

CORPORATE PLAN 2021-2022

Corporate Plan

2021-2022

For the fiscal period ending March 31, 2022



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1 Executive Summary

With two and a half years of operating history, we are exceeding or meeting our five-year targets. Our Members and our Supercluster projects are making a substantial impact on jobs, economic growth and accelerating the digital transformation of our economy. COVID-19 threw us all a curve ball, and at the same time, it amplified the relevance of our Supercluster's objectives. In a matter of a few weeks from the arrival of the pandemic we created and launched a program dedicated to building and delivering digital solutions to COVID-19 issues – many of which were still emerging. We moved quickly and with intensity to focus on keeping Canadians safe and healthy with the development and deployment of solutions from accelerating the diagnosis time of a COVID-19 infection, to improving the security of food supply chains. Industry, the public sector and post-secondary partnerships came together quickly resulting in over 400 submissions with the total value of \$1.4billion for our \$60M fund.

In addition to our development and implementation of our COVID program, we maintained our focus on driving the success and outcomes of our 31 projects - all selected before the onset of the pandemic. None of these projects were cancelled as a result of COVID-19 and a number of them continued on with vigour through the past year, delivering on their goals and outcomes. Together with our Members we have continued to demonstrate the value of our collaborative innovation model which is bearing fruit as we have seen our member organizations scaling in size, their products being commercialized, IP being developed and leveraged and jobs being created – all combining to drive increased economic impacts – even during the pandemic.

By the end of the year, Canada's Digital Technology Supercluster ("Supercluster") will have engaged over 900 organizations, attracted leading investment opportunities, and exceeded its investment targets. We are immensely proud of our staff, grateful to our Board and in awe of our Member organizations who have all come together to build our Supercluster community.

Our Supercluster's work to date and what is planned in the coming year is an important part of supporting Canadians as together we continue to navigate the evolution of COVID-19 and prepare for economic recovery and the return to growth. With this in mind, we plan to continue growing our innovation community, delivering on our programs, and strengthening our ecosystem. To continue to amplify these results, we look forward to a continued strong and positive partnership with the Government of Canada including seeing the Government of Canada re-invest in our Supercluster as our core partner in our mobilization of significant investments alongside industry partners from across the country.

2 About Canada's Digital Technology Supercluster

2.1 Introduction

Canada's Digital Technology Supercluster ("Supercluster") was created in 2018. We are a not-for-profit organization constituted under the *Canada Not-for-Profit Act*. We co-invest in industry-led technology development projects focused on solving some of society's and industry's biggest challenges through the development, deployment and scaling of Canadian-made digital solutions.

Our Supercluster projects are saving and creating jobs, keeping small companies in business during the pandemic and allowing them and others to grow. Our projects are also accelerating the digital transformation of Canada's economy and our societal infrastructure, building a well-trained and job-ready diverse workforce and positioning Canada for a fast and successful economic recovery and return to prosperity through stronger global competitiveness and the confidence that comes when Canadian business delivers outcomes that work.

Before COVID-19, our core objectives were to:

- Build powerful partnerships and alliances;
- Develop globally competitive platforms and companies;
- Scale up small and medium-sized enterprises to increase ecosystem performance; and
- Increase the breadth and diversity of talent ready for a digital economy.

Since the spring of 2020, we amplified these objectives with an intense and driven focus on making sure that we support Canadian companies to deliver digital solutions to COVID-19 related issues, move quickly, save and create jobs and keep Canadians healthy and safe.

We built upon Canada's pre-existing strengths and brought together new teams to solve the most critical problems we faced at this pressing and unprecedented time, by investing in projects that support the development, deployment, scale-up and adoption of products, services or technologies that help governments, communities, employers and individual Canadians address exceptional needs created by or related to COVID-19.

2.2 Vision, Mission and Values

Our Vision

Our Supercluster's vision is:

To position Canada as a global leader in digital technology through a Supercluster that unlocks the potential of data in the era of the intelligent enterprise.

Our Mission

Our Supercluster's mission is to:

- Create a critical mass of world-leading digital technology companies across Canada that develop innovative products, platforms and processes;
- Transform Canadian industries through the digitization of business, prioritizing industry-specific needs, and delivering productivity gains and competitive advantages at the firm and industry levels; and
- Grow the economic benefits for B.C. and Canada by generating new companies, scaling existing firms, enabling performance improvements in Canada's sectors of strength, and positioning B.C. as a global hub for digital technology innovation.

Our Charter of Values

Our Supercluster is guided by core values that are the cornerstone of how members and participants interact and work together. These values are:

DIVERSITY. We embrace diversity and inclusion in everything we do.

TRANSPARENCY. We are transparent and open, candid, respectful in our communications and actions, and we promote a trustful environment.

COLLABORATIVE. We proactively collaborate, respecting and leveraging the value of different experiences and perspectives to drive agreement.

RESULTS FOCUSED. We are outcomes and results focused, knowing that through collaboration we will deliver meaningful, strong and positive results.

GREATER GOOD. We embrace the greater good and seek system-wide benefits.

BOLD. We are dynamic and innovative, pushing technology for maximum business and societal impact.

RESPECT. We keep our promises and, if there are conflicts, we declare them to maintain transparency and professional integrity.

2.3 Program Strategy

Prior to COVID-19, digital technologies were transforming our society and economy. These technologies have been advancing with a combination of scope, scale and velocity, spawning new ways of thinking and doing, creating previously unimaginable opportunities, disrupting ways of life, and altering our built and natural environments. However, the way we live, work, play and relate to each other was changing in ways that we had only started to comprehend by the end of 2019.

The COVID-19 pandemic accelerated how digital technologies are transforming our society and economy. We now know that the “digital economy” is no longer a subset of the economy. Rather, it is a fundamental underpinning for society and the entire economy. As noted in the 2020 Report from Canada’s Industry Strategy Council, **“An ambitious industrial strategy for Canada should include four main pillars: Pillar 1: Become a digital and data-driven economy.”**¹

The rapid acceleration of digital technologies through our Supercluster since 2018 and the increased intensity over the past year is also driving the creation of an innovation environment that is quite different from what has been experienced in earlier industrial revolutions where transformation and success resulted from leveraging mechanized production, electric power, electronics and information technology. Today’s digital transformation is not just about harnessing invention, rather, it is about learning to work with a convergence or fusion of technology that crosses physical, digital and biological boundaries. Today’s digital transformation demands a new kind of innovation enterprise.

For that reason, our Supercluster is founded on a collaborative model, bringing people and organizations together – some of whom have never met before. By exploring major industrial and societal challenges together within our innovation programs, project consortia are formed with the resilience to embrace the challenges and capture the opportunities that come with innovation in the digital age. At the heart of our model, and early successes, is collective problem solving, discovering solutions with organizations and people with different perspectives, building meaningful relationships, learning to collaborate and through this, building teams that move fast, understand and embrace diversity of thought and experience, deliver exceptional results and are determined to drive Canada forward.

By not focusing on a single industry or sector, we create a unique space in which organizations that may not normally engage with each other can discover common goals

¹ Restart Recover and Reimagine Prosperity For All Canadians. An Ambitious Growth Plan For Building a Digital, Sustainable And Innovative Economy. A report from Canada’s Industry Strategy Council. December 2020. https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00117.html

and shared strategic interests. By leveraging the diversity of a broad base of participants, we capitalize on the assets, perspectives and capabilities of many organizations. This leads to cross-sector, inter-disciplinary programs that are attractive, at scale and relevant across multiple sectors and markets.

The following framework (Figure 1) illustrates how we develop programs that cut across economic sectors and platforms.

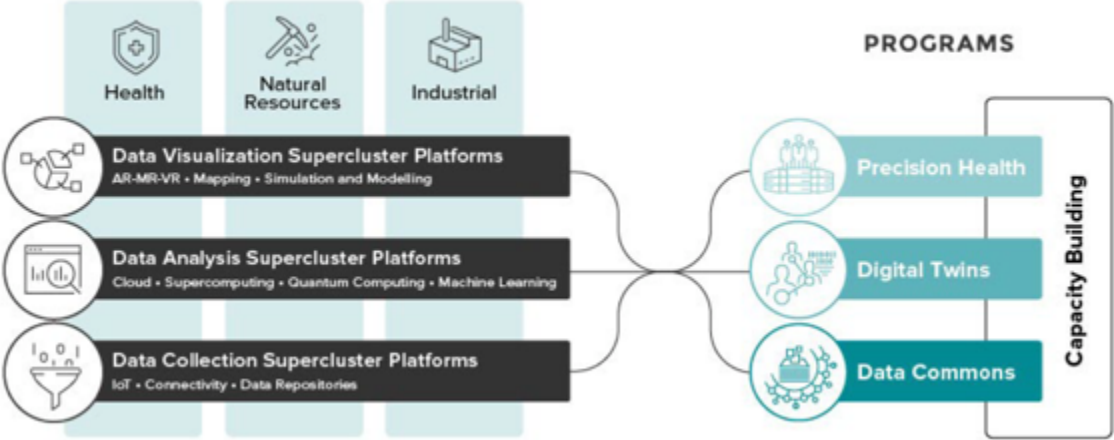


Figure 1: Program Framework

We lead five active program streams. Three are defined as technology leadership programs focused on delivering data based and digital solutions to industrial and societal problems and where the outcome has a tangible global market leadership opportunity. Projects in these programs create value by catalyzing new products and services, new platforms, new ventures, connecting people across sectors and disciplines, attracting follow-on investments in multiple contexts, saving and creating jobs, developing talent and strengthening our region’s reputation for delivering meaningful, innovative digital solutions that work.

Our **Precision Health** program aims to deliver precision health products and services across Canada and around the world to improve access to health services, better health outcomes and strong, resilient, adaptable, sustainable and inter-operable health delivery systems while empowering patients as the centre of care delivery.

Digital Twins is a program focused on creating real-time, virtual environments to model, simulate scenarios, analyze data, improve operational efficiency and further automate the management of complex production systems in sectors such as aerospace manufacturing,

process manufacturing for composite materials, natural resource extraction and even complete food supply chains.

Our **Data Commons** program focuses on projects that will aggregate big data resources from multiple stakeholders into shared platforms with broad-based, globally relevant and world-leading protocols to enable building scalable data-value networks, advanced machine learning and innovative application development, and pave the way to an emerging global data economy.

Our fourth program, **Capacity Building**, is about talent development. This program co-invests in innovative projects that help Canadian enterprises build job-ready, world-class, diverse, digital talent and teams. Investments are made in rapid skilling systems, leadership development and the growth of regional talent pools. This means companies can create well-paying jobs associated with the scaling and marketing of digital technologies here in Canada.

Our **COVID-19** program was created to make sure that our experience and determination, combined with that of our Member organizations, focused intensely on developing digital solutions to the issues and problems created or exacerbated by the pandemic. Industry, public sector organizations and post-secondary institutions came together quickly, resulting in over 400 submissions with a total value of \$1.4 billion for our \$60 million fund. This demonstrated the exceptional commitment of Canadian organizations to drive the delivery of digital solutions in the areas where Canadians needed them the most. Selected projects are focused on improving the health and safety of Canadians and Canada's ability to address issues created by the COVID-19 outbreak, as well as building expertise and capacity to address and anticipate issues that may arise in future health crises. For example, healthcare workers now have access to confidential virtual care and evidence-based treatment options for substance use from ALAViDA; Sanctuary AI is testing the use of robots in long-term care and clinic settings; and Altis Labs is developing new software that predicts patients' risk of ICU admission and expected length of ICU stay based on patients' medical imaging.

An innovative digital workforce is also an inclusive workforce, so an important priority across all of our programs is to use innovation as a catalyst for equity, diversity and inclusion (EDI). We use innovation to create opportunities that bring women, Indigenous peoples, people of colour and other groups under-represented across our economy into all levels of the technology sector.

Value Capture. While every program invests in projects with a set of target outcomes, as projects move through various stages toward project completion, there are multiple pathways that create benefits for both project participants and the ecosystem at large. We

have learned through our Members that success is multi-dimensional, including but not limited to:

Scaling: This includes providing the opportunity, pathway and successes in attracting follow-on investments from multiple sources, growing market share through customer acquisition and reaching international markets.

Developing SMEs: We can (and do) help to accelerate the growth of small and medium enterprises (SMEs) by connecting them to large organizations, intellectual property (IP) expertise, new markets and customers, as well as those with potential sources of risk capital, where appropriate.

Research Commercialization: We help organizations leverage existing investments in research and innovation centres of excellence to translate and evolve scientific discoveries into products and services that can be used in industry and other domains domestically and exported globally.

Connecting People: Through multiple forums created and curated through our Supercluster, we support relationship building that fosters capabilities and expertise leading to new business partnerships, customers and jobs.

Job Creation: Every element of what we do with and for our stakeholders includes our commitment to protect, expand and create meaningful job opportunities for Canadians. This has never been more important than during COVID-19 where, through our projects, we were able to help companies save and create meaningful and critical jobs for their employees and for the continued success of the business.

Economic Productivity: We bring together small and large companies from diverse sectors, government and academia to solve problems in a way better than any that one organization could do on its own.

Reputation: We are seeing the early results of our projects and our Member organizations' successes, which are beginning to attract international recognition for Canada as a place where innovative, meaningful and pragmatic digital solutions can be delivered in a trusted and reliable environment.

2.4 Development Path

As outlined in our *Strategic Plan 2018-2023*, the evolution of our Supercluster was planned from the outset to be comprised of three stages: a two-year stage of “initiating collaboration”, followed by three years where our Supercluster would leverage the first stage and focus on “accelerating innovation”, then progressing to a five-year stage of “enhanced performance and sustainability”.

This deliberate structured approach continues to provide a solid foundation for our planning, engagement and expectation setting with our stakeholders. We have established good business systems and provided people and organizations time to initiate collaboration. Simultaneously, we are driving ambitious outcomes while developing organizational foundations, systems and approaches (Figure 2).



Figure 2: Supercluster Roadmap

We moved into “Stage Two” - *Accelerating Innovation*, and with COVID-19 impacting and accelerating much of what we do, we expect this stage to continue through the upcoming fiscal year ending March 2022 and beyond into 2023.

When the pandemic started to impact Canadians at the start of 2020, we worked with our partners in the Ministry of Innovation, Science and Industry (ISED), and together made a commitment to help Canadians respond to the greatest health and economic crisis in a generation. With the drive and determination of our Members, together we are playing an important role in helping Canada’s fight against the virus. Projects in our COVID-19 program include the virtual delivery of health services, expanded access to mental health services, greater access to fresh, healthy food, the discovery of technologies that will support a safe reopening of businesses and society, and so much more.

The outcomes delivered since 2018 and accelerated in 2020-2021 have created incredible momentum in our membership base, technology leadership portfolio and talent development investments. As synergies and new investment opportunities emerge across our portfolio we are working as a catalyst in bringing together the right partners and investment for Canada’s economic recovery and the creation of a digital foundation for Canada’s return to prosperity and global success.

To amplify these efforts, we look forward to a continued strong and positive partnership with the Government of Canada, including as our core partner in the mobilization of significant investments alongside industry partners from across the country. Working together, we can commercialize research and drive digital innovation as a catalyst for

sustained, cross-sectoral economic growth. New funds will be focused on accelerating the digital transformation of our economy and our societal infrastructure with a special focus on delivering data-based digital solutions in key sectors such as health and natural resources. We will seek to scale up projects and invest in new initiatives that will underpin the transformation as well as the short and long-term success of these sectors. To support these key traditional sectors, we will help develop independent Canadian digital technology services that can compete globally while at the same time act as a magnet for high-skilled digital talent.

Our Supercluster's work to date and what is planned in the coming year is an important part of supporting Canadians as together we continue to navigate the evolution of COVID-19 and prepare for economic recovery and return to growth. This public-private investment opportunity will set the stage for a robust, inclusive, digital and sustainable economy that will be recognized and respected around the world and which will deliver success, optimism and prosperity for Canadians today and for future generations.

3 Progress 2020-2021

3.1 Growing our Innovation Community

In order to create a strong, collaborative, results-focused innovation community, our overriding goal at the start of last year was to continue to create a place that brings members together to develop and deliver digital solutions with the best possible guidance, leadership, service and support from the Supercluster. We were determined to engage with organizations across the country, build relationships with a broad base of stakeholders and continue to build on our early experience to grow our membership base, expand the ambition of new projects and make sure projects delivered outcomes with shared purpose and teamwork.

With COVID-19, we were called upon to further leverage our experience and that of our Members. With the support of ISED and across the Ministry of Innovation, Science and Industry, we established a fund to accelerate the development and deployment of digital solutions to address COVID-19 issues. This fund was comprised of \$60 million, representing most of our uncommitted funds, and the foundation for our COVID-19 Program.

We are enormously proud of how our Supercluster team pivoted and launched the new program within a month and then engaged with hundreds of organizations through the proposal review and evaluation process. Every step of the way, we made sure to support the development of proposals and projects that would deliver positive and tangible results and support the health and well-being of Canadians.

We are equally proud to say that in this challenging environment and with the launch of our largest investment cycle to date, we continued our focus on our ambitious plan that was written before COVID-19. Our performance relative to our commitments in that plan are summarized below.

Building an Engaged Membership Base

Our Supercluster is founded on creating new innovations through ambitious collaborations among members and stakeholders. Building a highly engaged member community is a key success factor in creating the conditions for these collaborations.




Since inception, we have built and refined our process for engaging members and associates through ideation forums, thought-leadership sessions, networking programs and

project development workshops. At the start of 2020, we planned to continue building upon these successes.

Our priority for the 2020-2021 fiscal year was to further grow our member base through focused member recruitment that leads to the development of stronger project teams, new connections and champions to lead ambitious projects. This included adding potential customers to project teams for user validation and building early-market demand. It also included targeting mid-sized technology members where we could catalyze growth off an established base business.

With the onset of COVID-19, we quickly recalibrated the nature of our membership engagement and through creativity and innovation by our Supercluster team, combined with the continued momentum created in the previous year, our membership levels exceeded our expectations in the year. We have tripled the number of industry partners involved in our projects than we did at the start of the last fiscal year. We increased involvement of mid-size firms by almost 20%, compared to the prior year. In addition, the size of our projects continues to increase demonstrating support for more ambitious, large-scale projects.

Our specific objectives were:




- Grow the number of industry partners (potential buyers for the project’s digital products, services, and technologies) participating in Supercluster projects.  Completed as planned
- Grow the number of mid-sized technology members (defined as 100 – 499 employees) with the potential to become high-growth enterprises through a catalytic project.  Completed as planned
- Support the development of ambitious, larger-scale project concepts.  Completed as planned

Strengthening Operational Service Delivery

Building confidence with all stakeholders and providing a strong member experience is at the heart of our organization. For 2020-2021, our priority was to implement additional business process improvements supported by enterprise software solutions that allow our team to be more productive.

We had substantial progress this past year on many fronts. We created new systems for our projects, including progress reporting, a health check of our projects, and reporting on outcomes. We also simplified our contracts and claims processes, allowing us to process five times the number of claims and double the value of investments compared to the prior year.

Results against our specific objectives are:

- Implement a project and portfolio management system  A good start, and our goal is that our systems support these activities
- Enable simplified contracting for new projects  Completed as planned
- Streamline claims process  Completed as planned





Fostering Meaningful Engagement with all Stakeholders

In our first three years, we established a solid membership base that includes industry, post-secondary and public-sector partners. We are pleased to have the Government of Canada and the Government of BC as key stakeholders in our Supercluster. Building strong, positive relationships across these complex organizations is critical to our ongoing success and has always been one of our highest priorities. We also recognize that when we engage the broader public in innovation, we help reinforce the value of creativity, science, technology, design and the creation of a healthy society for life in the digital age.

A top priority for 2020-21 was to strengthen our provincial and federal government relationships, raise the profile of innovation in Canada and help people understand the world of data in the digital age.

We made considerable gains in these areas in the year. We engaged with all our stakeholders, working with the Ministry of Innovation, Science and Industry to support the overall Supercluster Initiative through numerous communication and outreach activities. We actively engaged with and participated in initiatives led by other federal organizations such as Standards Council Canada, Natural Resources Canada and National Research Council. With the Province of BC, we held tailored workshops, provided research on critical areas, created a supply hub to support the procurement of goods for the Province of BC during COVID-19 and expanded our engagement with specific ministries. We expanded and diversified our communications, resulting in numerous media mentions of the Supercluster (higher than comparable organizations).

The specific objectives were:

- Working with the Ministry of Innovation, Science and Industry to support the success of the Innovation Superclusters Initiative  Completed as planned
- Working with the Province of BC to help them succeed in their *Technology and Innovation Policy Framework*, *Clean BC* and other Ministry priorities  A good deal of progress made, but our goal was to achieve more
- Sharing project stories with the general public to help people see how innovation can benefit them in their daily lives and communities  Completed as planned
- Providing information that helps people adapt to a data-driven world in a way that helps them live well in the digital age  This objective changed because of COVID-19 from “how-to” information to sharing real results and examples of the potential impact of our projects through media

3.2 Delivering Our Programs

Technology Leadership and COVID-19

For 2020/2021, we planned to harness the ambition in technology projects, building interconnections among complementary projects and ramping up our investment commitments in multi-stage platform opportunities. We planned that the year would be among our largest from an investment perspective with planned new investments for all programs of \$64 million. The emergence of COVID-19, the creation of our program dedicated to COVID, together with the continued performance of our pre-COVID projects combined to create a much higher investment of \$120 million new investments commitments by the end of March 2021.

Our original investment plan for this past year was significantly disrupted by COVID-19 and the introduction of the \$60 million COVID-19 fund in March 2020, created by committing

nearly all of our uncommitted funds through to 2023, to the COVID emergency. This new program mobilizes Canadian industry in support of the health and safety of Canadians by addressing COVID-19 impacts through Canadian innovation and supporting Canadian companies, especially SMEs, during uncertain times. From the onset, it was recognized that these were exceptional and extraordinary circumstances where a balance of speed and diligence was key.

We worked closely with the Government of Canada to find pathways to expedite the development, review and selection of COVID-19 proposals to make sure that we could move quickly while also ensuring that exceptional project quality was maintained along with appropriate levels of independent review and evaluation of proposal outcomes. Additional flexibility for program design was also provided by ISED, which included the removal of the industry match requirement and the ability to fund (and therefore contract) with single companies. This had a substantial impact on our investment decisions in 2020 in the COVID-19 Program.

Within three months, our Supercluster had fully committed \$60 million to projects with a additional investment from industry and others of \$30 million for a total portfolio value of \$90 million across 33 projects. While significant in number, there were dozens of high-potential and high-quality proposals that were left unfunded once the \$60 million fund was committed. Our role in the ecosystem increased during this period as we were able to take the lead on many important initiatives, as well as share many ideas and opportunities with other funding sources.

During the spring and summer, our team worked diligently to conclude the contracts with the COVID-19 Program cohort –four times the number of projects than the previous total. In addition to successfully concluding contracts with all projects, we continued to support and guide all projects selected prior to the COVID-19 Program. We are extremely proud that no pre-existing project was cancelled. Our portfolio remains strong with projects delivering outcomes.





In the latter half of the fiscal year, we continued to drive and support all projects while also putting out a call for ambitious and high-impact proposals for new Technology Leadership projects through a Cycle 4 call, as well as Capacity Building projects. The Cycle 4 launched in October and will result in our Supercluster exceeding our investment plans for the year and fully committing our funds by the end of the year. Our Board supported a slightly different approach for our investment strategy for Cycle 4 – a move away from our traditional programs of Data Commons, Digital Twins and Precision Health. Instead, through Cycle 4 we aim to encourage and balance the interests of our Members along with the priorities of Canadians and our governments in the continuing evolution of our economy

and societal needs to accelerate digital transformation and the delivery of digital solutions across a variety of industry and societal segments with a special focus on:

- Keeping Canadians safe and healthy through effective use of data and digital technologies;
- Fighting climate change through the deployment of digital solutions, and
- Building a resilient economy through digital technologies and leveraging data

In addition, the Supercluster committed to support our project teams during the turbulent times of COVID-19. Most project teams experienced impacts of some kind and all have recalibrated without any projects being cancelled, thereby preserving our past investment commitments.

Our results against specific objectives for Technology Leadership were:

- Precision Health -Turning medical knowledge into a digital resource, connecting clinical research to healthcare delivery and applying immersive technologies into healthcare practice.  Accelerated due to COVID-19
- Digital Twins -Advancing Canada’s leadership in digital technologies associated with autonomy, demonstrating value of hyper-immersive environments and demonstrated quantum advantage.  Due to COVID-19, we de-prioritized additional investments in this area
- Data Commons -Increasing the discoverability of data, creating collaborative data value chains and demonstrating distributed machine learning at scale.  Good progress made in genomic, health and environmental data but our goal was to achieve more
- Portfolio Leverage. Creating synergies across projects, invest incrementally in platform opportunities and extend the applicability of projects into different industry applications.  A good deal of progress made in light of COVID-19, but our goal was to achieve more

Capacity Building

Core to our Supercluster’s mandate and success is ensuring that Canada’s innovation ecosystem has the capacity, technology capabilities, infrastructure, and talent to be a

global leader in digital technology as well as provide social and economic benefits to Canadians.

With the guidance of a Program Advisory Council, our Capacity Building Program complements our Technology Leadership Program and is a key vehicle to bring together stakeholders from across Canada, including industry, government, post-secondary institutions, to build a diverse pool of job-ready, world-leading talent prepared for the digital economy. The Province of BC is a strategic partner in this program.

The Capacity Building pilot in 2019 was oversubscribed with projects proposals from a wide range of areas, including rapid competency assessment for underrepresented groups and secure employment to work integrated learning and digital skills development in rural communities.

We advanced this program this past year by launching our new project call. This program was designed with input from industry and ecosystem partners and identified our priorities consistent with our plan. Results against specific objectives were:

- Maintaining the momentum from the inaugural ecosystem consensus meeting held in July 2019 by taking an active role in working with the tech sector to position B.C. and Canada as a world leader in digital innovation.  Completed as planned
- Working with members, ecosystem partners and stakeholders to identify ecosystem gaps and priority areas for capacity building.  Completed as planned
- Increasing participation of Indigenous-led organizations and businesses in our activities, programs and projects.  A good deal of progress was made, but our goal was to achieve more
- Designing initiatives to foster diversity and inclusion principles.  A good deal of progress made, but our goal was to achieve more



Strategic Foresight

Strategic Foresight is a place to explore technology, design and market trends shaping the opportunities and competition in the emerging digital economy. Insights are used to develop strategic initiatives capable of attracting new program investments.

For the 2020-2021 fiscal year, our priority was to establish foundational frameworks for assessing innovation opportunities in the digital economy, a strategy to support scaling companies and systems design for workforce development in the digital age.

Creating a new initiative to support rapid skilling was a key success in the year with an approved initiative that is receiving investment through our Capacity Building Program. We have also recently started a new initiative regarding scaling companies. Our original approach to strategy was to develop a framework for competing in the digital age. With the advent of COVID-19, we pivoted to doing scenario analysis on the pandemic, helping set-up the COVID-program and defining the next phase or programs that would align with the Government of Canada's new priorities.

Specific objectives were:

- Competing in the Digital Age: produce a report for the Supercluster membership that provides a framework for understanding the evolution of the economy in the digital age, followed by the implementation of a regular scouting service that provides supplementary insights into technology, design and market trends. No longer relevant because of COVID-19
- Scaling Companies: develop a new initiative focused on helping companies scale to \$100 million, \$1 billion and \$10 billion in revenues through consistent, platform-driven growth in new product revenues.  We developed an approach focused on emerging markets and will test it in the last quarter of the current fiscal year
- Rapid Skilling Systems for the Digital Economy: develop a new initiative to support the emergence of responsive, competency-based workforce development systems through standards development and systems design.  Completed as planned

3.3 Strengthening our Ecosystem

For the 2020-2021 fiscal year, the Supercluster prioritized two outreach initiatives. The *International Outreach Strategy* focused on connecting with global innovation networks, while *Indigenous Engagement* focused on economic reconciliation and inclusiveness.

International Outreach Strategy

The priority for the 2020-2021 fiscal year was to build a comprehensive *International Engagement Strategy* to establish a framework for building relationships in key innovation jurisdictions around the world. As economic leadership in the digital age is becoming concentrated in high-growth macro regions around the world, the strategy endeavoured to identify the most appropriate regions to concentrate our efforts, starting with Cascadia and complemented with an exploration of different regional opportunities in Asia (in particular, Singapore and India) and the EU (UK and Cap Digital in Paris) and more.



Given the COVID-19 pandemic, our abilities in this area became restricted, but we made noteworthy progress, creating partnerships with organizations and a framework for our members to showcase their activities in a pilot format. Most notable was a successful collaboration with India to explore precision agriculture opportunities in their country, stemming from the outcomes of our Precision Agriculture to Improve Crop Health project. The initiative consisted of a series of workshops, culminating in a Memorandum of Understanding to explore research partnership opportunities in the technology and agricultural sector between Canada and India. We used this as a template for sharing our international engagement strategy with partner organizations: the Asia-Pacific Foundation, NRC-IRAP and Global Affairs. We are particularly grateful to the leadership and guidance provided by the Asia-Pacific Foundation as the relationships and workshops were developed, and our Member, Terramera, the lead organization in our precision agriculture project that was the foundation for the interest from India and the workshop series.

We also continued our work with Invest in Canada, Global Affairs and International Trade Commissioner representatives on specific opportunities, including in the UK, Israel, Germany, South Korea, Japan and India. We are proud that approximately 40% of project teams active in September 2020 are exploring international opportunities as a result of being involved with our Supercluster projects.

Demonstrating international leadership, we joined the leading industrial data organization in Europe – the International Data Space Association (IDSA). With industry leaders such as Volkswagen, Daimler, Siemens, Fraunhofer, Thyssenkrupp and IBM, we contributed to

position papers that outlined implementation pathways of the European Data Strategy published in early 2020.

The results against the specific objectives were:

- International Engagement Strategy: build a comprehensive strategy and identify appropriate regions to concentrate efforts starting in Cascadia.  A good deal of progress made, but our goal was to achieve more
- International Connections: establish partnerships with organizations with strong international connections and secure customer connections for members and recruit innovation leaders from other countries to invest in Canada.  Completed as planned


Indigenous Engagement

Equity, diversity and inclusivity has always been a core priority for our Supercluster and is one of our core values. At the start of the last fiscal year, we prioritized our commitment to *Indigenous Engagement* in order to strengthen our connections with Indigenous-led organizations, businesses and innovators.

We made substantial progress on these objectives, with a diverse group of advisors across our organization, including our program selection teams that provide input on the Supercluster's investments. We established regular check-ins with members, shared resources, discussed opportunities and progressed in how we invest in Capacity Building projects to ensure we account for different perspectives and tailor our approach to meet diverse needs.

We had planned a major Member retreat for the spring with a specific focus on Indigenous engagement. As a result of COVID-19, this retreat was postponed but the investment of time and planning will be realized when the 'new' reality for in-person retreats and conferences emerges.

The results against the specific objectives were:

- Engaged Advisors: we will continue to develop our Champions Table and ensure that we have  COVID-19 caused us to cancel our engagement event and planned

Indigenous representation on our Advisory Councils.

- Project Development: through a workshop or gathering event, we will take a meaningful first step toward developing a pathway for Indigenous-led organizations and businesses to lead projects and become involved with those where there is a good strategic fit.
- Indigenous Community and Business Organizations: we will continue to explore ways to build effective working relationships with key organizations who support and represent Indigenous communities and businesses.

workshops, but we incorporated our learnings into our Capacity Building Program

- COVID-19 caused the postponement of the planned event, but progress was made in advancing our engagement through the planning process
- COVID-19 had an impact, but progress was made especially in how we structured our Capacity Building Program





3.4 Intellectual Property Strategy

Now that we have established the foundational elements for our IP strategy, in 2020-2021 our focus was on enhanced educational offerings on IP-related issues. Given the critical importance of IP, we invested a great deal of effort in establishing ‘best practices’ in respect of the protection, leveraging and application of IP. Our members have expressed a great deal of appreciation for this work, which included general education seminars and workshops, one-on-one consultation with members and support in determining fair and effective approaches to both background and foreground IP in each project




The results against the specific objectives were:

- Setting up an education portal where members can access credible content for IP-related issues such as IP protection, exclusivity, freedom to operate and using *prior art* as a source of further ideas for innovation efforts.

- We provided IP resources on our portal, but we anticipated we would add more

- Organizing educational seminars on a regular basis and complementary workshops to support project proposal development.  Completed as planned
- Exploring with members how they can improve the way they leverage their own IP.  Completed as planned
- Exploring with members how they can leverage public domain IP and open source for collaborative development while understanding the risks that such an approach may present.  Completed as planned
- Finding opportunities to work with other clusters and the Patent Collective (once established) to advance members' interests and the competitive strength of the whole ecosystem.  Completed as planned

For project support, we planned to help consortia in:

- Finding the best model of IP distribution based on best practices for each type of project (product vs service vs platform) and in respecting the needs and practices of each consortium member.  Completed as planned
- Establishing IP models that best fit collaborative and ecosystem development (such as open source and creative commons).  Completed as planned
- Increasing the amount of disclosure related to IP filings post-Master Project Agreement execution to build a more robust IP registry.  We had two patent applications and although we planned for more, we realized that the nature of IP in digital projects was in trade secrets and copyrights




3.5 Data Strategy

In the past, we invested in implementing data management processes and procedures of our data strategy to ensure that operational data collection, storage and access is secure, confidential and compliant with the appropriate rules and regulations for the benefit of Supercluster projects and members. In 2020-2021, we provided personalized support to

project teams, assembled information about global initiatives, provided thought leadership around data and updated our policies.

We actively participated in the Data Governance Standardization Collaborative (DGSC) to define a comprehensive national standardization roadmap, identifying important gaps in data management at scale (from data collection to data access, exchange and sharing to data analysis and extracting knowledge and value from data). This included recommendations to address gaps so that businesses, authorities and individuals can build trusted data sharing and data use relationships that benefits Canadians and the Canadian economy. A number of Supercluster member companies participated in the working groups as well as in detailing three specific use cases – community health data, open banking and food traceability for consumer empowerment. Despite a small delay due to the pandemic, the Collaborative has already produced an initial draft.

The results against the specific objectives were:

- Setting up an education portal where members can access credible content for data-related issues such as legislation regarding personal information, to risks associated with improperly managing data.  Relevant resources such as a data strategy and cybersecurity and privacy practices are on our resource portal, but our focus on the COVID-19 Program was prioritized over the education portal.
- Assembling information about global initiatives, practice and policies around data and digital assets management as a resource to members.  Completed as planned
- Organizing educational seminars and forums to complement the workshops on project proposals.  We held thought leadership sessions in the year but had planned to do more.

Our plan was also to increase member support in developing strategic approaches to data, including:

- Encouraging members to participate in national data-centric initiatives, such as the DGSC to bring in industry-specific perspectives and use cases where standardization is needed. ● Completed as planned
- Encouraging members to understand and explore opportunities in monetization strategies related to data; and ● We held several one-on-one meetings with members on this topic but had planned to do more.
- Sharing best practice around data generation and commercialization developed through participation in initiatives such as DGSC. ● We held several one-on-one meetings with members on this topic but had planned to do more.

Finally, as part of amendments to the Master Project Agreement, we planned to address the following for each data-intensive project:

- Data Governance: establishing project-specific agreements on standardization of data actors, roles, security and privacy policies, ethics, residency and ownership. ● Completed as planned
- Data Collection, Access and Sharing: developing project-specific positions around semantics, ontologies, metadata, interoperability, aggregation, federation, access rights, data discovery, data traceability and data lifecycle management. ● Some of our projects included these positions, but we had planned to do more.
- Deriving Value from Data: developing project-specific positions on data processing, such as data transformations, data processing pipelines, collaborative creation of data derivatives, distributed AI models and federated learning. ● Most projects are focused on concrete outcomes and not generalized in data distribution or federation. In hindsight, this looks to be a too specific of an objective.

4 Performance Measurement

4.1 Financial Results

As at December 2020, we exceeded our investment goals and continue to commit the balance of our funds by awarding co-investment for Cycle 4 and Capacity Building projects with the full expectation that all available funds will be committed by March 31, 2021.

Table 1: Program Investment Summary (\$ in millions)

	Forecast Cumulative Investment March 2021	Budget Cumulative Investment March 2021
Industry and External Co-investment	103	85
Supercluster Co-Investment	73	70
Total Technology Leadership Projects	\$176	\$155
Industry and External Co-investment	12	5
Supercluster Co-Investment	13	10
Total Capacity Building Projects	\$25	\$15
Industry & External Co-Investment	115	90
Supercluster Co-Investment	85	80
Total Technology Leadership & Capacity Building Projects	\$200	\$170
<i>Additional program COVID-19 response for Gov. of Canada</i>		
Industry and External Co-Investment	30	-
Supercluster Co-Investment Commitment	60	-
Total COVID-19 Projects	\$90	\$-
Total	\$290	\$170

There is a variance between the time that projects are selected for co-investment and the time that funds are invested and disbursed by the Supercluster and Members. The disbursement of Supercluster co-investment funds is based on successful completion of project milestones that occur throughout the life of projects, rather than being disbursed

upfront on the date of the commitment. This is one of the critical differences between our Supercluster model and the investment/funding models that exist in other programs.

Table 2: Statement of Revenue and Expenditures (\$ in millions)

	Forecast to March 2021	Budget to March 2021
Revenue	\$44	\$29
Program Costs		
Technology and Capacity Building Programs	17	24
COVID-19 Program	22	-
Net	39	24
Corporate Programs and Management	5	5
Revenue in Excess (Below) Expenses	\$-	\$-

We achieved all our KPIs in the year as noted in Table 3.

4.2 Key Performance Indicators

Table 3. Performance Indicators

	2020-2021			
	<u>Forecast</u>	<u>Target</u>	<u>Variance</u>	
# of organizations engaged	900+	450	+360	●
# of members	70	40	+30	●
# of associates	740	420+	+320	●
# of members/associates in projects	216	52	+164	●
# of EOIs received for all program calls ⁽¹⁾	128*	75	+42+	●
# of contracted/pending project investments	72	40	+32	●
Cumulative project investments awarded	\$290M	\$170M	+\$120M	●
Total industry investment	\$145M	\$90M	+\$55M	●
Supercluster co-investment awarded	\$145M	\$80M	+\$65M	●
Complete employee engagement survey ⁽²⁾	1	1	-	●

Note 1 There were 65 EOIs and 63 project concepts for a total of 128. The COVID-19 program did not have an EOI stage and for Cycle 4, we introduced project concepts ahead of an EOI. Because the KPI was gauging community interest, we included project concepts.

Note 2: At January 31, 2021 the employee engagement survey started with completion expected by year end.

5 2021-2022 Goals and Objectives

Fiscal 2020-2021 was a historic and unprecedented year. From the beginning, the Government of Canada used every tool available to mitigate the effects of the virus and minimize economic harm. As the only Supercluster with a focus on health, we rallied to support Canada's response to the pandemic by quickly pivoting and initiating a COVID-19 Program. We invested in Canadian-made digital technologies to mitigate the effects of the virus, provide screening and detection of cases, deliver virtual care options to seniors and remote communities and provide mental health support to those who need it most.

The effects of COVID-19 are devastating to the economy. It exposed the vulnerabilities of many industry sectors and the urgent need to accelerate our pace of digitization. As set out in the recommendations of the Industry Strategy Council: "In the early months of the pandemic, Canada's real GDP suffered its largest and sharpest contraction since data were first compiled in 1961, with a steep decline of 18%. Canada needs an industrial strategy with four key pillars for a digital, sustainable and innovative economy for all Canadians."²

As we set our objectives for the next year, we do so with the understanding that we will be an important part of Canada's continued fight to keep Canadians safe and healthy through the second and subsequent waves of the virus until the vaccines are fully deployed and the pandemic is over. We also know that our Supercluster will have a material positive impact on the economic recovery effort. Private-sector investment will be vital to any recovery effort.

In our Supercluster model, we play a critical role in helping Canadian enterprises invest in the development, deployment and scaling of digital solutions while also providing those solutions to accelerate the digital transformation of our economy and society, including the delivery of core public services such as healthcare. Through our projects, and the collaboration that is the foundation of projects, we support and drive the scaling of Canadian companies and especially innovation data and digital technology companies that will increasingly be called upon to respond to domestic and global needs.

Our Supercluster is the cornerstone of being able to see Canada build back better through our proven model of bringing organizations together to develop solutions to real issues, introducing companies to their first customers and creating a collaborative environment where the agility and innovation of smaller organizations complements the experience and depth of larger enterprises and the perspective and horizon of post-secondary partners. We

² Industry Strategy Council, 2020 <https://www.ic.gc.ca/eic/site/062.nsf/eng/00118.html>

have already helped to reinvigorate Canada's growth potential by accelerating the digital solutions developed to date, as well as introducing these solutions and Canadian innovators to domestic and global partners – paving the way for Canada to be a global leader in digital technology and data.

In the past three years, we have surpassed many of our five-year goals. By the end of March 2021, we expect to commit investments to more than 70 industry-led digital technology projects to advance our leadership in health, support the growth of our natural resources sector and accelerate the digital transformation of Canadian industry, while building a digitally skilled workforce. Our project portfolio will continue to increase as we advance our Cycle 4 and Capacity Building calls from the time of writing through to the end of the fiscal year. The engagement and drive of our Members, together with the tenacity and dedication of our Supercluster team, has positioned us at the forefront of driving private-sector investment to support Canada's commitment to the health and safety of Canadians and the anticipated economic recovery and renewal, all key to a strong foundation for our country's future competitiveness and prosperity. As of March 2021, we will be fully committed in our investments, two years ahead of schedule.

A clear priority for us for fiscal 2021-2022 is to see to fruition the successful outcomes of our selected projects while paving the path to accelerated investments to further support Canada's economic recovery. In this coming fiscal year, we will be seeking a renewal of funding from the Government of Canada, to continue to amplify and expand our successes to date in commercializing research and driving digital innovation as a catalyst for sustained, cross-sectoral economic growth.

Our plans and ambitions for our new fund are aligned with the Government's priorities as set out in its Fall Economic Statement, in particular in respect of continuing to protect the health and safety of Canadians with a particular emphasis on our most vulnerable citizens as the forerunner to fostering an economic rebirth in the short run and strengthening Canada's competitiveness and a return to prosperity in the years ahead. We will focus on accelerating the digital transformation of major sectors and the delivery of public services with a particular focus on our health services and systems. We will also focus on leveraging digital solutions to increase the competitiveness of our natural resources sectors in sustainable and environmentally respectful ways while at the same time supporting and creating opportunities for Canadian companies to scale up and invest in new initiatives that will underpin their long-term success.

5.1 Growing our Innovation Community

To create a strong, collaborative innovation community, we need to continually evolve our approach to our innovation community as that community itself evolves and matures. We are determined to continue bringing together Canadian organizations to collaborate on innovations in a supportive environment with guidance and an unrelenting commitment to best practices across IP and data, along with an unwavering demand to deliver meaningful outcomes that support Canadians and Canadian enterprises.

Over the past year, we have seen our community of collaborating members more than double to approximately 1,000 organizations across the country. We're demonstrating that the model of collaborative R&D is working in Canada.

Our goals and objectives in growing our innovation community in the coming fiscal year consist of:

- Recruiting and retaining an engaged membership base, and
- Fostering meaningful engagements with stakeholders.

5.2 Recruiting and Retaining an Engaged Membership Base

Our Supercluster is founded on creating new innovations through ambitious collaborations among members and stakeholders. This coming year, continuing to foster a highly engaged member community is a key success factor in collaborative innovation. Our engagement model provides opportunities for members to connect and participate in ideation forums, thought leadership sessions, networking programs and project development workshops. We've seen the success of more collaborations that grow the ecosystem and capitalize on new project opportunities. The outcomes of these project collaborations allow us to further support organizations that can scale and build pathways to export and international success. Over the past three years and especially over the past year, we have attracted a pan-Canadian member community that now numbers more than 1,000 organizations. While the approach of an open, inclusive membership model has worked in favour of building size and scope, we will be refining our focus in the upcoming year with a focus on recruiting and retaining members that can drive the outcomes that will be essential to Canada's economic recovery effort.

5.3 Fostering Meaningful Engagement with Stakeholders

We have established a solid membership base across Canada that includes industry, post-secondary and public-sector partners. We are pleased to have the Government of Canada,

government agencies, including the National Research Council and the Public Health Agency of Canada, as well as the Government of BC as key stakeholders in our Supercluster. Building strong, positive relationships across organizations is critical to our ongoing success and has always been one of our highest priorities. We also recognize that when we engage the broader public in innovation, we help reinforce the fact that Canada can become a digital leader as we build back better with a clean, innovative, digital economy that works for all Canadians.

A top priority in 2021-22 is to continue to strengthen and broaden our provincial and federal government relationships, demonstrate the value of our Supercluster to specific ministries and their stakeholders and increase awareness of the impact of our Supercluster. With the support of new funding streams, we want to build on our momentum. This includes:

- Working with the federal Ministry of Innovation, Science and Economic Development, secure new Phase II funds and a renewed five-year mandate to drive further success in commercializing research through the development and deployment of digital solutions and the acceleration of digital transformations across key industry and society, as a catalyst for sustained, cross-sectoral economic growth;
- Supporting the federal Ministries of Digital Government, Small Business, Workforce Development, Health, Natural Resources, Environment and Climate Change and others to help them succeed in their commitment to grow a clean, sustainable and digital economy;
- Engaging with the Province of BC to help it succeed in the delivery of the *Technology, Climate Change and Innovation Policy Framework*, and the ambitious priorities of ‘putting people first’ in the development of a ‘strong sustainable economy that works for everyone’ – objectives that will be advanced through a digital and sustainable economy; and,
- Strengthening the digital capacity of Canadian enterprise and SMEs by engaging private-sector investments in digitization, workforce reskilling and capitalizing on the value of intellectual property and data.

5.4 Delivering Our Programs

The pandemic has accelerated a digital transformation that was already underway. Our programs have helped mobilize private-sector investments by creating a unique approach to collaborative innovation by designing, piloting and completing preliminary scale-ups of innovative technologies and then deploying them widely to benefit Canadians.

We are a specialized asset unlike any other and a key partner in accelerating Canada's return to growth. Our program focus allows us to co-invest with industry in developing world-leading technologies and companies while simultaneously driving the digital transformation of traditional sectors.

At the conclusion of our 2020-21 fiscal year, we will be fully committed in our initial fund. As such, we will manage our program and project investments to successful conclusion and continue to build interconnections among complementary projects. We are excited about a future that sees a renewed funding foundation, new partnerships with the Government of Canada and other partners, as well as the opportunity to continue to build on the success we have driven over the past three years. We look forward to leveraging our experience, expertise and success in keeping Canadians safe and healthy while delivering digital solutions across our health sector that will improve its sustainability, resilience, adaptability and the delivery of impressive health outcomes and access for all citizens. We anticipate the impact we will bring to our natural resources sector that can see the reimagining of these key industries and related cross-sectoral supply chains through digital solutions. And we are committed to working with our industry and government partners to drive the digital transformation of our economy and create a strong foundation for Canada's economic recovery and return to prosperity.

Our co-investment model with our industry partners is well aligned with the recommendations from the Industry Strategy Council. According to the Industry Strategy Council's high-level and preliminary estimates, \$110 billion to \$140 billion of private capital by 2030, combined with \$105 billion to \$145 billion of public investment, could result in additional long-term annual GDP growth of 0.8% to 1.1% by 2030 and beyond.³

For the coming fiscal year, in addition to driving investments through projects as noted in prior sections of this report, at an operational level we will:

- Work with project teams to deliver on project outcomes,
- Support consortiums in realizing the full potential of their IP and data assets, and
- Invest in new systems to streamline and scale program operations.

Work with Project Teams to Deliver on Project Outcomes

In 2021-22, we look forward to our Cycle 1, Cycle 2, Capacity Building Pilot and COVID projects delivering on their promised outcomes with some concluding by the end of the fiscal year. At the same time, we'll be continuing to support Cycle 3 projects and ramping up the

³ <https://www.ic.gc.ca/eic/site/062.nsf/eng/00118.html>

execution of projects in Cycle 4 and Capacity Building. Our priority is to support project teams to deliver positive outcomes and see the impact of these outcomes across industry and communities. At the same time, we will diligently explore synergies across projects and support project teams in exploiting the full potential of the project outcomes.

Support Consortiums in Realizing the Full Potential of their IP and Data Assets

As projects deliver their outcomes, we look forward to continuing to support project teams in realizing the full potential of their IP and data assets. We will:

- Work in partnership with the Innovation Asset Collective to support the needs of SMEs in the context of IP education and IP strategies;
- Continue to support project teams and consortiums in devising collaboration frameworks for IP and data sharing. This includes data sharing models that best fit collaborative and ecosystem development (such as open data, data sharing arrangements and data collectives/commons); and
- Promoting the IP registry that will increase the amount of disclosure related to newly created IP and allow Supercluster members to explore licensing or partnership opportunities with owners of newly created IP.

With a portfolio of more than 60 projects, we will connect and drive IP and data synergies across projects with a keen eye on the potential of IP and data within and between projects to accelerate economic recovery and a return to growth in both micro contexts specific to a project or organization, and in larger contexts at an industry or sectoral scale. This may include supporting project teams in identifying adjacent opportunities, new datasets and collaborations and introducing new industry partners to extend the applicability of projects into other industry applications.

Invest in New Systems to Streamline and Scale Program Operations

Building on our success since 2018, and subject to funding availability, we will invest in systems that support the scaling of our own operations. We will explore a fully digitized approach to streamline the collaboration journey from member engagement to ideation, project application, project development, project selection, project contracting, project oversight and reporting.

5.5 New Funding

Canada's growth plan and return to prosperity must be founded on a digital highway that will support a fair, sustainable and progressive digital society. From digital trusts to connectivity, transformation, data leadership and talent, working with our Members, our Supercluster will be an essential part of building that digital highway.

One of our objectives this coming year is to capitalize on our momentum, support Canada's economic recovery efforts and solidify new funding from the Government of Canada.

Building on our experience to date, new funds will be invested in new programs that can build on the themes of digital leadership in health, sustainable natural resources and to accelerate the digital transformation of Canadian industry. Our future program focus will include:

a) *Growing Digitally Powered Industries: Canada's Foundation for Growth*

- Industry-Led Digital Transformation: driving economic growth through digital solutions to enable new business models, new products, supply chains and productivity gains in key industries including aerospace, construction, transportation, and retail.
- Empowering Small and Medium Sized Business: strengthening the digital capacity of SMEs (the backbone of the Canadian economy) and local economies, supporting and encouraging the innovators, and leading digital adoptions across small businesses to allow them to "seize on new technologies and permanently alter consumer preferences to attack markets and build brands in entirely new ways"⁴.
- Rapid Skilling: accelerating access to rapid digital training, skilling and leadership so Canadians thrive in the digital age and Canadian employers have access to the best talent on the planet.

Digital Health: Healthy Canadians Build a Healthy Economy

- Virtual Health Services: building on Canada's commitment to expand internet connectivity, we will accelerate the delivery of reliable digital access to diagnostic tools and services, wellness strategies, therapies and coordinated care across disciplines and

⁴ <https://www.newswire.ca/news-releases/canada-s-economic-recovery-needs-a-small-business-rebound-891800576.html>

geographies. Through solutions such as safe 'aging at home', we can reduce pressure on long-term care facilities and improve the healthy lifespan for all Canadians.

- **Mental Health:** one in five Canadians experience a mental health episode every year. Less than half of these citizens have access to mental health services. The economic burden of the mental health crisis in Canada is estimated at \$51 billion per year and the pandemic has further exacerbated the issue. Digital solutions play an important role in delivering improved access, personalization, expertise, family support and employer guidance.
- **Healthcare Resilience:** digital platforms and technologies will accelerate effective, trusted and controlled sharing of health data, reducing service duplication and enabling the development of new treatments, diagnostics and therapies. Our collaboration model is a proven path to addressing interoperability and access issues. We will drive solutions for Canadians to securely access and share their personal health data across systems. We will also enable anonymized, aggregated data as a rich resource for research and innovation, leading to better patient outcomes, healthcare efficiencies, new economic opportunities and better public health across the country.

Sustainable Natural Resources: Reimagining Our Natural Resources Sector

Digital innovation can drive new approaches that create sustainable, meaningful, carbon-neutral growth.

- **Resilient Forestry:** using data and digital tools to manage and optimize forestry assets, supply chain operations and the ecological health of forests, including their critical role in carbon sequestration and sustainability.
- **Low Impact Mining:** deploying digital solutions and platforms to drive new approaches that reduce the footprint on mined areas and the need for traditional costly infrastructure, while improving global competitiveness and export opportunities for critical resources.
- **Ecosystem Health:** leveraging digital tools as well as earth, soil and water data to predict, assess, monitor, manage and mitigate the effects of natural resource development on the environment.

5.6 Strengthening our Ecosystem

One of the key objectives of our Supercluster is to strengthen the overall ecosystem in Canada, transforming it into a global hub of digital technology innovation and data-related research, development and commercialization. This includes hyper-connectedness, extraordinary collaboration and inclusion, and a virtuous cycle of innovation, investment activity and talent attraction that results in accelerated venture creation, scale-ups and high-paying job creation. This coming year, we intend to continue our focus in:

- Supporting the scale up of SMEs involved in our projects,
- Developing international pathways for project outcomes, and
- Furthering our efforts in equity, diversity and inclusion in the context of the digital economy.

Support the Scale up of SMEs

Our Supercluster will pursue activities that contribute simultaneously to the development of global leaders in digital technology and the enhanced performance, competitiveness and productivity of Canadian companies in multiple economic sectors. To achieve this, our Supercluster will:

- Promote the adoption of successful project outcomes, connecting SMEs to new market channels, industry partners and customers
- Pilot a methodology for scaling companies in emerging market opportunities

Develop International Pathways for Project Outcomes

A priority will be to refine and execute on an *International Engagement Strategy*. The focus will be on extending market access for successful projects by exploring opportunities with international collaborators to further invest in scaling the technology outcomes and adoption.

We will work closely with our partners at the Asia-Pacific Foundation, NRC-IRAP, Export Development Canada, the Trade Commissioner Service and Invest in Canada to establish a framework for engaging international partners. Our initial focus will be in key digital innovation jurisdictions, including Cascadia, UK, EU, Israel and Asia (such as Singapore and India).

Further our Efforts in Equity, Diversity and Inclusion

Through our Capacity Building Program, we will continue to invest in increasing the breadth and depth of our country's digital talent pool, emphasizing equity, diversity and inclusion across all projects and proposals to help more Canadians participate meaningfully in the digital economy.

Among our key activities will be:

- Promoting our commitment to the 50/30 Challenge with Members and as part of our projects,
- Working with organizations to increase and encourage an understanding of the positive relationship that exists between increased diversity and organizational performance, and
- Co-creating opportunities with individuals in underrepresented groups, with a particular focus on racialized communities, women, and Indigenous Peoples.

6 Budget and 5-Year Program

The Supercluster business model consists of income streams from Members, the Province of BC and the Innovation Superclusters Initiative (ISI) Program. The funds are then applied toward:

- Project investments in our Technology Leadership programs
- Project investments in our COVID-19 program
- Project investments in our Capacity Building program
- Corporate programs and management

The following chart illustrates the source and uses of funds over the five-year period.

Table 4: Five-Year Program Funding Summary (\$ in millions)

	<u>Total Members</u>	<u>ISI</u>	<u>Total</u>
Technology Leadership Program	104	75	179
Capacity Building Program	22	3	25
COVID-19 Program	32	61	93
	158	139	297
Corporate Programs & Management	9	14	23
Total	\$167	\$153	\$320

6.1 Overall Budget 2021-2022

In the next fiscal period ending March 31, 2022, we plan to have progress against prior year selected projects as well as completing contracts with Cycle 4 Technology Leadership and Capacity Building projects selected at the end of March 2021. In addition, we anticipate launching additional investment cycles in the fall of 2021 to coincide with anticipated new funding. Our internal costs are planned to remain relatively consistent year over year plus the anticipation of additional investments in technology to scale our operations.

Table 5: Statement of Revenue and Expenditures (\$ in millions)

	Budget Year Ended March 2022	Forecast Year Ended March 2021
Revenue	\$68	\$44
Program Costs		
Technology and Capacity Building Programs	27	17
COVID-19 Program	36	22
Net	\$63	\$39
Corporate Programs and Management	\$5	\$5
Revenue in Excess (Below) Expenses	-	-

6.2 Risk Assessment and Mitigation Measures

With respect to the 2021-2022 Corporate Plan, we have assessed the risks together with the mitigation measures as follows:

Risk	Mitigation Measure
1. The Supercluster does not attract additional funding from the Government of Canada to renew its plans after March 2023	We are engaging with the Government of Canada to increase the support for and likelihood of recapitalization. We will also explore opportunities with provincial governments, private sources of capital and other funding agencies.

Risk	Mitigation Measure
2. The delivery of project outcomes is slower than planned, resulting in a delay in Supercluster revenue and co-investment payments.	We have a project team, along with a steering committee, monitoring the projects. We will accelerate the monitoring and reporting of projects that may fall behind schedule so that any potential issue is identified as far in advance as possible. We are always open and transparent with all our Members and government partners to secure approvals as soon as possible.
3. Our ability to demonstrate and communicate the value of a Supercluster innovation model impacts our ability to attract and maintain members.	We are intentionally recalibrating our focus on retaining and attracting members with the highest potential to both deliver and receive value from our Supercluster model. In other words, we will be looking at the quality and potential outcomes from each member rather than on the number of members in the organization. We will be developing Member Success Plans for every member during the year.
4. Service levels and member satisfaction are compromised due to cumbersome processes around selection, contracting, claims and reporting on projects and slower-than-planned staffing.	We have continually reviewed, improved and adjusted every element of our operations over the past three years to address any issues and we continue to do this as part of being a 'learning organization'. We have plans in place to build systems and methods to further streamline project related processes. We also have established a cost-effective recruitment strategy to support our efforts.

6.3 Other Items

As required, we confirm that we have no amounts owing to the Crown.

