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### MESSAGE FROM THE

# CHAIR OF THE BOARD OF DIRECTORS

It is with immense gratitude that I share the significant impact that ICTC has had in 2023-24. This year has been a testament to our agility and responsiveness to the ever-evolving marketplace and the diverse needs of our stakeholders.

In response to the dynamic landscape of the digital-based economy, ICTC has successfully adapted and expanded our initiatives, increasing our footprint across various provinces. Our initiatives have grown in number and scope, addressing critical research, policy, and programming areas. This growth has allowed us to touch more lives, help more businesses explore new opportunities, inform policy, and foster stronger partnerships among industry, academia, and policymakers.

A pivotal achievement this year has been strengthening our board to reflect the needs of ICTC going forward. We have welcomed three new board members, each bringing a wealth of experience and a deep understanding of key socioeconomic factors influencing Canada. Their expertise and insights have been instrumental in steering our strategic direction and ensuring that our initiatives continue to be innovative, inclusive, and impactful.

Our efforts in 2023-24 have reaffirmed ICTC's commitment to driving Canada's digital economy forward. We have launched several new initiatives to support small and mediumsized enterprises (SMEs), enhance digital skills training, and promote sustainable businesses. These efforts have supported economic growth and contributed to our digital workforce's resilience and competitiveness.

Looking ahead, ICTC remains dedicated to fostering innovation and inclusivity in the digital space. We will continue to leverage our strengths, adapt to new challenges, and seize emerging opportunities to ensure that Canada remains at the forefront of global digital transformation.

Thank you to our dedicated team, board members, partners, and stakeholders for your unwavering support and collaboration. Together, we are shaping a brighter, more connected, and more secure future for all Canadians.

Sincerely,

Dr. Thomas P. Keenan, FCIPS, I.S.P., ITCP Chair, Board of Directors ICTC



...ICTC has successfully adapted and expanded our initiatives, increasing our footprint across various provinces."

Dr. Thomas P. Keenan, FCIPS, I.S.P., ITCP Chair, Board of Directors

### MESSAGE FROM THE

### PRESIDENT AND CEO

As we reflect on the past year, I am filled with immense gratitude for ICTC's exceptional achievements. Our commitment to advancing research, shaping policy, and building capacity has not only driven our organization's success but has also profoundly impacted lives and livelihoods across Canada.

This year, our research and policy initiatives have broken new ground, providing critical insights into the evolving digital landscape. Our comprehensive studies on emerging technologies, digital skills gaps, and economic trends have equipped policymakers, industry leaders, and educators with the knowledge they need to navigate the future with confidence. The data and analysis produced by our dedicated research and policy team have been instrumental in shaping forward-thinking policies that foster innovation, inclusivity, sustainability, and resilience in Canada's digital economy.

Our capacity-building programs have empowered countless individuals, enabling them to seize new opportunities and achieve their full potential. Through targeted training, mentorship, and support, we have equipped Canadians with the skills and knowledge

needed to succeed in a rapidly changing digital world. The stories of transformation we have witnessed this year—from young professionals embarking on rewarding tech careers to seasoned workers adapting to new digital roles—are a testament to the power of our programs.

None of these achievements would have been possible without the unwavering dedication and hard work of our exceptional staff. Their passion and ingenuity are the bedrock of our success. I extend my deepest gratitude to the Board of Directors for their unwavering support and strategic guidance. To our partners and stakeholders, we thank you for your continued trust and collaboration.

As we look ahead, we remain steadfast in our commitment to bolstering economic growth, empowering sustainable industries, developing innovative talent, enabling a cyber-secure economy, and building a shared digital future for Canada.

Thank you for being an integral part of our journey.

Namir Anani President & CEO ICTC



Thank you for being an integral part of our journey."

Namir Anani President & CEO ICTC





## **WHO WE ARE**

The Information and Communications Technology Council (ICTC) is a neutral, not-for-profit national centre of expertise with the mission of strengthening Canada's digital advantage in the global economy.

ICTC strives to stay ahead of the curve as digital technologies rapidly advance and transform industries and society. For over 30 years, and with a team of 100 experts, our goal has been to ensure that technology is utilized to drive economic growth and innovation and that Canada's workforce remains competitive on a global scale.

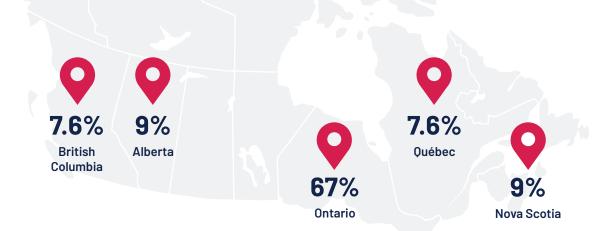
To accomplish our mission, we partner with a vast network of industry leaders, policymakers, and academic institutions to focus on digital skills development, technology adoption, and innovation. Our work comprises forward-looking research, practical policy advice, and capacity-building solutions for individuals and businesses.

We assist government and industry leaders in recognizing current and future opportunities and developing strategies to fully exploit the digital economy's potential. We also help Canadians of all backgrounds acquire the skills they need to be successful in Canada's economy while helping businesses transform and improve their competitiveness in today's and tomorrow's marketplaces.

### **OUR TEAM AT A GLANCE**

As an organization, ICTC is committed to investing in a team that represents the diversity of Canadians and models the equity and inclusivity we advocate for in Canada's digital economy.

### **Distribution Across Canada**



### Representation of Equity-Deserving Groups at ICTC

**52**%

of ICTC **staff** identify as being a member of an equity-deserving group.

38%

of ICTC's **leadership team** identify as being a member of an equity-deserving group.

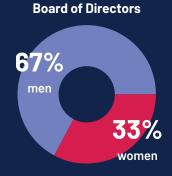
**33**%

of ICTC's **Board of Directors** identify as being a member of an equity-deserving group.

## Gender Parity at ICTC









### **OUR FOCUS AREAS**

### **ECONOMIC GROWTH**

We help business leaders and policymakers adapt to economic changes and embrace innovation.

Digital is a significant driver of the Canadian economy. In 2023, the ICT sector, which just one subset of Canada's digital landscape, contributed \$1.25 billion to the Canadian economy<sup>1</sup>—equivalent to 5.7% of Canada's GDP.

Beyond the direct impact of the ICT sector, digital technologies also contribute to economic growth by making other industries, such as agriculture, energy, and manufacturing, more efficient. As technologies like artificial intelligence, big data, cloud, Internet of Things (IoT), and robotics are adopted across Canada, the digital economy will continue to drive economic growth.

### SUSTAINABLE BUSINESSES

We navigate the intersection of advanced technologies, the economy, and society to enable a sustainable, inclusive, and prosperous Canada.

Technological innovation is key to addressing environmental challenges, positioning the digital economy as a crucial provider of solutions for climate change, conservation, regeneration, and biodiversity enhancement.

# TALENTED AND ENTREPRENEURIAL WORKFORCE

We support industries to attracting, developing, and reskill a world-class workforce. Through targeted training and mentorship programs, we strengthen Canada's innovation capacity and global competitiveness.

## SAFE, PRIVATE AND SECURE ENVIRONMENT

We address the cybersecurity talent gap with programs focused on data privacy, surveillance, and digital ID. Our efforts help organizations enhance their cyber defences amid increasing digital threats.

## EQUITABLE AND INCLUSIVE ECONOMY

We promote equity and diversity in Canada's tech sector through research and programs for underrepresented groups, ensuring the digital economy benefits everyone.

<sup>1</sup> Statistics Canada. (2023). Gross domestic product (GDP) at basic prices, by industry. Retrieved from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610043403





### **OUR IMPACT**

Canada's ICT sector plays a vital role in the national economy. Each job in the ICT sector supports an additional 1.3 jobs across the economy,<sup>2</sup> and every \$1 million generated boosts Canada's GDP by an additional \$862,000. By 2025, employment in the digital economy is projected to reach 2.26 million, representing 11% of all employment in Canada. This translates to a demand for 250,000 new digital economy jobs in the next year.

Through research, policy, and capacity-building initiatives, we foster a skilled and diverse workforce, create a robust business environment, and grow Canada's global competitiveness to support a strong future economy.

2 Innovation, Science and Economic Development Canada (2022). Information and communications technology (ICT) sector profile 2021. <a href="https://ised-isde.canada.ca/site/digital-technologies-ict/sites/default/files/attachments/2022/ICT\_Sector\_Profile2021\_eng\_0.pdf">https://ised-isde.canada.ca/site/digital-technologies-ict/sites/default/files/attachments/2022/ICT\_Sector\_Profile2021\_eng\_0.pdf</a>



### **2023-2024 IN NUMBERS**

research and policy reports provided valuable insights and data to shape policy decisions, guide industry practices and inform educational and training programs.

2

digital tools launched to support businesses: <a href="ICTC's">ICTC's</a>
<a href="Sustainable ICT Tool">Sustainable ICT Tool</a> evaluates the environmental impact of ICT decisions, and the <a href="Gender Equity Impact Assessment Tool">Gender Equity Impact Assessment Tool</a> evaluates EDI policies in the technology sector.

63,652

participants engaged in ICTC digital skills and employment programs.

53,182

students across Canada participated in cybersecurity learning experiences. 5,184

educators were engaged in cybersecurity training. 3,466

employers were supported to fill open digital roles with skilled talent. **251** 

newcomers to Canada with technology backgrounds secured placements with Canadian employers. 3,215

post-secondary students were placed in work integrated learning employment experiences in the technology sector.

e-learning courses offered to help students prepare for employment in Canada's digital economy.

70%

of ICTC program participants were from underrepresented groups.

81

speaking engagements for ICTC staff at national and international conferences, summits, and roundtables.

99

events hosted by ICTC.

**36**Workshops

27
Webinars

Networking Events 12
Roundtables

Career Fairs

5 Conferences

National Competition



### **ANNUAL HIGHLIGHTS**

#### WE HOSTED A CONFERENCE ON NAVIGATING THE DIGITAL FUTURE OF WORK

We hosted a conference on Economic Shifts and the Future of Work, bringing together industry and government leaders to discuss strategies for navigating the future digital economy.

The event featured keynote presentations and panel discussions on innovation, inclusion, and workforce development, fostering actionable insights to guide Canada's path in the evolving global economy. We welcomed 110 in-person attendees and 63 online participants.



### WE LAUNCHED A PROGRAM TO EMPOWER WOMEN- AND MINORITY-OWNED SOCIAL ENTERPRISES

During Black History Month, we hosted an event held in Toronto to launch the new <u>Changing the Narrative – Unleashing the Full Potential of Women-Owned Enterprises Program</u>. This initiative empowers female-identifying black and minority tech entrepreneurs by addressing systemic barriers to entrepreneurship. Through pitch events, mentorship, and networking opportunities, we will support 500 women-owned tech businesses across five provinces. The program emphasizes the crucial role of women in fostering economic prosperity in the digital economy.



Every day, women entrepreneurs are taking risks, bringing new ideas to life, and making contributions to our country. Yet they continue to receive less financing and opportunities than their male counterparts. Today's investment in the Information and Communications Technology Council is about creating a more inclusive social entrepreneurial landscape, particularly for women from Black and official language minority communities."

The Honourable Marci len, Minister for Women and Gender Equality and Youth WE LAUNCHED A PROGRAM
TO CONNECT CANADIAN
WORKERS WITH DIGITAL
SKILLS TRAINING FOR
IN-DEMAND CLOUD ROLES

We partnered with Upskill Canada to launch <u>Beyond</u> the Cloud: Powering Next-Generation Canadian Digital Infrastructure.

This program addresses the shortage of skilled workers in Canada's digital economy by providing specialized training in cloud infrastructure roles.

Funded by Innovation, Science, and Economic Development Canada (ISED), Beyond the Cloud will train 500 individuals through technical courses, soft skills training, and job placement support, enhancing Canada's competitiveness in the global market.





### **OUR RESEARCH**

In the 2023-2024 fiscal year, we published 16 reports that have shaped research and policy development in Canada, providing cutting-edge labour market intelligence, advancing digital policy, and strengthening international relationships. ICTC's portfolio of research offers actionable insights and recommendations on public policy, social challenges, and digital innovation, ensuring a strong and equitable future.







#### SEEDING RURAL INNOVATION: NURTURING THE TECH FRONTIER IN ALBERTA ☑

With the increasing integration of digital technologies into agriculture, energy, and other rural-based industries, Alberta's rural employers face a talent shortage as they compete with urban employers to attract and retain workers. Our report highlights the integration of digital technologies in Alberta's rural industries, addressing talent shortages, and offering insights into rural growth opportunities, digital adoption, and talent retention strategies.



## THE DIGITAL TALENT IMPERATIVE: CALGARY'S ECONOMIC EDGE ☑

In partnership with Calgary Economic Development, this report outlines pathways for transitioning displaced workers in Calgary's energy sector to in-demand tech jobs through ICTC's Energy to Digital Growth Education and Upskilling project (EDGE UP).



# ONTARIO'S NEXT GEN INDUSTRY: ADDRESSING LABOUR DEMAND AND GROWTH IN THE CREATIVE TECHNOLOGY SECTOR 🖸

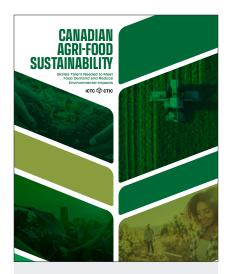
Ontario has seen notable growth in areas including video games, immersive technology, and e-sports. Combined with regional advantages in creative and cultural industries, Ontario is one of Canada's leading creative technology hubs. This report examines strengths, opportunities, and key considerations in Ontario's creative tech sector and labour market. With an established ability to weather the storm of the pandemic and drive resilient and high-quality labour market opportunities, the province's creative tech sector is poised for continued success.



# BUILDING A SUSTAINABLE ICT ECOSYSTEM: STRATEGIES AND BEST PRACTICES FOR REDUCING ENVIRONMENTAL HARMS IN A DIGITAL WORLD [2]

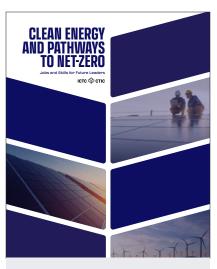
The urgent need to address climate change and other environmental harms is putting environmental criteria at the forefront of government policy and regulations, corporate social responsibility strategies, financial reporting frameworks, and more. This report offers strategies to minimize environmental impacts across the ICT supply chain, emphasizing collaboration among stakeholders and policy action for sustainable ICT.





# CANADIAN AGRI-FOOD SUSTAINABILITY: SKILLED TALENT NEEDED TO MEET FOOD DEMAND AND REDUCE ENVIRONMENTAL IMPACTS &

Canada's agri-food sector faces a critical labour shortage driven by changing skills requirements, demographic challenges, and negative perceptions of agriculture discouraging new entrants. This report discusses the critical labour shortage in Canada's agri-food sector and identifies in-demand skills and roles to meet Canada's needs and reduce environmental impacts.



# CLEAN ENERGY AND PATHWAYS TO NET-ZERO: JOBS AND SKILLS FOR FUTURE LEADERS 🗗

Driven by growing global demand for energy and Canada's transition to net zero, skilled talent shortages are expected to persist in the clean energy sector, particularly for mid- and senior-level expertise. Our report addresses skilled talent shortages in the clean energy sector and explores transitioning oil and gas workers into clean energy roles, emphasizing collaboration for future workforce preparation.



## ADVANCING ENVIRONMENTALLY SUSTAINABLE ICT IN CANADA

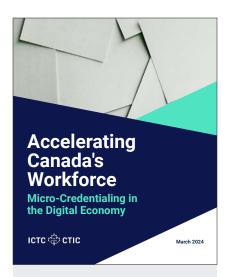
This first-of-its-kind policy brief assesses the state of Canada's sustainable ICT ecosystem, urging increased awareness and policy measures to promote sustainable ICT practices.



# LEVELLING UP: GROWTH STRATEGY FOR BC'S CREATIVE TECHNOLOGY TALENT PIPELINE 2

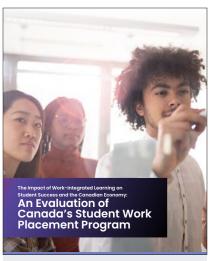
BC is a globally recognized creative technology hub, providing over 16,000 jobs in video games, animation, visual effects (VFX) and extended reality (XR). Ensuring a robust talent pipeline for this industry is vital for its ongoing success and resiliency. This report focuses on bolstering BC's creative technology talent pipeline, outlining strategies for attracting, educating, and supporting the next generation of creative tech workers.





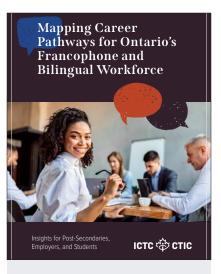
# ACCELERATING CANADA'S WORKFORCE: MICRO-CREDENTIALING IN THE DIGITAL ECONOMY ☑

While employers still value formal education, the shift toward "skills first" hiring practices and increased emphasis on relevant experience and demonstrable competencies has set the stage for microcredentials. This report explores micro-credentials' role in addressing specific skill gaps in Canada's digital economy, emphasizing flexibility, robust assessment, and continuous stakeholder evaluations.



# THE IMPACT OF WORK-INTEGRATED LEARNING ON STUDENT SUCCESS AND THE CANADIAN ECONOMY: AN EVALUATION OF CANADA'S STUDENT WORK PLACEMENT PROGRAM 🖸

This study evaluates the economic benefits of Canada's Student Work Placement Program (SWPP), showing its association with higher student grades, better career preparedness, and improved workplace adaptability.



# MAPPING CAREER PATHWAYS FOR ONTARIO'S FRANCOPHONE AND BILINGUAL WORKFORCE: INSIGHTS FOR POSTSECONDARIES, EMPLOYERS, AND STUDENTS &

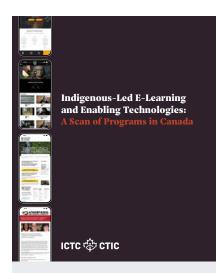
French-speaking workers and post-secondary graduates in Ontario are in high demand. They can leverage bilingual skills for career growth if given the right tools to align their language abilities with their professional aspirations. This report examines employment trends and career pathways for Francophone and bilingual workers in Ontario, emphasizing the alignment of language and professional skills for career growth.



### THE IMPACT OF DIGITAL TECHNOLOGIES ON QUALITY OF WORK IN CANADA 2

Digital technologies have enabled alternative forms of work, including remote work, gig work, and the sharing economy. This report investigates how digital technologies impact work quality, particularly among equity-seeking groups in alternative forms of work and suggests engaging workers in technology deployment.





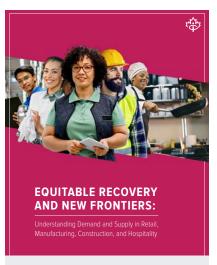
# INDIGENOUS-LED E-LEARNING AND ENABLING TECHNOLOGIES: A SCAN OF PROGRAMS IN CANADA

There are many Indigenous learning professionals in secondary and post-secondary education using technology to improve digital equity and Indigenize learning. This report provides an overview of Indigenous-led e-learning programs, highlighting the need for enabling technologies and the role of e-learning in preserving Indigenous language and culture.



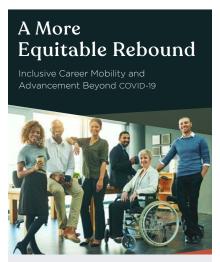
# EMPOWERING WOMEN IN THE DIGITAL ECONOMY: ADDRESSING TECH'S UNTAPPED POTENTIAL [2]

While more women now work in Canada's digital economy, women's representation in senior-level positions still lags. This report builds on previous studies to examine gender equity in the digital economy, offering strategies and policies to improve women's representation in senior-level positions.



# EQUITABLE RECOVERY AND NEW FRONTIERS: UNDERSTANDING DEMAND AND SUPPLY IN RETAIL, MANUFACTURING, CONSTRUCTION, AND HOSPITALITY 🗗

Ontario's demand for workers now exceeds pre-pandemic levels, but new skill sets are needed across various sectors, including manufacturing, construction, retail, and hospitality. This report analyzes structural shifts in Ontario's economy due to the pandemic, exploring career pathways and skills needed for an equitable recovery, focusing on adversely impacted workers.



# A MORE EQUITABLE REBOUND: INCLUSIVE CAREER MOBILITY AND ADVANCEMENT BEYOND COVID-19 27

This report explores career mobility and advancement for equity-deserving groups post-pandemic, offering recommendations for improving career opportunities and addressing systemic barriers.

Based on the needs, gaps, and opportunities identified through ICTC's research, our programs are developed to solve the biggest challenges in Canada's digital economy. Our 2023-2024 portfolio of evidence-based capacity-building and innovation programs included:

WORK INTEGRATED LEARNING DIGITAL (WIL DIGITAL)	Bridging the talent gap for in-demand digital occupations through work placements and skills training for post-secondary graduates.
DIGITAL EQUITY AND EMPLOYABILITY PATHWAYS (DEEP)	Bridging the digital divide by providing digital skills and employment readiness training to individuals from underrepresented groups in Canada.
CYBERSECURITY TRAINING AND WORK INTEGRATED LEARNING (CTWIL)	Increasing the diversity of Canada's cybersecurity workforce through work placements and skills training for women, non-binary and gender-diverse undergraduate students.
BEYOND THE CLOUD: POWERING NEXT-GENERATION CANADIAN DIGITAL INFRASTRUCTURE	Upskilling mid-career ICT professionals to fill in-demand cloud infrastructure roles.
GLOBAL ONBOARDING OF TALENT (GO TALENT)	Filling Canada's digital skills gaps by connecting experienced international ICT professionals with Canadian employers.
JUMP-STARTING DIGITAL CAREERS (JDC)	Building Canada's future cybersecurity workforce through education programs for K-12 students.
AMBASSADOR PROGRAM	Promoting gender diversity in Canada's technology sector through advocacy and resources.
PATHWAYS TO EMPLOYMENT FOR NEWCOMERS	Matching skilled newcomers, including refugees, with Canadian employers to fill digital skills gaps.
CYBERTITAN	Canada's national cybersecurity competition for middle and secondary school students.
CHANGING THE NARRATIVE: UNLEASHING THE FULL POTENTIAL OF WOMEN- OWNED ENTERPRISES	Addressing systemic barriers faced by Black women and women from minority groups through mentorship, support and pitch events.

### **SINCE 2017:**

Over

118,000

students, graduates and professionals across Canada empowered with digital opportunities

**Over** 

83,000

K-12 students engaged in cybersecurity competitions

Over

26,000

work-integrated learning placements

Over

7,700

educators trained in cybersecurity

**Over** 

7,000

employers supported to fill digital roles

Over

1,500

internationally educated ICT professionals connected with jobs in Canada's digital economy

### WORK INTEGRATED LEARNING (WIL) DIGITAL

Bridging the talent gap for in-demand digital occupations through work placements and skills training for post-secondary graduates.

Since 2017, ICTC's <u>WIL Digital</u> program has provided 19,813 post-secondary students with practical work experience in the digital economy through internships, co-op placements, and work experience. The program equips students with essential employability skills, bridging the talent gap for in-demand digital occupations.

The program supports sustainable business practices by enabling small and medium-sized enterprises to hire top talent they otherwise could not afford. Since 2017, the program has supported 23,574 work placements. This financial assistance has allowed businesses to expand their workforce, drive impactful results, and maintain competitiveness.

In 2023-2024, the WIL Digital program exceeded its annual targets by facilitating 3,002 placements. 64.5% of participants self-identified as belonging to underrepresented groups, surpassing the program's 45% target.

To address the challenges students face at the start of their careers, the program provides access to 18 e-learning courses designed to develop employability skills in critical sectors of the Canadian digital economy. This year, 718 students enrolled, participating in courses on artificial intelligence, cybersecurity, and cloud computing.

### WIL Digital by the Numbers, 2017-2024:

19,813

post-secondary students were provided with practical work experience in digital economy roles 4,053

employers were supported to create work placements for emerging digital talent 18

e-learning courses provided online professional development to support student success in the digital economy

Funding for WIL Digital is provided by the Government of Canada's Student Work Placement Program (SWPP) through Employment and Social Development Canada (ESDC).

As a small business owner, I can't speak highly enough of ICTC's Work Integrated Learning Program. It has been an invaluable resource for us in growing our business while simultaneously providing meaningful opportunities for post-secondary students. The financial assistance provided through the program has been instrumental in allowing us to hire talented students who bring fresh perspectives and innovative ideas to our team. With the wage subsidies offered by ICTC, we've been able to expand our workforce without straining our budget, enabling us to focus on delivering exceptional services to our clients. Overall, it's a win-win opportunity that truly makes a difference for both employers and students alike."

Nithin Nayak from Code Space, a WIL Digital employer in London, Ontario

# CYBERSECURITY TRAINING AND WORK INTEGRATED LEARNING (CTWIL)

Increasing the diversity of Canada's cybersecurity workforce through work placements and skills training for women, non-binary and gender-diverse undergraduate students.

Launched in 2022, ICTC's <u>Cybersecurity Training and Work Integrated Learning (CTWIL)</u> program connects women, non-binary and gender-diverse undergraduate students to work placements and learning experiences in cybersecurity fields.

ICTC's 2022 report on <u>cybersecurity talent development</u> identified critical gaps in the cybersecurity sector: a shortage of professionals, lack of diversity, insufficient education pathways to cybersecurity careers, and mismatches between employer expectations and graduate skills. These findings spurred the creation of the CTWIL program to bridge the gap between the skills employers seek and those undergraduates acquire.

In 2023-2024, CTWIL engaged 127 students from seven institutions. Of the students who completed the program, 32.5% were in Ontario, 20.0% in Alberta, 19.2% in British Columbia, 18.3% in Atlantic Canada, and 10.0% in Manitoba. The program achieved an impressive completion rate, providing technical training and certifications to 84.7% of participating students.

To further support undergraduate students in their cybersecurity career paths, this year, ICTC developed a cybersecurity assessment tool validated by industry professionals to refine training and ensure alignment with employer expectations. Surveys indicate that 91% of students are interested in cybersecurity careers post-graduation, reflecting increased career confidence.

### CTWIL by the Numbers, 2022-2024:

**167** 

41

unnortod

students identifying as women, non-binary and gender diverse have received cybersecurity training employers supported to hire students into cybersecurity roles of students received job offers for digital roles.

44%

Funding for CTWIL is provided by the Government of Canada's Student Work Placement Program (SWPP) through Employment and Social Development Canada (ESDC).



I am grateful to have been granted the opportunity to participate in ICTC's Cybersecurity Training and **Work Integrated Learning Project** via Red River College. The project has provided me with training on fundamental industry-specific job search and resume preparation skills, as well as a foundation in digital security concerns through the Microsoft lens. As a fresh graduate of a diploma project in Web Development, I found myself in a very competitiveand saturated iob market. ICTC's established network, reputation, and wage subsidy orchestration provided a leg up in landing that first position, where invaluable industry experience will be gained, laying the groundwork for a lucrative and successful career."

Marissa Steindel, a CTWIL participant from Red River College Polytechnic in Winnipeg, Manitoba

# GLOBAL ONBOARDING OF TALENT (GO TALENT)

Filling Canada's digital skills gaps by connecting experienced international ICT professionals with Canadian employers.

Launched in 2019, ICTC's <u>Global Onboarding of Talent (GO Talent)</u> program prepares internationally educated professionals for successful integration into Canadian workplaces before they arrive and matches them to open jobs. By connecting skilled ICT professionals with Canadian employers, GO Talent fills critical skill gaps and promotes a diverse, innovative workforce.

In 2023-2024, GO Talent supported 740 internationally educated ICT professionals. The program achieved significant milestones, including hosting successful virtual career fairs that facilitated direct connections between clients and employers, fostering opportunities for job placements and economic growth.

### GO Talent by the Numbers, 2019-2024:

5,975

experienced international ICT professionals supported to integrate into Canadian workplaces before they arrived in Canada 300

employers supported to fill open digital roles with internationallyeducated ICT professionals

Funding for GO Talent is provided by the Government of Canada through Immigration, Refugees and Citizenship Canada (IRCC).

I greatly appreciate the invaluable assistance GO Talent provided in my journey to Canada. The support in enhancing my CV was instrumental, as it not only showcased my skills effectively but also aligned with the Canadian iob market standards. The guidance and instructions you offered were particularly helpful, providing clear directions on how to present my professional background in a way that resonated with potential employers. I am grateful for the expertise and support you offered throughout the process."

Anonymous GO Talent program participant

# PATHWAYS TO EMPLOYMENT FOR NEWCOMERS

Matching skilled newcomers, including refugees, with Canadian employers to fill digital skills gaps.

ICTC's Pathways to Employment for Newcomers program bridges the gap between internationally educated IT professionals and Canadian employers. Through wage subsidies and comprehensive training initiatives, the program facilitates the integration of skilled newcomers into the workforce while addressing critical labour shortages in the ICT sector.

In 2023-2024, the program exceeded diversity targets, engaging 119 newcomer women, 107 youth under the age of 30, and 112 participants who identified as visible minorities. Through the program, ICTC found job placements for 46 refugees, including individuals from Ukraine and Afghanistan.

Employers speak highly of the program, with 99% indicating they would participate again and recommending it to others. Employers reported that 93% of participants successfully advanced digital projects within their organizations. Participants themselves reported significant improvement in practical work experience (99%), digital knowledge (95%), and soft skills (94%) gained through the program's training in SCRUM fundamentals and agile industry mindset.

### Pathways to Employment for Newcomers by the Numbers, 2021-2023:

**251** 

94%

digital economy work placements secured for newcomers and refugees to Canada

of newcomers and refugees in the GO Talent program have secured long-term employment with their host employers or in similar roles

Funding for Pathways to Employment for Newcomers is provided by the Government of Canada through Employment and Social Development Canada (ESDC).

The Pathways
program offers a
great opportunity
for newcomers to
gain the necessary
skills, knowledge,
and confidence to
succeed in today's
competitive job
market. Additionally,
it allows us to
accelerate our
R&D progress by
adding development
resources."

Anonymous employer in the Pathways to Employment for Newcomers program

# DIGITAL EQUITY AND EMPLOYABILITY PATHWAYS (DEEP)

Bridging the digital divide by providing digital skills and employment readiness training to individuals from underrepresented groups in Canada.

ICTC's <u>Digital Equity and Employability Pathways (DEEP)</u> program helps underrepresented individuals grow their careers in Canada's digital economy by providing access to new skills and professional experience.

Developed in partnership with Microsoft Canada, DEEP creates pathways to in-demand jobs and encourages the successful integration of underrepresented groups into the digital economy. This one-year employment-readiness initiative connects Canadian employers with newly trained and upskilled individuals from underrepresented groups, including newcomers to Canada, refugees, and Indigenous Peoples.

The program provides nine different learning pathways that lead to the most in-demand careers:

- Administrative Professional Learning Pathway
- Business Analyst Learning Pathway
- Cybersecurity Learning Pathway
- Data Analyst Learning Pathway
- Generative Al Learning Pathway

- Project Manager Learning Pathway
- Software Developer Learning Pathway
- Sustainable Tech Learning Pathway
- Systems Administrator Learning Pathway

### DEEP by the Numbers, 2019-2024:

677

**59%** 

individuals from underrepresented groups have participated in upskill training.

of program participants are women.

Funding for DEEP is provided by Microsoft Canada.

I appreciate the tailored selection of learning paths... The DEEP program is dedicated to supporting participants in their career development journey."

Anonymous DEEP program participant

# BEYOND THE CLOUD: POWERING NEXT-GENERATION CANADIAN DIGITAL INFRASTRUCTURE

Upskilling mid-career ICT professionals to fill in-demand cloud infrastructure roles.

Beyond the Cloud launched in early 2024 to train 500 individuals across Canada for in-demand roles like cloud engineers, cloud administrators, DevOps specialists, and more. The first cohort started in March 2024 with the goal of an impressive 80% job placement rate. ICTC's Digital Infrastructure Assessment (DIA) tool evaluates program candidates through the development of skills assessments and customized training pathways that maximize employability.

The program actively promotes diversity, with 60% of participants coming from underrepresented groups. This inclusivity has been recognized by testimonials from stakeholders and participants, highlighting the program's role in breaking down barriers and fostering a more equitable workforce.

Participant feedback has been positive. Learners appreciate the comprehensive curriculum covering technical skills such as Azure, AWS, and SQL alongside crucial soft skills like communication and teamwork. The capstone project provides practical hands-on work experience, significantly enhancing employability. A structured schedule and a supportive learning environment, including guest speakers, 1:1 career coaching, and networking summits, further support participants in their job search. Ongoing support, including workshops on resumes, job market information, LinkedIn, and interview prep, bolsters career readiness and continuous learning.



Beyond the Cloud is a new program for ICTC in 2024.

Funding for Beyond the Cloud is provided by Upskill Canada (powered by Palette Skills) and the Government of Canada.

The comprehensive curriculum, covering both technical and soft skills, has been incredibly valuable. The technical courses on Azure, AWS, and SQL have provided solid foundational knowledge and practical hands-on experience. The inclusion of soft skills training, such as communication and teamwork, has also been beneficial in preparing for realworld scenarios. The capstone project has offered a fantastic opportunity to apply what we've learned in a practical setting... Overall, the program has been instrumental in equipping me with the skills and confidence needed for a successful career in cloud engineering."

Anonymous Beyond the Cloud program participant

### JUMP-STARTING DIGITAL CAREERS (JDC)

Building Canada's future cybersecurity workforce through education programs for K-12 students.

ICTC's <u>Jump-Starting Digital Careers (JDC)</u> program addresses the global shortage of cybersecurity professionals by introducing cybersecurity skills to K-12 students. Through JDC, students learn to defend against cyber threats and discover pathways to cybersecurity careers, developing a robust talent pool for Canada's cyber defence sector.

JDC includes curriculum-based programs for various grades and experience levels, combining digital skills education, experiential learning in and out of the classroom, and technology career exploration. Student-driven initiatives developed through JDC become startups, innovation hubs, and industry disruption catalysts. By tackling current cybersecurity challenges and anticipating future threats, students contribute to the continuous evolution and security of the digital economy.

In the 2023-2024 fiscal year, JDC achieved remarkable milestones, reaching 51,279 students—361% above its target—and engaging 5,066 teachers. The program emphasizes inclusivity, with participation from all provinces and territories (excluding Nunavut) and representation from diverse groups, including girls, Indigenous students, and those with disabilities.

Testimonials from educators and stakeholders underscore JDC's success in inspiring students and equipping them with critical cybersecurity skills, ensuring a safer digital environment and fostering a more inclusive and innovative digital economy.

### **JDC by the Numbers, 2022-2024:**

68,922

7,342

students participated in cybersecurity skills training

teachers equipped with core cybersecurity knowledge and curriculum

Funding for JDC is provided by the Government of Canada's CanCode Initiative through Innovation, Science and Economic Development (ISED) Canada.

I am proud to see
the students learn
from each other and
utilize the resources
around them
in order to find
solutions. [JDC]
was fundamental
in getting our
students jobs at
a growing startup
in PEI, Stemble
Learning, while still
in grade 12."

Priya Jain from PEI IT Alliance in Charlottetown, Prince Edward Island

### **CYBERTITAN**

Canada's national cybersecurity competition for middle and secondary school students.

2023-2024 marked the sixth competition season for <u>CyberTitan</u>, a national initiative that equips middle and secondary school students with critical cyber defence skills through skills training and competitive events. Sponsored by industry and government and delivered in partnership with schools across Canada, CyberTitan nurtures a pipeline of skilled talent to meet the rising demand for cybersecurity expertise.

Based on real-world scenarios, the CyberTitan competition emulates cybersecurity threats faced by Canadian organizations and institutions. Students participate in hands-on learning experiences that involve competing in small teams to solve simulated cybersecurity challenges.

This season, the competition hosted 1,035 students from 196 teams representing every province in Canada. Teams included 31 cadet teams, 27 all-girl teams, and 73 coaches. After five months of regional competitions, 13 finalist teams of 70 students from nine schools competed in the final CyberTitan competition to select Canada's top cybersecurity team.

CyberTitan achieved several milestones in 2023-2024: for the first time, three middle school teams joined the final competition, and the program expanded its reach to local hubs at the University of New Brunswick and the University of Waterloo, allowing students to participate in person and fostering a collaborative learning environment.

### CyberTitan by the Numbers, 2017-2024:

### 6,000

400

middle and secondary school students have competed in local, regional and national cybersecurity skills competitions secondary and middle schools across Canada have hosted CyberTitan teams

Funding for CyberTitan is provided by the Government of Canada through the Communications Security Establishment (CSE), as well as by the Quantum Algorithms Institute and KPMG.

It has been so much fun competing in CyberTitan this year...We've learned so much, not just about cybersecurity but also about teamwork, perseverance, and the power of dedication. Each challenge has been a lesson, each setback an opportunity to grow stronger."

CyberTitan team from Nashwaaksis Middle School in Fredericton, New Brunswick

### AMBASSADOR PROGRAM

Promoting gender diversity in Canada's technology sector through advocacy and resources.

ICTC's <u>Ambassador Program</u> advances women's representation in Canada's digital economy by providing tools to help businesses create gender-inclusive organizations. The program supports tech sector companies to hire and retain gender-diverse employees through regional consultations and awareness events, guidance from ambassadors, and the creation of practical resources like the <u>Gender Equity Assessment Tool</u>. The program's online hub is a central resource for sharing best practices and educational materials, amplifying its impact beyond direct participants.

In 2023-2024, the Ambassador Program exceeded recruitment goals, training 74 ambassadors to act as influential leaders who champion EDI strategies and best practices in Canada's digital economy.

### The Ambassador Program by the Numbers, 2022-2023:

74

ambassadors were recruited to champion gender diversity in Canada's technology sector 253

businesses engaged through events and workshops to learn about gender equity 613

businesses registered their commitment to gender equity

Funding for the Ambassador Program is provided by the Government of Canada through Women and Gender Equality (WAGE) Canada.



I found value in the content shared and believe that raising awareness, particularly among HR professionals in smaller companies with limited resources, is highly beneficial. I feel like the program had a huge impact. I could immediately use the information provided, and I was able to implement that into the organization's strategy and planning for the upcoming year."

Anonymous employer participant in the Ambassador Program

### CHANGING THE NARRATIVE: UNLEASHING THE FULL POTENTIAL OF WOMEN-OWNED ENTERPRISES

Addressing systemic barriers faced by Black women and women from minority groups through mentorship, support and pitch events.

Launched in 2024, ICTC's <u>Changing the Narrative</u> program addresses the systemic barriers faced by Black women and women from minority groups (including official language minority communities) when launching or owning social enterprises. Its broader goal is to foster economic security and prosperity for women in Canada's digital economy.

Women still face formidable challenges in the workplace, particularly in male-dominated fields like the tech sector, and racialized women entrepreneurs face multiple hurdles. Recent ICTC research found that many Black women entrepreneurs launching tech startups feel "not taken seriously" during crucial moments such as pitching or negotiating deals. Statistically, the odds are stacked against women, as 90–98% of venture capital funds are awarded to men.

Over the program's 29-month run, it will tackle specific issues facing women-owned enterprises spanning five provinces—Ontario, New Brunswick, Manitoba, Quebec, and Alberta—and engage with 500 women-owned tech businesses, 150 mentors, 36 subject-matter experts, and up to 10 community organizations that support Black women and minority groups.

A cornerstone of ICTC's Changing the Narrative program is a hub that offers:

- Mentorship opportunities and knowledge exchange
- Networking and connectivity among women tech entrepreneurs, mentors, and experts
- Initiatives that create spaces for women tech entrepreneurs to connect with industry professionals, potential partners, and investors.

NEW

Changing the Narrative is a new program for ICTC in 2024.

Funding for Changing the Narrative: Unleashing the Full Potential of Women-Owned Enterprises is provided by the Government of Canada through Women and Gender Equality (WAGE) Canada.



I enjoyed the whole experience. Everyone in attendance, from the staff to the presenters, was clearly very passionate, and it's great to be in spaces like that."

**Ontario Pitch Event Participant** 



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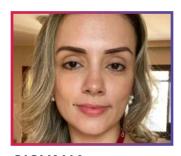


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**CAMELIA MFSTFCANFAN** 

Director, Operations



**GIOVANA PERRUCHO** 

Executive Assistant & Stakeholder Relations

In honour of her retirement in July 2024, we extend our heartfelt gratitude to Elizabeth Mills for her exceptional contributions to ICTC since 2018. Her leadership in program delivery has significantly and positively impacted our mission, serving youth, post-secondary students, recent graduates, career transitioners, women, newcomers and employers across Canada. Elizabeth has played a crucial role in our accomplishments through her dedication to fostering program excellence and integrity and facilitating vital stakeholder partnerships. We wish her the very best in her well-deserved retirement.



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