behind other metro regions such as Montreal, QC and Calgary, AB that have gone further in coordinating between local, regional, and provincial governments. This coordination presents a unified experience for prospective companies.

²⁹ See Appendix for specific details on available talent, R&D, and business growth supports, incentives, and programs.

³⁰ For additional details, see Invest Vancouver's forthcoming Digital Media & Entertainment Sector Profile and Government of Canada, "British Columbia Film and Television Tax Credit" (May 25, 2023).

Signs of progress among all orders of government in BC include the Province of BC's Clean Energy and Major Projects Office (CEMPO), which it created to improve regulatory certainty, competitiveness, access to labour, and coordination with First Nations and local communities. At the municipal level, many communities have been systematically streamlining their development permit processes to make them simpler, faster, and more predictable. In particular, the City of Surrey has guaranteed timelines, an online permitting portal, pre-application meetings, and outreach to help applicants understand and correct application deficiencies. Business friendly efforts like these improve the region's chances of attracting investment in the technology sector.

The Metro Vancouver region is not always top of mind for many international technology firms

Insight from location experts: For many technology firms, the Metro Vancouver region is not at the forefront of international considerations when discussing possible investments and expansions. Toronto and Montreal overshadow the Metro Vancouver region and are themselves eclipsed by San Francisco and New York. To the extent that site selection is like a job search, firms have drawn up the interview list without ever having reviewed the Metro Vancouver region's resume.

Invest Vancouver findings: This may seem contradictory given the region scores well on the key factors identified as top determinations for investment location and the significant presence of prominent international tech firms. Yet, the region's international reputation rests on its appeal as a tourist destination, not as a technological powerhouse. Moreover, building a reputation takes time. The technology industries' rise to prominence in the region is relatively recent, particularly compared to its historical roles in international trade and resource extraction. Bridging this gap between the current reality and outdated perceptions is vital for raising international investors' awareness of the region as a potential location.

Firms that are aware of the region's value proposition have chosen to expand here

When the region's specialized expertise places among global leaders, firms are more likely to recognize its value proposition. In hydrogen, for example, the Metro Vancouver region has firms along the entire value chain and is a leader in fuel cells. Firms such as cellcentric Fuel Cell Canada (a joint venture between Daimler Truck AG and the Volvo Group Ab) have selected the region specifically to tap into the specialized talent in this field. Similarly, the region is a prominent location for filming and many elements of "creative tech," notably animation, visual effects, video game development, and increasingly, immersive media. The process is mutually reinforcing, since each multinational firm that adds a location in the Metro Vancouver region expands the cluster that attracted it and adds to its reputation.

Geographic proximity has also helped overcome reputational lag, with firms on the West Coast of the US more likely to be familiar the region's strengths, especially in Digital Media & Entertainment, software, the Life Sciences, and clean tech. For firms engaged in development work, proximity and a shared time zone combine to make the region a better fit. The more the work requires the engagement of high-level management, direct consultation, and creative collaboration among geographically dispersed teams, the more likely geographical proximity and a shared time zone matter. Executives facing frequent travel for in-person meetings prioritize shorter travel times and consistent time zones. The shared time zone also

means that work hours overlap among remote teams based on the West Coast, allowing for immediate feedback and engagement via phone, email, and collaborative software tools.³¹

More work is needed to raise the profile of the region's technology hub

Promoting the Metro Vancouver region at key international technology events will help elevate the region in and strengthen connections to the global tech ecosystem.³² Such outreach and connection cultivates an increasing awareness of the region and can highlight its advantages and strengths. The region could also raise its profile by hosting tech-oriented events. As an example, Lisbon's Web Summit has become one of the world's most prominent technology conferences and it has raised that region's prominence in the international tech community.

Proactive engagement with prospective firms is also important. This includes identifying and reaching out to firms considering expansion and providing business intelligence highlighting the region's strengths. The outreach may take the form of outbound delegations, which help raise awareness of what the region has to offer. Similarly, hosting inbound delegations provides an opportunity to sell prospective firms on the strengths of the regional technology sector, the supporting ecosystem, and the ease of doing business here. Finally, building relationships and networks is worthwhile because some of the best investment attraction opportunities grow out of such connections. Sharing information about an exciting project in the early stages of development or a compelling idea percolating in the local ecosystem, for example, may spark interest from a company that was not already considering the region.

³¹ These considerations are not unique to the West Coast. Toronto, for example, benefits from proximity to and a shared time zone with New York. Interestingly, the opposite can also be true. Firms in Asia are ending their day when it is early morning in BC, which means a location in the region can help cover 24-hour operations for client needs, crisis management, etc.

³² Invest Vancouver engages in this work, often in partnership with Global Affairs Canada, Invest in Canada, and Trade and Invest British Columbia.

Section III – Al's transformative potential

Artificial intelligence (AI) stands at the forefront of technological innovation, with the potential to significantly reshape not only the technology sector but myriad aspects of business and everyday life. Given the rapid evolution of AI and its profound implications, coupled with the Metro Vancouver region's noticeable advancements in applied AI, this report includes a focused segment on AI. The launch of OpenAI's ChatGPT has propelled AI into the limelight, sparking widespread interest in the ongoing AI revolution. The adoption of AI may be similar to the internet in its capacity to fundamentally reshape the economy and transform society. AI will enable the creation of novel services and give rise to entirely new industries, the same way the internet made possible e-commerce, social media, streaming services, and digital apps.³³ It will transform roles in existing industries, and introduce ethical, legal, and societal concerns.³⁴ As AI evolves and expands the boundaries of what is possible, it will precipitate additional risks and opportunities, many of which are unclear or unknown at this time. Even in this period of rapid change, however, there is a clear risk arising from not integrating AI. This section consists of two parts, both focused on the implications of AI adoption in the Metro Vancouver region and BC.

- 1. The risks from moving slowly to integrate AI and the possible creation of a new digital divide.
- The economic development opportunities in three domains resource extraction, construction, and healthcare – where the region holds considerable expertise and the integration of AI could yield novel solutions to pressing societal challenges.

Uneven AI adoption could create a new digital divide

Uneven adoption of AI could create a new version of the digital divide, based on the capacity and willingness of individuals, firms, and countries to integrate AI into their systems and processes. The job market will reward people who can use AI to complete tasks more efficiently. Firms that embrace AI, especially those that move swiftly, stand to gain a competitive edge over those that approach AI adoption with hesitation or avoidance. Countries where people, firms and governments that integrate AI will be better positioned to benefit from productivity gains.

For individuals, the rapid technological change induced by AI may provoke fear of job losses because AI allows for the automation of an even wider variety of routine tasks across many disciplines. The use of AI may eliminate some roles, but it will also ease labour shortages. For example, in shipbuilding a single welder able to oversee multiple AI-controlled welding robots can overcome a shortage of maritime welders. More broadly, AI will underpin a shift from 'doing' to 'supervising' in multiple settings, including call centre workers who transition to monitoring responses from chatbots interacting with many customers simultaneously. Such changes will make workers more productive and may improve

³³ Just as Netflix supplanted Blockbuster and then provoked a transformation in entertainment consumption, people will use Al to create business models that will disrupt incumbents and reshape markets. Also like the internet, Al will spur many smaller changes through applications that improve existing services and make workers more efficient.

³⁴ Examples include law enforcement's use of biased facial recognition models trained on problematic data sets; legal risks surrounding the unauthorized use of all manner of intellectual property to train models; new cybersecurity risks; and the potential to undermine the democratic process with malicious Al-generated images and videos indistinguishable from the real thing.

their job satisfaction, but it might not be seamless. Many workers will need new skills to navigate the evolving job landscape.

Already, there is growing evidence that Al can make users more productive. Programmers who use Albased tools, for example, can complete routine and repetitive tasks as much as 50% faster than those who do not.³⁵ Knowledge workers using Al are more productive, complete tasks more quickly, and produce higher quality results.³⁶ Workers who are more productive are likely to do better in the job market, suggesting competition from Al-proficient humans is a bigger employment risk than clever computers displacing humans.

A 2023 World Economic Forum study highlights that the adoption of frontier technologies, such as AI, is driving transformation and will necessitate comprehensive upskilling as automation and AI reshape job roles.³⁷ If AI adoption is similar to the introduction of computers and internet-based technologies in the workplace, older workers and people from backgrounds that limit their opportunities for appropriate training and access to the technology are the most likely to find themselves on the wrong side of the AI divide. In a cruel irony, they may also be the ones who would benefit most from using AI.³⁸

For firms, the risk is waking up on the wrong side of the new digital divide, with their competitors far ahead in adopting AI. McKinsey, a global consultancy, found that firms building up their digital and AI capabilities outperformed laggards in total shareholder returns across every sector they analyzed, often substantially.³⁹ At a minimum, businesses should be collecting, sorting, and curating business-specific data for training AI models and creating digital twins. Comprehensive operations data can be incredibly valuable, both for improving the specific business that collected it and for deriving insights applicable to others like it. Especially for first movers, the secondary revenue stream from business-specific datasets may rival their primary business. Beyond figuring out a data strategy, firms need to embrace AI and invest in training for their employees, with people working in the field describing it as "irresponsible" for any business not to make AI adoption a top priority.⁴⁰

The urgency for AI adoption is acute for firms in both BC and Canada, where the prevalence of small firms and a more risk-averse business culture may hinder readiness to embrace AI. Overcoming these barriers is crucial to unlock the full potential of AI technologies. Notably, 98% of businesses in BC employed 50 or fewer workers in 2022. Smaller firms are slower to adopt new technologies (and AI in

 $^{^{35}}$ See, for example, McKinsey Digital, "<u>Unleashing developer productivity with generative AI</u>" (June 2023).

³⁶ Fabrizio Dell'Acqua et al., "Navigating the Jagged Technological Frontier: Field Experimental Evidence of the Effects of Al on Knowledge Worker Productivity." Harvard Business School Technology & Operations Management Unit Working Paper No. 24-013, September 2023.

³⁷ World Economic Forum, "Future of Jobs Report 2023" (May 2023).

³⁸ Sida Peng et al. found that older and less experienced programmers benefitted the most from working with an Al programmer. See "The Impact of AI on Developer Productivity: Evidence from GitHub Copilot" arXiv.org, February 2023.

³⁹ Bryce Hall et al., "Rewired and running ahead: Digital and AI leaders are leaving the rest behind," McKinsey & Company, January 12, 2024.

⁴⁰ The panel at the Microsoft and Vancouver Tech Journal "Capturing the AI Opportunity in BC" event on February 13, 2024 emphasized the urgency of adopting an AI strategy and stressed the value of business data.

particular), and may lack the resources to pursue such investments. 41 Additionally, the Canadian business culture is more risk averse than in the US, affecting the pace of AI integration. Large American firms seem to be moving more quickly to incorporate AI: 72% of US compared to just 35% of Canadian large firms reported using AI in their operations. 42 Invest Vancouver's interview with a Vancouver-based developer of a new AI-enabled service highlighted this discrepancy. One of their clients is a large firm with US and Canadian operations. The client's Canadian branch was still in preliminary discussions whereas the US branch had embraced and deployed the AI-based service.

Multiplied across individuals and firms, reluctance to adopt AI could see Canada forego a much-needed productivity windfall. In a public address in March 2024, the Bank of Canada noted that the country's business sector productivity was essentially the same as seven years earlier, and that our GDP per capita has weakened considerably compared to the US.⁴³ They called for coordinated efforts to fix this problem, including better use of technologies like generative AI.

Looking forward, boosting productivity is necessary to support higher Canadian wages and living standards. McKinsey estimates that generative AI (such as ChatGPT) alone has the potential to boost productivity annually by 0.1% to 0.6% by 2040, depending on adoption rate and worker redeployment. To capitalize on this opportunity, our workforce needs to be adequately prepared to handle the major disruptions caused by this new technology.

While the risk of ending up on the wrong side of the AI divide should spur firms to action, there are plenty of reasons to be optimistic about AI and the implications for the regional economy.

Al as an economic development opportunity

The Metro Vancouver region and BC are poised to play a leading role in leveraging AI to tackle pressing societal challenges. Resource extraction, construction, and healthcare are just three applications where AI integration added to the region's existing industrial strengths, expertise, and skill sets could forge pathways to superior, more sustainable solutions. Innovations that enhance mining efficiency while mitigating its environmental footprint, accelerate building construction, and optimize healthcare delivery would be in high demand worldwide. Such advancements hold the promise of higher quality of life through enhanced housing affordability, improved healthcare accessibility, and reduced environmental degradation. For the region that hosts the companies supplying them, they would also foster job creation and economic resilience through exports.

The region is already cultivating Al-powered solutions across myriad domains, despite the perception that Al innovation is concentrated elsewhere. The impression of the region as an outsider in Al stems from the region's peripheral role in the federal government's national Al development strategy, which

⁴¹ Deloitte, <u>Digital Equity: Empowering All Organizations to Succeed in the Digital Era</u> (November 2023).

⁴² KPMG, "More than One Third of Canadian Businesses Experimenting with CHATGPT, KPMG Canada Survey Finds" (April 19, 2023)

⁴³ In 1984, output per hour worked in Canada was 88% of US levels; by 2022, it had fallen to 71%. Over that same period, Canada's productivity lagged all G7 members except Italy. Senior Deputy Governor Carolyn Rogers, "Time to Break the Glass: Fixing Canada's Productivity Problem," Bank of Canada, March 26, 2024.

⁴⁴ Michael Chui et al., "<u>The Economic Potential of Generative AI: The Next Productivity Frontier</u>," McKinsey & Company, June 14, 2023.

primarily revolves around support for National Artificial Intelligence Institutes in Edmonton (Alberta Machine Intelligence Institute – AMII), Montreal (Mila), and Toronto (the Vector Institute). These institutes act as a magnet for researchers focussed on AI development, in contrast to our region, where Google poached leading AI academics from UBC in the early 2010s.

Yet, the region teems with vibrant AI initiatives. Vancouver-based **DIGITAL** uses federal funding to champion homegrown AI technologies as part of its overarching mission to catalyze R&D investment, foster technology adoption, and facilitate the re-skilling of Canadian talent. The UBC **Centre for Artificial Intelligence Decision-making and Action** (CAIDA) boasts over 100 professors and their research associates spanning 27 departments, schools, and institutes. At SFU's highly regarded **Big Data Hub**, industry, the public sector, and community groups collaborate with AI researchers pioneering solutions across multiple sectors. 45

In the private sector, a diverse array of firms harness the power of AI, ranging from Fujitsu's AI research group to enterprises such as Semios and Terramera in agritech, A&K Robotics and Sanctuary AI in robotics, and Variational AI and AbCellera in life sciences. SaaS ventures like Copilot AI and CharliAI, digital content creators like Lumen5, and sustainability-focused enterprises like intuitive in waste management and OnDeck in fisheries management contribute to the rich tapestry of AI innovation. According to Capital Compass, a new investment-tracking tool from Innovate BC, the Metro Vancouver region hosts over 130 firms dedicated to developing cutting-edge products and services grounded in applied AI.

Matching the region's emerging excellence in applied AI with existing strengths and expertise could produce advancements in multiple areas.

Developing AI solutions for more efficient and sustainable mining

Separating the resource economy from the technology sector overlooks how technology not only boosts demand for resources but also fundamentally transforms the industry. In mining, technology is driving demand and altering the sector significantly. On the demand side, clean technology is poised to underpin a sustained boom in mining for critical minerals, even with significantly expanded recycling efforts. Within the industry, Al and machine learning are powering mining technology for enhanced recovery of metals. Mines are complex systems that generate vast data volumes and Al acts as an enabling technology that helps data-intensive industries glean insights from data to reach better outcomes.

Mining activity is abundant in BC, presenting an opportunity for technology companies in the region to work with the industry on tailored solutions. The BC mining sector offers fertile ground for the development of best-in-class mining technology, especially in mineral exploration and processing. The combination of industry experience and technological expertise should ensure an emphasis on practical solutions with tangible real-world applications. Mining technology is alluring on two fronts. *First*, the industry urgently needs enhanced sustainability and efficiency. *Second*, escalating global demand driven by the need for critical minerals to support the clean energy transition ensures firms specializing in

 $^{^{}m 45}$ AIRankings.org rates the SFU Big Data Hub #1 in BC and #4 in Canada for AI capabilities.

mining technology have global reach almost from inception, with ample potential for export-driven growth. ⁴⁶ Firms in the region are already working on Al-driven mining solutions (see box).

Novamera provides the mining sector with technology that enhances the efficiency and sustainability of mining narrow vein deposits. They combine real-time data analysis, machine learning, and analytics with traditional drilling methods to improve safety and reduce environmental impact.

Hyperspectral Intelligence develops imaging technology for the mining and energy sectors, enabling precise rock analysis for safer and more efficient mining. Their cloud-based data processing offers real-time insights, enhancing sustainable resource extraction practices.

Ideon Technologies uses cosmic-ray muon tomography and artificial intelligence for subsurface imaging in mining. Their technology measures subatomic particles from supernovas to detect minerals and metals beneath the Earth's surface, offering a sustainable and more efficient alternative to conventional exploration methods.

MineSense leverages AI and machine learning in its technology to differentiate ore from waste in the mining process. Their system combines hardware and software, employing proprietary algorithms to analyze and report real-time data on ore grade and characteristics, thereby improving mining efficiency and decision-making.

Tackling housing affordability through AI-driven construction innovations

The Metro Vancouver region could be at the leading edge of new construction techniques made possible with applied AI. The region needs more housing, especially more affordable housing, to meet pent up demand from a growing population.⁴⁷ The housing issue is a complex one, and there are many challenges to overcome. No single solution will make housing plentiful and affordable. Yet, new building methods might reduce the time required for construction and mitigate the shortage of skilled workers in the building trades.⁴⁸ While these innovative construction techniques would address our local housing needs, the issues they target are not exclusive to our region. This presents an opportunity to export Aldriven construction solutions.

Next generation building techniques address affordability by making it possible to build more housing, more quickly, with fewer people. The Canada Mortgage and Housing Corporation forecasts that to make housing affordable by 2030, the country needs an additional 3.5 million homes beyond the number

⁴⁶ Canada Energy Regulator, "<u>Market Snapshot: Critical Minerals are Key to the Global Energy Transition</u>" (January 2023).

⁴⁷ A recent RBC study found the cost of housing has reached all-time highs in Canada, including in Vancouver. To improve affordability, they call for a coordinated, multi-prong approach to increase housing supply, including the use of innovative technology such as artificial intelligence. RBC Economics, <u>The Great Rebuild: Seven Ways to Fix Canada's Housing Shortage</u>, (April 2024).

⁴⁸ AI might also help streamline the approvals and permitting processes: Kelowna, BC is using AI to expedite building permits.

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expected under business-as-usual scenario.⁴⁹ Housing affordability has also eroded globally, in large part due to a lack of supply.⁵⁰ The introduction of AI-powered building techniques will make it possible to build much more quickly. Faster is better because it helps bridge the gap between supply and demand that fuels rising prices, and longer construction periods escalate expenses, which developers pass on to buyers. Harnessing AI for routine and repetitive tasks will also make construction less labour intensive, which matters in this context because the shortage of skilled construction workers limits the pace of building. With the looming wave of retirements among the trades, expanded training programs will struggle to offset the losses. Building techniques that use less labour will make it possible to build more with greater efficiency at a lower cost, which should translate to a more affordable final product.

Al-based technology will be integrated throughout the next generation of building construction: in the initial design, in the permitting process, in the models used to schedule the onsite work, in the visualizations that allow designers and customers to tour a building before it is built; and, increasingly, in the construction itself.51 The next generation of buildings will be smart (with embedded monitoring technology), resilient (to earthquakes, floods, and fires), use sustainable materials (such as mass timber), and be designed to produce lower carbon emissions. Modular construction will see large components built offsite and then assembled onsite.

Moving part of the construction into a factory in modular construction will allow the use of Al-controlled robots in a matter already familiar from the automated production lines in the motor vehicle industry. The novel application is at the construction site. UBC researchers have already designed Al-controlled drones for inspection work and real-time onsite mapping. The drones can provide real time input to create a digital twin of the construction site. Using the digital twin, a separate AI system can safely control equipment, such as a crane, to autonomously unload and place large cement blocks. The same lab is working on autonomously controlled excavators and envisages moving on to equipment used throughout the building process. This work is at the leading edge of the coming transformation of the construction industry.

To address the housing issue, the most important development will be advancing new building techniques to the point where they reach economies of scale, i.e. they tip over from an expensive demonstration process to something routinely deployed across multiple building sites at lower costs. Accelerating the widespread deployment of these innovative solutions will bring the tipping point and the realization of efficiency gains closer.

The private and public sectors should explore ways to speed the adoption of these technologies within the region. Singapore, for example, is encouraging construction automation through financial incentives

⁴⁹ "For the purposes of this report, we define affordability in terms of the share of after-tax income that a household with average income would need to spend to buy the average house. The target is, by 2030, to return affordability to levels last seen around 2004, before the price growth that many Canadians have faced in the last decade and more." CMHC, Housing Shortages in Canada (September 2023).

50 World Economic Forum, What has Caused the Global Housing Crisis — and How Can We Fix It? (June 2022).

⁵¹ Rapid prototyping and testing of design options at the concept stage is a rapidly emerging use case. In permitting, the BC government and municipalities such as Kelowna are already exploring how the use of AI can reduce the time required to verify project compliance with municipal and provincial regulations, greatly increasing certainty and reducing processing time.

that reward off-site building.⁵² In the public sector, novel approaches to procurement, demonstration projects, and routine deployment of these solutions can stimulate demand and assist in the achievement of economies of scale, thereby enhancing their market competitiveness. The public interest is threefold. First, it makes it possible to build more housing, more rapidly. Second, it makes it possible to build at lower cost once the techniques achieve scale, even if it is initially more expensive. Third, it allows the region to carve out a niche in which it excels, potentially becoming an engine for economic growth and innovation. The region is not alone in struggling to build housing, and there would be a substantial and growing export market for these technologies.

Harnessing AI to elevate patient care and strengthen the Life Sciences industry

Integrating AI with health services and harnessing health data could improve patient outcomes and bolster the life sciences industry. The strained provincial health system faces constant pressure to deliver care that is faster, better, more accessible, and more cost-effective. Strategic, small-scale experimentation with applied AI targeting patient outcomes could alleviate these pressures. Fraser Health is spearheading such testing in patient settings. Similarly, AI's efficacy in research and drug discovery hinges on access to comprehensive health data, an area where Providence Health Care is making progress.

BC might be in the optimal position for leveraging applied AI to enhance patient health, since the health sector in the province is small enough for effective coordination yet substantial enough to yield meaningful results. One interviewee cited the swift deployment of ultrasound machines across the province during the pandemic as the type of coordination BC handles better than larger jurisdictions. Consequently, the provincial health system could be an excellent environment for prototyping and commercializing applied AI.

Fraser Health, the largest of the five publicly funded regional health authorities in BC, serves more than two million people in 20 communities from Burnaby to Fraser Canyon. The health authority's Digital Patient and Provider Experience team is prototyping and testing AI and other technology implementations in the health system, including a pioneering enterprise digital twin and digital front door. This innovative use of predictive and prescriptive health analytics is driving improvements in health care access, delivery, and patient convenience.

Fraser Health is establishing partnerships to co-create AI solutions and recently won a 1.5-million-dollar prize from Scale AI to collaborate with Deloitte Canada. Through this collaboration, they are developing an AI-driven physician-scheduling tool to forecast patient demand accurately, which will improve the patient experience and reduce physician workloads.⁵³

Adopting generative artificial intelligence, Fraser Health is using Google Cloud's Vertex AI and large language models (LLMs) that can learn policies and workflow processes, which are reducing clinicians' administrative workloads by simplifying the clinical documentation process within the MEDITECH

⁵² Built Offsite, <u>Singapore rewards offsite construction companies that embrace advanced offsite construction automation</u> (September 2023).

⁵³ Hospital News, <u>Scheduling for the future with artificial intelligence</u> (December 2023).

Expanse EHR system. ⁵⁴ In addition, in collaboration with Amazon Web Services, they have introduced a Virtual AI Assistant that is supporting staff and medical staff in quickly locating learning resources on MEDITECH Expanse functionality and workflows. ⁵⁵

Another notable example of Fraser Health's technological innovation is their deployment of the "GI Genius" system for colon cancer screening. ⁵⁶ This initiative uses AI to assist medical teams by enhancing the accuracy of colonoscopy procedures through real-time, AI-assisted polyp detection. Such advancements underscore Fraser Health's commitment to employing cutting-edge technology to improve patient outcomes, with early detection playing a crucial role in increasing survival rates for colon cancer.

Managing access to data presents a universal challenge: finding a balance between security and accessibility. Opting for inaction is convenient, but forfeits the potential health improvements and operational streamlining. In Canada, various models exist to address this challenge. Among them, Providence Health Care, a not-for-profit operator of hospitals and research centres in BC, stands out. Frovidence Health Care Ventures, a subsidiary of Providence focused on technology partnerships and development, aims to further the integration of frontier technology such as AI with the healthcare system through a collaborative, secure, data-driven approach to improve patient outcomes. At the forefront of this innovation is their advanced Integrated Health Informatics Datalab (IHID), which our interviewees described as one of the most advanced health data program in Canada.

IHID is designed to bridge the gap between the Life Science industry's need for health data access, while upholding the stringent privacy and ethical standards hospitals must adhere to. IHID's cloud-based system not only facilitates and streamlines data integration across multiple datasets, but also upholds patient privacy through de-identification and the implementation of strict controls, thereby ensuring a secure research environment. Companies are able to run models on IHID and can request restored access to the same dataset in the future to do additional testing. However, they are restricted from downloading the source health data from the cloud, so it remains within the secure environment. Only their researchers' derived research results leave the system at the conclusion of the project.

Providence's approach significantly enhances access to diverse datasets, providing firms with the certainty of cost and timing, which is crucial to effectively employ technologies like machine learning and AI to model potential outcomes and innovative products. Such an environment is highly conducive to innovation. Since it is attractive for both local and international firms, it could foster industry clustering and the emergence of anchor companies.

⁵⁴ Hospital Management, <u>Fraser adopts generative AI for MEDITECH Expanse EHR</u> (December 2023).

⁵⁵ Fraser Health, <u>New Virtual Assistant uses artificial intelligence to improve staff and medical staff learning experience with MEDITECH Expanse - Fraser Health Authority</u> (February 2024).

⁵⁶ Fraser Health, <u>Improving colon cancer screening with artificial intelligence</u> (December 2023).

⁵⁷ In addition to 18 health care sites, Providence Health Care includes the St. Paul's Foundation (fundraising), Providence Living (seniors' care), Providence Research (BC Centre of Excellence in HIV/AIDS, BC Centre on Substance Use, Centre for Heart Lung Innovation at UBC and St. Paul's Hospital, Advancing Health), Foundry (province-wide network of health and wellness services for young people), and Providence Health Care Ventures (commercialization of health care solutions).

Concurrently, the use of AI allows Providence to enhance their own operational efficiencies. For example, they have begun using machine learning on their internal data to optimize the assignment of mobile blood draws based on physical layout and travel times within St. Paul's Hospital, which should result in significant internal efficiency gains and improved patient outcomes.

Thus, AI could improve healthcare in BC. From an economic development perspective, carefully managed and protected patient data could attract firms using AI to develop medical therapies. The diverse, multiethnic population of BC enhances the value of our patient data even further. Instead of conventional financial incentives such as tax credits or grants, the province could use access to this invaluable data as part of a compelling value proposition for attracting investment and pharmaceutical firms. Integrating data across health sector organizations in BC would make it more valuable, and would almost certainly repay the required investment and effort.

Conclusion

The rise of the Metro Vancouver region as an emerging technology hub reflects a robust innovation ecosystem and the presence of pools of specialized tech talent. The sector has been an important driver of employment growth in the region, adding jobs far more rapidly than broader economy. It has also attracted tens of billions of dollars in investment in firms headquartered in the region and working in areas such as the Life Sciences, Cleantech, TMT (technology, media and telecoms, which includes many Digital Media & Entertainment firms), Software as a Service (SaaS), Cybersecurity, Internet of Things, FinTech (Financial technology), and Cryptocurrency/Blockchain. Technology firms are increasingly offering solutions to traditional (non-technology) industries, a trend poised to accelerate with the integration of Al. Encouraging the deployment of Al in areas of significant regional expertise such as resource extraction, construction, and healthcare could spark further innovation and be a catalyst for economic development.

Continued rapid growth in the sector is not a given. Key risks such as the limited supply of needed talent, escalating living costs, and a fiercely competitive environment for investment attraction could disrupt the pace of growth. Effectively addressing these risks is essential for the high-tech sector and the wider regional economy.

Within the sector, more could be done to increase global awareness of the region's strengths. Many multinational enterprises have recognized the region's value proposition, but building a reputation takes time. With the relatively recent rise to prominence in many of the region's high technology industries, some firms remain more familiar with the region as a tourist destination, leading them to overlook it as a potential location. To drive greater investment attraction, the region's technology sector needs concerted efforts in brand building. Initiatives aimed at enhancing visibility, promoting a business-friendly environment, fostering innovation, and mitigating risks are essential if the region is to realize its full potential as a technology hub. By addressing challenges and embracing emerging opportunities, the Metro Vancouver region will secure its place as a leader in the global tech arena.

Appendix – Metro Vancouver Regional Tech Sector Growth Supports

Upskilling and work-integrated learning. The *Stronger BC: Future Skills Grant* supports workers seeking short-term skills training at public post-secondary institutions for in-demand skillsets. *Mitacs'* internship program bolsters industry-academic collaboration, while the *BC Workplace Innovation Fund* invests in graduate scholarships and tech workforce development to address labor shortages.

Talent attraction and retention. The *Digital Skills for Youth* and the *Innovator Skills Initiative* focus on developing digital skills and promoting diversity in the tech sector. The *WorkBC Wage Subsidy Program* helps firms hire and retain talent, with a priority for youth and those with disabilities. *MOSAIC* connects newcomers to the region with employment opportunities. *NPower Canada*'s programs provide free training for underserved youth and adults for in-demand tech roles.

Research & Development

Conducting R&D. The *Scientific Research and Experimental Development* (SR&ED) program is a national tax incentive supporting R&D conducted by businesses regardless of size or sector. ⁵⁸ The *Industrial Research Assistance Program* (IRAP) delivers financial assistance and advisory services to small and medium-sized enterprises (SMEs) developing and commercializing technologies, while *Innovations Solutions Canada* funds SMEs providing innovative solutions to pressing government needs.

Connecting academia and industry. The *Natural Sciences and Engineering Research Council of Canada* (NSERC) funds collaboration between academia and industry with grants. One such grant is *Idea to Innovation*, aimed at transforming academic research into commercially viable products or services.

Business Growth

Expanding operations. The *Accelerated Investment Incentive* encourages investment in assets like machinery and equipment with an enhanced capital cost allowance. The *Strategic Innovation Fund* (SIF) offers grants and loans for large-scale, transformative projects to support R&D, commercialization, firm expansion, and public-private collaborations. The *Venture Capital Tax Credit* offers a tax incentive for investments in BC small businesses, facilitating their access to early-stage capital for development and growth. *PacifiCan's Business Scale-Up and Productivity Program* offers interest-free loans to innovative and high-growth potential businesses.

Adopting digital technologies. The *Canada Digital Adoption Program* assists SMEs in digital transformation through two streams: *Grow Your Business Online* grants for e-commerce integration, and *Boost Your Business Technology* grants for digital adoption planning and access to interest-free loans.

Digital Media & Entertainment

A variety of credits that reduce the cost of qualified labour expenditures have helped foster and grow media production, post-production, and video game design in the region.⁵⁹

⁵⁸ To learn more about SR&ED, see: Government of Canada, <u>Scientific Research and Experimental Development (SR&ED) Tax Incentives</u> (December 1, 2023).

⁵⁹ For additional details, see Invest Vancouver's forthcoming Digital Media & Entertainment Sector Profile and Government of Canada, "<u>British Columbia Film and Television Tax Credit</u>" (May 25, 2023).

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The High Technology Sector in the Metro Vancouver Region

Presenter by: Lejla Uzicanin, Vice President, Data, Research and Policy, and Gregory Freeman. Senior Economist

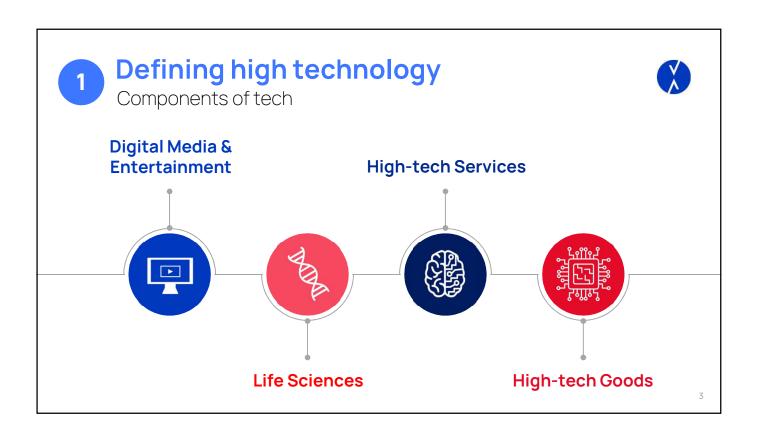
Invest Vancouver Management Board Meeting, May 2024

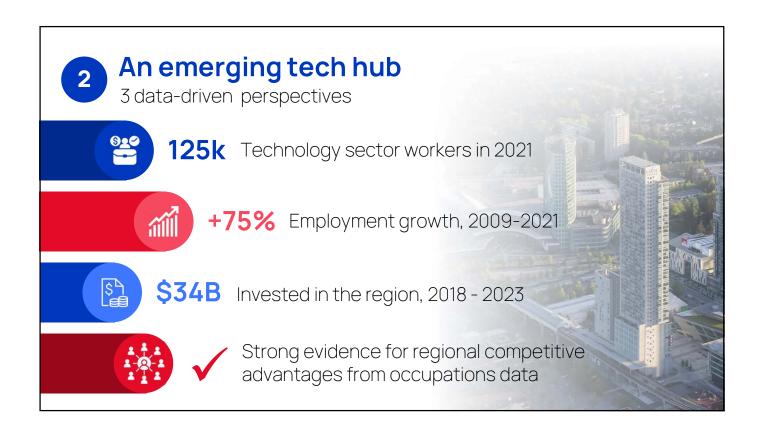
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The Metro Vancouver region's emerging tech hub

- 1 Defining the technology sector: Components of tech
- 2 An emerging tech hub: 3 data-driven perspectives
- 3 Expansion decisions: Key location factors
- 4 Artificial Intelligence: An economic development opportunity

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Choosing an expansion location

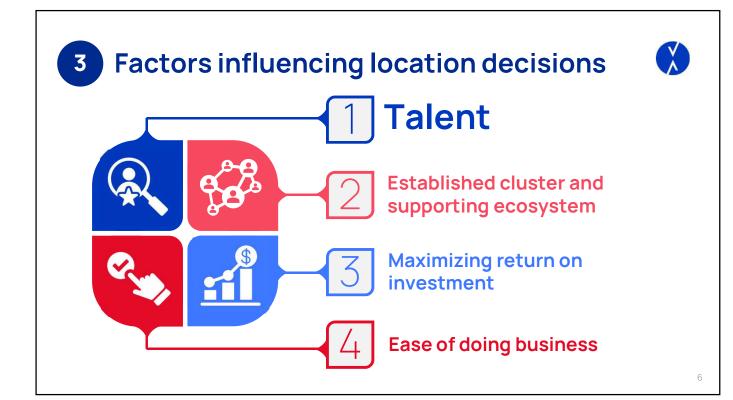


Need: Evidence-based investment attraction requires understanding how firms evaluate potential locations.

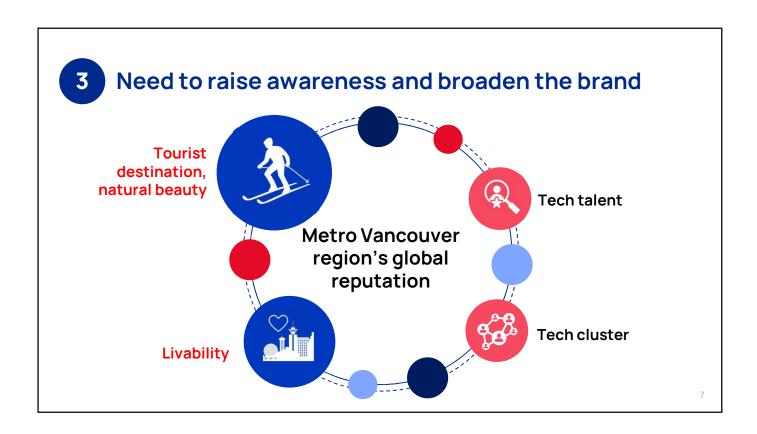
Problem: The largest multinationals work with global consultancies and rarely make their decision-making process public.

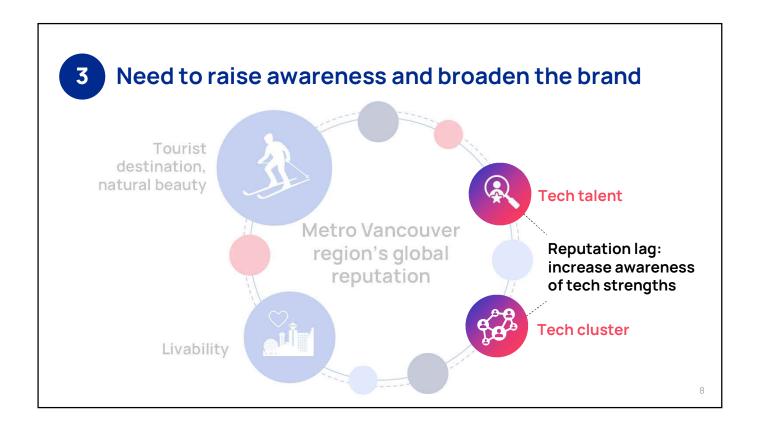
Solution: Design a project to tap into a consultancy's global network of location decision experts.

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4 Artificial Intelligence



Al applied to areas of significant regional expertise could create economic development opportunities









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To: Invest Vancouver Management Board

From: Bryan Buggey, Executive Vice President, Invest Vancouver

Date: April 22, 2024 Meeting Date: May 23, 2024

Subject: Investment Attraction Update

RECOMMENDATION

That the MVRD Board receive for information the report dated April 22, 2024, titled "Investment Attraction Update".

EXECUTIVE SUMMARY

In the first quarter of 2024, Invest Vancouver received 32 new expressions of interest in the Metro Vancouver region. The net result is a current roster of 112 companies that have expressed an interest in the region representing 2,612 jobs and \$2.8 billion in potential direct investment.

In the first quarter, Wayve, a UK-based company, announced that it has chosen the Metro Vancouver region to expand its international operations, bringing over \$18 million in direct investment to the regional economy and generating 20 local jobs. They are considering the City of Vancouver for their first office. Companies that expressed an interest came from a variety of sources including partner referrals and Invest Vancouver's in-market activities. The second quarter is expected to include similar activity.

PURPOSE

To provide the Invest Vancouver Management Board and MVRD Board with a review of investment attraction activities and results for the first three months of 2024.

BACKGROUND

This report is advanced in alignment and coordination with the approved Invest Vancouver Management Board 2024 Work Plan and the endorsed Invest Vancouver 2024 Annual Plan.

Q1 REVIEW OF ACTIVITY

Invest Vancouver continues to see healthy inbound enquiries and lead generation in Q1 of 2024. The net balance as of March 31, 2024 is 112 companies from around the world that expressed an interest in investing in the Metro Vancouver region or an interest in expanding existing investments. This current balance includes leads carried over from both 2023 and the first quarter of 2024.

Event-based Business Development

At the beginning of 2023, Invest Vancouver introduced an event-based business development approach as a key tool for lead generation, promotional activities, and maintaining important relationships with Invest Vancouver's global network of Canadian Trade Commissioners, Investment Officers, and the BC Trade and Investment global team members on behalf of the Metro Vancouver

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region. Given the success in 2023, Invest Vancouver has continued these efforts in 2024 by participating at key global and local trade events to continue to promote the Metro Vancouver region in sectors previously identified. In the first quarter, the Invest Vancouver team participated in seven global events outside of the region and two local business conferences.

Inbound Delegations

Invest Vancouver hosted four international delegations and company visits that provided the opportunity to promote the region to international audiences and investors, identify potential partnerships, highlight the region's competitive advantages, and/or explore investment opportunities (Table 1).

Table 1. Inboand Delegations that invest valiebaver i rovided investor injormation and services								
Country	Month	# Orgs	Theme					
United Kingdom	January	5	Digital Media and Entertainment					
Lithuanian (Online)	February	2	High-Tech					
Czech Republic	March	3	Green Economy and Other					
Poland	March	4	High-Tech					

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Table 1. Inbound Delegations that Invest Vancouver Provided Investor Information and Services

Total:

Q1 Quantitative Results

An investment lead or opportunity is defined as a company that has expressed an interest in investing in the region or expanding their current investments that are already here. The number of investment leads or opportunities in the pipeline is currently 112, which is a net increase of 11 since the end of Q4 in 2023. The following is a summary of results for Q1:

- One company made the decision to invest in the region;
- 12 companies made the decision not to proceed for their own strategic or financial reasons;
- 18 companies became non-responsive to our follow-up over a 6-month period so they were removed from the pipeline (categorized as abandoned);
- One company chose a different location outside of the Metro Vancouver region (lost to a competing jurisdiction); and
- The remaining 112 companies are still actively considerding the Metro Vancouver region and Invest Vancouver is working to provide investment services.

In Q1, Wayve, a London-based developer of AI autonomous driving software selected the Metro Vancouver region as part of its global expansion plans. The initial investment into the region is relatively modest but significant given the company's \$2-billion-dollar valuation, 200 employees, and backing by renowned entrepreneur and philanthropist Bill Gates. Wayve will be opening up a research and development centre in the City of Vancouver and plans to hire 20 more people. The overall investment will be more than \$18 million.

Table 2 outlines active pipeline by investment stage as of March 31, 2024. In addition, opportunities landed in the Metro Vancouver region or closed out by the Invest Vancouver team in Q1 are outlined below in Tables 3 and 4, respectively.

Table 2. Investment Attraction Pipeline at March 31, 2024

Stage	# Prospects (leads)	Potential Jobs	Potential Investment (\$M)					
Attraction								
Interested	68	952	\$774M					
Exploring	19	612	\$1,590M					
Facilitating	11	452	\$205M					
Sub-Total:	98	2,016	\$2,569M					
	Expa	ansion						
Interested	3	75	\$52M					
Exploring	5	83	\$71M					
Facilitating	5	88	\$25M					
Sub-Total:	13	246	\$148M					
	Retention							
Interested	1	350	\$108M					
Sub-Total:	1	350	\$108M					
Total:	112	2,612	\$2,825M					

Table 3. Closed Opportunities - Landed (Q1)

Company Name	ompany Name # New Jobs		Member Jurisdiction
Wayve	20	\$19M	City of Vancouver
YTD Total	20	\$19M	

The Invest Vancouver team also engaged in due diligence and followed up with existing leads from 2023. For Q1, there were 18 companies who were not responsive and therefore ceased to remain as prospects in the pipeline. These opportunities have been "abandoned" in this regard. An additional 12 companies made the decision not to proceed with international expansion at this time. Reasons cited most often had to do with uncertainty in the changing economic landscape brought on by rising inflationary pressures or they chose not to make a local acquisition. Finally, one company chose to locate in a competing jurisdiction. In this case, the elctrolyser company wanted to locate on the east coast to take advantage of the faster growing export market opportunity with Europe. Table 4 provides some detail of the opportunities that were closed out in the first quarter.

Table 4. Closed Opportunities - Lost (Q1)

Company's Sector (Country)	Pot. Jobs	Pot. Inv.	Reason for Loss
	Not	Not	
	Realized	Realized	
Agritech and Agrifood (France)	5	\$1M	Abandoned
Digital Media and Entertainment (France)	5	\$1M	Abandoned
Digital Media and Entertainment (Japan)	10	\$3M	Abandoned
Digital Media and Entertainment (Korea)	5	\$1M	Abandoned
Digital Media and Entertainment (Korea)	5	\$1M	Abandoned
Digital Media and Entertainment (UK)	50	\$15M	Decision not to Proceed
Digital Media and Entertainment (USA)	15	\$4M	Abandoned
Digital Media and Entertainment (USA)	5	\$1M	Abandoned

Company's Sector (Country)	Pot. Jobs	Pot. Inv.	Reason for Loss
	Not	Not	
	Realized	Realized	
Green Economy (Undisclosed)	200	\$271M	Lost to a Competitor
High-Tech (Japan)	5	\$1M	Abandoned
High-Tech (Korea South)	20	\$7M	Abandoned
High-Tech (Korea South)	5	\$1M	Abandoned
High-Tech (Myanmar)	5	\$1M	Abandoned
High-Tech (Singapore)	5	\$1M	Abandoned
High-Tech (United States)	200	\$69M	Decision Not to Proceed
High-Tech (United States)	10	\$5M	Decision Not to Proceed
Life Sciences (Korea)	5	\$1M	Abandoned
Life Sciences (Korea)	5	\$1M	Abandoned
Life Sciences (Korea)	5	\$1M	Abandoned
Life Sciences (Korea)	5	\$1M	Abandoned
Life Sciences (Korea)	5	\$1M	Abandoned
Life Sciences (Singapore)	5	\$2M	Decision Not to Proceed
Life Sciences (Sweden)	6	\$3M	Decision Not to Proceed
Life Sciences (Switzerland)	2	\$0.8M	Decision Not to Proceed
Life Sciences (Switzerland)	5	\$3M	Decision Not to Proceed
Other (Australia)	5	\$1M	Decision Not to Proceed
Other (Australia)	5	\$1M	Abandoned
Other (Korea)	5	\$3M	Decision Not to Proceed
Other (Mexico)	5	\$1M	Decision Not to Proceed
Other (United States)	5	\$1M	Decision Not to Proceed
Other (United States)	5	\$2M	Decision Not to Proceed
YTD Total	623	\$405.8M	

Table 5 illustrated that the majority of the leads are currently generated from event-based business development activities.

Table 5. Breakdown of Leads by Source (Q1)

Lead Source	#	Ratio
Event-Based Business Dev.	52	46%
Gov't Partners (IiC, GAC/TCS, JEDI/TIR)	31	28%
Other referrals (non-gov)	6	5%
Direct Inbound Enquiries	15	13%
Other	8	7%
Total:	112	100%

Invest Vancouver is also monitoring trends in the geographic and sector representation for opportunities in the pipeline. Many of these results relate directly to the sector trade events and overseas markets where Invest Vancouver was most actively engaged. Table 6 provides a breakdown by the key strategic sectors as well as by geographic region.

Tabi	le 6.	Break	kdowr	ı of	Lead	ls b	v Sector	and	Geograp	hy

Key Sector Representation						
High-Tech	36	32%				
Green Economy	25	22%				
Life Sciences	12	11%				
Digital Media & Ent.	15	13%				
Agritech and Food	4	4%				
Transportation	3	3%				
Apparel	3	3%				
Other	14	13%				

Geographic Representation					
United States	22	20%			
Europe	32	29%			
Asia	26	23%			
Canada	19	17%			
Australia	9	8%			
Other	4	4%			

Total: 112

Total: 112

OBSERVATIONS AND INSIGHTS

Over the past three months, the Strategic Investments team has observed the following:

- 1. **Talent**. With a recent landed investment to the region (Wayve), it remains evident that companies in certain sectors are choosing the Metro Vancouver region because of the region's current advantages including. Ecosystems like AI, machine learning, and optical technologies are also continuing to outperform and draw in global investors.
- 2. Green Infrastructure. Given the global interest and investments in the energy transition and related infrastructure, potential investors are often seeking information on opportunities in the region related to green infrastructure and other major projects related to the energy transition. There is significant interest from asian markets to invest in the Metro Vancouver region but such investors are in search of investment-ready, project-based opportunities where they can participate. Invest Vancouver is considering developing a rostor of such opportunities.
- 3. Shift to 24/7 Business Operations. The trend to 24/7 business operations in some industries (e.g. Digital Media & Entertainment, High-Tech) is driving more global companies to open offices in the Metro Vancouver region given its strategic time zone. Post-pandemic, companies appear to be seeking to distribute employees across multiple time zones. By forming virtual teams that are spread out globally (e.g. UK, Australia, Canada), companies can take advantage of continuous work hours with a minimum of one office open 24/7 for improved responsiveness and customer service. Unlike other parts of North America, the Metro Vancouver region's time zone allows a company to start the day with Europe and end the day with East Asia.

LOOKING FORWARD: Q2 WORKPLAN

Staff will continue outbound missions focused on FDI attraction as within per board approved 2024 Invest Vancouver budget and workplan, and will engage with international firms to promote the Metro Vancouver region as one region, one workforce, and one economy. The second quarter workplan includes participation at major industry and sector events, including Innovate West, the Canadian Hydrogen Convention, Hannover Messe, the World Hydrogen Summit, BIO Convention, Global Affairs Roadshow, London Tech Week, Hy-Fcell Expo and Conference and others where important executives, decision-makers and thought leaders will be present.

In addition, Invest Vancouver will be welcoming inbound delegations with international firms considering expansion into the Metro Vancouver regions. These inbound delegations could benefit from Invest Vancouver's tailored services when seeking to navigate issues relevant to talent retention and recruitment, site selection, introductions to specific contacts and other investment processes. The below table outlines upcoming delegations:

Delegation / Company	Sector	City	Month
Fat Fish	Digital Media and	Singapore	April
	Entertainment		
Loanworks	Fintech	Sydney	April
PX4	Digital Media and	Perth	April
	Entertainment		
Untold Studios	Digital Media and	London	May
	Entertainment		
Mphasis	High-Tech	Bangalore	April

ALTERNATIVES

This is an information report. No alternatives are provided.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report; associated activities were completed within the Board approved Invest Vancouver 2024 budget.

CONCLUSION

Q1 was built on the foundation of last year's advancement. Lead generation continues to progress. Looking forward, Invest Vancouver will continue to focus on key sectors and endevour to support the most highly-engaged prospects in order to secure investment for the region. Invest Vancouver will continue to refine its approach while being flexible to incremental adjustments throughout the year to achieve best results for the region.

63983670



To: Invest Vancouver Management Board

From: Sue Mah, Vice President, Collaboration

Peyton Winslade, Marketing and Partnership Advisor

Date: April 19, 2024 Meeting Date: May 23, 2024

Subject: Global Promotion and Regional Collaboration

RECOMMENDATION

That the Invest Vancouver Management Board receive for information the report dated April 19, 2024, titled "Global Promotion and Regional Collaboration".

EXECUTIVE SUMMARY

Invest Vancouver continues to grow its reach through various promotional channels and collaboration initiatives. Aligned with the Invest Vancouver Management Board 2024 Work Plan and the 2024 Annual Plan, Invest Vancouver continues to leverage digital platforms and foster partnership opportunities to bolster economic development. Overall, Invest Vancouver's strategic approach to global promotion and regional collaboration underscores its commitment to fostering economic growth and global connectivity in the region.

Invest Vancouver effectively utilizes owned digital channels, including social media, website, and newsletter, to reach both a local and global audience. In 2023, Invest Vancouver achieved growth across its digital channels, including a doubling of LinkedIn followers, a 39 per cent increase of website visits, and an email open rate that doubles the industry average. Additionally, Invest Vancouver engaged in 20 regional collaborations, driving awareness and engagement, enhancing the regional economic development ecosystem, elevating industry hubs, increasing capacity and global connectedness, and catalyzing innovation.

PURPOSE

To provide an update regarding Invest Vancouver's global promotion and regional collaboration activities, including key metrics from 2023 and 2024 to date.

BACKGROUND

This report is advanced in alignment and coordination with the approved Invest Vancouver Management Board 2024 Work Plan and the endorsed Invest Vancouver 2024 Annual Plan.

CONTEXT

Developing a competitive global presence for the Metro Vancouver region through promotional activities targeted at both a local and global audience and enhancing regional collaboration activities are initiatives outlined in the Invest Vancouver 2024 Annual Plan.

A marketing and communications strategy that clearly articulates the region's global brand is important to attract foreign direct investment and to build a stronger regional industry ecosystem.

A strong digital presence is also a critical and a cost-effective tool to increase local and global visibility, enabling access to a wider audience in order to provide updates on current and planned activities. In addition, regional collaboration is necessary to elevate industry hubs and ecosystems. Through partnership activities, Invest Vancouver worked collaboratively with community groups, industry associations, and other stakeholders to catalyze innovation, build capacity, and increase global connectedness related to investment attraction and economic development.

INVEST VANCOUVER'S "OWNED" DIGITAL MEDIA CHANNELS

Invest Vancouver utilizes several "owned" digital communication channels including social media (primarily LinkedIn), the Invest Vancouver website, and an email newsletter. Together, these channels provide an effective way to target both local and global audiences. Invest Vancouver also coordinates with the External Relations department to leverage Metro Vancouver's "owned" digital communication channels to help amplify messaging on economic development. The cohesive approach to reach a wider audience across the region has proved to be very effective in showcasing activities that are a derivative from the Board Strategic Plan.

Social Media

Social media continues to be a key and cost-effective means by which to grow Invest Vancouver's reach using an organic approach (no paid promotion). During the first three months of 2024, Invest Vancouver's posts on social media were seen over 22,000 times across social media channels Twitter, LinkedIn, Instagram, and YouTube. LinkedIn is considered to be Invest Vancouver's main platform, given its professional and business-focused audience. In the first quarter of 2024, Invest Vancouver's LinkedIn posts were each seen an average of 1,000 times, double the average rates in 2022 and 2023, and is detailed in the table below:

Table 1: LinkedIn Me	etrics from	Ianuary 1	2022 through	h March 31	2024

LinkedIn Metric	2022 total	2023 total	2024 to date
Posts	134	132	20
Impressions (views)	75,809	77,922	19,998
Average impressions per post	566	590	1,000
Engagements (e.g. link click, like, comment)	7,162	6,286	1,367
Shares of Invest Vancouver content	201	237	52
New followers	729	1,193	295

Invest Vancouver's following on LinkedIn has also increased significantly over 2023 and the start of 2024. Starting at under 1,000 followers at the end of 2022, Invest Vancouver's follower count has more than doubled to 2,400+ followers to date. LinkedIn provides audience metrics to better understand its followers (70 per cent of Invest Vancouver followers are from British Columbia, 14 per cent are from other parts of Canada, and 16 per cent are international).

CanExport Funded Video Content

In 2023, Invest Vancouver developed two new investment attraction-focused videos that provide a broad introduction to the Metro Vancouver region. These videos were possible as a result of funding received from the CanExport Community Investment program. Both videos are currently available on Invest Vancouver's YouTube channel (Reference 1). Used for digital marketing as well

as at international events to promote our competitive advantages, they are also available for member jurisdictions and other partners to use as a tool for their own business development activities. The videos have been well-received to date, receiving over 3,600 views across YouTube and LinkedIn within the first month of being public.

Website

In the first quarter of 2024, 3,800 unique users visited investvancouver.ca, resulting in 7,000 web sessions. Of this total, 32 per cent of users were located internationally, with about half of the international users being from the United States.

Table 2: investvancouver.ca web metrics, from January 1, 2022 through March 31, 2024

	2022	2023	2024 to date
Number of visits (sessions) to the website	15,867	22,827	7,270
Number of unique users	9,471	13,168	3,809
Average page views per session	2.72	2.39	2.19
Percent of users from outside of Canada	31.64%	23.33%	32%

Invest Vancouver also implemented six new pages of investment attraction-focused web content through the "Metro Vancouver Advantages" section, including a new interactive map and five new data dashboards to profile the region's value proposition and highlight the region's competitiveness (Reference 2). Metrics captured from top performing web pages, by number of pageviews (total number of times any user view the page), help staff understand what prospective investors generally look for and how they respond to posted content. Table 3 outlines most viewed webpages.

Table 3: investvancouver.ca webpages with most pageviews between January 1 and March 31 2024

Page	Total Pageviews
<u>Home</u>	10,779
<u>Our Team</u>	1,235
Contact Us	877
Governance	629
About Us	583
Discover Our Region (interactive map)	452
Reports and Research	424

Newsletter

Invest Vancouver issues an average of three to four newsletters per year. Content varies from announcements, outbound travel, local events, success stories, and more to promote Invest Vancouver's work and inform other economic development activities to help achieve priorities and initiatives from the annual plan (Reference 3). Strong readership has been noted throughout 2023, with a combined average of 63 per cent open rate (percent of recipients who open the newsletter), compared to the government industry average of 28 per cent, and a combined average of 29 per cent click rate (percent of recipients who clicked a link), compared to an industry average of 4 per cent (source for benchmarks: Mailchimp).

Table 4: Invest Vancouver newsletter metric, from August 2022 through March 2024

Newsletter Date	Emails Sent	Open Rate	Click Rate
August 2022	93	59%	9.7%
October 2022	101	60%	14.8%
December 2022	116	60%	16.4%
April 2023	128	58%	12.5%
June 2023	151	38%	2.0%
November 2023	182	95.6%	15.3%
March 2024	217	31.8%*	9.7%*

^{*}For the March 2024 newsletter, a technical error led to metrics not being recorded properly. Therefore, the metrics are not an accurate representation of the success of the newsletter and are not counted towards overall averages.

INVEST VANCOUVER COLLABORATIONS

In 2023, Invest Vancouver undertook 20 regional collaborations in order to work with partners to build a stronger ecosystem in key industries without duplicating efforts. A core goal of the Invest Vancouver partnership program is to support relevant economic development-related work while increasing awareness of Invest Vancouver and the global brand. Success for the program is measured by outcomes, target audience engagement, networking opportunities and lead generation, and other tangible benefits. Key performance indicators for the partnership program include exposure metrics and is summarized in the below table:

Table 5: 2023 Exposure metrics as a result from collaborative events/projects*

Awareness	2023 metric
Social media impressions	133,000
Event registrations	5,700
Web impressions	96,000
Newsletter impressions (partner organization newsletters)	32,000
Speaking engagements**	14

^{*} All metrics are self-reported by collaborating organizations.

ALTERNATIVES

This is an information report. No alternatives are provided.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report; associated activities were completed within the Board approved Invest Vancouver 2023 and 2024 budgets.

CONCLUSION

Invest Vancouver's proactive approach to digital outreach and collaborative partnerships, as outlined in the 2024 Work Plan and Annual Plan, underscores its commitment to fostering economic growth and global connectivity in the region. Leveraging owned digital channels such as social media, website, and newsletters, Invest Vancouver has significantly expanded its reach. Furthermore, the engagement in 20 regional collaborations has effectively driven awareness of Invest Vancouver's role in the region and supported economic development related work that

^{**} Speaking engagements directly resulting as a benefit of partnership for staff and Invest Vancouver Management Board members representing Invest Vancouver.

enhances the regional economic development ecosystem, elevates industry hubs, and increases capacity for global connectedness.

REFERENCES:

- 1. Invest Vancouver's YouTube Channel
- 2. Invest Vancouver's Metro Vancouver Advantages Webpages
- 3. March 2024 Invest Vancouver Newsletter

63984280



To: Invest Vancouver Management Board

From: Jacquie Griffiths, President, Invest Vancouver, Metro Vancouver

Date: April 26, 2024 Meeting Date: May 12, 2024

Subject: Manager's Report

RECOMMENDATION

That the Invest Vancouver Management Board receive for information the report dated April 26, 2024, titled "Manager's Report".

Invest Vancouver Management Board 2024 Work Plan

The Invest Vancouver Management Board Work Plan for 2024 is attached to this report (Attachment 1). The status of work program elements is indicated as pending, in progress, ongoing or complete. The listing is updated as needed to include new issues that arise, items requested by the committee, and/or changes to the schedule.

The Strategic Initiatives Update for Q2 has been deferred to third quarter due to current demands in key areas like Strategic Investment.

Clean Transportation Month

At its April 26, 2024 meeting, the MVRD Board regionally proclaimed June as Clean Transportation Month. The request was made by Invest Vancouver to build on the momentum from previous declarations and to highlight emerging clean tech solutions in the region and to proactively create opportunities for investment and industry growth. A similar request has been submitted to the Province of BC to provincially proclaim June as Clean Transportation Month. More companies and organizations in the region have recognized the value of June being Clean Transportation Month, with events such as Hydrogen International Expo and Conference, Bike to Work Week, and Car Free Days all held in the month of June.

Invest Vancouver will be showcasing and promoting events to encourage others to explore and activate clean transportation innovations and solutions to demonstrate that the Metro Vancouver region has a thriving clean tech hub. This is also beneficial for promoting the region for global investment opportunities. The proclamation declaration and coalition of activities will promote the region's value proposition, foster additional collaboration and enhance our regional ecosystem as a way to strengthen our clean tech industry and grow the regional economy.

New Mobility Forum

Metro Vancouver, through Invest Vancouver, is planning a collaborative event in partnership with TransLink and the Vancouver Entrepreneurs Forum (VEF) to promote new mobility. Building on the success of the Motivate event in 2022 and 2023, Invest Vancouver is planning a program that spotlights the Metro Vancouver region's innovations in transportation including dialogue around

innovation, investment attraction promotion, and economic opportunities in the rapidly-evolving emerging mobility and clean transportation space.

The event is scheduled for June 27, 2024 and will be held at the Pipe Shop (located in the City of North Vancouver). The intention is to bring together innovative transportation and technologies companies, as well as civic and business leaders from across the mobility ecosystem to explore, collaborate, interact, and share ideas. As the event is held strategically during Clean Transportation Month, the event is expected to build and foster partnerships with mobility providers and innovators. Staff will report back to the Invest Vancouver Management Board after the event to provide an overall summary of the outcomes.

Regional Economic Development Strategy (REDS)

Invest Vancouver has initiated a procurement process for consulting services to develop a five-year Regional Economic Development Strategy (REDS) for the Metro Vancouver region, covering the years 2026-2030. The project will be conducted in two phases, specifically designed to enhance the outreach and engagement process:

- Phase One: This preparatory phase will focus on data gathering and analysis, aiming to conclude by the end of 2024. It will produce a briefing package for *Phase Two* participants covering four main topics: best practices in regional economic development, the Metro Vancouver regional economy, economic development constraints, and potential targets of opportunity. Currently, Invest Vancouver is seeking a consultant to prepare this briefing package, which will serve as a foundational resource and starting point for the next phase.
- Phase Two: This portion of the project will focus on enhanced outreach and engagement, primarily through consultations with stakeholders throughout the region. This phase, which will also involve finalizing the REDS, is expected to conclude by the end of 2025.

Asia Business Leaders Advisory Council Meeting, Vancouver, March 26, 2024

Invest Vancouver attended the March 26, 2024 meeting of the Asia Business Leaders Advisory Council. This annual event provides a platform for attendees to exchange insights, make recommendations, and shape the future of business relations between Canada and Asia. The theme for this year's meeting was *Adapting to Uncertainty: Business Resilience and Partnerships in an Increasingly Turbulent World*. Discussions explored the implications for Canada's engagement with the region while being conscientious of countries in Asia that are undergoing significant transformations and facing increasing geopolitical tensions. Topics covered Asia's geopolitics, assessing sustainability, readiness from consumers, regulatory perspectives, economic outcomes, and addressing the omnipresence and governance challenges of artificial intelligence.

Benchmarking Greater Vancouver 2024 Report

The Greater Vancouver Board of Trade commissioned the *Benchmarking Greater Vancouver 2024 Report* (Referene 1) that examines the region's performance and prospects on nine important categories within the context of the economy, liveability, infrastructure and sustainability. The Metro Vancouver region is benchmarked amoung a customized peer group of 20 cities consisting of the world's high quality mid-sized city regions. Ranking in each category suggests how the Metro Vancouver region is fairing and performing amoungst other cities, and how policy decisions instituted over time create impacts that manifest in the region's current charasteristics. The report

will be presented to the May 16, 2024 Mayors Committee by the Greater Vancouver Board of Trade.

Outreach Meetings

Invest Vancouver staff continues to actively engage in outreach to promote service, build parternships, strengthen relationships, explore collaboration, and investment attraction opportunities within the region. In addition to regular meetings with key partners in both federal and provincial government, staff engaged with the following organizations:

- Avison Young
- BC Apparel and Gear Association
- British Columbia Institute of Technology
- Beedie Industrial
- Burnaby Board of Trade
- Business France
- Canadian Australian Chambers of Commerce
- Commercial Real Estate Service
- Canadian Corporate Counsel Association
- City of Montreal
- City of Pitt Meadows & Pitt Meadows Airport
- Consulate General of France
- Council of Mayors South East Oueensland
- Cushman Wakefield
- Cypress Mountain
- Delphi Group
- DigiBC
- Downtown Surrey BIA
- Embassy of the Czech Republic
- Federal Express
- Foresight
- Fortis BC
- Fujitsu Vancouver

- Gallagher Consulting
- Global Affairs Canada AICTD Program & Clean Growth Hub
- Global Affairs Canada CanExport Group
- Globe Series
- Greater Vancouver Board of Trade
- Honorary Consul General of Lithuania
- HTEC
- Impact United
- Innovate BC
- Invest Alberta
- Invest in Canada
- Laval University
- Ministry of Energy Mines Low-Carbon Innovation
- North Shore Studios
- Provincial Ministry of Jobs Economic Development & Innovation
- Robert Allen Group
- Seaspan Shipyards
- SFU Centre for Dialogue
- SFU Venture Labs
- Surrey Board of Trade
- RBCx
- Translink

ATTACHMENTS

1. Invest Vancouver Management Board 2024 Workplan

REFERENCES

1. Benchmarking Greater Vancouver 2024 Report

Invest Vancouver Management Board 2024 Work Plan

Report Date: April 26, 2024

Priorities

1 st Quarter	Status
2024 Invest Vancouver Management Board Meeting Schedule and Work Plan	Completed
Invest Vancouver 2024 Annual Plan	Completed
Investment Attraction Update	Completed
Manager's Report	Completed
2 nd Quarter	
Global Promotion and Regional Collaboration	Completed
Regional Workforce Development Needs Assessment and Opportunities	Completed
High-tech Sector in the Metro Vancouver Region	Completed
Strategic Initiatives Update	Deferred
Investment Attraction Update	Completed
Manager's Report	Completed
3 rd Quarter	
New Mobility Forum Event	Pending
Invest Vancouver 2024 Annual Plan Deliverables and KPI Mid-Year Update	Pending
Workforce Development Update	Pending
Investment Attraction Update	Pending
Economic Reconciliation Update	Pending
Manager's Report	Pending
4 th Quarter	
Invest Vancouver 2025 Budget and 5-Year Financial Plan	Pending
Regional Strategic Economic Development Plan	Pending
Cleantech and Foodtech Project Update	Pending
Foreign Direct Investment Initiative Update*	Pending
Strategic Initiatives Update	Pending
Investment Attraction Update	Pending
Manager's Report	Pending

^{*}Some work may be contingent on external funding.

67408153



January 25, 2024 Ref: 164233

Hello,

On behalf of the Ministry of Jobs, Economic Development and Innovation, I would like to thank you for your participation in the recently completed study assessing the economic competitiveness of British Columbia led by MMK Consulting. Your contribution to the study helped to paint a comprehensive portrait of the opportunities and challenges facing our province.

In the study, stakeholders and leaders across sectors highlighted the province's talented workforce, infrastructure, and quality of life as key strengths. Common challenges mentioned were access to industrial land suitable for manufacturing, affordability, and costs of doing business relative to other Canadian cities.

I'd like to assure you that interviewee identities were only shared with the JEDI project team, not disclosed in the report to JEDI. Views and opinions provided by interviewees were presented in the report on a consolidated, unattributed basis.

The results of study will help the Ministry inform future public policy development and recommendations to Cabinet and Treasury Board to support economic growth across the province in the coming years.

Thank you once again for your support of this important study.

Sincerely,

Kerry Pridmore

Assistant Deputy Minister







Metro Vancouver CAO Executive Offices

APR 2 4 2024

RECEIVED

April 23, 2024

Mr. George Harvie Chair of the Board of Directors Metro Vancouver Metrotower III, 4515 Central Boulevard Burnaby, BC V5H 0C6

Dear Chair Harvie,

On behalf of the Asia Pacific Foundation of Canada and Universities Canada, thank you for your contributions as a participant and speaker at the 2024 Canada-in-Asia Conferences on Agrifood and Climate Solutions.

Your insights and participation were instrumental in helping us to create a vibrant and enriching experience for all participants, and we deeply appreciate the time and effort you invested in preparing and delivering your remarks.

We are pleased to report that the conferences were a resounding success, attracting a diverse and engaged audience of 463 attendees over four days of programming. Through more than 30 panel discussions, keynote presentations and roundtables, participants examined important topics spanning a range of topics within agri-food and climate solutions. We are proud to have contributed to ongoing Canada-Asia engagement in these priority sectors.

We hope you found the Canada-in-Asia Conferences to be a beneficial platform for sharing your knowledge and perspectives, connecting with like-minded participants, and fostering future collaborations. It was a pleasure to welcome such a strong delegation from Metro Vancouver to the events. Please stay tuned for further details on the next Canada-in-Asia Conference, which will take place in Singapore from February 19-21, 2025. We hope to see you there!

Sincerely,

Jeff Nankivell
President and CEO

Asia Pacific Foundation of Canada