

DIGITAL CORPORATE PLAN

From Canada's Global Innovation Cluster: DIGITAL



MAY 31, 2023 (Final. Version 3)

SECTION A: CLUSTER OVERVIEW

A1. Introduction

DIGITAL helps grow Canadian businesses through the development, adoption and deployment of digital technologies and by working with industry to develop a digitally skilled workforce to positively impact lives across our country.

We bring together businesses, academia, community and government agencies to solve some of industry and society's biggest challenges – better and faster than any single organization can do on its own. Through a powerful model that combines cross-sector collaboration, Canadian IP creation and results-based co-investment, we unlock the potential of Canadian industry to lead and succeed in the digital world.

DIGITAL is a not-for-profit, member-based innovation enterprise with 1,100+ members from coast to coast and a digital innovation portfolio that has attracted over \$350M of project investment in digital health, natural resources, industrial transformation, workforce and talent development.

A2. Vision, Mission, Values

Vision

Canada's Digital Global Innovation Cluster ("DIGITAL") is a pan-Canadian, memberbased innovation ecosystem developing the next generation of digital innovation platforms, high-growth digital enterprises and digital workforce required to support the transformation to a low-carbon digital economy.

Mission

Accelerate the development of digital innovations in the pursuit of transformative economic opportunities as a catalyst to grow Canadian companies into global leaders.

Our Charter of Values

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

- o **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.

A3. Goals

DIGITAL will continue to advance the development of a national digital innovation ecosystem that creates a global advantage for Canada. Specific objectives include:

- 1. **Build a 'world respected, globally connected innovation enterprise'** where Canada and in particular Digital, is seen as a source of effective, leading edge, pragmatic digital innovations that solve major societal and industrial challenges.
- 2. **Continue to grow a robust technology leadership portfolio** that strengthens connections and collaborations between private, public and academic organizations to drive impactful commercialization outcomes and develop domestic capacity.
- 3. **Continue to develop capacity in our ecosystem** by accelerating the growth of a diverse, inclusive digital workforce with creative innovation leaders and world-class skilling systems.
- 4. Accelerate the scale-up of globally competitive digital enterprises, including SMEs, into globally competitive enterprises that export to the world by using our collaborative innovation model to support the development of digital products and services that provide commercial revenues streams and growth opportunities for Canadian companies.
- 5. **Strengthen Indigenous reconciliation** by continuing to expand the participation of Indigenous companies, people and communities in our project portfolio.
- 6. **Establish credible international relationships** with selected global enterprises, markets and / or programs. As a result of these relationships, DIGITAL will be able to act as a bridge into new market opportunities for DIGITAL's members.

A4. Areas of Focus

As the Canadian economy continues its transformation into a low-carbon, digital economy, DIGITAL will prioritize digital innovations related to the sustainability and wellbeing of Canadians in three areas of focus.

Area of Focus # 1 - Human Health

In early 2020 the World Health Organization identified 13 'urgent global health challenges.' Among these are the need to, "make health care fairer, stopping the spread of infectious disease, investing in the people who defend our health and, harnessing new technologies"¹ At the same time, in Canada, access to health services, health outcomes, and the sustainability of our health systems were all in question. Between 2015 to 2109, health care spending in Canada grew at a rate of 4% per year - which is faster than the growth in GDP. This was followed by a 12.8% spike in 2020 due to the pandemic and in 2021, health care spending is expected to grow to a new high of \$308B or \$8,019 per Canadian².

While in some contexts, the global and domestic picture of health systems and population health are bleak, in Digital we saw and continue to see the opportunity to develop and deliver digital solutions to some of the most pressing health issues and – together with our Members we have been doing just that with over 110 health products and services developed in the past four years, over 360 organizations involved in our health portfolio and over \$220 million in investment value.

In Phase II we will continue to build on the dedication and success of Canadian organizations to address and improve human health through three specific lenses:

- <u>Better access to health care</u> and especially technologies that improve access for citizens who are marginalized, live in remote settings or because of health or other conditions have a difficult time accessing the care they need,
- <u>Improved health outcomes</u> from the services provided, including using digital technologies to deliver faster and more accurate results which allow citizens to advance through their health journey faster and more efficiently, reducing stress and burden on healthcare providers from frontline professionals in primary care to acute care providers and those in remote and rural settings, and
- <u>More sustainable healthcare systems</u> by leveraging digital solutions to reduce costs, system duplications (such as multiple diagnostic tests for the same condition and citizen), and inefficiencies. Platforms and deployment of data and privacy standards created with the interests of healthcare teams and citizens front and center will lead to more interoperable systems, protection of data and privacy, more

¹ Urgent health challenges for the next decade (who.int)

² <u>CIHI - Canadian National Health Expenditure Trends</u>

integrated healthcare regardless of a citizen's geography, less pressure on stretched systems and reduced costs overall.

Area of Focus # 2 - Environmental Health

Environmental health is the foundation of a clean, prosperous economy. In Canada, our natural resources sectors (forestry, mining, and agriculture) are the primary suppliers of materials that support manufacturing, services and utilities. Combined, these sectors represent nearly 19% of GDP³, generate significant exports, are a source of major capital projects and a key economic driver for resource dependent communities across the country.

In addition to using data to drive productivity and sustainability, Digital is aiming at transformative solutions. In the Mining Microbiome Analytics Platform (<u>MMAP</u>) the goal is to replace some traditional mining extraction and site remediation technologies with breakthrough biomining solutions. <u>VergeAg</u> is leading the development of the world's first interactive planning platform for precision and autonomous agriculture.

In Phase II we will continue to build off the strength of Canada's natural resource sectors to catalyze the emergence of a low carbon economy through:

- **<u>Resilient forestry</u>** Using data and digital tools to manage and optimize forestry assets, supply chain operations and the ecological health of the forest, including its critical role in carbon sequestration.
- <u>Low impact critical minerals and mining</u> with innovations that accelerate the discovery of the critical minerals needed for the low carbon economy while reducing the ecological footprint of mining and energy projects.
- **<u>Regenerative agriculture supply chains</u>** with solutions that advance food security and optimize logistics while promoting plant vigor, biological diversity and soil as an asset for the natural sequestration of atmospheric carbon dioxide.

Area of Focus # 3 - Talent

In Deloitte's recent "<u>Innovation at Scale</u>" report, talent was identified as the number one pillar for how to grow a stronger innovation ecosystem. This is particularly important in an era where it is estimated that roughly half of the global workforce will need to be reskilled or upskilled by 2025⁴.

Using Digital's rapid skilling systems framework, projects like the <u>Canadian Tech Talent</u> <u>Accelerator</u> take youth 18 to 29 who are not employed, not in education and not in training and place them on a career path in data science or cyber-security in 16 weeks. Projects like <u>Athena Pathways</u> accelerate workforce diversity with mentorships,

³ Data from <u>Sector Overview Agriculture and Agri-Food Canada</u> plus <u>Natural Resources Sector Fact Sheet (NRCan)</u>

⁴ World Economic Forum Future of Jobs Report

scholarships and internships that support the career aspirations of women who want to enter the field of AI. Projects like <u>Canada's first Indigenous-led virtual production</u> <u>filmmaking program</u> build Indigenous digital talent.

In Phase II, with a national footprint for talent development already established, we will produce:

- <u>Innovative upskilling and reskilling</u> through pathways to digital jobs that provide well-paying careers for Canadian and help growing enterprises fill in-demand jobs. This includes designing pathways to reduce barriers underrepresented groups often experience when trying to access career opportunities.
- **Build leadership capacity** to drive innovation initiatives Canada and Canadian industry needs in the transformation to a clean, digital economy.
- <u>Grow the digital skilling ecosystem</u> to expand the service capacity in Canadian training delivery organizations and help promising Canadian digital edtech and workforce development platforms scale through access to training cohorts, users and employers who could become future customers.

A5. Harnessing the Power of Collaborative, Cross-Sectoral Innovation

At the heart of our model and early successes is a Team Canada approach to innovation. It features collective problem solving, diverse experiences and backgrounds, discovering solutions with organizations of different sizes and perspectives, building meaningful relationships and learning to collaborate. This approach builds teams that move quickly, understand and embrace diversity of thought and experience, deliver exceptional results and are determined to drive Canada forward.

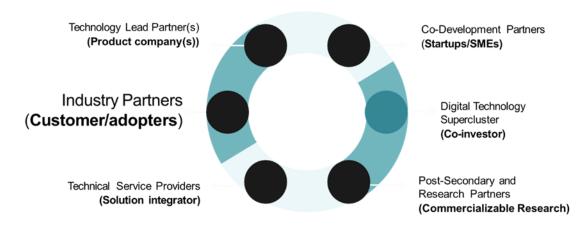


Illustration 1: Structure of a Project Collaboration Team

Our collaboration teams feature a mix of partners that include large companies, SMEs, post-secondary institutions and non-profits and also bring customers, developers, partners and other stakeholders together around a common goal. By leveraging each

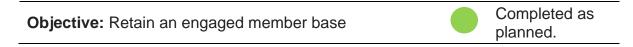
partner's strengths and insights, the team can accelerate progress and improve the quality of the digital innovation.

SECTION B: PROGRESS 2022.23

B1. Focus

Our goals and objectives for the last fiscal year were set against a backdrop of fulfilling the balance of our commitments towards our initial five-year term while supporting a possible renewal of the Cluster Program. Our reported achievements reflect where we landed at the end of our first five-year term.

B2. Maintain the Momentum of Our Innovation Community



Our collaborative innovation model provides opportunities for members to connect and participate in ideation forums, thought leadership sessions, networking programs and project development workshops. We had 470 organizations engaged in technology leadership project work with over 50% SMEs along with 150+ organizations involved in skilling and training activities. These are draw from a pan-Canadian ecosystem of 1,100+ organizations from coast to coast.

Objective: Foster meaningful engagement with key	Completed as
stakeholders	planned.

In parallel with promoting the Cluster Program for renewal, we worked to develop closer relationships within the Government of Canada - Health, Natural Resources, Environment and Climate Change, Small Business, Workforce Development, and others to help them succeed in their commitment to grow a clean, sustainable and digital economy. This led to our Cluster winning proposals to support Employment and Social Development Canada's Skills for Success and Sector Workforce Solutions Programs as well as a broader opportunity associated with the Pan-Canadian AI Strategy – Commercialization Stream to accelerate the commercialization of AI in Canada.

We also engaged with the Province of BC to pursue potential investment in our Supercluster and help it succeed in the delivery of its new Economic Plan. This includes skilling investments through our Canadian Tech Talent Accelerator Project and the exploration of new opportunities related to digital housing construction and digital twinning.

B2. Delivering on Outcomes of Programs

Objective: Manage our program and project investments to successful outcomes



Completed as planned.

Our focus was on delivering the outcomes of our program investments and paving the way for further success domestically and internationally.

By the end of this fiscal year, our total innovation portfolio exceeded \$350M in investment with \$165M committed by industry across just over 100 collaborative projects in total. These projects were instrumental in the development of 157 new products & services that opened up \$1B in new revenue potential for Canadian enterprises. Forty percent of teams were exploring international opportunities associated with their projects.

Through a strategic approach to talent development, we also created the Digital Learning Lab: a national innovation platform for digital workforce and talent development. Our programming operates coast to coast with 7,000+ upskilling and reskilling placements in projects ranging in size from \$150K feasibility studies to \$15M+ multi-phase, pan-Canadian initiatives reaching thousands of learners and hundreds of employers.

Objective: Communicate and promote the success of our programs and projects

Completed as planned.

Our communications program consistently promotes our projects and the Members who are participating in those projects. We've had a number of standout successes worth noting including two companies win Governor General Innovation Awards which celebrate outstanding Canadian innovations. Swift Medical which focuses on digital wound care and Ideon Technologies, a world leader in muon geotomography for mineral exploration.

SeamlessMD, the lead organization for Project Restart in our COVID program has experienced rapid adoption of their digital patient engagement and remote monitoring solution across North America. They were named "*2022 Company of the Year*" by the Can Health Network (announcement <u>here</u>).

Internationally, DNA Stack was named by the World Economic Forum as a 2022 Global Technology Pioneer and this fall, the World Health Organization (WHO) has started working with Firstline to manage antimicrobial resistance (AMR), a top ten global health threat.

Objective: Support consortiums in realizing the full potential of their IP and data assets and operations.



Completed as planned.

We've advanced a strong approach to IP, through the engagement of experts such as our IP Advisor, Karima Bawa (who has co-authored a book on IP strategy and was instrumental as the Canadian IP expert delegate for developing the IP Management Standard (ISO50505).

The projects in our portfolio have created 493 IP assets based on the following approach:

- working with Members on an individual organizational basis to identify IP that is being brought into a project and that will be generated through a project;
- ensuring that Members understand how their IP assets can be protected and financially support the protection of that IP;
- ensuring in a very robust fashion that both foreground IP and background IP is licensed on FRAND (fair, reasonable and non-discretionary) terms;
- ensuring that organizations have discussed ownership of IP and how IP will be commercialized through licensing between project consortium members and outside of the membership;
- deterring transfer of IP outside of Canada;
- ensuring that university generated IP is licensed on a basis that is fair to all including university and Canadian taxpayer interests; and
- supporting Members in identifying qualified legal counsel to support their IP needs (note, the Digital Supercluster has pre-qualified expert AI legal advisors related to IP issues on an affordable basis).

In addition, we recognize that SMEs need guidance from unbiased, skilled resources to help them navigate this landscape – resources which are available through the Digital Supercluster and its relationship to expert legal advisors. We've helped members access this expertise through a number of monthly webinars with sessions covering the following:

Table 1: IP, Data and AI Related Webinars

Understanding IP Valuation Essentials	Commercialization in AI Technologies
Accelerating Your Organization's Success in the IP Ecosystem	Innovating in AI through a regulatory landscape
Data: Collect it, Own it, Keep it	Data Licensing for AI
How IP Can Enable Your Business Strategy	AI: Ethics and the Law

B3. Strengthen our Ecosystem

Objective: Support the scale-up of SMEs involved in our projects

Completed as planned.

Partially

completed.

In terms of small and medium sized enterprises, DIGITAL ensures that SMEs are members of approved collaborative project teams. This provides SMEs the access to opportunities, partners and customers they need to drive international growth, expand market share, and increase revenues. It also helps SMEs optimize product-market fit for international value chains and learn from others at the development table.

We have evidence from our first five years where we engaged more than 200+ SMEs in our portfolio of 80+ technology leadership projects, invested more than 70% of our funds into SMEs and saw SME members leverage their position in projects and their affiliation with our Cluster to collectively raise over \$800M in the past several years.

Objective: Develop international pathways for project outcomes

In the first five years we took an opportunistic approach to international opportunities as they emerged, including an MOU with <u>IITM Pravartak</u>, which was the first MOU between any Cluster and an international partner based on technology from a project. We participate in the Asia Business Advisory Council meetings for APEEC (Asia Pacific Economic Cooperation) as well as meetings associated with the Cascadia Innovation Corridor.

What we have not done is finalize a more formal international strategy. As we move into Phase II and the next 5-year strategic plan, we will be developing a more formal international partnership strategy so that our organization can connect with similar organizations and start acting like a bridge to help our members build collaborative relationships in international digital ecosystems and value chains.

Further our efforts in equity, diversity and inclusion in the context of the digital economy

Completed as planned

Every one of our talent projects sets clear EDI targets with some cohorts, like those run by NPower Canada in the Canadian Tech Talent Accelerator, reached levels of 70% participants from equity-seeking or under-represented groups. In addition, this project also targets at risk youth 18 to 29 who are not employed, not in education and not in training and place them on a career path in data science or cyber-security in 16 weeks.

In another project, Digital Lift project we have successfully been able to provide neurodiverse individuals with skilling placements with line of sight to employment opportunities. For gender balance, projects like <u>Athena Pathways</u> accelerate workforce

diversity with mentorships, scholarships and internships that support the career aspirations of women who want to enter the field of AI.

Projects like <u>Canada's first Indigenous-led virtual production filmmaking program</u> build Indigenous digital talent while in another project with the Coastal First Nations, Indigenous people in remote communities have been hired to help identify how communities can use digital connectivity to stimulate economic development, open access to health services and help preserve language and culture. This project dovetails with a \$100M+ investment from the Governments of Canada and British Columbia into high-speed Internet access announced this summer in a gathering at Haida Gwaii.⁵

In another project, an AI-driven chest x-ray tool called XrAI with accompanying portable x-ray machines is being deployed in Onion Lake Cree Nation, Pelican Narrows which had been <u>waiting for an X-ray machine since 1996</u>, Peter Ballantyne Cree Nation and 5 more Indigenous communities in northern Canada this year.

B4. Launch Program for Pan-Canadian AI Strategy Commercialization

Objective: Secure new investment in the PCAIS Stream

Completed as planned

Our objective was to secure up to \$50M in new investment in the PCAIS stream to advance a range of business-led innovation and technology leadership activities in Applied AI, generating new products, processes and services and positioning firms to scale, integrate into global value chains, and become global market leaders.

We were successful in securing \$30M which we will invest across three streams include a commercialization pipeline, growing the applied AI talent pool and shaping emerging markets with global partners. We are using these funds to initiate a new program called Horizon AI where we will accelerate the development of an Applied AI ecosystem focused on capturing economic potential and commercial sales form made in Canada AI solutions.

Already, out of a portfolio topping \$350M, \$190M in 40 projects across our programs features the application of AI in the solutions. In addition, with over 320 organizations out of a total membership of 1,100 showcasing strength in artificial intelligence and machine learning, our ecosystem has the reach, experience and capacity to generate high quality commercialization momentum in Applied AI.

⁵ News Release. High Speed Internet Investment in Haida Gwaii

B5. Secure New Funding

Objective: Secure new investment with the Government of Canada

Completed as planned

Our objective was to secure up to \$200M of new investment from the Government of Canada's renewed \$750M Global Innovation Cluster program. Our proposal successfully secured \$125M for Phase II, deployed across a second five-year term.

SECTION C: PERFORMANCE MANAGEMENT

C1. Financial Summary FY2022.23

This year the Cluster generated \$50.7M in revenues. Technology leadership, capacity building and COVID-19 program expenses were a total of \$44.1M with operations & admin of \$6.5M in expenses for a zero balance between revenues and expenses at the end of the year.

Table 1: Statement of Revenues and Expenditures (C\$ 000s)

ltem	Budget Year Ending March 2023	Forecast Year Ending March 2023
Revenue	60,088	50,690
Program Expenses		
Technology Leadership	34,145	30,143
Capacity Building	12,405	7,871
COVID-19 Program	5,726	6,130
Total Program Expenses	52,275	44,144
Net	6,546	6,546
Corporate Programs and Management	7,813	6,546
Revenue in Excess (Below) Expenses		

C2. Key Performance Indicators

This year is the final year of our first 5-year term. As we bring this Phase of our organization to a close, here are the foundational achievements we were able to realize at the end of this year.

Table 2: Five Year Performance

Performance Indicator	Foundational Achievement		
Number of <i>organizations</i> joining the digital innovation ecosystem	1,100+		
Number of <i>collaborative projects</i> in technology leadership and capacity building programs	100+		
Dollar value of <i>investment</i> committed by Industry	\$165M+		
Dollar value of total project portfolio	\$350M+		
Number of new products or services developed	157 new products / services		
IP assets created	493		
Digital workforce reskilling and upskilling placements	7,000+		
Scale-Up SMEs	25 scale-ups grown		
New <i>follow-on funding</i> raised by Canadian companies participating in collaborative projects	\$828M		

C3. Performance Management Framework

As part of the second phase of the Cluster program, DIGITAL will be developing a new performance management framework in line with the outcomes of the Global Innovation Cluster Program which centre around the following four key elements.

- A national force. Develop ecosystems that create a global advantage for Canada by attracting investment, developing a global profile, and collaborating on projects at a national scale.
- A driver of growth: Accelerate the scale-up of SMEs in cluster projects by fostering collaboration and integration into emerging value chains, in order to drive international opportunities, expand market share and grow revenues
- A creator of networks: Strengthen connections and collaborations between private, public and academic organizations to drive impactful commercialization outcomes and develop domestic capacity; and
- A catalyst for skills development. Address skills gaps, act as a magnet for global talent, collaboration and skills and talent development and foster opportunities for equity-seeking groups to benefit from connections, in order to drive innovation and contribute to inclusive economic growth.

Working collaboratively with ISED, we will develop a performance management framework with specific metrics underneath each of these elements to guide the next five years of program performance.

SECTION D: IP AND DATA STRATEGIES

D1. IP and Data Strategies

As outlined in Section B2, objective "Support consortiums in realizing the full potential of their IP and data assets and operations" we detailed the progress we've made in the implementation of our IP Strategy including the production of 493 IP assets over our first five-year term as well as our webinars that help organizations learn how to manage and create value with their IP.

As we transition into Phase II and our second five-year term, DIGITAL will continue to deliver IP management services to project teams across all programming, focused on:

- <u>Strong Understanding of IP.</u> Working with project participants to ensure a clear understanding of the IP that is brought into the projects and that will be generated, ownership, licensing requirements and the impact of third-party IP.
- <u>Facilitate productive collaborations around IP</u>. Ensuring all project participants identify their IP and data contributions and ownership along with anticipated commercial terms as part of the project development process to avoid future conflicts and maximize the shared opportunity.
- <u>Provide access to IP expertise and resources</u>. Working in partnership with other organizations in the Canadian IP ecosystem (e.g., IAC, FORPIQ, IPIC, Elevate IP, IP Ontario and ventureLAB), we will continue to provide opportunities to engage with sophisticated IP professionals who provide impartial guidance to help our Members develop and implement their IP strategies.
- <u>Cross-leverage IP</u>. We support Canadian companies to explore opportunities for leveraging IP and data assets across different sectors, markets and ecosystems, often in unrelated fields for novel applications. This includes our IP Registry.

Here are a couple of examples that illustrate how organizations create IP through our projects:

- Terramera, an SME and leader in sustainable agriculture technologies, has generated 6 patents filed within 4 PCT (patent cooperation treaty) applications and patent filings in Canada and the US
- Invixium has protected algorithms and techniques through a combination of 8 software copyright and trade secrets and 2 method trade secrets enabling their Canadian biometric technology to be distributed across 4 continents.

The IP Strategy and Data Strategy are available on our website's community portal in both Official Languages. Our community portal is also where we house our IP Registry.

SECTION E: GOALS AND OBJECTIVES 2023.24

E1. Focus

Our goals and objectives for this fiscal year are set against the backdrop of initiating the first year in a second five-year term for the Cluster Program. In fiscal 2023/2024 we will amplify our focus on growing Canadian enterprises and the important role our projects and programs play in this endeavor, while also building on and learning from the foundational achievements we made in Phase I. We are also increasing our attention on building a sustainable business – beyond the core funding made available through the Global Innovation Cluster program – something that we started in 2019 with the diversification of investors in DIGITAL and which we will continue to drive in the coming year and beyond.

E2. Program Delivery.

Program delivery is a performance category that focuses on objectives and key results related to goal # 1 (continue to grow a robust technology leadership portfolio) and goal # 2 (continue to develop capacity in our ecosystem), which are set out on page 2 of this Plan. This year we have four priority objectives related to Program Delivery:

Objective 1: Transition the tech leadership portfolio to deliver Phase II outcomes.

DIGITAL will continue to grow an industry-led collaborative digital technology leadership portfolio in the following priority areas of investment:

- Human health solutions that will improve health outcomes and access to healthcare and increase the sustainability of the Canadian healthcare system; and
- Environmental health projects that increase the global competitiveness of Canada's natural resources companies (across forestry, mining and agriculture) while reducing their environmental impact and carbon footprint.

In Phase II, our project pipeline will cultivate projects focused on:

- Improving equitable access to care especially for vulnerable 'at risk' populations, including seniors, Indigenous peoples, new Canadians, LGTBQ2+, those living at or below the poverty line, and Canadians in remote and rural areas.
- Providing integrated and coordinated care to improve the experiences of patients and their families: across home, community and primary care, acute care and longterm care settings.
- Eliminating wait-times for emergency services, surgery and routine screening through inter-operable systems founded on data stewardship and privacy.
- Improving outcomes through personalized diagnostics and treatments and by accelerating drug discovery.

- Addressing stress and burnout of physicians and nurses through AI-enabled clinical decision support tools and by easing administrative burden.
- Optimizing health resource utilization and value chains that can also alleviate alternate level of care bottlenecks.

In Phase II, our project pipeline will cultivate projects focused on:

- Reducing ecological and carbon footprints for the exploration and extraction of critical minerals and mining.
- Advancing automation and robotic fulfillment in labour intensive supply chains.
- Improving safety and reducing costs for operations in remote locations by connecting highly skilled Canadian workers to sites anywhere in the world.
- Digitizing assets and infrastructure to shorten supply chains, balance restoration and production in mining, forestry and agriculture.
- Developing better emission measurement, tracking and reporting systems with predictive analytics and AI algorithms that recommend mitigation alternatives.

Phase II funds will be committed to projects in a new Call for Proposals in the Spring of 2023. As part of this call, the strategy and targets for deploying investment across the full five-year term will be confirmed.

Objective 2: Transition the Capacity Building portfolio to deliver Phase II outcomes.

Capacity building is the purpose-driven alignment and scaling of strategic resources that enable performance across our Cluster. To that end, DIGITAL will continue to advance ecosystem development activities that drive innovation and contribute to inclusive economic growth by:

- Advancing pan-Canadian digital workforce and talent development through the use of rapid skilling systems to reduce the time and cost to make people job ready;
- Expanding the service capacity in Canadian training delivery organizations and help promising Canadian digital edtech and workforce development platforms scale through access to training cohorts, users and employers; and
- Building leadership capacity to drive innovation initiatives Canadian industry needs in the transformation to a clean, digital economy.

In Phase II our project pipeline will cultivate projects focused on:

- Enabling Canadian workers, anywhere in Canada, to gain the digital skills and experience they need to build career paths in well-paying digital jobs
- Helping workers in transitioning industries reskill into high growth digital, green jobs in support of a "just transition" to a clean economy

- Developing creative leaders with the skills needed to lead green, digital transformation initiatives and develop world-leading innovations.
- Helping large enterprises, SMEs and fast-growing companies acquire the digital talent they need to meet their business goals
- Providing access to inclusive career pathways to equity seeking groups that reduces barriers to opportunities in the digital, green economy
- Creating new training content, learning technologies, competency frameworks and the use of real-time labour-market information to optimize workforce development

Projects will utilize a mix of real-time labour market analytics, advance competency frameworks, deliver rapid reskilling and upskilling placements, grant microcredentials and develop place-based economic development initiatives with priority support for rural and remote communities.

Phase II funds will be committed to projects in a new Call for Proposals in the Spring and Fall of 2023. As part of this call, the strategy and targets for deploying investment across the full five-year term will be confirmed.

Objective 3: Launch Horizon AI as a strategic applied AI ecosystem building program

Using earmarked funding from the PCAIS Commercialization Stream we will launch a new program, Horizon AI, focused on seeding the start of an Applied AI ecosystem that unlocks the economic potential of AI. Our approach is anchored in developing a high potential commercialization pipeline, growing the AI talent pool and helping position Canadian companies to lead in emerging market opportunities shaped by the power and potential of Applied AI. In addition, we will be exploring business models, use-cases and IP with line of sight to what it takes to use AI in the commercial scale production of AI-enabled digital products and services.

With this launch PCAIS Commercialization Stream funding funds will be committed to projects in a new Call for Proposals in the Spring and Fall of 2023. As part of this call, the strategy and targets for deploying investment across the full five-year term will be confirmed.

In addition, a global partnership pipeline will be developed as part of a strategy to use Horizon AI to attract follow-on program investments with the potential to grow the project portfolio value from \$55M to \$250M.

Objective 4: Support and develop mission driven innovation

Supporting Government of Canada Priority Missions

Digital is committed to supporting:

- <u>Greening the Economy</u>. Digital will identify how our projects contribute to a low carbon, digital future including helping decarbonize supply chains as well as make important contributions to the critical minerals strategy using geospatial data, sensors and smart devices to find new deposits while minimizing the carbon and ecological footprint of exploration activities.
- <u>Supply Chain Resilience</u>. We will explore technologies that provide additional flexibility in supply chains including technologies related to the expansion of autonomous vehicles in remote sites, teleoperations, managing remote work and resource optimization. We'll also explore the use of digital twins and predictive analytics for disaster response, be it another pandemic or a climate induced natural disaster.

Mission Development Capacity

In addition, DIGITAL recognizes the potential that the practice of mission driven innovation can make in helping accelerate the transformation to a low carbon, healthy, digital economy. Thus, the ability to build, lead and advance missions is an important element of ecosystem capacity building as well.

To that end, DIGITAL will, as appropriate, leverage our program architecture, collaborative network and experience to develop new programs or missions that advance the transformation to a low carbon, digital economy and respond to significant challenges faced by industry or government, just like we did in our response to the COVID pandemic.

This year we will begin to codify a methodology for the practice of mission driven innovation, promote the development of a mission pipeline where we align our Cluster's capabilities with potential new missions and begin the process of converting potential missions into funded initiatives.

E3. Ambitious, Inclusive Growth.

Ambitious, inclusive growth is a performance category that focuses on objectives and key results related to goal # 4 (accelerate the scale-up of globally competitive digital enterprises), goal # 5 (strengthen indigenous reconciliation) and goal # 6 (establish credible international relationships), as listed on 2 of this Plan. This year we have three priority objectives:

Objective 5: Promote and help scale high-growth potential "flagship" digital enterprises

Within our ecosystem and project pipeline, we will identify and build a list of flagship digital enterprises with the potential to build a global competitive advantage in a breakthrough product category on a path to \$100M in annual revenue and then onwards

to \$1B. The most promising will be referred to the Government of Canada's Accelerated Growth Service.

While this includes SMEs, it is available to any company with high growth potential. It's worth noting the Apple was a mature low growth computer company generating just under \$20B in annual revenue in 2006. It was the launch of the iPhone as a disruptive new product category that created the market momentum to grow Apple's revenues to \$215.6B in only ten years. Scaling is about growing companies of any size.

In terms of small and medium sized enterprises, DIGITAL will continue to support the addition of SMEs as members of collaborative project teams. This provides SMEs the access to opportunities, partners and customers they need to drive international growth, expand market share, and increase revenues. It also helps SMEs optimize product-market fit for international value chains and learn from others at the development table.

In addition, DIGITAL will help build capacity within SMEs in three additional areas:

- <u>IP Awareness and Education</u>. We develop good practices for managing IP and data in our projects and advance techniques that we share through educational webinars and coaching to help SMEs learn how to use IP and data to their advantage.
- <u>Cybersecurity</u>. This is a new theme that emerged near the end of Phase I. We began working with Canadian Security Intelligence Service to help SMEs develop an understanding of the needs and importance of sophisticated cybersecurity systems and knowledge including cyber insurance. We'll continue this work, including leveraging the expertise of organizations such as the <u>Canadian Centre for</u> <u>Cybersecurity</u>, <u>Digital Identification and Authentication Council of Canada</u>, and the <u>Canadian Institute for Cybersecurity</u>.
- <u>Product Development Champions</u>. Within our talent programming, we will help build the leadership capacity required for SMEs to grow new product revenues by supporting the training and development of innovation leaders who not only understand how to implement stage-gate development processes, but understand how to mobilize resources to support and grow R&D budgets as part of annual plans. This is an essential competency if we are to start making on impact in improving BERD.

Objective 6: Promote Diversity, Inclusion and Indigenous Reconciliation

Our Supercluster understands and embraces the benefits, strength and power of diversity and inclusion. In every element of our governance, operations, membership, management systems and in the development of our projects, we are committed to leveraging the benefits of diversity and inclusion. To that end, as part of our transition into our second phase of development, DIGITAL will produce a new Cluster Diversity and Inclusion plan that helps foster fully inclusive opportunities in Canadian innovation for equity-seeking groups such as women, visible minorities, persons with disabilities, and Indigenous populations.

In addition, consistent with our Cluster objective # 5, we support the *Truth and Reconciliation Commission of Canada: Calls to Action* with deliberate efforts to include Indigenous participation in our projects. Project engagements align with actions in Business and Reconciliation, Health, Education, Language and Culture.

Objective 7: Build an International Partnership Strategy

DIGITAL will develop a formal International Partnership Strategy that builds relationships with complementary innovation enterprises and initiatives that align with our missions or programming. These relationships can act as bridges that facilitate the movement and exchange of digital innovations between countries and regions. Where appropriate we may even co-locate personnel or complete staff secondments for terms in open innovation labs around the world.

Geographically, we will leverage the strong relationships with the Cascadia Innovation Corridor and the global strength of the Pacific Northwest, continue our work in India and the UK where we have an MOU with Innovate UK. There are also interesting opportunities with a small number of 'focus countries' in ASEAN and more recent opportunities to engage with the Israel Innovation Authority.

E4. Organizational Development

Organizational development is a performance category that focuses on objectives and key results related to goal # 1 on page 2, (build a world-respected, globally connected innovation enterprise). This year we have three priority objectives:

Objective 8: Diversify sources of revenue to support a sustainable Cluster organization.

DIGITAL's COVID program demonstrated the value of the Cluster program as a delivery vehicle for policy and program goals in addition to the Global Innovation Cluster. As such, in this five-year period, DIGITAL will diversify funding through the development of a Specialty Program pipeline.

This is a program development strategy that has been incubated in the first five-year period. It has resulted in DIGITAL securing commitments associated with the following initiatives:

Pan-Canadian AI Strategy – Commercialization Stream

- National Quantum Strategy
- Skills for Success (ESDC Employment and Social Development Canada)
- Sector Workforce Solutions Program (ESDC)
- BC Digital Housing Construction Initiative

This year, we will formalize the development of our Specialty Program services and begin business development efforts with clear investment attraction targets for our Specialty Programs.

Objective 9: Advance technology-enabled service delivery to members and associates.

DIGITA uses our website, social media, e-mail marketing and software applications like Salesforce to support our service delivery. This year we will continue to develop digital tools and services that help deliver effective, efficient programming and member services. This includes branded digital assets that support knowledge mobilization and ecosystem development and a review of our IP Registry.

Objective 10: Complete succession planning and staff career development plans.

We have a diverse team with well-experienced executive leaders and staff that have tremendous growth potential. Some are already on their way to becoming strong innovation program leaders. With the Phase II of the Global Innovation Cluster program, we will update succession plans for all our executive positions as well as continue working with Cluster staff to enhance their career development.

SECTION F: BUDGET

F1. Operating Budget 2023.24

The following statements outline elements of our operating budget and finances for the fiscal year 2023.24. Table 3 (below) is the approved operating budget. It includes the approved project claims completed under program delivery expenses and corporate programs and management expenses.

Table 3: Operating Budget: Revenues and Expenditures (C\$ 000s)

	Forecast Year Ending March 2023	Budget Year Ending March 2024
Item		
Revenue	50,690	63,392
Program Delivery Expenses		
Technology Leadership	30,143	30,650

Capacity Building	7,871	21,399
COVID-19 Program	6,130	2,055
Total Program Expenses	44,144	55,105
Net	6,546	8,287
Corporate Programs and Management	6,456	8,287
Revenue in Excess (Below) Expenses		

Table 4 (below) identifies the sources of funds associated with the different ISED programs for the operating budget in Table 3. For additional clarity:

- The \$31.5M in ISI program expenses includes both approved claim payments for work completed by March 31, 2023 with the claim payment processed in Q1 of FY2023.24 plus approved extensions to Phase I projects and Phase II project claims.
- Direct member contributions to projects include the Government of BC and Microsoft. They are continuations of prior commitments that have moved into Phase II and have been allocated to GIC.
- Other covers other organizations including ESDC.

Source	ISI	GIC	PCAIS	NQS	Other	Total
Program Expenses	31,500	0	1,250	0	14,000	46,750
O&A Expenses	0	2,800	750	166	480	4,196
Direct Member Contributions to Program Expenses	0	7,203	0	0	0	7,203
Member Project Management Fees	4,814	0	179	0	0	4,993
Annual Member Dues	0	250	0	0	0	250
Total	36,315	10,253	2,179	166	14,480	63,392

Table 4: Operating Budget: Source of Funds (C\$ 000s)

Table 5 (below) identifies anticipated industry matching funds across the ISED programs for the coming year. Industry matching is calculated and confirmed with an approved project claim and includes other payments such as member project management fees and member dues.

SOURCE	ISI	GIC	PCAIS	NQS	OTHER	TOTAL
Industry contributions towards eligible project costs	31,500	0	1,250	0	0	32,750
Direct Industry Member Contributions to Program Expenses	0	3,091	0	0	0	3,091
Member Project Management Fees	4,815	0	179	0	0	4,994
Annual Member Dues	0	250	0	0	0	250
Total	39,767	3,341	1,429	0	0	41,085

Table 5: Anticipated Industry Matching Funds (C\$ 000s)

Table 6 (below) summarizes incoming and outgoing cash for the fiscal year. Program delivery commitments includes both payment of approved claims and project advances that provide the working capital to help teams secure resources for project execution.

Table 6: Cash Flow for Fiscal Year 2023.24 (C\$ 000s)

Cash flows from cluster activities	Total
Incoming	
Innovation Supercluster Initiative (ISI) contribution	23,000
Global Innovation Cluster	14,113
Pan-Canadian AI Strategy contribution	11,050
National quantum strategy contribution (if applicable)	1,158
Others (ESDC)	14,480
Direct member contributions	0
Project management fees	4,994
Membership and registration fees	250
Other revenue	0
Total incoming cash	69,045
Outgoing	
Program Delivery Commitments	79,655
Corporate Programs and Management	8,592
Total outgoing cash	88,247
Net	(19,202)

Table 7 (below) summarizes the anticipated disbursement from ISED program funds in this fiscal year. It is derived from a profiling exercise between DIGITAL and ISED that takes into consideration planned project claims and project advances in DIGITAL's program pipeline plus planned corporate program and management expenses.

ISED Program	Program Pipeline Commitments	Corporate Programs and Management	Total	Notes
ISI	23,000	0	23,000	Remaining funds from the first 5-yr funding commitment
GIC	11,000	3,113	14,113	Combines approved
PCAIS	10,300	750	11,050	project claims, approved project advances and
NQS	1,000	158	1,158	corporate expenses
Total	45,300	4,021	49,321	

Table 7: ISED Disbursement Profile for FY2023.24 (C\$ 000s)

F2. Risk Assessment and Mitigation Measures

With respect to the 2023.24 Corporate Plan, risks and mitigation measures are summarized as follows:

Key Risk	Mitigation
Attracting sufficient investment from industry to achieve a 1:1.5 industry match	Using the success from Phase I, we are cultivating strategic industry partners with the financial strength to invest at a larger scale. We continue to ensure our pipeline is filled with projects that have a strong commercial ROI.
Geopolitical and other market factors (e.g. recession, inflation) hamper appetite for industry investment in R&D of new products and services.	In extreme cases of extreme geopolitical threats like an unprecedented expansion of the war in the Ukraine or the impact of the US failing to raise its debt limit in time to avoid default or delayed payments, we may seek future flexibility for a lower industry match as incentive for Canadian SMEs to continue to invest in R&D during a time of crisis. In other cases, we may adjust our focus to projects with a shorter time to market for a shorter payback period.
International commercial success (revenue and SME growth) is hindered	Work with GoC to explore avenues to simplify government procurement for new products produced through Cluster investments. Promote Canadian

Key Risk	Mitigation
due to a lack of Canadian customers.	demonstration projects as an eligible commercialization and adoption activity.
Recruit enough employer partners to use upskilling / reskilling placements to advance their workforce development	In addition to the 1,200+ members of Digital, the partners we work with have extensive employer reach. For example, NPower Canada has an employer network of over 250 hiring partners. Lighthouse Labs has a pan- Canadian network of 500+ industry professionals and an industry / employer network of 4000+ companies across Canada. Riipen works with 400 schools and private training providers as well as 20,000 employers worldwide.
Demographic Reach. Adequately Reach Underrepresented Groups	Our project delivery partners connect with local non- profits to help create trusted access to underrepresented groups. If we are unable to achieve the diversity we need in general cohorts, we would set-up exclusive cohorts (ie. all women) to ensure we meet our overall diversity and inclusion targets.
Geographic Reach. Delivering opportunities in our digital innovation cluster across all regions of the country.	We already have pan-Canadian reach through our project partners across the country. For example, talent alone covers Halifax, Toronto, Calgary, Vancouver, smaller regional cities, indigenous communities in remote areas and an upcoming expansion into Quebec.

F3. Other Items

As required, we confirm that the Global Innovation Cluster: DIGITAL does have a liability to the Canada Revenue Agency associated with our GST account. Member service fees were thought to be exempt from GST but were not, so we have filed a voluntary disclosure to rectify the situation. The liability is estimated to be about \$500K.