

The Regional Municipality of York

Committee of the Whole
Planning and Economic Development
November 11, 2021

Report of the Commissioner of Corporate Services and Chief Planner

Innovation Investment Fund Application - ventureLAB

1. Recommendation

Council authorize \$1.55 million over five years from the Innovation Investment Fund be provided to ventureLAB for expansion of the [Hardware Catalyst Initiative](#) (HCI) and to promote attraction of foreign hardware companies to York Region.

2. Summary

This report provides Council with an overview of the opportunity to support expansion of the HCI, led by ventureLAB.

Key Points:

- The Government of Canada has invested nearly \$10 million over five years to establish and expand the HCI
- ventureLAB has requested \$1.55 million over five years from the Region to further expand the HCI and attract foreign hardware and semiconductor related companies to York Region
- This initiative meets the requirements of the Innovation Investment Fund

3. Background

ventureLAB is the Region's provincially recognized Regional Innovation Centre

Founded in 2011, ventureLAB is a not-for-profit organization that is part of a collaborative provincial innovation and entrepreneurship network called the [Ontario Network of Entrepreneurs \(ONE\)](#). The network includes 17 Regional Innovation Centres and 47 Small Business Enterprise Centres, including four Small Business Enterprise Centres located in Markham, Richmond Hill, Vaughan, and Newmarket which serves the northern six municipalities.

ventureLAB is mandated as part of the ONE to advise and develop talented entrepreneurs to build world-class growth companies in Ontario. ventureLAB develops and delivers programs

and services that target technology-based entrepreneurs starting and growing global enterprises.

The service area covered by ventureLAB includes all nine municipalities in the Region, Simcoe County and Muskoka District. York Region is a founding member of ventureLAB, provides annual funding for program delivery and holds a seat on the Board of Directors.

ventureLAB is taking a leadership role in contributing to Canada's hardware and semiconductor capacity

According to the Semiconductor Industry Association, the semiconductor industry is responsible for [US \\$3 trillion in global GDP, along with US \\$11 trillion in indirect impact](#), and creates [5.7 indirect new jobs](#) for every semiconductor job. This industry supports a broad range of sectors by providing microprocessors and hardware components required for a variety of products. Examples of products that rely on these components include, but are not limited to, cars, aircraft, computers and smartphones, home electronics, medical devices, and agricultural and food processing equipment. Semiconductors are also essential for transformative innovations such as autonomous vehicles and drones, robotics, quantum computing, and artificial intelligence and machine learning.

Revenue from this industry in Canada is projected to grow to [US \\$3.8 billion by 2024](#). ventureLAB is taking a leadership role in contributing to Canada's hardware capacity by facilitating home-grown innovation, advancing commercialization, and attracting investment. The goal is to grow the industry and stimulate well-paying jobs in the Region and across the country.

In 2019, ventureLAB identified this as an opportunity for Canadian companies and launched the HCI with support from the Federal Government. To date ventureLAB has received \$9.73 million in Federal Government funding through two tranches of funding.

In 2021, ventureLAB led the founding of [Canada's Semiconductor Council](#) which has a mandate to build and lead Canada's national semiconductor strategy and action plan. The goals of the council include advancing Canadian competitiveness, strengthening trade partnerships, bolstering supply chain resilience, and propelling Canada to the forefront of the global semiconductor industry.

4. Analysis

ventureLAB, with the support of the Federal Government and private sector partners, is addressing a market opportunity in the semiconductor space

In 2019, ventureLAB leveraged [\\$5 million investment by the Government of Canada](#), through the Federal Economic Development Agency for Southern Ontario (FedDev Ontario), to create the HCI. In 2020, ventureLAB secured several leading equipment, design and manufacturing partners to officially launch Canada's only hardware and silicon focused lab and incubator. This competitive program enables small and medium-sized technology enterprises to accelerate commercialization and growth. In recognition of the importance of

building domestic production capacity for critical components like microchips, the [Federal government invested an additional \\$4.73 million](#) in 2021 to further expand the HCI.

The HCI has also garnered interest and support from over 30 private sector partners including global and Canadian industry leaders such as AMD, Dell and Microsoft. These partners recognize the unique opportunity and role for Canada as a valuable player in the global semiconductor supply chain.

The Hardware Catalyst Initiative led by ventureLAB is delivering tangible results

Demand from companies to enter HCI is considerable. Since officially launching in February 2020 there has been close to 100 applicants to the HCI including 15 from outside southern Ontario and four based internationally. The HCI has served 24 companies and contributed to the creation of 79 new jobs, commercialization of 25 new products and the awarding of 12 new product patents. To date ventureLAB is meeting the targets in the agreement with the Federal Government.

Since launching the HCI, ventureLAB has worked with staff to reposition the Made In York Region technology showcase to be more focused on hardware related opportunities. In June 2021, in partnership with the Region, ventureLAB hosted the first annual Hard-Tech event, positioned as Canada's premiere hardware technology-focused conference. The goals of the event were to emphasize the importance of hardware technology, the economic and social impacts and showcase York Region's strength in this area. It delivered an interactive and transformative experience featuring prominent leaders in the technology ecosystem.

Additional investment is required to expand the Hardware Catalyst Initiative and help attract more foreign direct investment

Expansion of the HCI will increase the capacity to assist home-grown innovation and commercialization opportunities. It will expand the capabilities to include additional advisory services, and to assist companies that don't yet qualify for the HCI. Currently there is capacity in the acceleration and commercialization lab, however the number of companies that can be accommodated with the existing advisory resources is at a maximum. Additional technical advisors are required to enable entry into the program.

ventureLAB will also include a soft-landing program to accommodate demand from international companies. Having a Canadian presence is a requirement for participation in the HCI, therefore any foreign-based businesses would require Canadian operations to be eligible.

This expansion will support new and existing companies and create jobs. It is projected that this expansion will enable ventureLAB to assist an additional 34 companies, including 14

foreign-based. It will contribute to the creation of 145 new jobs and commercialization of five new products over five years. Details of the proposal are included in Private Attachment 1.

This expansion will build on the success of the Hardware Catalyst Initiative and contribute to Regional, provincial and federal commitments to building back better

The outcomes of ventureLAB's HCI program demonstrate that demand for hardware and semi-conductor advisory, development and commercialization services is high. Supporting this proposed expansion will complement the \$9.73 million that has already been provided to date by the Federal Government.

York Region is Canada's second-largest technology hub and one of its most diverse communities. Over the past 2 years, the effects of COVID-19 on the global supply of semiconductors and hardware components has been well documented. This has highlighted the need for jurisdictions to revisit capabilities in this area and to develop innovative approaches to improve production capacity and supply. As businesses continue to manage these challenges the opportunity exists for the HCI to be an integral part of the Canadian response.

This initiative can be supported through the Innovation Investment Fund

Staff has met with ventureLAB to evaluate the proposal and request for funding. The York Region Innovation Investment Fund was developed with the purpose of driving innovation in the community and attracting investment in transformational initiatives of regional, provincial or national significance. Eligible initiatives include:

- New post-secondary training and research facilities
- New research institutes
- New centres of excellence
- Infrastructure projects directly related to development and utilization of new technologies
- Other projects as deemed appropriate by Council

Attachment 1 lists the principles for the Innovation Investment Fund. Staff assessment of this proposal has concluded that it fits well within the criteria of the Innovation Investment Fund Principles.

The Hardware Catalyst Initiative aligns with strategic goals of Vision 2051 and the Economic Development Action Plan 2020-2023

Vision 2051

"An economy that facilitates creativity and fosters innovation" and "infrastructure and resources supporting a knowledge economy" are identified as key areas of focus. The

Region's partnership with ventureLAB is integral to the ongoing development of the Region's Innovation Economy and the expansion of the HCI program is consistent with these strategic goals.

Economic Development Action Plan 2020-2023

The three pillars in the [Economic Development Action Plan 2020-2023](#) (EDAP) are Business, Innovation and Talent. ventureLAB is identified in the Innovation pillar and plays an important role in delivering support services for innovative companies located in the Region. Activities of the HCI also fit under the Business pillar; specifically, action items #4 (foreign direct investment) and #5 (new cluster analysis and development).

5. Financial

On [February 2019](#), Council approved an annual Innovation Investment Fund contribution to support transformational projects of Regional significance. These may include major research projects leveraging regional infrastructure, post-secondary campus facilities, and public-private research collaborations that promote business competitiveness and community benefits. In [June 2020](#), Council authorized \$500,000 from this fund be used to provide COVID-19 small business support.

On October 1, 2021, the Innovation Investment Fund held a balance of approximately \$2.14 million. An additional \$210 thousand is scheduled to be added to this reserve fund in Q4, making the balance \$2.35 million by the end of 2021. If approved by Council, this request would draw \$1.55 million over five years (2021 to 2025). It is anticipated that an annual contribution of \$600 thousand will be made in 2022 and 2023, pending annual budget approval by Council.

6. Local Impact

ventureLAB serves as an innovation and commercialization hub for technology companies in the Region across all nine local municipalities. ventureLAB delivers services and activities to businesses to promote economic success and growth of enterprises looking to commercialize products and services.

The activities of the Hardware Catalyst Initiative will continue to benefit all business clusters that are represented across the Region.

7. Conclusion

ventureLAB has taken a leadership role in supporting Canada's semiconductor hardware capacity. To date HCI has delivered tangible results but additional investment is required to further expand the HCI and to include the attraction of foreign investment. This expansion will assist new and existing hardware and semiconductor companies and create jobs. This request fits within the principles of the Innovation Investment Fund and is an opportunity to build on the momentum and successes of ventureLAB's hardware and semiconductor-related initiatives. The HCI will positively impact a broad range of industries in the Region, across Ontario and throughout Canada. Staff recommends that Council authorize leveraging the Innovation Investment Fund for the HCI expansion.

For more information on this report, please contact Jonathan Wheatle, Director, Economic Strategy at 1-877-464-9675 ext. 71503. Accessible formats or communication supports are available upon request.



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October 28, 2021
Attachments (1)
Private Attachments (1)
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