



Summary of the Innovation Superclusters Initiative (ISI) Evaluation

Audit and Evaluation Branch
Senior Management Committee – March 2022

The ISI is a co-investment initiative designed to promote the growth and development of Canada’s most promising regional innovation ecosystems by accelerating economic growth in highly innovative industries, encouraging a collaborative business approach, and positioning Canadian firms for global leadership. The ISI aims to strengthen collaboration among companies and other innovation ecosystem players in key areas of current and future competitive advantage for Canada.



Background: In February 2018, ISED selected five industry-led, not-for-profit consortia in five innovative areas representing current and future competitive advantages for Canada. Funding was approximately \$153 million each to the Protein Industries, Digital Technology, and Ocean Superclusters, and approximately \$230 million each to the Next Generation Manufacturing and SCALE AI Superclusters.

Three areas were examined in the evaluation using four data collection methods, covering the April 1, 2017 to March 31, 2021 period, as required under the Treasury Board *Policy on Results*.

Relevance: To what extent is there a demonstrable need for the ISI?

Performance: To what extent has the ISI contributed to:

- (1) Increasing private, academic and public sector collaborations?
- (2) Increasing the private sector’s investment in technology research, development, demonstration and commercialization activities?
- (3) The growth of regional innovation ecosystems?
- (4) The development and commercialization of new or improved products, processes or services?

Efficiency: To what extent is the ISI delivery model an efficient and effective approach for developing Superclusters in Canada?

- Has the ISI been implemented as planned?
- Have lessons learned been identified and implemented to improve program design and delivery?



Data Collection Methods

- Literature and Document Review
- Virtual Interviews
- Performance, Administrative and Financial Data Review
- Case Studies



One finding presented the relevance of the ISI in terms of its demonstrable need.

Finding 1: There is a strong need for the development of innovation ecosystems in Canada. The ISI uniquely addresses this need via its collaborative approach and catalyzing effect on R&D investment for high-growth projects.



Nine findings demonstrated the effectiveness of the ISI in fostering collaboration, contributing to technological investment and development, developing regional innovation ecosystems, and leading to commercialization.

Finding 2: The ISI has contributed to fostering collaborations between the private, public, academic and not-for-profit sector primarily through funding projects that aim to: accelerate the development and adoption of advanced technologies; address unique ecosystem gaps and challenges; and respond to the COVID-19 pandemic.

Finding 3: There has been a high degree of engagement from innovation ecosystem players, reflected in the increasing number of members annually joining the five Superclusters. Each Supercluster hosts a unique array of outreach and engagement activities that have contributed to fostering stronger connections among members.

Finding 4: ISI-facilitated collaborations and connections are beneficial to innovation ecosystem participants, particularly private sector members such as small and medium-sized enterprises. Entity members participating in projects establish connections that in some cases, may not have occurred and are leading to new or continued engagement after completion of a Supercluster project. There is an opportunity to foster greater collaboration between the Superclusters.

Finding 5: The ISI is contributing to increasing the private sector's investment in technology research and development activities through funding collaborative technology projects that are incentivizing firms to develop, adopt and commercialize technologies. The Superclusters are attracting partner funds for technology development projects that exceed federal investments.

Finding 6: The ISI has facilitated ecosystem development activities to address known industry challenges, de-risked collaborative innovation projects, and helped connect organizations with complementary expertise.

Finding 7: In support of ecosystem development, the ISI is helping to spur job creation and employ underrepresented groups. Although the Superclusters are at different phases of implementation, numerous skills development and training programs have also been developed, including ones targeting underrepresented groups. However, it is too early to assess the full impact in these areas and the consistency and availability of data limits assessment of results.

Finding 8: ISI projects are helping participants to develop or access innovative technologies; introduce new products, processes or services; increase revenue, profits and efficiency; and decrease costs. While most projects had expected commercialization benefits, more time is needed for commercialization objectives to be fully realized due to the longer-term nature of these outcomes.

Finding 9: ISI projects are helping participants to advance their technologies to the commercialization stage by providing them with critical resources and connections to other organizations. While many projects are still ongoing, examples of product development, process improvements, and commercialization were provided by project participants.

Finding 10: The ISI supports the development, protection, and sharing of IP. The majority of IP created to date was via trade secrets. Early on in the implementation of the Superclusters, there were concerns among members over the sharing of IP. However, over time, the terms developed in IP agreements provided clarity to participants. There has also been increased awareness and gaps in knowledge addressed among participants in the creation, management, and sharing of IP.



Five findings presented the extent to which the ISI delivery model is an efficient approach for developing Superclusters in Canada.

Finding 11: Through ISI’s unique industry-led approach, cross-sectoral collaboration model, and administrative support and flexibility, the delivery model evolved and adapted in response to the shifts in members’ needs and ecosystem priorities. As a result of this flexible and responsive approach, stakeholders found that the delivery model was effective and efficient at responding to the emerging complexities and priorities in the innovation landscape and policy pressures such as the pandemic response.

Finding 12: Each Supercluster is on track to meet the 1:1 industry matching funds ratio required over the five-year timeframe. Private sector investment increased overall, even during the pandemic.

Finding 13: The use of available operating and administrative funds varies by Supercluster and correlates with the proportion of project funding each Supercluster has used, suggesting that the Digital Technology and NGen Superclusters are furthest along in operationalizing their activities. All Superclusters have remained within their spending limits for operating and administrative funds.

Finding 14: Although the Superclusters committed to equity, diversity, and inclusion (EDI) in their practices, the robustness of existing policies and programs to promote EDI within each of the Superclusters varies due to a lack of formal requirements that go beyond gender parity.

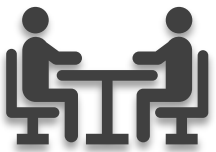
Finding 15: Stakeholders highlighted lessons learned and potential improvements, including cross-collaboration between Superclusters and administrative flexibility for projects.

Four recommendations were produced in the evaluation, stemming from the assessment of performance, and supported by at least three data collections methods.

Performance

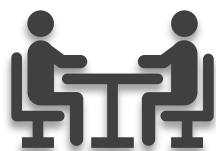


Recommendation 1: ISED Innovation Canada should identify and implement approaches to facilitate and encourage collaboration and sharing of information and best practices across the Superclusters.



Recommendation 2: To enhance measurement of aggregate program outcomes for the ISI program, ISED Innovation Canada should continue improving the consistency in how data is collected and submitted by the Superclusters. Collecting structured data, in areas such as jobs, training and skills development, would strengthen the quality of metrics used to assess progress against expected outcomes and enhance future modelling and assessments on the long term impacts of the program.

Efficiency



Recommendation 3: ISED Innovation Canada should explore opportunities to establish clearer definitions and consider more formal requirements for EDI.



Recommendation 4: ISED Innovation Canada should work with the Superclusters to clarify to recipients how funding requirements are linked to achieving program objectives and assess whether greater flexibility (e.g., amending project funding timelines and requirements across different funding streams) of ISI and Supercluster projects is warranted.