



# National Cybersecurity Consortium (NCC)

## Corporate Plan (2023-24)

Submitted to Innovation, Science and Economic Development Canada

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## Part 1

### Executive Summary

The National Cybersecurity Consortium (NCC) is a not-for-profit organization dedicated to advancing Canada's cybersecurity ecosystem through research and development, commercialization, and training.

On February 17, 2022, the Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry (ISED), announced that the NCC had been awarded up to \$80 million over four years to support the growth of Canada's cybersecurity ecosystem through industry-university collaboration. The organization is led by centres of cybersecurity expertise at five Canadian universities: Concordia University, Toronto Metropolitan University, the University of Calgary, the University of New Brunswick, and the University of Waterloo.

### Strategic Approach

To date, the NCC's work has been focused on building the operational foundations needed to support program delivery in 2023-24 and beyond. This includes grounding the organization in the principles of accountability, transparency, equity, diversity, and inclusion across all aspects of its work. Working with the Board, the Start-up NCC Secretariat has defined three phases of work to launch the NCC:

1. **Phase One – Building the Foundations** (September 2022 - March 2023) focuses on establishing the critical operational elements required to deliver on the NCC's vision, mission, and programs.
2. **Phase Two – Activation** (April 2023 - March 2024) builds on the core elements in Phase One to support the activation of key NCC program activities and ecosystem engagement.
3. **Phase Three – Full Operations** (April 2024 - March 2025) solidifies administrative and program operations and establishes NCC leadership in the ecosystem.

This Corporate Plan focuses on Phase Two of the NCC's work, to begin on April 1, 2023, and is guided by the following objectives:

- Creating a strong, accountable **governance** structure
- Establishing strategic and effective secretariat **operations**
- Designing and delivering robust **programming and member engagement**
- Shaping a public presence and delivering strong **communications and ecosystem outreach**.

**Planned activities** to support these objectives in 2023-24 include:

- Recruit the Inaugural Board
- Establish Board committees
- Hold the NCC's first Annual General Meeting (AGM)
- Initiate the inaugural Strategic Planning process

- Hire the senior leadership team and Secretariat team
- Complete the first external financial audit
- Develop and publish the first Annual Report (2022-23)
- Complete all annual reporting requirements and processes
- Complete and submit all remaining Conditions Precedent documents required by ISED:
  - Network Strategy
  - Cybersecurity Plan
  - Sustainability Plan
- Issue the first closed Call for Proposals for implementation-ready projects
- Design the ongoing grant program and commence plans for a second Call for Proposals
- Articulate and activate the membership strategy, including the membership structure
- Develop the first Communications Plan
- Complete organizational branding
- Hold initial training and outreach activities to increase ecosystem engagement
- Host the first annual conference of the NCC

A planned implementation schedule is provided in Part 4.

The Inaugural Board and senior Secretariat team, as well as the Scientific Operational and Advisory Committee, are expected to be in place before August 2023. The NCC will strive to overlap interim and permanent resources to provide continuity and stability during the transition.

During this key organizational activation phase, the NCC anticipates that revenue from ISED and planned expenditures for fiscal year 2023-24 will amount to \$9.987 million, to cover NCC activities – including Calls for Proposals for implementation-ready projects and other programming – and administration. Part 5 of this Corporate Plan presents expected revenue, planned expenditures, and cash flow requirements, phased by quarter, for the 2023-24 fiscal year.

The NCC will assess and record risks and mitigation strategies on a semi-annual basis. During the start-up phase, the NCC identified several risks – financial, operational, strategic, and reputational – along with suggested mitigation strategies for 2023-24; these are outlined in Part 6.

This will be an intense and exciting time for the NCC as it transitions to a permanent team and full operations and issues its first Call for Proposals. We are confident that the Start-up Secretariat and Board have laid the groundwork to position the NCC for excellence and sustainability in 2023-24 and beyond.

## Part 2

### Introduction

#### 2.1. About the NCC

The NCC is a federally incorporated not-for-profit organization committed to the advancement of Canada's cybersecurity ecosystem. The organization was founded in 2020 by centres of cybersecurity expertise at five Canadian universities: Concordia University, Toronto Metropolitan University, the University of Calgary, the University of New Brunswick, and the University of Waterloo. On February 17, 2022, ISED committed up to \$80 million over four years to the NCC through the Cyber Security Innovation Network (CSIN) program. This funding is a foundational investment that is intended to support the growth of Canada's cybersecurity ecosystem through industry-university collaboration.

#### 2.2. Our vision

The NCC's vision is to advance Canada's cybersecurity ecosystem through research and development, commercialization, and training.

#### 2.3. Our mission

The NCC's mission is to grow a pan-Canadian network that works with private and public sectors to lead world-class cybersecurity innovation and talent development and to increase cybersecurity-related economic activity in Canada.

#### 2.4. Our values

- **Partnership** | We will promote and cultivate collaboration and partnership opportunities between academia and the private and public sectors.
- **Growth** | We will build innovative cybersecurity systems to establish economic growth and sustainability for Canada and Canadians.
- **Research and Innovation** | We will build and sustain robust research and development partnerships with industry.
- **Human Resources Skilled in Cybersecurity** | We will develop and offer training programs that meet the true cybersecurity needs of the private and public sectors.
- **Knowledge Sharing** | We will create a knowledge-sharing community in which access to expertise is available anytime, anywhere from experts and peers.
- **Inclusion** | We will integrate the principles of equity, diversity, and inclusion across all areas of the NCC's operations and promote an inclusive organizational culture that values diverse perspectives and contributions.

## 2.5. Our commitment to accountability

In carrying out our mission, the NCC is committed to the highest standards of accountability and transparency.

We will adhere to best practices in governance by ensuring that appropriate authorities, accountabilities, and decision-making structures are established. This will include attracting a highly qualified, inclusive, and diverse Board of Directors, articulating clear roles and responsibilities for NCC management and Board members, establishing appropriate Board oversight committees, and ensuring clear and strategic communication between the organization's management and the Board.

Transparency and accountability will underpin all NCC operations. Our operations will be guided by key oversight documents and processes, including corporate plans, annual reports, external financial audits, ongoing risk management assessments and responses, and performance monitoring.

See Appendix A for a list of current Start-up Board of Directors.

## 2.6. Our focus

The NCC cultivates collaboration and capacity-building in the private and public sectors across five focus areas:

1. **Critical infrastructure protection:** to develop solutions that enable proactive monitoring and real-time detection and mitigation to restore critical infrastructure from damage and interruptions inflicted by cyberattacks.
2. **Human-centric cybersecurity:** to understand how human factors influence and impact security and privacy requirements in order to develop new human-centric cybersecurity solutions.
3. **Network security:** to develop tools, techniques, and procedures to safeguard computer networks and hosts from both internal and external exploits.
4. **Privacy and privacy-enhancing technologies:** to develop protective technologies across many different environments that safeguard individuals and data from privacy violations.
5. **Software security:** to develop tools, methods, and practices to reveal and cure vulnerabilities before software is released to end-users.

## 2.7. Context

The need for talent development, innovation, commercialization, and collaboration across Canada's cybersecurity ecosystem continues to grow. The increasing adoption of new technologies like artificial intelligence, the Internet of Things, and the worldwide surge in remote and hybrid work has created new and emerging threats to Canada's critical infrastructure, particularly within sectors like energy and utilities, financial services, transportation, and health care. It has also created threats to Canada's open and collaborative research environment.

Cybersecurity solutions, products, services, and expertise must keep pace with Canada's digital transformation. The NCC believes this will require significant expansion of shared effort and investment in research, innovation, commercialization, and training across private and public sectors over the next decade. We also believe the NCC is well-positioned to provide the leadership that Canada's cybersecurity ecosystem needs to keep Canadians safe.

This Corporate Plan reports on the foundational work that the NCC has undertaken in 2022-23 to establish its administrative foundations and outlines its plans for 2023-24.

## Part 3

### Strategic Approach

Since September 2022, the NCC Start-up Board has been focused on building the administrative foundations of the organization to support the delivery of programs in 2023 and beyond. In its work, it is taking a measured approach, prioritizing its activities to effectively align resources and to best ensure organizational success and sustainability for the future.

#### 3.1. Our work

Working with the Board, the Start-up NCC Secretariat has defined three phases of work to launch the NCC:

1. **Phase One – Building the Foundations** (September 2022 - March 2023): this phase focuses on establishing the critical operational elements required to deliver on the NCC's vision, mission, and programs.
2. **Phase Two – Activation** (April 2023 - March 2024): this phase builds on the core elements in Phase One to support the activation of key NCC program activities and ecosystem engagement.
3. **Phase Three – Full Operations** (April 2024 - March 2025): this phase solidifies administrative and program operations and establishes NCC leadership in the ecosystem.

The NCC is currently in Phase One of its operations, which focuses on ensuring that the NCC's governance and operational foundations are built with excellence to position the NCC and its incoming team for success. The Phase One milestones that will be completed by March 31, 2023, include: establishing the Inaugural Board structure, key committees, and policies; putting in place start-up financial and HR systems; developing the critical path and design of the first Call for Proposals; shaping an online presence; submitting all required documents to ISED; and appointing the Scientific Director and starting the hiring process for the Executive Director and Director of Finance.

This Corporate Plan focuses on Phase Two of the NCC's work, to begin on April 1, 2023.

#### 3.2 Our objectives for Phase Two

In undertaking Phase Two of its work, the NCC is guided by the following objectives:

- Creating a strong, accountable **governance structure**
- Establishing strategic and effective **secretariat operations**
- Designing and delivering robust **programming and member engagement**
- Shaping a public presence and delivering strong **communications and ecosystem outreach**.

## Part 4 Planned Activities

### Phase Two: Activation (April 2023 - March 2024)

Phase Two will be an intense and exciting time for the NCC, with activation activities accelerating the organization's maturity and momentum. Building on the governance and operational foundations that were laid in Phase One, the NCC will activate its programming and outreach activities to establish itself as a strong, responsive, and dynamic organization in 2023-24.

The activities described below reflect a measured and focused approach to sustainably and successfully establishing a leading cybersecurity organization in Canada.

<b>Planned Activities to create a strong, accountable governance structure</b>
<ol style="list-style-type: none"><li>1. Recruit the Inaugural Board members</li><li>2. Establish Board committees</li><li>3. Hold the NCC's first Annual General Meeting (AGM)</li><li>4. Initiate the inaugural Strategic Planning process</li></ol>



Establishing the Inaugural Board of the NCC at its first AGM is an important and exciting milestone. The Inaugural Board members will be selected based on the governance strategy that will be articulated as part of Phase One activities. Through the skills and diversity matrix that will be developed, the NCC will ensure that the Board composition includes members from across Canada who bring cybersecurity industry, research, and technical expertise from both the private and public sectors.

A critical focus of the Board selection process will be applying the NCC's commitment to the Government of Canada's 50-30 Challenge, which asks Canadian organizations to accept the challenge of increasing representation and inclusion of diverse groups within their workplaces while highlighting the benefits of giving all Canadians a seat at the table. In recognition of this commitment, the NCC will strive to ensure that its Board of Directors is composed of 50% women and 30% of members from other designated groups of the federal *Employment Equity Act*, which includes women, people with disabilities, Indigenous peoples, and visible minorities.

This year will also see the NCC embark on its first strategic planning process, which will further define the vision, longer-term goals, and objectives of the organization.

### **Planned Activities to establish strategic and effective Secretariat operations**

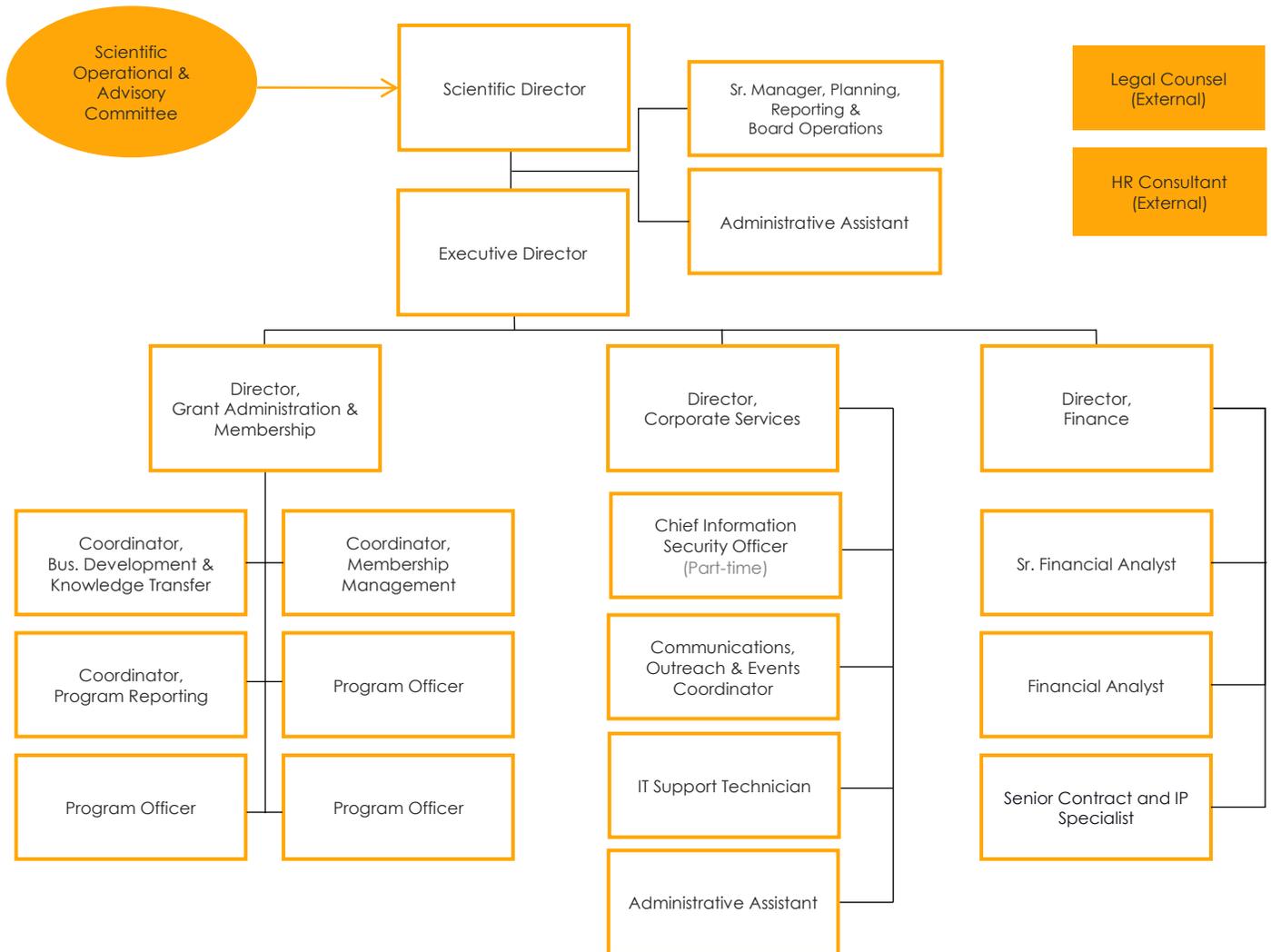
1. Hire the senior leadership team and Secretariat team
2. Complete the first external financial audit
3. Develop and publish the first Annual Report (2022-23)
4. Complete all annual reporting requirements and processes
5. Complete and submit all remaining Conditions Precedent documents required by ISED:
  - Network Strategy
  - Cybersecurity Plan
  - Sustainability Plan

Staffing the organization will be a priority in the first half of the year. The NCC will focus on recruiting top talent to fill the roles outlined in the proposed organizational structure pictured in Figure 1, below, and will ensure recruitment reflects its commitment to the principles of equity, diversity, and inclusion and the Government's 50-30 Challenge. In recognition of the timelines required to undertake recruitment, and to hire and onboard staff, the start dates for permanent staff have been phased, with the Executive Director and the Director of Finance to be hired by May 1, 2023, and the balance of the team to be hired by August 1, 2023. With the right people and processes in place, the NCC will be well-positioned to deliver operational rigour and success.

In addition, to ensure strong scientific and operational support, the NCC will establish a Scientific Operational and Advisory Committee composed of a scientific director from each of the five founding universities. The committee will report to the Scientific Director and will be responsible for developing recommendations for policies and activities related to all NCC scientific initiatives. The committee will maintain an active and continuous liaison with the members of the NCC's scientific networks and will actively assist the Scientific Director with planning and executing scientific outreach activities such as annual conferences, workshops, webinars, and awareness programs. The committee will provide advice, as necessary, to the Scientific Director on scientific matters, including project review process and selection of the project review committee members.

Demonstrating the NCC's commitment to accountability and transparency will be another priority in 2023-24. Undertaking its first external financial audit, producing its first Annual Report, and completing its first full year of reporting will be essential to this work.

Figure 1: Proposed Organizational Chart for the NCC Secretariat



(Proposed role descriptions are presented in Appendix B.)

<b>Planned Activities to design and deliver robust programming and member engagement</b>
<ol style="list-style-type: none"> <li>1. Complete the first closed Call for Proposals for implementation-ready projects</li> <li>2. Design the ongoing grant program and commence plans for a second Call for Proposals</li> <li>3. Articulate and activate the membership strategy, including the membership structure</li> </ol>

One of the NCC's first actions in 2023-24 will be to issue its first closed Call for Proposals for implementation-ready research and development, commercialization, and training projects. To ensure an open, fair, inclusive, and transparent process, the NCC will lead a rigorous review and ranking of proposals by expert panels; develop a clear application process, as well as communications and materials that provide straightforward guidance on the process and its requirements; and publicly communicate successful projects. It will also develop and communicate robust conflict of interest and dispute mechanisms in relation to the call.

Guided by the lessons learned from the first Call for Proposals for implementation-ready projects, the NCC will establish a permanent Grant Administration and Membership team and design the ongoing grant program. The NCC is committed to continuous improvement and developing a process in support of this goal will be an important element of grant program operations.

From its inception, strengthening collaboration and connections across the cybersecurity ecosystem has been central to the vision of the NCC. Ecosystem engagement and outreach will be essential to realizing the NCC's mission to spur world-class cybersecurity innovation and talent development, and to increase cybersecurity-related economic activity in Canada. It will also be critical to establishing the long-term sustainability of the NCC. Identifying, engaging, and growing the NCC membership among cybersecurity experts, partners, and other ecosystem stakeholders from the private and public sectors will be a key priority in this phase of activity.

<b>Planned Activities to shape a public presence and deliver strong communications and ecosystem outreach</b>
<ol style="list-style-type: none"><li>1. Develop the first Communications Plan</li><li>2. Complete organizational branding</li><li>3. Hold initial training and outreach activities to increase ecosystem engagement</li><li>4. Host the first annual conference of the NCC</li></ol>



Establishing the NCC's presence and leadership role within Canada's cybersecurity ecosystem is an NCC goal for 2023-24. Delivering on this goal will require a strong Communications Plan and a strategy for training and outreach activities that will increase ecosystem engagement and drive membership development. It will also require the development of a consistent and recognizable image for the NCC that inspires the confidence and trust of cybersecurity experts, partners, other ecosystem stakeholders, and the public.

Figure 2 below outlines the timing of the NCC's planned activities for Phase Two.

Figure 2: Phase Two Activation Schedule

Category	Planned Activities	Q1			Q2			Q3			Q4		
		A	M	J	J	A	S	O	N	D	J	F	M
Governance	1 Recruit Inaugural Board members	Planning and execution											
	2 Establish Board committees	Planning and execution											
	3 Hold first Annual General Meeting (AGM)		Planning and execution										
	4 Initiate inaugural Strategic Planning process				Planning and execution								
Administration	1 Hire the senior leadership team	Planning and execution											
	2 Complete first external financial audit	Planning and execution											
	3 Develop and publish first Annual Report (2022-23)		Planning and execution										
	4 Complete annual reporting requirements and processes	Planning and execution			Ongoing monitoring and adjustment								
	5 Complete and submit all Conditions Precedent documents	Planning and execution			Ongoing monitoring and adjustment								
Programming and Membership	1 Complete first closed Call for Proposals for implementation-ready projects	Planning and execution			Ongoing monitoring and adjustment								
	2 Design ongoing grant program and commence plans for a second Call for Proposals				Planning and execution			Ongoing monitoring and adjustment					
	3 Articulate and activate membership strategy, including membership structure			Planning and execution			Ongoing monitoring and adjustment						
Communications and Outreach	1 Develop first Communications Plan			Planning and execution			Ongoing monitoring and adjustment						
	2 Complete organizational branding				Planning and execution								
	3 Hold initial training and outreach activities to increase ecosystem engagement				Ongoing monitoring and adjustment			Planning and execution					

**Legend**  Planning and execution  
 Ongoing monitoring and adjustment

## Part 5 Financial Plan

### 5.1. Anticipated revenue and planned expenditures for fiscal year (FY) 2023-24

The NCC anticipates that revenue from ISED and planned expenditures for FY 2023-24 will amount to \$9.987 million. It is composed of the following:

- Revenue for NCC activities – \$6.750 million
- Revenue for NCC administration – \$3.237 million

Appendix C outlines the projected 2023-24 Statement of Operations.

### 5.2. NCC activities (\$6.750 million)

The NCC plans to publish the first Call for Proposals for implementation-ready projects by March 31, 2023. This first call will have three funding streams, to be staggered and awarded as follows:

- Training: August 11, 2023
- Commercialization: August 11, 2023
- Research and Development: September 1, 2023

The NCC estimates that the projects funded through this first call will draw approximately \$27 million in NCC funding over four years, and has been phased as follows:

*Table 1: Flow of Funds for Initial Call for Proposals*

in millions of dollars NCC Activity	Number of Projects	2023-24	2024-25	2025-26	2026-27	Total
Commercialization	10	2,125	2,975	2,125	1,275	8,500
Training	11	2,250	3,150	2,250	1,350	9,000
Research and Development	10	2,375	3,325	2,375	1,425	9,500
<b>Total</b>	<b>31</b>	<b>6,750</b>	<b>9,450</b>	<b>6,750</b>	<b>4,050</b>	<b>27,000</b>
Total NCC Activity funding per the Contribution Agreement (CA)						67,027
% 2023-24 projects to CA						40.3%

Projected funding for 2023-24 amounts to \$6.750 million.

Associated Ultimate Recipient funding (cash and in-kind) for FY 2023-24 amounts to \$7.612 million or 53% of the total project costs. The funding ratio (47% from ISED and 53% from the Ultimate Recipient of funds) has been applied consistently over the project years.

For planning purposes and until the actual projects have been confirmed, the \$6.750-million expenditures made to Ultimate Recipients have all been reflected as Direct Labour.

### **5.3. NCC administration costs (\$3.237 million)**

The NCC anticipates that revenue from ISED and planned expenditures to support NCC administration costs in FY 2023-24 will be \$3.237 million and will be composed of direct labour, indirect, direct, equipment, subcontractor and consultant, travel, and outreach costs, as described below.

### **5.4. Direct labour costs (\$1.711million)**

The NCC anticipates that direct labour costs will amount to \$1.711 million. This will support 14.42 full-time equivalents (FTEs) in FY 2023-24 (positions have been prorated according to start dates), which will amount to 19.0 FTEs once they are annualized. This reflects the permanent positions that are proposed in *Figure 1 - Proposed NCC Organization Structure* in Part 4.

As noted in Part 4, in recognition of the timelines required to undertake recruitment processes and to hire staff, the start dates for permanent staff have been phased, with the Executive Director, the Director of Finance, and the Chief Information Security Officer (CISO) to be hired by May 1, 2023, and the balance of the staff to be hired by August 1, 2023.

### **5.5. Indirect costs – overhead (\$0.609 million)**

It is anticipated that the NCC's indirect costs will be \$0.609 million. Indirect costs include employee benefits, expenses related to legal advice, insurance, strategic planning processes, and third-party recruitment for senior leadership and the Board.

### **5.6. Direct costs (\$0.578 million)**

The NCC anticipates that the organization's direct costs will be \$0.578 million. Direct costs include expenses related to website development, external audit, the NCC annual conference, software as a service (SaaS) to support NCC's financial and data management activities, office software (e.g., Microsoft 365), network outreach activities, brand development, and translation/interpretation.

### **5.7. Equipment costs (\$0.050 million)**

The NCC anticipates that equipment costs will be \$0.050 million. Equipment costs include the acquisition of computers for permanent staff.

### 5.8. Subcontractor and consultant costs (\$0.197 million)

It is anticipated that the NCC's subcontractor and consultant costs will be \$0.197 million. Subcontractor and consultant costs will be primarily related to the continuation of certain interim staff to support the organizational transition as permanent staff are onboarded.

### 5.9. Travel and outreach costs (\$0.092 million)

The NCC's travel and outreach costs are anticipated to be \$0.092 million. Travel and outreach costs will be primarily related to stakeholder engagement and travel for staff to key meetings such as the NCC's annual conference.

### 5.10. Annual cash flow requirements

NCC's annual cash flow requirements, phased by quarter, are outlined in Table 2 below.

Table 2: NCC Annual Cash Flow Requirements

		<b>2023-24</b>				
<b>EXPENDITURES</b>		Q1	Q2	Q3	Q4	Total
<b>NCC Activities</b>	Research and Development	-	-	950,000	1,425,000	2,375,000
	Commercialization	-	-	850,000	1,275,000	2,125,000
	Training	-	-	900,000	1,350,000	2,250,000
<b>NCC Admin</b>	Direct Labour	185,578	468,542	528,750	528,750	1,711,620
	Indirect Costs	148,394	117,975	175,964	166,514	608,847
	Direct Costs	79,700	156,933	233,625	107,692	577,950
	Equipment	29,000	21,000	-	-	50,000
	Subcontractors and consultants	163,499	33,272	-	-	196,771
	Travel and Outreach	10,500	15,750	57,750	7,875	91,875
<b>Total Expenditures</b>		616,671	813,472	3,696,089	4,860,831	9,987,063
<b>REVENUE</b>						
ISED Contribution - NCC Activities		-	-	2,700,000	4,050,000	6,750,000
ISED Contribution - NCC Administration		616,671	813,472	996,089	810,831	3,237,063
<b>Total Revenue</b>		616,671	813,472	3,696,089	4,860,831	9,987,063

As part of the Call for Proposals and subsequent review, the NCC will need to establish processes to ensure appropriate funds matching.

## Part 6 Risks and Mitigation

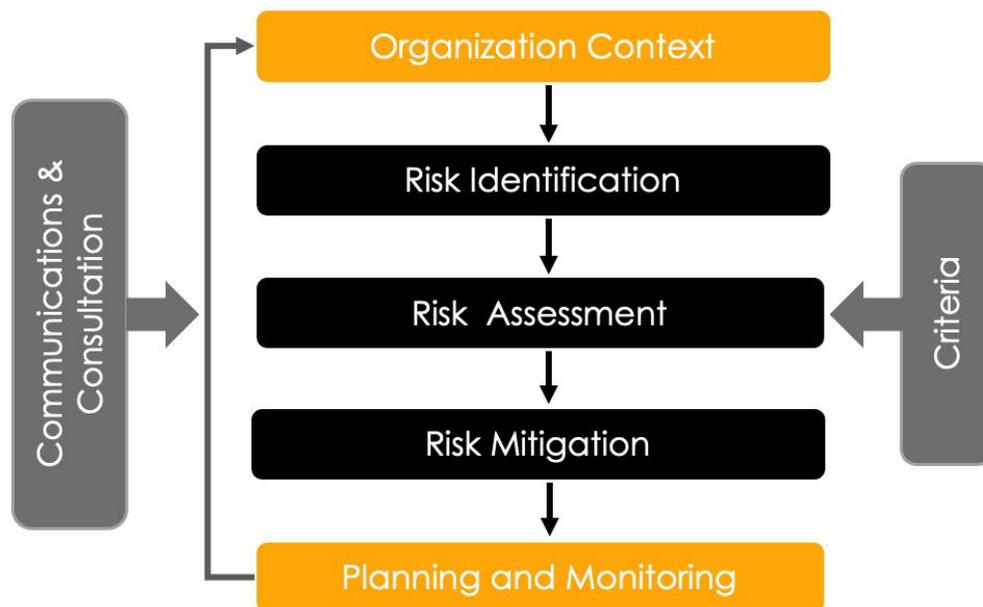
Reflecting its commitment to a robust, accountable, and prudent approach to corporate governance, the NCC will regularly identify, assess, and manage any risks related to its objectives and planned activities. As part of its regular operations, the NCC senior team will review and assess all risks and update the risk registry as required. The NCC risk registry will be provided quarterly to the Board for review and discussion. Items that pertain to specific committees of the Board will be discussed in the relevant committee prior to discussion at the full Board.

The Start-up Secretariat and Board have developed an initial risk framework and identified potential risks associated with planned activities in the 2023-24 year. The following risks and mitigations reflect the NCC's status as a non-profit granting entity in the start-up stage.

### 6.1. Initial Risk Framework

An initial risk framework has been developed to guide risk monitoring, identification, assessment, and mitigation, pictured in Figure 3, below. The framework will be refined as the organization onboards its Inaugural Board and senior team, and as the organization matures.

Figure 3: Initial Enterprise Risk Management Framework



**6.2. Risks and mitigation categories**

Organizational risks will be monitored and mitigated according to the four categories described below and in alignment with the planned objectives and activities in this Corporate Plan.

<b>Risk Category</b>	<b>Description</b>
<b>Financial</b>	The risk of financial loss due to the ineffectiveness of financial processes for reporting, budgeting, funding allocation, and fiscal stewardship
<b>Operational</b>	The risk of direct or indirect loss or inability to provide core services and programs, especially to stakeholders, resulting from inadequate or failed internal processes, legal issues, people, and systems or from external events
<b>Strategic</b>	The risk associated with changes or impacts to the organization's governance and strategy direction, selection, and execution, or resulting in a lack of achievement of the organization's overall objectives
<b>Reputational</b>	The risk of loss of reputation and credibility with ecosystem partners, government, and the public. The risk could involve actions or events that create a lasting negative image of, or loss of confidence in, the overall operations of the organization

### 6.3. Identified risks and proposed mitigations

Category	Risk	Mitigations
Financial	Insufficient working capital to fund all planned expenses in the first year.	<ul style="list-style-type: none"> <li>• Prompt review and approval of appropriate applicant expenses by the NCC</li> <li>• Prompt submission of NCC requests to ISED to expedite the release of funds</li> <li>• Upon approval, funds released to Ultimate Recipients after expenses are incurred</li> <li>• Operational functions may be funded with bridge funding or through secondments from founder institutions until funding cycles catch up</li> </ul>
	NCC administration costs for salaries, systems or other overhead exceed the budgeted allocation.	<ul style="list-style-type: none"> <li>• Consolidate financial reports and limit inclusion of expenses where necessary to remain within budget</li> <li>• Continue to work with founder institutions on in-kind supports for operations</li> <li>• If needed, and as appropriate, reduce program envelope funds to offset administration costs</li> </ul>

Category	Risk	Mitigations
	Insufficient matching from partners.	<ul style="list-style-type: none"> <li>• Clear communication on matching criteria to partners in Calls for Proposals</li> <li>• Control processes for evaluation of proposals will require written acknowledgement from proponents as part of the submission requirements</li> <li>• Final approval and release of funds will require confirmation and financial controls related to receipt of matching funds by the Ultimate Recipient</li> </ul>
<p><b>Program and Operations</b></p>	Delays in implementing HR, finance, and other systems.	<ul style="list-style-type: none"> <li>• Critical leadership and administrative roles are prioritized as part of hiring processes in Q1 2023-24</li> <li>• Needs and market assessments will be conducted in Q4 2022-23 to identify all systems that will be required</li> <li>• External technical expertise will be engaged, if needed, to support implementation and training</li> </ul>

Category	Risk	Mitigations
	The transition from a start-up to a permanent team disrupts continuity and stability of operations.	<ul style="list-style-type: none"> <li>• A detailed transition plan will be developed that identifies critical activities and actions to proactively address potential gaps</li> <li>• Terms of start-up team members will overlap with permanent roles to ensure knowledge transfer and continuity of operations</li> </ul>
	Inability to recruit and retain highly skilled technical staff.	<ul style="list-style-type: none"> <li>• A robust and compelling recruitment strategy and process will be developed</li> <li>• The organization will leverage the cybersecurity expertise and networks of the five founders for recruitment</li> <li>• A competitive compensation plan and attractive environment for staff will align with benchmarks in the finance, IT, and cybersecurity industries</li> <li>• Performance management frameworks will support high levels of service delivery</li> </ul>

Category	Risk	Mitigations
	<p>Success of the implementation-ready Call for Proposals affected by tight timelines, dissatisfaction of applicants, low-quality proposals, etc.</p>	<ul style="list-style-type: none"> <li>• Clear communications on timelines, application processes and materials required will provide straightforward guidance and clarity on the application process and requirements</li> <li>• A dedicated team with specific expertise in granting programs will be seconded from partner universities to oversee the implementation-ready call and support queries from applicants</li> <li>• The NCC will develop and communicate robust conflict of interest and dispute resolution mechanisms in relation to the call</li> </ul>

Category	Risk	Mitigations
<p style="text-align: center;"><b>Governance &amp; Strategy</b></p>	<p>Challenges in establishing and retaining a Board that reflects its commitments to regional diversity, EDI, and Official Languages, keeping in mind conflict of interest and skillsets required of Board members.</p>	<ul style="list-style-type: none"> <li>• Conflict of interest and Code of Conduct policies and processes will be in place prior to the selection of Inaugural Board members, with appropriate onboarding to ensure that all Board members understand their importance</li> <li>• Using the Board skills and diversity matrix that reflects its commitments to regional diversity, EDI, and Official Languages, as well as skills required for Board competencies, and proactive recruitment, considering policies and processes instituted, will support Board establishment</li> <li>• Broad and open communications will create wide knowledge and interest in the organization</li> </ul>
	<p>Robust and reliable future revenue streams are needed to support sustainable operations.</p>	<ul style="list-style-type: none"> <li>• High engagement with stakeholders will drive the development of the Sustainability Plan required under the Contribution Agreement with ISED</li> <li>• A membership strategy will be deployed that includes clear incentive and fee structures</li> </ul>

Category	Risk	Mitigations
<b>Reputational</b>	Perceptions of conflicts of interest.	<ul style="list-style-type: none"> <li>• Conflict of interest guidelines for the Board and NCC team members will be publicly acknowledged and assessed regularly in program development, evaluation of proposals, and in operations and meetings</li> <li>• A philosophy of proactive, open, and transparent communications will be adopted</li> </ul>
	Member or ecosystem dissatisfaction in relation to operational progress, programs, funding, value creation for members, etc.	<ul style="list-style-type: none"> <li>• Regular stakeholder communications and outreach by the end of Q4 2023 will allow for feedback on operations</li> <li>• Strategic engagement processes with stakeholders in Phase 2 (April 2023-March 2024) will guide the development of a membership strategy and a Strategic Plan</li> <li>• A Crisis Communications Plan and approach, if needed, will be ready to be activated in 2024-25</li> <li>• Member satisfaction surveys will be implemented to help identify potential issues early, which will be acted upon promptly</li> </ul>

Category	Risk	Mitigations
	Cybersecurity issues or breaches within the NCC or its partners.	<ul style="list-style-type: none"> <li>• A Cybersecurity Plan will be developed that outlines cybersecurity expectations and requirements for the organization and Ultimate Recipients of funds</li> <li>• Proof of robust cybersecurity plans, processes, and procedures will be required before funding is awarded to Ultimate Recipients</li> </ul>
	Failure to meet Key Performance Indicators (KPIs).	<ul style="list-style-type: none"> <li>• Semi-annual reporting will be implemented to track KPIs</li> <li>• The Director of Grant Administration and Memberships will regularly engage with Ultimate Recipients to identify and proactively address emerging concerns with KPIs</li> <li>• KPIs will be monitored by the Board and senior team semi-annually as part of the enterprise risk management activities</li> </ul>

Category	Risk	Mitigations
	<p>Cybersecurity issues or breaches within the NCC or its partners (e.g., founder institutions, funding partners or Ultimate Recipients of NCC funds) could pose a major reputational risk to the organization.</p>	<ul style="list-style-type: none"> <li>• The NCC will develop a Cybersecurity Plan that outlines cybersecurity expectations and requirements for the NCC and Ultimate Recipients of NCC funds</li> <li>• Proof of robust cybersecurity plans, processes, and procedures will be required before funding is awarded to Ultimate Recipients</li> </ul>
	<p>Failure to meet Key Performance Indicators (KPIs) as per the requirements of the Contribution Agreement could jeopardize ISED funding.</p>	<ul style="list-style-type: none"> <li>• The NCC will implement semi-annual reporting requirements to the NCC Board with clear guidance for Ultimate Recipients</li> <li>• The Director of Grant Administration and Memberships will regularly engage with Ultimate Recipients to identify and proactively address emerging concerns with KPIs</li> <li>• KPIs will be monitored by the Board and senior team semi-annually as part of the enterprise risk management activities</li> </ul>

# Part 7

## Performance Management Monitoring Activities

The NCC's performance monitoring strategy outlines the process that the NCC will use to collect, track, and report on the key performance indicators (KPIs) set out in the Contribution Agreement with ISED. It confirms the schedule for reporting in 2023-24.

### 7.1. Reporting roles and responsibilities

Within the NCC, the Senior Manager, Planning, Reporting, and Board Operations will work with the Executive Director, the Director of Grant Administration, and the Director of Finance to oversee the collection, monitoring, and reporting of KPIs. They will also be responsible for setting KPI baselines and targets. KPI updates will be provided to the NCC Board for review and discussion on a semi-annual basis and to ISED annually.

Most of the NCC's established KPIs require timely, accurate reporting from the Ultimate Recipients of NCC funds. To address this need, the NCC will establish a process by the beginning of Q2 2023-24 for Ultimate Recipients to report semi-annually on KPIs and draft clear guidance to help to ensure that these reporting requirements are met.

### 7.2. Reporting mechanisms

The table below describes the NCC's mechanisms to collect, monitor, and report on its KPIs.

Reporting mechanism	Description
Project Reports	In a given fiscal year, Ultimate Recipients will submit project reports semi-annually to the Senior Manager, Planning, Reporting, and Board Operations on their required KPIs.
Annual Report	<p>Working with the Director of Grant Administration and the Director of Finance, the Senior Manager, Planning, Reporting, and Board Operations will compile KPI data from Ultimate Recipients' project reports and submit their findings to ISED as part of the NCC's Annual Report. Inclusion in the Annual Report will ensure that the KPIs are made publicly available.</p> <p>The KPIs in the first year of the Annual Report will not reflect a full year of operations, given that funds for the implementation-ready projects will not have been awarded until August or September (Q2) of 2023.</p>

Reporting mechanism	Description
<b>Corporate Plan</b>	KPIs may also be reported in the NCC's annual Corporate Plan, which is submitted to ISED and published on the NCC website.
<b>Management Review</b>	If deemed necessary, ISED may conduct a management review of the NCC. ISED could ask for an update on KPIs as part of this review.
<b>Final Progress Report</b>	Within 90 calendar days of the Contribution Agreement completion date, the NCC must provide ISED with a final report on how the NCC has achieved its KPI targets.
<b>Post-Contribution Reporting in the Form of an Annual Report</b>	Once the completion date of the NCC Contribution Agreement is reached, the NCC will continue to provide post-contribution reporting for a five-year period, including any updates on achievement of its KPIs, in the form of an Annual Report to ISED.

**7.3. KPI reporting schedule for 2023-24**

The table below provides a schedule for the NCC to collect, monitor, and report on KPIs in 2023-24.

KPI Mechanism	Preparation Time Frame	Deadline
<b>Setting KPI Baselines and Targets</b>	April to May 2023	May 30, 2023
<b>Submission of Semi-annual Project Reports from Ultimate Recipients</b>	January 2024 and April 2024	February 9, 2023 and May 17, 2024
<b>Submission of Annual Report*</b>	Mid-May to mid-July 2024	July 31, 2024
<b>Submission of Corporate Plan</b>	November 2023 to late-January 2024	January 31, 2024

\*Given that no funds will have been awarded by July 2023, the first Annual Report will not report on KPIs.

## **List of Appendices**

Appendix A - Start-up Board of Directors (as of January 31, 2023)

Appendix B - Proposed Role Descriptions

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Appendix D - Performance Framework within the NCC Agreement

## **Appendix A – Start-up Board of Directors** (as of January 31, 2023)

**Paula Wood-Adams, Chair**

Special Advisor on Innovation  
Office of the Vice President, Research and Graduate Studies  
Concordia University

**Charmaine Dean**

Vice President, Research and International  
University of Waterloo

**William Ghali**

Vice President, Research  
University of Calgary

**Steven Liss**

Vice President, Research and Innovation  
Toronto Metropolitan University

**David MaGee**

Vice President, Research  
University of New Brunswick

## Appendix B – Proposed Role Descriptions

Position Title	Role Summary
<p><b>Scientific Director</b></p>	<p>The Scientific Director reports to the Board of Directors and is responsible for directing all operational matters within the NCC, including strategic, administrative, and program functions. The position is the public-facing scientific lead of the organization and key connection point with the NCC. As the representative of the science community, the Scientific Director is responsible for developing and leading the NCC's research strategy and working closely with the community to achieve research and development, commercialization, and training goals. The Scientific Director is supported by the Scientific Operational and Advisory Committee.</p>
<p><b>Executive Director</b></p>	<p>Reporting to the Scientific Director, the Executive Director is responsible for leading a senior team responsible for day-to-day grant program operations and administrative functions, including finance, human resources, information technology, communications, and audit.</p>
<p><b>Senior Manager, Planning, Reporting, and Board Operations</b></p>	<p>Reporting to the Scientific Director, the Senior Manager, Planning, Reporting, and Board Operations is responsible for the preparation and submission of all required reports to stakeholders, including the NCC Board of Directors, government, and other partners as required. The role will also provide administrative support to the Board of Directors, including scheduling meetings, preparing agendas, supporting Board packages, and recording minutes and action items arising from Board meetings.</p>
<p><b>Administrative Assistant</b></p>	<p>Reporting to the Scientific Director and providing support to the Scientific Director and Executive Director, the Administrative Assistant provides a range of administrative services, including maintaining files and records, managing incoming and outgoing correspondence, tracking Secretariat equipment, preparing meeting agendas for the senior team and other committees as required, and recording minutes and actions for the senior team.</p>

<p><b>Director, Grant Administration and Membership</b></p>	<p>Reporting to the Executive Director, the Director, Grant Administration and Membership is responsible for leading the planning (process, tools, compliance) and execution of the Call for Proposals (grants call) program; this includes all tasks required to develop and manage the policies, procedures, tools, and systems to deliver an effective and efficient grant administration program. The Director, Grant Administration and Membership will also oversee business development and member management strategies and tactics.</p>
<p><b>Program Officer (x3)</b></p>	<p>Reporting to the Director, Grant Administration and Membership, and responsible for grants across one of three core areas (research and development, commercialization, and training), the Program Officer administers all phases of the grant process and monitors awarded grants for program, legal, and financial compliance.</p>
<p><b>Coordinator, Program Reporting</b></p>	<p>Reporting to the Director, Grant Administration and Membership, the Coordinator, Program Reporting is responsible for extracting, analyzing, and organizing grant program data to prepare micro and macro reports for all phases of the grant call process.</p>
<p><b>Coordinator, Business Development and Knowledge Transfer</b></p>	<p>Reporting to the Director, Grant Administration and Membership, the Coordinator, Business Development and Knowledge Transfer is responsible for establishing and maintaining member and stakeholder contacts, identifying, and encouraging partnership opportunities amongst potential grant applicants, and promoting NCC grant programs across the cybersecurity ecosystem.</p>
<p><b>Coordinator, Membership Management</b></p>	<p>Reporting to the Director, Grant Administration and Membership, the Coordinator, Membership Management is responsible for engaging and supporting NCC members, as well as identifying and executing initiatives to engage, manage, and grow NCC membership.</p>
<p><b>Director, Corporate Services</b></p>	<p>Reporting to the Executive Director, the Director, Corporate Services is responsible for the provision of effective and efficient corporate services and resources to support the strategy, plans, and priorities of the NCC and its operations. The position leads and manages administrative and corporate services functions, including IT, human resources, and communications. The position is critical to the effective functioning of the NCC.</p>

<p><b>Chief Information Security Officer (CISO)</b></p>	<p>Reporting to the Director, Corporate Services, the Chief Information Security Officer is part-time and responsible for developing and implementing an information security program, which includes procedures, policies, and technologies designed to protect the NCC's communications, systems, and assets from both internal and external threats.</p>
<p><b>Information Technology Support Technician</b></p>	<p>Reporting to the Director, Corporate Services, the Information Technology Support Technician plans and manages technology services to meet NCC operational requirements. The position serves as the IT point of contact for NCC staff and ensures IT services meet business needs. This position supports and coordinates with the NCC CISO as required on all matters related to cybersecurity.</p>
<p><b>Communications, Outreach, and Events Coordinator</b></p>	<p>Reporting to the Director, Corporate Services, the Communications, Outreach, and Events Coordinator is responsible for establishing a communications strategy, plan, and corresponding activities for the NCC, including branding and positioning. The position also plans and executes strategies and tactics associated with ecosystem engagement. This includes regular community outreach, specific communication and outreach related to grant management, and the planning and execution of targeted events (e.g., the Annual General Meeting and Annual NCC Conference).</p>
<p><b>Administrative Assistant</b></p>	<p>Reporting to the Director, Corporate Services, and supporting IT, Communications, and Human Resources, the Administrative Assistant provides a range of administrative services, including maintaining files and records, managing incoming and outgoing correspondence, administration of equipment, preparing meeting agendas, and recording minutes and actions for the Corporate Services team.</p>
<p><b>Director, Finance</b></p>	<p>Reporting to the Executive Director, the Director, Finance is responsible for all aspects of NCC financial management, including policies, processes, audit, and reporting. The position oversees timely and efficient financial grant processing, along with corporate NCC financial transactions and management. The position works closely with the Director, Grant Administration and Membership to ensure all aspects of financial planning, management, and reporting complement the grant management process.</p>

<p><b>Senior Financial Analyst</b></p>	<p>Reporting to the Director, Finance, the Senior Financial Analyst is responsible for preparing and analyzing NCC budgets, forecasts, and other financial models, including those related to the grant program. The position analyzes NCC data and information to prepare and present reports to the NCC senior team and the Board of Directors. The position also oversees the monitoring and reporting of all financial aspects of the grant management program, ensuring appropriate checks and balances are in place.</p>
<p><b>Financial Analyst</b></p>	<p>Reporting to the Director, Finance, the Financial Analyst is responsible for a wide range of finance activities, including gathering financial data, organizing information, analyzing historical results, making forecasts and projections, developing recommendations, and generating models (planned and actuals), presentations, and reports. The position is also responsible for supporting the financial aspects of the grant management program.</p>
<p><b>Senior Contract and IP Specialist</b></p>	<p>Reporting to the Director, Finance, the Senior Contract and IP Specialist is responsible for activities related to the procurement of goods and services for the NCC and for all matters concerning IP management and advice. For contracts, this includes supporting the definition of requirements, recommending and executing proper procurement and contracting processes, and maintaining auditable information and records. The position will also monitor all contracts for compliance, fiscal administration, and execution, and provide support in the administration of all contracts with Ultimate Recipients. For IP management and advice, the Senior Contract and IP Specialist will be responsible for managing any IP that the NCC may acquire. In addition, the position will offer a variety of supports to Ultimate Recipients, including vetting licensing templates, developing patent landscaping initiatives, delivering IP showcasing/licensing activities, advising on collaboration agreements, training, documenting best practices, and acting as a potential agent for IP generated by them.</p>

## Appendix C - Projected 2023-24 Statement of Operations

Statement of Operations	2023-24 Corporate Plan
<b>REVENUE</b>	
ISED Contribution - NCC Activities	6,750,000
ISED Contribution - NCC Administration	3,237,063
<b>Total Revenue</b>	<b>9,987,063</b>
<b>EXPENSES</b>	
Total NCC Activities	6,750,000
NCC Administration	
Direct Labour	1,711,620
Indirect Costs (overhead)	608,847
Direct Costs	577,950
Equipment	50,000
Subcontractors and consultants	196,771
Travel and Outreach	91,875
Total NCC Administration	3,237,063
<b>Total Expenses</b>	<b>9,987,063</b>
<b>Excess of Revenue over Expenses</b>	-

## Appendix D - NCC Performance Framework

The following table provides the NCC's performance framework as outlined in the Contribution Agreement with ISED. The Contribution Agreement allows for the performance framework to be revisited on an annual basis via the Corporate Plan and Annual Report process to ensure the NCC is on track to deliver proposed results.

Note: The date to achieve targets for all outcomes is the Completion Date of the Agreement, except for the last three outcomes in the performance framework above. The date to achieve targets for those outcomes is the end of the Term of the Agreement.

Outcome	Key Performance Indicator
Industry and academia collaborate to promote research and development, commercialization, and training in the field of cybersecurity	1. Number of network participants by type and geographic location (e.g., academia, industry, not-for-profit organizations, etc.)
	2. Number of funded collaborative R&D, commercialization, and training projects
Students and workers receive training to develop cybersecurity-related skills and knowledge	3. Number of post-secondary students participating in cybersecurity training activities (courses, programs, co-op, and/or Work-Integrated-Learning (WIL) programs)
	4. Number of professionals participating in cybersecurity training, reskilling, and upskilling activities
	5. Percentage of students and workers from underrepresented groups taking part in network-funded training activities
Funded Eligible Projects lead to enhanced investments in the cybersecurity ecosystem	6. Dollar and/or in-kind value leveraged by the network from industry and other partners

Outcome	Key Performance Indicator
Funded Eligible Projects lead to new or improved cybersecurity products and knowledge	7. Number of IP filings and number of other IP (i.e., any IP not formally filed) generated as a result of network R&D and commercialization activities
Funded Eligible Projects advance towards commercialization	8. Number of commercialization projects that advance over at least two Technological Readiness Levels (TRLs)
Qualified cybersecurity professionals are available to work in relevant fields/jobs	9. Number of firms participating in Network Activities indicating an increase in qualified and skilled cybersecurity professionals (both new entrants to the workforce and re-skilled/up-skilled existing workers) as a direct result of Network Activities
Lead Recipient (NCC)-supported businesses commercialize new or improved cybersecurity innovations	10. Value of sales of new or improved cybersecurity products and services commercialized (or introduced) as a result of Network Activities
Qualified and skilled cybersecurity professionals that meet industry needs	11. Number of cybersecurity jobs created as a result of Network Activities
	12. Percentage of cybersecurity jobs filled by persons from underrepresented groups

