

2022/2023 ANNUAL REPORT

# The Future is Digital

Capturing Canada's Innovation Advantage

#### TABLE OF CONTENTS

INTRODUCTION	2
FROM THE GOVERNMENT OF CANADA	4
FROM THE PROVINCE OF BRITISH COLUMBIA	6
FROM OUR CHAIR	7
FROM OUR CEO	7
KEY PERFORMANCE INDICATORS	B
5 Year Key Performance Indicators	9
WHAT WE DO: A FRAMEWORK FOR GROWTH THROUGH COLLABORATIVE INNOVATION1	1
OUR PRIORITIES: ECONOMIC GROWTH AND PROSPERITY14	4
Building Canada's Leadership for a Net-Zero Future1	5
Securing the Sustainability of Canada's Health System	7
Meeting the Talent Demand for Canada's Digital Economy1	9

21
27
34
35
35
35
35
36

Telewound Care is delivering remote wound care to the most vulnerable patients, reducing strain and associated costs while supporting virtual care delivery. They are conducting field trials with over 25 Canadian healthcare providers and expanding their clinical partners and research to Belgium, the U.K., Japan, Mexico and Columbia. [PROJECT LEAD: SWIFT MEDICAL]

# The Future is DIGITAL

Canada is a world leader in digital technologies. Our power to leverage data through partnerships that capture opportunities in human health, environmental sustainability and skilling for the digital world has never been greater. And we know that no single organization can do it alone. DIGITAL is convening the best and brightest in Canadian industry, academia, community and government organizations to solve the wicked problems of our time and create lasting impact for generations of Canadians. Driving growth of Canadian companies and putting our greatest innovations on the world stage is contributing to the building of a prosperous, healthy and net-zero future — and it's what we do best. We're proud of the work we've completed this past year and are thrilled with the growth our model has generated for Canadian companies thus far. Through high-speed delivery and rapid deployment of digital solutions we've created real, lasting change on a global scale. We invite you to join us on our journey.



# 2022-23 Highlights **IP ASSETS CREATED 6**<sup>\*</sup>**493 Solution Sector Sector NEW INVESTMENT RAISED BY PROJECT PARTNERS** 37,000+ TALENT PLACEMENT TO-DATE ₫ 157 NEW PRODUCTS AND SERVICES \$350M+ TOTAL INVESTMENT PORTFOLIO 70%+ INVESTED WITH SMES \$192M+ TOTAL INVESTMENT BY INDUSTRY 620+ PROJECT PARTNERS **235+** SME PROJECT PARTNERS \$3.9B PROJECTED COMMERCIAL REVENUE OVER 5 YEARS **1516** DIRECT FTES SUPPORTED 20,000 PROJECTED JOBS CREATED BY 2028

#### FROM THE GOVERNMENT OF CANADA

Message from the Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry

The Government of Canada is working to secure Canada's economic growth and prosperity in a green, digital and resilient world economy. We are in a position to seize the moment and build on our solid innovation investments so that Canada succeeds in the new global economy.

The Global Innovation Clusters are accelerating Canada's global competitive edge by bringing together companies of all sizes, academic institutions and not-for-profits to generate bold new ideas. These clusters have helped build successful and growing innovation ecosystems across the Canadian economy in five areas where Canada has an innovative advantage: plantbased protein alternatives, ocean-based industries, advanced manufacturing, digital technologies, and artificial intelligence for supply chain and logistics.

The clusters are spurring innovation and collaboration across Canada by launching projects that are helping grow our economy and bringing tangible benefits to Canadians. Since the launch of the program in 2017, the clusters have been finding new ways to build connections, bringing together experts in their fields to create high-quality, well-paying jobs; invest in promising projects; help firms scale up; and position Canada as a global leader in the innovation space. The Global Innovation Clusters are delivering tangible benefits to Canadians with their unique model, creating stronger ecosystems, de-risking the adoption of technology, maximizing the value of intellectual property and forging new partnerships that increase firms' market potential. As of March 2023, the clusters announced more than 500 projects worth \$2.37 billion and involving more than 2,500 partners.

They are on track to meet or exceed the overall job creation target of 15,000 direct, indirect and induced jobs by 2023 and 50,000 by 2028.

Because of these strong results, our government confirmed Canada's commitment to the clusters in Budget 2022, investing an additional \$750 million through to 2028 to support the further growth and development of Canada's Global Innovation Clusters. Building on their success to date, the five clusters will expand their national presence and will continue to collaborate with partners to deepen their impact at home and abroad, including through joint missions aligned with key global priorities such as fighting climate change and addressing supply chain disruptions.

The clusters are also helping to build a skilled and diverse workforce by creating opportunities for women, racialized Canadians, Indigenous communities and other under-represented groups and by offering workshops and formalized training in response to the industry's need for members of these groups to develop their talent, gain relevant knowledge or learn new skills.

Since the inception of the program, the clusters have developed a new approach to innovation through co-investment with industry to build accelerated, strong ecosystems that are taking innovators further, faster through collaboration. The clusters have exceeded expectations while delivering tangible results, both at home and globally.

The Digital Technology Cluster (DIGITAL) in particular is driving digital innovation to address some of the world's most pressing

issues. Over this past year, DIGITAL has fostered synergies between the best in Canadian industry and academia to produce results such as as the world's first digital end-to-end solution for the creation, discussion and distribution of the most up-todate infectious disease guidance, as well as the development of transformative made-in-Canada solutions that help accelerate the transition to low-impact mining.

I would like to extend a heartfelt thank you to everyone involved with the Digital Technology Cluster for your commitment to strengthening Canada's innovation ecosystems and helping to establish a diverse and skilled workforce ready for the jobs of the future.

The Honourable François-Philippe Champagne, P.C., M.P.

We are in a position to seize the moment and build on our solid innovation investments so that Canada succeeds in the new global economy.

#### FROM THE PROVINCE OF BRITISH COLUMBIA

Message from the Honourable Brenda Bailey, Minister of Jobs, Economic Development and Innovation

Innovation is the underlying driver of our economy, and the key component of creating a stronger, more resilient economy. As B.C.'s Minister of Jobs, Economic Development and Innovation, we know the importance that tech and innovation have on our rapidly changing economy, and our role to foster its growth. Technology can help optimize the way we do things across all sectors in B.C. and support our nation's leading work in sectors like mass timber and life sciences.

DIGITAL and its industry, academic and government partners continue to create a supportive ecosystem and lead the development of impactful technologies and solutions for people around the world.



DIGITAL plays a pivotal role to bring together solution providers so they can

collaborate in tackling the challenges we face in key areas in health, achieving our net zero climate goals and building on skilled digital training to fill the jobs of tomorrow in B.C. and beyond. DIGITAL and its industry, academic and government partners continue to create a supportive ecosystem and lead the development of impactful technologies and solutions for people around the world. We are proud to be a partner of this collaborative innovation model and look forward to continuing to work together towards our StrongerBC goals of clean and inclusive growth, as we build an economy that works for the people of B.C. today, and for future generations.

The Honourable Brenda Bailey

#### FROM OUR CHAIR

International collaboration and investment play a crucial role in shaping Canada's digital economy and enabling its potential to become a recognized global leader. It allows for the exchange of knowledge, expertise, and best practices between countries.

In this year's annual report, it is evident that DIGITAL has successfully built an enviable domestic collaboration model. As we move forward, we need to leverage the strength of our platform to drive Canada's economic growth and competitiveness. DIGITAL will be the catalyst to forge partnerships and collaborations that will lead to innovative digital solutions, shared research and development, and the expansion of markets for Canadian stakeholders.

The success of DIGITAL's model is rooted in Canada's strengths: our highly skilled workforce, our commitment to



innovation, and our strong focus on privacy. DIGITAL's next stage programming will support, nurture, and scale a community of Canadian companies that can seize the opportunities presented by the digital revolution and position themselves as global leaders in the digital economy.

STEWART BECK

#### FROM OUR CEO

At DIGITAL, we bring Canadian talent, expertise and drive together to develop world-leading technologies that drive growth and success for our Members and their communities. When Canadian industry, academia and governments work together, we create digital technologies better than any single organization could do on its own and we do it fast!

Our community has created 493 IP assets, raised over \$800M in new investment and developed 157 commercial digital products and services. Over 40% of our industry partners are exploring international opportunities related to their projects. Their work is supporting the reclamation of over 1 million acres of Ukrainian farmland; delivering antimicrobial resistance guidance to 96 countries; deploying the world's first 'Earth x-ray' in 7 sites globally; and have created 7,000+ talent placements for Canadians to continue driving digital, environmental and economic transformation here and around the world.

None of this would be possible without the ambition of our Members; commitment of our Board; our team's relentless determination; and the Government of Canada and Government of British Columbia's trust in the potential of Canadian organizations to change the world. We are doing just that – and we have only just begun!





**SUE PAISH** 

xrAl is a portable x-ray system that is reducing wait time and strain on remote and rural communities. It is being deployed through the B.C. First Nations Health Authority, Ahtahkakoop Cree Nation, Onion Lake Cree Nation and Peter Ballantyne Cree Nation. [PROJECT LEAD: SYNTHESIS HEALTH]

# **Our success in numbers**

We measure our success, and that of our ecosystem, in tangible ways through numbers and real impact. But behind these numbers are stories, and they are stories of connection, development and achievement. They are stories of vision and perseverance where we are enabling new ideas and walking alongside organizations as they move along the commercialization path. We set big goals because we know that we have the talent and drive to reach them.

# **5 year key performance indicators**

ISI KEY PERFORMANCE INDICATORS	DIGITAL 5 YEAR GOALS	ACHIEVEMENTS (as of March 31, 2023)	RESULT
Number of funded collaborative projects	35	100+	Exceeded
Dollar value of investment committed by Private Sector	\$200M	\$192M	Off Track
Number of companies participating in the Supercluster	500 organizations	1100+	Exceeded
Number of products or processes developed	50 new products/services	153 new products/services	Exceeded
<b>Employment</b> growth (includes direct, indirect, & induced jobs)	13,500 jobs	20,000 jobs projected by 2028	Exceeded
Extent activities are aligned with ecosystem » Build powerful partnerships and alliances » Scale up SMEs » IP & data	200 partnerships 25 SMEs scaled	500+ partnerships 25 SMEs scaled 53 patents filed 493 created IP assets 237 IP assets in development	Exceeded On Track

Having ongoing access to DIGITAL's IP advisory team has been invaluable to an SME like ours. This direct engagement has been instrumental in bringing clarity on issues related to IP protection, ownership and licensing structures. Also, importantly, by virtue of supporting consortium discussions, DIGITAL catalyzed our commercial discussions and framework. **J PEDER SANDE, CEO, ORX SURGICAL INC.** 

//

IP is the currency of the innovation economy, and DIGITAL aims to create a culture amongst businesses, researchers, and policymakers where IP is embraced as an important strategic and economic asset. As a steward of public funds, DIGITAL is committed to ensuring that IP advanced through its programs is leveraged for the benefit of Canadians and requires that all project-funded IP be owned and retained in Canada. DIGITAL provides education to bolster IP literacy across the country and facilitates access to expert resources to Canadian companies so they have IP strategies that are aligned with their business objectives and enable commercial success.

KARIMA BAWA, ADVISOR ON IP

DIGITAL Annual Report 2022-23

The Digital Innovation & Leadership (DIAL) initiative is designing a systems-change solution for employers looking for access to new talent or to quickly and effectively upskill current employees. While focused on Canada, it's already scaling globally with potential to deliver training in up to 70 countries and 30 languages. PROJECT LEAD: SIMON FRASER UNIVERSITY BEEDIE SCHOOL OF BUSINESS

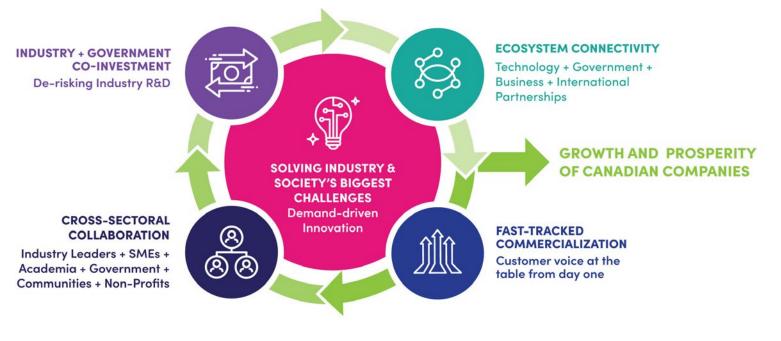
# Growing great companies by solving the world's biggest challenges

When we look at the global landscape we see problems, but we also see opportunities. Five years in and we've come a long way with still so much ahead of us. We're putting ourselves out there to put Canadian companies on the world stage. Our investment portfolio is diverse in focus areas but targeted on companies that demonstrate they're up to the opportunity.

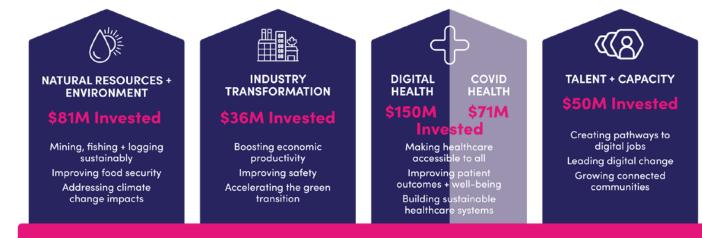
#### The sustainability, growth and competitiveness of Canadian companies accelerates through:

- DEMAND-DRIVEN INNOVATION We define some of industry and society's biggest problems that need to be solved.
- CROSS-SECTORIAL COLLABORATION We convene the best and brightest across sectors to build solutions to these problems better than any single organization can do alone.
- INDUSTRY & GOVERNMENT CO-INVESTMENT We invest to accelerate the development of digital technologies to solve real world problems.
- FAST-TRACKED COMMERCIALIZATION We do it fast. Our approach is seamless – breaking down barriers, removing obstacles and accelerating delivery and deployment of solutions.









Cross-industry Collaboration + Co-investment = The Strongest Innovation Ecosystem in Canada



Accessible healthcare. Sustainable natural resources. Meeting the industry need for high-quality talent. Canada is rich with opportunities to meet these challenges. That's why we're putting our best foot forward by de-risking R&D for Canadian companies to make an impact on the lives of everyone around the world.

The Point-of-Care Ultrasound project is providing critical interventions in the care of rural residents, such as a patient of a midwife on Salt Spring Island, B.C. and resident of Haida Gwaii, B.C. [PROJECT LEAD: PROVIDENCE HEALTH CARE]

#### **Building Canada's Leadership for a Net-Zero Future**

Our planet's population continues to grow exponentially, leading to a corresponding pressure on demand for goods and services. The need for new technology that supports the sustainable extraction of raw materials, ensures stability of transitioning sectors and supports food security aren't pressures exclusive to Canada. Managing our natural resources and the transition to a net-zero future is a collaborative effort – one that can be easily led by Canadian innovation.

The Canadian Critical Minerals Strategy mandates that critical minerals are responsibly sourced to protect value chains and drive solutions for a green and digital economy. B.C.-based Ideon Technologies and its partners are leading the way with their pioneering world-leading mining technologies being developed through the Earth X-Ray for Low-Impact Mining project. These subsurface intelligence technologies allow mining companies to identify, map and monitor critical minerals down to 1 km beneath the Earth's surface. The dramatic increase in geological certainty they provide enables a reduction in 'hit-and-miss' drilling, and a decrease in associated environmental impacts. The DIGITAL model of collaboration and co-development has lent itself so well to this application that four out of five of the world's largest mining companies, including project partner BHP, are already utilizing this Canadian-made technology at multiple sites around the world.

"DIGITAL's dynamic and innovative framework has been pivotal in catalyzing our creation of breakthrough technology for the global mining industry. This partnership has allowed us to scale our ambitions and level up our potential impact both within Canada and globally. By combining our strengths, our consortium has transcended traditional boundaries and delivered outcomes that extend far beyond the sum of our individual contributions. This collective achievement is reflected in our selection for the 2023 Governor General's award – a recognition that would have been unimaginable without this partnership."

GARY AGNEW, CEO & CO-FOUNDER, IDEON TECHNOLOGIES

Canada's leadership and pioneering spirit is also embodied by farming communities across our country and internationally. With a changing climate, farmers in Canada and around the world have had to adapt their growing practices. Alberta-based **Verge Ag** and their partners have **developed software** that enables farmers to plan, simulate and validate the movement of equipment in the field and more efficiently execute field operations. Their solution helps farmers manage their land and equipment to resourcefully and remotely execute field operations, enabling many areas of farming to be truly automated. Important to ensuring global food security amidst continuing global conflict, this technology is enabling farmers in Ukraine to increase efficiency, create exclusion zones around explosive craters and manage fuel quotas. Verge Ag is currently providing its technology at no cost to farmers in over 13,000 fields representing close to one million farmed acres in Ukraine — a tremendous example of the generosity and collaboration that embodies the Canadian approach in rising to global challenges.

DIGITAL is strengthening the supply chains necessary for the continued development of digital technology that supports our transitioning societies. Creating the space for Canadian companies to collaborate, grow and shape their vision is paving the commercial pathways for global distribution and impact.

"We approached DIGITAL because we identified an immediate need to help farmers plan their growing season efficiently. What resulted was collaboration with great partners that have complementary solutions. DIGITAL taught us how commercial and partnership agreements could be facilitated so that we could go to market as one solution, while still protecting our individual IP. Within a year, we built a world class product that is making a positive impact for farmers all over the globe."

GODARD, CO-FOUNDER & COO, VERGE AG



#### Securing the Sustainability of Canada's Health System

Looking beyond our borders and supporting global efforts has been a hallmark of the Canadian ethos for decades. This collective value and vision of Canadian companies is positioned to solve global health challenges, including improving equitable access to care, improving health outcomes and supporting the creation of sustainable health systems. Across Canada and around the world, we need new ways of thinking to drive the sustainability and effectiveness of health care delivery. Challenging convention and creating new solutions are exemplified through investments we've made in initiatives led by companies like **Firstline Clinical** and **DNAstack**.

Firstline Clinical, a B.C.-based company, developed a **clinical decision support application** that makes expert guidance instantly accessible on mobile devices anywhere on the planet, making it easy for healthcare providers to select the best treatment for patients. This technology is now being used to combat antimicrobial resistance (AMR) – named one of the World Health Organization (WHO)'s Top 10 Global Health Threats, as estimated to potentially kill up to 10

Firstline's technology is combatting global AMR by significantly improving antibiotic prescribing, resulting in better outcomes for millions of patients, while reducing costs to health care systems around the world. In December 2022, the WHO partnered with Firstline to distribute AMR guidance around the world. The resource, which is freely available and instantly accessible even in resource-limited nations with limited connectivity, is now currently being used in over 100 countries. Additionally, the technology is being used by healthcare providers in all United Nations peacekeeping operations. We believe this marks the largest adoption of Canadian health technology in history, and the partnership continues to expand.

million people around the world by 2050.

Another key area of growth and focus in health care is precision medicine. A promise for many decades, the benefits of precision health care are finally being realized. By tailoring services and treatments to individuals based on in-depth analysis of their genes, biology, demographics and environment, precision health creates opportunities to better diagnose and treat patients. In the context of autism, precision health helps us better understand subgroups of autism, leading to more individualized care with the end goal of creating better health outcomes for autistic individuals. Through the **Autism Sharing Initiative (ASI)**, a new federated data platform has emerged for collaborative neuroscience research.

COVID-19

Ontario-based DNAstack's **Neuroscience AI** enables researchers to make discoveries from larger and more diverse datasets than ever before. With the ASI as the foundational project propelling the platform, there is enormous potential for deeper and more diverse applications and transformative discoveries. Neuroscience AI increases the power of global research by enabling federated learning, a new technique that makes it possible to derive insights across distributed networks of data in a privacy-preserving way. Compared to the alternative approach of centralized "data sharing", federated systems are faster, more efficient, secure, scalable, and compliant: allowing for better understanding and care for neurodevelopmental differences, overlapping conditions and neurodegenerative diseases. In short, allowing people to live happier and healthier lives.

We're investing in the development of digital technologies that will increase access to health care services and improve access to health services at home and across the globe. When scientists and researchers are able to easily and efficiently share and access findings about infectious diseases and treatment algorithms, the benefits to treatment delivery and development are compounded regardless of borders. Broad, international access to real-time data and discussion platforms leads to transformative health care. By de-risking research and development for Canadian companies, we are enabling them to flourish on the international stage. Canadian products and IP are developed within our borders, marketed and validated around the world, with benefits realized for all. Commercial success is an important part of what we're investing in, but integral to our model is also looking to promote commercial products that are adaptable to global markets—in short, we are investing in good for the world.

The innovations of Firstline and DNAstack come from the committed collaboration and demand-driven approach of their project partners to imagine and innovate beyond convention. This is DIGITAL's advantage: to bring the best around the table and invest in what matters to Canadians to in turn create better health outcomes around the world.

"Innovation is a team sport, especially when building digital technologies for creating, protecting, sharing and analyzing health data. We believe there is no program better suited than DIGITAL to successfully deliver the audacious goals set out by this project: to continue growing Canadian companies, building world leading technologies and creating a healthier, sustainable and talented world." MARC FIUME, CO-FOUNDER & CEO, DNASTACK



#### Meeting the Talent Demand for Canada's Digital Economy

Recruiting and retaining talent can make or break a company, and the demand for tech talent is increasing exponentially. Technological adoption is being fast-tracked across every major industry in Canada, with more than a million job openings forecast over the next 10 years in B.C. alone. Working with industry partners and community leaders, we're supporting the growth of talent through unique programs that offer an exceptional experience to accelerate career growth and build the digital workforce of the future.

As fundamental economic transformations are amplified by the evolution of artificial intelligence and other deep technologies to create new requirements of the digital workforce, we are reducing the time and cost for Canadian workers and companies to acquire these new skills and competencies. By focusing on innovations in short-cycle training, we are helping build capacity in Canada's skilling ecosystem through the use of rapid skilling systems, that include:

- Real-time labour-market analytics so we can target in-demand jobs that need to be filled;
- Competency frameworks that bundle skills into portal, scalable, credentials that employers value as part of their recruiting and hiring decisions;
- Short-cycle training solutions that blend the latest knowledge and practices with work integrated learning experiences and effective wrap around supports to support learner and organization success; and
- Inclusive cohort design that provide opportunities to all Canadians, including equity seeking, under-represented groups as well as a broad geographic reach including rural, remote and Indigenous communities.

"NPower Canada has not only given me the opportunity to start an exciting career in tech, but also helped me meet like-minded individuals who are now friends and colleagues. I have built a support group of mentors and fellow graduates that I can lean on for advice and that who have helped propel my career to new heights." GRADUATE FROM THE CANADIAN TECH TALENT ACCELERATOR'S JUNIOR DATA ANALYST PROGRAM



DIGITAL's programming is delivered through our Digital Learning Lab, a national innovation program focused on digital workforce and talent development that is on track to deliver over 20,000 placements by 2028. We work with partners across industry, government, academia and specialized skilling enterprises in collaborative innovation projects across three strategic initiatives:

- SKILLS Projects in the Pathways to Digital Jobs initiative create accessible opportunities for workers to develop the skills they need, quickly and economically. This includes assessment and training resources, microcredentials and other innovative learning and development approaches. These are generally short-duration, competency-based learning opportunities that align with the needs of a green, digital economy.
- LEADERSHIP Projects in the Leading Digital Change initiative develop innovative leaders with the skills and mindset needed to digitally advance today's organizations, lead sustainable change and foster world-leading advances. The programs take a people-focused approach to digital transformation and create practices for embedded innovation and team-based recruiting.
- OPPORTUNITY Projects in the Growing Connected Communities initiative focus on community-led initiatives that create jobs and drive productive workforces aligned to place-based models of sustainable economic development. The programs support equitable access to the benefits and opportunities of digital technology with a special emphasis on rural, remote and Indigenous communities.
  The Canadian Tech Talent Accelerator project, led by

Together with our partners, we are advancing the innovations we need to build a globally competitive skilling system that supports the growth and development of Canada's digital workforce. By taking a comprehensive approach to workforce development and supporting innovations across our skilling, leadership and opportunity initiatives, Canadians, Canadian enterprises and communities will have the capacity to help shape our country's future for the better. The Canadian Tech Talent Accelerator project, led by NPower Canada, is supporting Canada's economic recovery by providing valuable, in-demand tech skills to 4,300 unemployed and underemployed youth (18 to 29 years old) from communities underrepresented in the digital economy. As of January 2023, the project has enrolled over 2,770 low-income, underserved job seekers.



# ACHIEVEMENTS & GOALS 2022-23 achievements

At DIGITAL, we are continuously at the forefront of innovation. We push the envelope and move the needle on bringing digital solutions to maturity. With our partners and Members, we're able to move with purpose and break down silos. We hit our program objectives and hit major milestones within our growing ecosystem. We have a renewed investment from the Government of Canada and initiated a broad, national strategy around AI. What a year! And the best is still yet to come.

#### READ THE 2022-23 CORPORATE PLAN

### Maintain the Momentum of Our Innovation Community

#### ACHIEVEMENTS



#### **OBJECTIVES**

- >> Retain an engaged membership base [COMPLETED]
- >> Foster meaningful engagements with key stakeholders [COMPLETED]

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 drawn from a pan-Canadian ecosystem of 1,100+ organizations from coast to coast.

In parallel with promoting the Global Innovation Clusters 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 DIGITAL winning proposals to support Employment and Social Development Canada's Skills for Success and Sectoral 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 B.C. to pursue potential investment in DIGITAL 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.

## **Deliver on Outcomes of Programs**



By the end of this fiscal year, our total innovation portfolio exceeded \$350M in investment with \$165M committed by industry across just under 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. Over 40% of teams were exploring international opportunities associated with their projects.

Our workforce development programming is operating coast to coast to coast with 7,000+ upskilling and reskilling placements in projects ranging in size from \$150K feasibility studies to \$15M+ multiphase, pan-Canadian initiatives reaching thousands of learners and hundreds of employers.

Our projects have generated 493 IP assets through a dedicated approach and engagement of experts. We've worked with Members to identify background and foreground IP through the duration of

#### **OBJECTIVES**

- Manage our program & project investments to successful outcomes [COMPLETED]
- Communicate & promote the success of our programs & projects [COMPLETED]
- Support consortiums in realizing the full potential of their IP & data assets & operations [COMPLETED]

their projects and ensuring they understand IP protection, licensing and ownership. This guidance has been made available through our relationships to expert legal advisors and 8 recorded webinars on IP, data and AI that have been accessed by 1,650+ organizations.

We've had a number of standout successes worth noting including two companies, Ideon Technologies and Swift Medical, winning Governor General Innovation Awards which celebrate outstanding Canadian innovations. 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 and were named 2022 Company of the Year by the CAN Health Network. Internationally, DNAstack 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 10 Global Health Threat.

### Strengthen Our Ecosystem



Over our first five years, we engaged over 200 SMEs, invested more than 70% of our funds in SMEs and saw SME members leverage their collective position affiliation with DIGITAL to collectively raise over \$800M in new investment to support their powerful, fast-growing trajectories.

A foundation for DIGITAL's future global strategy was cast in 2019 with our MOU with IITM Pravartak – the first MOU between any Cluster and an international partner based on technology from a project. We have also worked with the Asia Business Advisory Council meetings for APEC (Asia Pacific Economic Cooperation), the Asia Business Leaders' Advisory Council and leaders in the Cascadia Innovation Corridor. These are good first steps, but we have more work to do. We still need to formalize an international partnership strategy. This is an essential building block to enable us to focus our resources on cultivating the key relationships we need to support our members in the pursuit of global opportunities.

Each of our talent projects sets clear EDI targets. For example, our Canadian Tech Talent Accelerator program reached levels of 70% of its

#### **OBJECTIVES**

- Support the scale up of SMEs involved in our projects [COMPLETED]
- Develop international pathways for project outcomes [PARTIALLY COMPLETED]
- Further our efforts in equity, diversity and inclusion in the context of the digital economy [COMPLETED]

participants coming 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.

Our work to center Indigenous voices and perspectives in ways that increase economic inclusion, enhance health equity and encourage the mutual exchange of knowledge is demonstrated by key projects and growing throughout our programs. Our projects such as Canada's first Indigenous-led virtual production filmmaking program are building Indigenous digital talent while our project with B.C. Coastal First Nations are identifying how communities can use digital connectivity to stimulate economic development, open access to health services and help preserve language and culture. Through our health portfolio, 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 waiting for an X-ray machine since 1996; Peter Ballantyne Cree Nation and 5 more Indigenous communities in northern Canada throughout the year.

# Launch Program for Pan-Canadian AI Strategy Commercialization

#### **ACHIEVEMENTS**



#### **OBJECTIVES**

>>> Secure new investment in the PCAIS Stream [COMPLETED]

DIGITAL is excited to leverage \$30 million in new investment from the Pan-Canadian Artificial Intelligence Strategy (PCAIS) to advance a range of business-led innovation and technology leadership activities in Applied AI. This program will generate new products, processes and services and position firms to scale, integrate into global value chains, and become global market leaders.

We will leverage this investment across three streams which will include a commercialization pipeline, grow the applied AI talent pool and shape 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 feature the application of AI in the solutions. In addition, with over 320 organizations out of a total ecosystem 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.

## **Secure New Funding**

#### **ACHIEVEMENTS**



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 up to \$125M for Phase II, deployed across a second five-year term. **OBJECTIVES** 

>>> Secure new investment with the Government of Canada [COMPLETED]

The launch of our Phase II call for proposals will include additional investments from Employment & Social Development Canada, the Pan-Canadian Artificial Intelligence Strategy and Canada's National Quantum Strategy.

The Mining Microbiome Analytics Platform represents the largest global investment in bio-mining to collect, store and analyze genomic data of natural environments that will be used to reduce and eliminate traditional methods of extraction and site remediation. [PROJECT LEAD: TECK RESOURCES]

# ACHIEVEMENTS & GOALS

Clear priorities for 2023-24 are to drive successful outcomes for DIGITAL's Members through the delivery of goals from active projects. This in turn paves the path to a strong, growing and resilient Canada by developing Canadian value chains to boost productivity and compete in international markets, securing food supply chains, fighting climate change, keeping Canadians healthy and investing in the skills that Canadian workers need to fill the good-paying jobs of today and tomorrow.

#### READ THE 2023-24 CORPORATE PLAN

Transition the Technology Leadership Portfolio to Deliver Phase II Outcomes

Transition the Capacity Building Portfolio to Deliver Phase II Outcomes

#### **OBJECTIVES**

- >> Continue to grow an industry-led collaborative digital technology leadership portfolio prioritizing human and environmental health areas of investment.
- >> Confirm strategy and targeting for deploying Phase II investment for Technology Leadership projects across full five-year term.

#### **OBJECTIVES**

- Advance our pan-Canadian digital workforce and talent development.
- Expand service capacity in Canadian training delivery organizations and help promising Canadian digital edtech and workforce development platforms scale.
- >>> Build leadership capacity to drive innovation initiatives for Canadian industry.
- >>> Confirm strategy and targeting for deploying Phase II investment for new Capacity Building projects across full five-year term.

#### Launch Horizon AI as a Strategic Applied AI Ecosystem Building Program

#### Support and Develop Mission Driven Innovation

#### **OBJECTIVES**

- Develop a high potential commercialization pipeline, grow the Al talent pool and help position Canadian companies lead in emerging market opportunities.
- >> Confirm strategy and targeting for deploying Phase II investment for PCAIS Commercialization stream funding across full five-year term.
- >>> Develop global partnership pipelines to attract follow-on program investments.

#### **OBJECTIVES**

- >>> Support Government of Canada priority missions in greening the economy and supply chain resilience.
- >>> Begin to codify a methodology and pipeline for the practice of mission driven innovation.

Promote and Help Scale High-Growth Potential 'Flagship' Digital Enterprises

#### **OBJECTIVES**

- Continue to support capacity-building of Canadian SMEs through inclusion in project teams, IP awareness and education, cybersecurity and product development championing.

Promote Diversity, Inclusion and Indigenous Reconciliation

#### **OBJECTIVES**

- Produce a new Cluster Diversity and Inclusion plan that helps foster fully inclusive opportunities in Canadian innovation for equity-seeking groups.
- Support Indigenous reconciliation through deliberate efforts to include Indigenous participation in our projects.

#### Build an International Partnership Strategy

#### **OBJECTIVES**

- >> Develop a formal International Partnership Strategy that builds relationships with complementary innovation enterprises and initiatives.
- >>> Leverage relationships with Cascadia Innovation Corridor, continue our work in India and our MOU with Innovate U.K.

Diversify Sources of Revenue to Support a Sustainable Cluster Organization

#### **OBJECTIVES**

>>> Formalize development of our Speciality Program services and begin business development efforts.

Advance Technology-Enabled Service Delivery to Members and Associates

#### **OBJECTIVES**

>> Continue to develop digital tools and services that deliver programming and member services.

Complete Succession Planning and Staff Career Development Plans

#### **OBJECTIVES**

>>> Update succession plans for all executive positions and work with staff to enhance career development.

DIGITAL has enabled FoodMesh to scale its capacity to help more food businesses initiate food donation programs for their unsold food - the equivalent of more than 1 million meals rescued per month - to hunger-relief organizations across Western Canada. As well, we've been able to digitize food recovery to help better measure and understand the impact of those connections in real time.

The Digital Aviation Records System proved the opportunity available for technology to positively impact levels of safety, cost-efficiency and sustainability within the aviation industry. Within this project, the consortium and DIGITAL successfully demonstrated advancement through the deployment of several applications. These applications have been used to drive process improvements and improve compliance with airlines in Canada, and in-turn positively impacting Canadian travelers.

DIGITAL Annual Report 2022-23



View the 2022-23 Financial Statements and Independent Audtior's Report

View the 2022-23 Disclosure Letter

The Emergency Food Distribution Network project expanded the FoodMesh platform to enhance the efficiency of the food supply chain and better connect farmers, suppliers, buyers and charities. The platform is now rescue and redistributing the equivalent of 1 million meals per month across Canada. [PROJECT LEAD: FOODMESH]

Star.

Chi wa



# WE ARE SDIGITAL















Our team

# Thank you to our amazing team.

Your collective dedication, energy, and commitment is the foundation of our success today and for years to come.

## **Our Board**



STEWART BECK, **BOARD CHAIR** Canada-Asia Foreign + Trade Policy Expert



**CAROLINE MORISETTE** VP Digital & Data, McCain Foods



**ERIN PISKO** VP IP Strategy, Innovation Asset Collective



FANNY SIE Head of AI and Emerging Technology External Collaboration, Roche Integrated Informatics



**GREG CAWS** Advisor, Mentor and Director, GCJE Projects Ltd.



**JASON LOW** EVP & CFO, McElhanney Ltd.



**KIM HAAKSTAD** VP Stakeholder Relations. Terramera



MARC FIUME CEO. DNAstack



SHAUN MCCUMBER Senior Indigenous Digital Health Consultant and Project Director



**VICTORIA LEE** CEO & President, Fraser Health Authority



ANDREA JOHNSTON, **BOARD OBSERVER** 

ADM, Innovation, Science and Economic Development Canada, Government of Canada

# Leadership



SUE PAISH Chief Executive Officer



**KAREN MCCLURE** Chief Investment Officer



**EDOARDO DE MARTIN** Chief Development Officer



ALLISON BOULTON VP, Communications + Public Affairs



SHAWN GERVAIS VP, Foresight + Talent Development







# **Members**

Thank you to our Associate community and the 1,100+ organizations we work with that continue to unlock the potential of Canadians to lead and succeed in the digital world.



# Thank you

DIGITAL thanks its investing partners, including the Government of Canada through the Global Innovation Clusters program and our Members. We would also like to thank the people who assisted in developing our 2022-2023 Annual Report, including the DIGITAL team, Board of Directors, our members and KA Creative.



UBC Robson Square #2000 - 800 Robson Street Vancouver, BC V6Z 2E7 info@digitalsupercluster.ca

digitalsupercluster.co