Annual Report

11593765 Canada Association
2020- 2021

Submitted to

Innovation, Science and Economic Development Canada

July 2021

NDRIO | NOIRN

New Digital Research Infrastructure Organization

Nouvelle organisation d'infrastructure de recherche numérique

Contents

Message from the Chair
Board of Directors

The past fiscal year was full of change, growth, and opportunity for the New Digital Research Infrastructure Organization (NDRIO). As Chair of the Board of Directors, it is my pleasure to mark the achievements of the organization. Our work would not be possible without the leadership and support of Innovation, Science and Economic Development Canada and the Government of Canada's national Digital Research Infrastructure (DRI) Strategy.

NDRIO's achievements include the successful recruitment of its first permanent Chief Executive Officer and establishment of a Researcher Council. We also launched the first Canadian Digital Research Infrastructure Needs Assessment, welcomed new staff members, and prepared to welcome the Portage Network as a fundamental part of the Canadian research data management (RDM) ecosystem.

I wish to welcome Nizar Ladak as NDRIO's first permanent CEO. Mr. Ladak is an exceptional leader who understands the intricacies of Canada's DRI space, the importance of stakeholder engagement, and the criticality of a deliberate approach to change management. I extend a special thank you to George Ross, NDRIO's Interim Executive Director, for his exceptional leadership and hard work launching and developing the organization.

I am also pleased to welcome to Dr. Randall Sobie, the new Chair of the Researcher Council, with a special thank you to Dr. Guillaume Bourque, Interim Chair, for guiding the Council's establishment. The Council will serve as a critical component of NDRIO's commitment to involve the research community as it designs and delivers a new service delivery model to support Canada's national DRI Strategy.

The Board of Directors began their work in earnest after being elected in March 2020 and remains focused on upholding NDRIO's guiding principles as well as the principles of Equity, Diversity, and Inclusion (EDI) and anti-racism. The Board continues to work with the NDRIO management team to deliver the 2021-2022 Corporate Plan.

Thank you as well to our Members, ecosystem partners and Highly Qualified Personnel whose valuable contributions will help shape the future of DRI in Canada. We look forward to providing Canada's researchers with the digital tools and services they need to conduct leading-edge research and achieve scientific breakthrough.

Thank you and best wishes,

Janet M. Davidson, O.C., BScN, MHSA, LLD (Hons)
Chair, Board of Directors
New Digital Research Infrastructure Organization (NDRIO)
11593765 Canada Association

Watch an Introduction to the New Digital Research Infrastructure Organization (NDRIO) Annual Report, 2020-21, by CEO Nizar Ladak.

Message from the Chief Executive Officer

'The price of occupancy on earth is to serve others' is my personal credo. There are these rare opportunities we experience in our lifetimes that decades later we look back on and realize those were life-altering moments. Recognizing them at the time and place are even rarer, but when recognition and opportunity align, we call them history-altering moments. We are at just such a precipice. The moment when funding, intention and conviction have come together to create a trajectory that decades later will allow us to look back and say: "I was there when...". The next few years is our collective opportunity to decide what side of history we wish to be on.

I recently said to my Senior Team, "So long as we always do what we believe to be is right, we will never be on the wrong side of history". Therefore, our moral compass must always point towards what is good for Canada's researchers. Our orienting North Star will be to support Canadian innovation. If we set aside ego and territoriality, and actively seek partnership and collaboration, how can we go wrong? This is not to say we will not make mistakes; I hope we make many, as true learning comes from seeing the error of our ways. However, those mistakes must not significantly alter our path or substantially divert us from our journey.

Extending this analogy, like good captains of a ship, we look to our Board to steward us safely and course-correct when necessary. Secure in their guidance and leadership, our Team's job is to bring together every member of our ecosystem to row in unison. We believe, if we give our colleagues the tools to do their job, listen attentively to their needs, and act decisively, the journey to our destination will be calm and without storm. Fundamentally, if we never waiver from our laser focus to serve and provide leadership to Canada's researchers, our horizon can be easily navigated. If we do this successfully, nay, when we do this successfully, we can take our minor place in history as those who enabled Canada's researchers to change life as we know it globally in service to humanity.

In reading this, many of you will be thinking, this all sounds more like a formal speech than the cover letter for an Annual Report. I agree, but in my defence, what else would I write when every single person I work with has acknowledged two things when I asked them during their job interview: "Why do you wish to be part of Team NDRIO?" They uniformly answered: "It's the exciting organizational mandate…it feels more like a calling than a job." This is the team I have the privilege to lead.

In that context, I am also under no illusion that every page of this Annual Report is the outcome of the Team's efforts and motivation – the motivation to serve. Also understand that when I say "Team," I refer to NDRIO employees who make that service a reality. I also commend the Highly Qualified Personnel (HQP) who are at the forefront of service to Canada's researchers, and who despite a somewhat tenuous sector history and unstable working environments, persevere to keep the hard-fought DRI gains. To you, I am forever indebted and am proud to stand by your side.

During the largest public health crisis of our respective lives and the tragedy that it brought to us all globally, this team:

- Built an organization in six months,
- Established back-office supports and information, communication and technology tools to enable a Team to flourish,
- Designed and implemented compliance policies and practices to ensure we could be responsible stewards of public funds,
- Was up and running with new computers, software, email and video communication capability within 48 hours of their first day on the job,
- Began a National Needs Assessment,
- Researched and drafted three Current State Analysis reports in collaboration with representative working groups,
- Initiated the process to design the National Service Delivery and Funding Models, defining how we would serve our community.

And for their part, the broader "Team," the community we partner with, responded in quantifiable ways:

- 22 Members of a volunteer Researcher Council began their selfless service,
- 105 Position Papers were written,
- 40 relevant documents were submitted,
- 1,380 respondents completed a Needs Assessment Survey that in full could take 20 minutes to complete,
- A four-day validation of the Needs Assessment Survey was attended by 1,078 participants.

All the while, Researchers continued to be served without interruption and the next generation of Canada's HQP were trained.

Am I proud of all that the Team has accomplished? Certainly, I am, but a more appropriate sentiment is that I am humbled by all I have witnessed this past year. They are my motivation. They are my inspiration. This Annual Report speaks to their achievements and my privilege to be called their leader. Coming full circle, the price for this privilege, and my occupancy on earth, is to serve them so they can serve others.

Sincerely,

Nizar Ladak
Chief Executive Officer
New Digital Research Infrastructure Organization (NDRIO)
11593765 Canada Association

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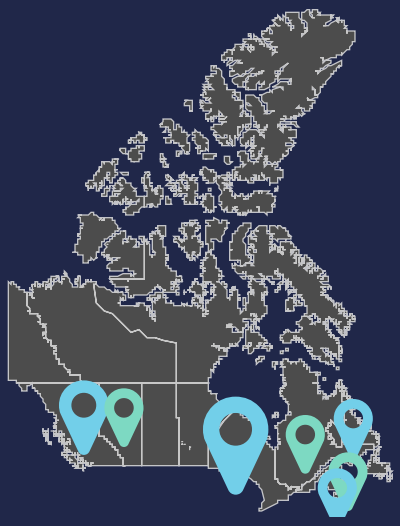
2020-2021

YEAR IN REVIEW

Reflecting on a year of engagement, growth and building trust.

22 Experts joined the inaugural Researcher Council

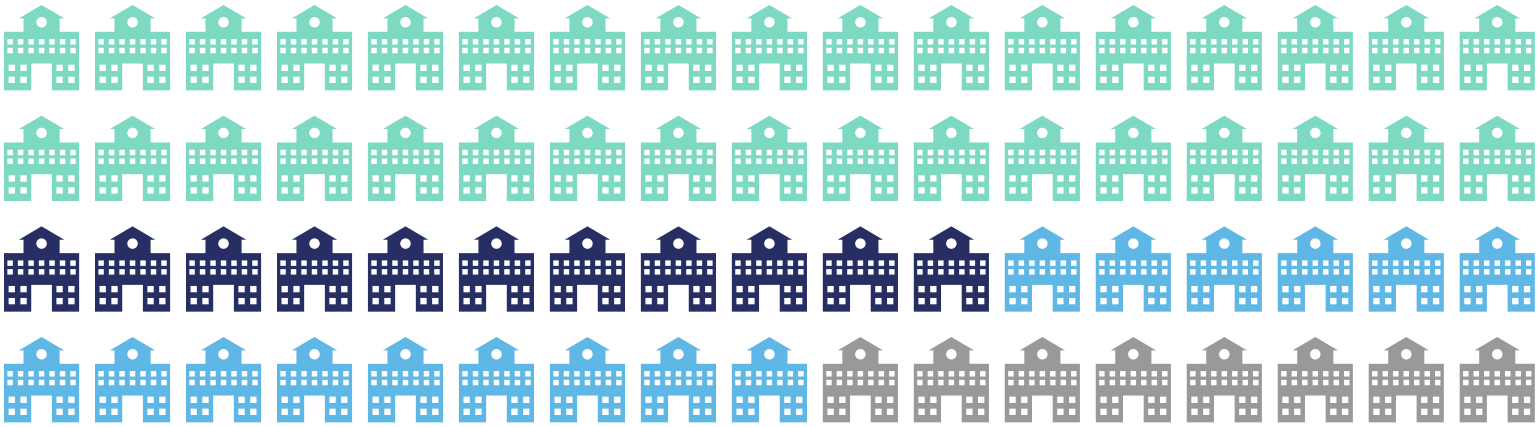


33 Team Members Across Canada

OUR MEMBERS

141 Members **49** Primary Members **92** Associate Members

Universities Colleges Digital Research Institutes Research Hospitals



Canadian DRI Needs Assessment

1,380 Survey Responses

1,078 Virtual Town Hall Participants

105 Position Papers

40 Relevant Documents

27+

Speaking engagements from our leadership team

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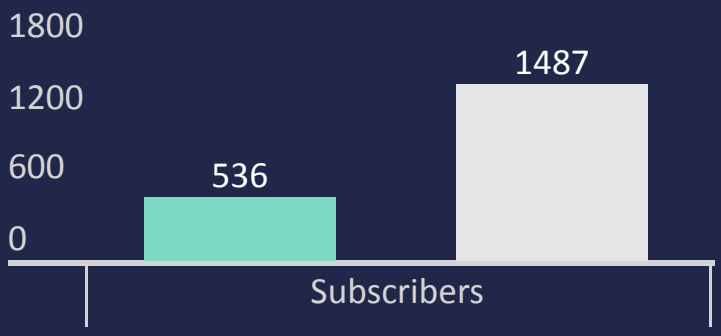
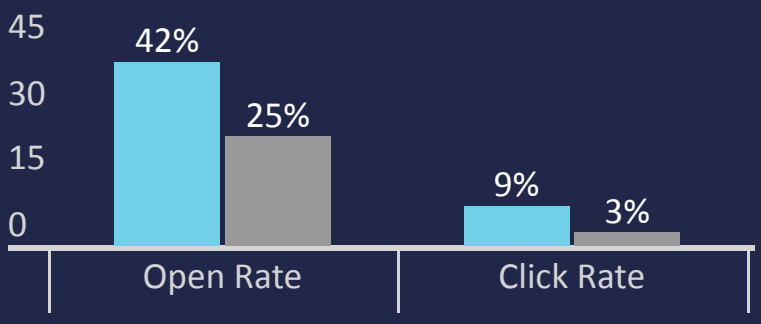
48

Email Newsletters





70,113

Website Page Views

Most viewed:

1. Position Paper Submission
2. About NDRIO
3. Careers

7

Blog Posts

Most read:

1. The First 60 Days
2. A New Year, New Opportunities
3. Superheroes In the Age of COVID-19

LinkedIn

- 543 Followers
- 30,895 Impressions
- 77 Page Updates
- 6% Engagement Rate

Twitter

- 261 Followers
- 193,800 Impressions
- 531 Page Updates
- 2% Engagement Rate

Thank you for your ongoing support.

We look forward to continue serving Canada's research community in 2021-22.

Executive Summary

The 2020-21 fiscal year was the second year of operations for 11593765 Canada Association (publicly known as the New Digital Research Infrastructure Organization [NDRIO]). In Year Two, NDRIO continued to work with ecosystem partners and stakeholders across the country to help provide Canadian researchers with the support they need for leading-edge scientific excellence, research, innovation and advancement across all disciplines. NDRIO is currently moving from start-up to scale-up.

This work would not be possible without the vision and leadership in the national digital research infrastructure (DRI) Strategy from NDRIO's funder, the Government of Canada through Innovation, Science and Economic Development Canada.

NDRIO reached several milestones in Year Two

- The approval of the Corporate Plan by Innovation, Science and Economic Development Canada (ISED).
- A Memorandum of Understanding with Ocean Networks Canada to support excellence in research data management (RDM) practices.
- An agreement with CARL to support Portage and research data management in Canada, and transition planning for CARL Portage.
- The establishment of an inaugural Researcher Council, composed of 22 members from across Canada, based on the work of the Researcher Advisory Group.
- The establishment of an inclusive, diverse management team, through the recruitment of four Vice Presidents and 90% of the organization's Directors.
- The first Annual General Meeting on September 24, 2020.
- The successful recruitment of the organization's first permanent Chief Executive Officer.
- The launch of a Canadian Digital Research Infrastructure Needs Assessment.
- The beginning of consultations for the National Service Delivery and Funding Models.
- The renewal of NDRIO's Contribution Agreement with ISED.
- A clean audit report from external auditors KPMG.
- Three virtual Members' Meetings, open to all Primary and Associate NDRIO Members. As of March 31, 2020, NDRIO's membership is composed of 141 organizations and institutions.

NDRIO's team continues to operate remotely across the county, with staff from British Columbia to Newfoundland and Labrador. NDRIO wishes to acknowledge and thank its Members and the research community who are actively searching for solutions in the midst of the COVID-19 crisis.

We are proud of our accomplishments in Year Two and look forward to the future of DRI in Canada. Collectively as a team, working with the Canadian DRI community, our activities in 2020-21 laid the foundation to support research excellence in Canada and around the world.

About NDRIO

The New Digital Research Infrastructure Organization (NDRIO) is a national not-for-profit membership-based organization playing a critical role helping to advance the establishment of a researcher-focused, accountable, agile, strategic and sustainable Digital Research Infrastructure (DRI) ecosystem for Canadian researchers.

Established in 2019, NDRIO works with other DRI ecosystem partners and stakeholders across the country to fulfill its mandate to transform how research data across all academic disciplines is organized, managed, stored and used. NDRIO's membership is composed of more than 140 of Canada's top universities, colleges, research hospitals and institutes, and other leading organizations in the DRI space.

NDRIO will help provide Canadian scholars and scientists with the digital tools, services and infrastructure they need to support leading-edge research, innovation and advancement across all disciplines. NDRIO's mandate is critical to all of Canada's academic researchers, our country's ability to remain globally competitive, and our collective ability to benefit society as a whole.

Guiding Principles

NDRIO's Guiding Principles anchor everything that the organization sets out to accomplish:

Researcher-Centric

The new organization and its programs and services will be driven by researcher needs. A researcher-centric culture will ensure that researchers have the opportunity to engage with the new organization; create awareness of, support for and facilitate adoption and use of DRI in research; and help ensure that all researchers across Canada have knowledge of and ability to access DRI services and platforms, regardless of their discipline, geographical location or size of institution.

Service-Oriented

The new organization will establish a culture of service and community engagement. A key focus of the organization will be to ensure minimal disruption to researchers as infrastructure and services are integrated into its national activities. A culture of service to researchers and engagement with the DRI community will be embedded in the organization. The organization will be agile and be able to respond to the rapidly changing nature of DRI. It will be lean and focused on providing quality services in a streamlined fashion.

Accountable and Transparent

The new organization will be accountable to its membership, to the research community and to its funder. Through clear, transparent and effective governance processes, the new organization will ensure its decisions are transparent and its operations effective. NDRIO will ensure appropriate operational and decision-making processes and practices, including arms-length peer-reviewed assessment of merit to ensure appropriate allocation of resources.

The organization will be accountable to and trusted by researchers and institutions. It will provide credible advice and information that is accurate, timely and relevant. It will create a secure and predictable DRI environment to foster research in Canada.

Striving for Excellence

The organization will support and facilitate the utilization of DRI by researchers in support of excellence in research in Canada. The new organization will also strive for excellence in its own activities and will promote Canada as a global leader in DRI activities.

Collaborative

The new organization will enable collaborative and efficient development of the services and supporting policies, standards, protocols, processes and procedures essential to supporting researchers in their work. The new organization will work to bring partners and stakeholders together, to work towards common goals, enhancing the ecosystem for all partners. The new organization will work to form partnerships and alliances within the ecosystem and can only succeed by working collaboratively with its partners. NDRIO will facilitate and support an environment of integrated DRI services for researchers through collaboration with CANARIE; other national DRI organizations; and regional, provincial, and local delivery layers.

Board of Directors

The NDRIO Board of Directors reflects the geographic and linguistic diversity of the country as well as the complexity of the DRI ecosystem. Directors have extensive experience and expertise in DRI domains including advanced research computing, research software and research data management.

The Board is committed to the principles of Equity, Diversity, and Inclusion (EDI) as fundamental to all aspects of NDRIO's operations, including its hiring processes and interactions.

CHAIR

Janet M. Davidson, O.C.

VICE-CHAIR

Peter MacKinnon

DIRECTORS

David T. Barnard
Donna Bourne-Tyson
Jennifer Doyle
Alexandra King
Chris Lumb
David MaGee
Gail C. Murphy
Sina Shahandeh
Jane Skoblo
Jeffrey Taylor
Denis Thérien
Deb Verhoeven
Martha Whitehead

Researcher Council

The Researcher Council is foundational to NDRIO's commitment to involve the Canadian research community in the design and delivery of a National Service Delivery Model to support an enhanced nation-wide Digital Research Infrastructure (DRI) Strategy. Currently consisting of a multi-disciplinary council of 22 researchers, regular meetings are held to ensure the diverse perspectives of Canada's research community are represented as NDRIO establishes a researcher-centric DRI ecosystem.

The Researcher Council was established through the Researcher Advisory Group, approved by the Board, and announced at NDRIO's Annual General Meeting in September 2020. In March 2021, Dr. Randall Sobie of the University of Victoria was elected Chair for the coming year. Preceding Dr. Sobie was Interim Chair, Dr. Guillaume Bourque of McGill University.

Randall Sobie
University of Victoria, Chair

Guillaume Bourque
McGill University, Inaugural Chair

Karen Bakker
University of British Columbia

Girma Bitsuamlak
Western University

Bruno Blais
Polytechnique Montréal

Susan Brown
University of Guelph

Carolyn Côté-Lussier
Institut National de la Recherche Scientifique

Constance Crompton
University of Ottawa

Carl D'Arcy
University of Saskatchewan

Rebecca Davis
University of Manitoba

Philippe Després
Université Laval

Erin Dickie
Centre for Addiction and Mental Health

Benoît Dupont
Université de Montréal

Laura Estill
St. Francis Xavier University

Benjamin Fung
McGill University

Anne Martel
Sunnybrook Research Institute

Erika Merschrod
Memorial University

Marie-Jean Meurs
Université du Québec à Montréal

Rebecca Pillai Riddell
York University

Erik Rosolowsky
University of Alberta

Pekka Sinervo
University of Toronto

Amol Verma
Unity Health Toronto

Operations and Objectives

Audited Financial Statements for the previous fiscal year

Audited financial statements for the year ending March 31, 2021 have been prepared in accordance with generally accepted accounting principles and have been approved by the NDRIO Board of Directors.

For the audited financial statements, as prepared by KPMG, please see Appendix C.

A statement of the total funding received by NDRIO from all sources in the previous fiscal year, including all government assistance, to support Eligible Activities

The Association received $7,836,500 in funding from Innovation, Science and Economic Development Canada (ISED) in 2020-21. Interest income on bank balances associated with ISED funding amounted to $20,097 and Membership fees revenue was $476,500.

A statement of the amount of the Contribution directed towards Eligible Costs in the previous fiscal year, detailed by category of Eligible Activities

2020-21 was the Association's second year of operations. The Contribution was directed entirely to the Eligible Activities and the Association incurred $6,345,045 in Eligible Costs as follows:

Eligible Activities	Eligible Costs
1) Leading and Coordinating Governance of the DRI Ecosystem (Operating)	$2,730,755
2) National Data Management Activities	$2,420,257
3) Management and Administration (General and Administration)	$1,194,033
Total	**$6,345,045**

The unspent ISED contribution at March 31, 2021 amounted to $2,132,664 of which $1,973,000 was ISED approved for carry forward into 2021-2022. The remaining $159,664 will be formally requested to be carried forward into 2021-2022 in the near future.

Amount of funding leveraged from other sources (if applicable) in the previous fiscal year to support Eligible Activities and Eligible Projects

The Association did not receive any funds from other sources in 2020-21.

A statement of objectives for the previous fiscal year, as set out in the relevant Corporate Plan, and a statement on the extent to which the Recipient met those objectives and any course corrections or deviations from the original objective that occurred

Because of the impact of COVID-19 on NDRIO's ability to engage with stakeholders, some of the planned activities in NDRIO's Corporate Plan for 2020-2021 have been rescheduled (with ISED's collaboration and approval). This mainly affected the Strategic Planning process and the launch of Inaugural Projects. Other deliverables, such as ISED's required reporting, for example, were not affected.

The following are NDRIO's revised objectives for the fiscal year 2020-21, and the extent to which NDRIO met those objectives:

Objective	Details	Extent to which the objective was met
Finalize NDRIO's governance, organizational structure, and HR plan	The inaugural Board of Directors established by-laws (approved at the Annual General Meeting in September 2020), as well as committee structures and supporting policy. NDRIO's first permanent CEO was recruited and started his mandate in October 2020. An organizational structure was developed and approved by the Board of Directors.	This objective is met. The recruitment of the Leadership Team was completed in April 2021.
Establish the Researcher Council	A Researcher Advisory Group, led by Dr. Guillaume Bourque, and composed of two members of the Board and four researchers, was mandated to prepare the Terms of Reference of the Researcher Council and to select its members. The Advisory Group presented the proposed slate for approval by the Board and AGM in September 2020. Dr. Guillaume Bourque was named as Interim Chair to ensure continuity. Dr. Randall Sobie was elected Chair in March 2021. The Chair of the Researcher Council is a member of the Board.	This objective is met. The Council composition respects our EDI principles, with room to grow in the area of Indigenous representation.
Articulate the strategic plan (to be delivered in Sept. 2021)	As an input to the Strategic Plan, NDRIO conducted a user-needs assessment, under the guidance of the Researcher Council. This assessment was composed of a series of consultations: • 105 Position Papers • Survey (1,380 responses) • Existing documentation for diverse organizations • 8 Town Halls (4 in English, 4 in French) NDRIO also developed a national current state assessment paper on research software (RS) with community input and updated the ARC and DM position papers that were prepared by the Leadership Council on Digital Research Infrastructure (LCDRI) in 2017-2018.	This objective is partially met. The phases leading to the Strategic Plan are ongoing.

Establish backroom finance and administrative functions, and management processes	Sub-committees of the Board were put in place to oversee Finance, Audit and HR. Policies were presented to the sub-committees and approved by the Board. A payroll system was selected and implemented, and a benefit program was elaborated and approved. In addition, a team was recruited for grant management.	This objective is met.
Define the NDRIO brand and establish communications mechanisms	A Stakeholder Engagement framework was developed and implemented, and a tool to manage communications was selected and implemented.	This objective is partially met. The branding exercise was delayed to align with the preparation of the Strategic Plan.
Build New Service Delivery and Funding Models, in collaboration with regions, host sites and other DRI partners	NDRIO recruited an external firm (Deloitte) to guide the development of the New Service Delivery and Funding Models. This work is done in collaboration with host-site institutions, regional groups and other institutions involved in the delivery of services to researchers to define the future state for service delivery and how activities will be funded.	This objective is partially met. The process was extended to include more community consultations and is now integrated with the Strategic Plan process.
Lead the development and delivery of initial projects (ARC – DM – RS)	NDRIO engaged the community to articulate initial project needs. The resources required to manage the program were hired. NDRIO also seconded a resource from SSHRC to help articulate the pre-award and post-award processes.	This objective is partially met. NDRIO waits final approval from ISED to launch the program.
Safeguard DRI resources through enhanced investments and coordination in cybersecurity	NDRIO collaborates with other organizations, including CANARIE, Compute Canada, Canadian Centre for Cyber Security, to establish a long-term national vision on cybersecurity. The delivery of a cybersecurity framework, in consultation with the community, is planned for March 2022.	This objective is met.
Develop a joint DRI Ecosystem Plan, working with CANARIE	The joint DRI Ecosystem Plan was developed with CANARIE, approved by the Boards of CANARIE and NDRIO, and delivered to ISED in January 2021.	This objective is met.

Develop transition plans, providing for continuity of service delivery and the assessment of existing HQP and infrastructure.	NDRIO participated in the preparation of a Transition Plan developed by CANARIE and delivered to ISED in January 2021. NDRIO also prepared a transition Plan with Compute Canada that was delivered to ISED in April 2021.	This objective is met.
Coordinate transition activities across organizations, at the management and governance levels	The transition process is being overseen by joint Board Committees with CANARIE and with Compute Canada. Joint executive committees were also put in place with both organizations to oversee the transition at a management level. A project manager was hired to prepare a detailed transition workplan and track progress.	The objective is met.
Lead development of a change management strategy and professional development plan	The development of a change management strategy and professional development plan were achieved through the implementation of different elements, including training allocation for staff. As part of this, an EDI training program was developed and delivered jointly with CANARIE. In addition, HQP were included in development of transition plans.	The objective is met.
Complete transition of DM – CARL Portage	The transition of Portage was completed for March 2021 with no impact on service delivery to researchers.	The objective is met.
Lead researcher, partner and stakeholder engagement and communications	A substantial number of engagement activities (meetings, town halls, presentations, etc.) reaching thousands of participants were held in 2020-2021. NDRIO improved its website and launched its presence on social media (LinkedIn, Twitter, and YouTube). NDRIO's CEO, Nizar Ladak, publishes regular blogs. Newsletters are also frequently shared with the community.	The objective is met.

A statement of the objectives of the current fiscal year and for the foreseeable future

Work undertaken in Year Three (2021-22) will focus on **1) continuing to build the new organization, 2) preparing NDRIO's 2022-25 Strategic Plan and 3) planning transition activities**. Core to all of this advancement is stakeholder engagement – encompassing first and foremost the research community, ecosystem partners and the DRI community.

Success for NDRIO in the years ahead will be defined by our ability to:

- Demonstrate NDRIO is well governed, well led and accountable, with clearly defined roles among organizations whose activities are being absorbed by NDRIO.
- Bring access to stable federal and provincial funding through new models that are predictable and reflective of national services.
- Transition services without disruption to researchers.
- Enable service support to a full range of research services. This includes building capacity in the system for innovation and experimentation in how services are delivered.
- Achieve Member satisfaction.
- Retain Highly Qualified Personnel, creating new opportunities for skills and career development, new opportunities for innovative work, and predictability with respect to roles and needs.
- Improve Canada's international reputation and impact in the DRI and academic research space.

As the New Digital Research Infrastructure Organization (NDRIO) moves from 'start-up' to 'scale-up' in 2021-2022, the organization will focus on the following objectives.

Stream 1: Build the Organization		
	Activities / Outputs	Outcomes
1) Further refine communications mechanisms	• Membership Plan • New brand and visual identity • Refreshed website • Equity, Diversity and Inclusion (EDI) Policy & Plan • Official Languages Policy & Plan	• Member, researcher and stakeholder awareness, knowledge and satisfaction with NDRIO • Demonstrated leadership in EDI
2) Provide RDM services to the researcher community	• Provide RDM tools, platforms, processes, standards, and procedures • Provide expert advice, support, and training in RDM best practices • Support a growing community of practice	• Maintained continuity of services to users • Researcher, disciplinary and institutional RDM needs are met • Improved research visibility, reusability and impact

Stream 2: Prepare NDRIO's 2022-25 Strategic Plan		
	Activities / Outputs	Outcomes
3) Build the National Service Delivery and Funding Models, in collaboration with regions, host sites and other DRI partners	• Work with ISED, CANARIE, Compute Canada, CARL, regions, host sites and other institutions involved in the delivery of services to researchers to define National Service Delivery and Funding Models.	• Clear, harmonized and effective DRI service and funding delivery to Canada's researchers • Researcher and stakeholder satisfaction
4) Prepare Strategic Plan under Board Leadership	• National vision and mission for DRI • Key priorities • SWOT analysis • Desired states (ideal, feasible) • Transformation plan: Moving from current state to desired state, including HQP resource planning, retention and development. • Roadmap • Budget	• Clarity of purpose, Key Performance Indicators (KPIs), activities and resource requirements to achieve the vision • Community alignment / social licence to implement the strategy
5) Prepare a Funding Request based on the Strategic Plan to be presented to ISED		• Sustainable funding • Continuity of service to Canada's researchers
6) Safeguard DRI resources through enhanced investments and coordination in cybersecurity	• Collaborate with other organizations to prepare a cybersecurity framework	• Enhanced protection of Canada's Digital Research Infrastructure from cybersecurity threats

Stream 3: Coordinate Transition Activities

	Activities / Outputs	Outcomes
7) Commence implementation of transition plans, providing for continuity of service delivery and the assessment of existing HQP and infrastructure	• CF – ARC • CANARIE – RDC/RDM and RS	• Continuity of service to Canada's researchers • HQP / talent retention
8) Coordinate transition activities across organizations, at the management and governance levels	• Considering the National Service Delivery and Funding Models, establish agreements with regions, host sites and institutions • Review staff status, either through direct hires, secondment agreements or contracts • Transfer licenses, and assets	• Transitions are executed well • Risks are identified and mitigated • NDRIO's reputation is enhanced
9) Lead development of a change management strategy and professional development plan	• Support NDRIO employees, incoming staff and highly qualified personnel (HQP) in transition	• HQP / talent retention

Core to All Work Streams: Stakeholder Engagement

	Activities / Outputs	Outcomes
10) Lead researcher, partner and stakeholder engagement and communications	• Participate in relevant national and international associations	• Member, researcher and stakeholder awareness, knowledge and satisfaction with NDRIO • NDRIO's reputation is enhanced

2021-2022 Delivery Timeline

October 2020	**Transition Milestone #1** CARL Portage Research Data (RDM) Funding from CANARIE Ends and CARL Portage Integrates with NDRIO
April 2021	Operational Transition Plan (Compute Canada)
From January 2021	Development and Delivery of Initial Projects
May 2021	Draft National Service Delivery and Funding Models
September 2021	Organization Name and Brand Identity
	Delivery of the 2022-25 Strategic Plan
December 2021	Funding Proposal to ISED
March 2022	Cybersecurity Framework
April 2022	**Transition Milestone #2** ISED ARC Expansion Program Funding Ends and NDRIO Funding Leadership Begins
	Transition Milestone #3 Canadian Foundation for Innovation Major Science Initiative Funding (Operations) Ends and NDRIO assumes full leadership of ARC
	Transition Milestone #4 Research Data Management (RDM) and Research Software (RS) Funding from CANARIE Ends and NDRIO assumes full leadership of RDM and RS Functions

An updated statement of investment policies, standards and procedures

Attached as Appendix A and B are the Statements of Investment Strategy and Investment Policy respectively, as approved by the Board of Directors.

Criteria that were applied to select the Eligible Projects

NDRIO did not have any Eligible Projects in this fiscal year.

Summary of results of any program evaluations, performance audits or risk assessments

NDRIO did not have any program evaluations, performance audits or risk assessments to document in this fiscal year.

A statement of remuneration setting out the total amount of remuneration paid to each employee, officer and director of the Recipient whose remuneration in that year exceeded $100,000

For the year ending March 31, 2020, the following positions are expected to be paid remuneration that exceeds $100,000 (including any fee, allowance or other benefit):

Compensation Range

Permanent Staff

- CEO - $261,400- $392,100 (Annual Compensation)

CEO - The CEO commenced their role on October 5, 2020. Compensation paid in fiscal 2020-21 exceeded $100,000.

Interim Staff

Compensation Range - $165,000 - $275,000

- Interim Executive Director. The contract term for the Executive Director ended on October 4, 2020. Compensation paid in fiscal 2020-21 exceeded $100,000.
- Interim CFO
- Interim Director, Strategy and Planning/VP Strategy and Planning
- Interim Lead - Human Resources
- Procurement and Project Co-ordinator

Compensation Range -$120,000 - $200,000

- Interim Director, Policy, Governance and Membership Development

Compensation Range - $104,000 - $156,000

- Senior Financial Specialist

The following positions are officers of the Corporation:

- CEO - effective October 5, 2020
- Interim Executive Director - until October 5, 2020
- Interim CFO
- Vice President - Corporate Services and CFO
- Director, Policy, Governance and Membership Development - until September 30, 2020.
- Board Secretary

In keeping with many other national Boards in this sector, all NDRIO Board roles are voluntary in nature. The NDRIO By-Laws do not allow remuneration for Directors. Travel expenses will be reimbursed for any reasonable out-of-pocket expenses incurred while performing Directorial duties or attending NDRIO meetings.

An account of performance and activities undertaken to advance equity, diversity and inclusion in the past year as outlined in the relevant Annual Corporate Plan, including performance indicators where applicable

We recognize that Canada's DRI ecosystem is further strengthened, research quality is enhanced, and social relevance and impact are improved when all groups contribute to research and innovation. As such, NDRIO is committed to ensuring that Canadian researchers have equitable opportunities to participate in the ecosystem and that principles of Equity, Diversity and Inclusion (EDI) are embedded into our organizational culture.

The creation of an equitable, diverse and inclusive research ecosystem requires participation of all Members and stakeholders, and NDRIO is committed to supporting its partners and community in moving this endeavour forward.

In support of our Governance and Membership Model, we seek diverse representation through the institutional and industry stakeholder communities we serve. This includes diversity of personal and demographic characteristics represented in Canadian society including gender, sexual orientation, ethnicity, age, business experience, functional expertise, personal skills, geographic location and other areas.

The composition of NDRIO's inaugural Board of Directors, announced last fiscal year, remains consistent with 53% female Directors, Indigenous representation, as well as linguistic and geographic diversity.

NDRIO's Researcher Council is also committed to diverse representation. In the formation of the inaugural Council, targeted outreach took place based on measurable goals and best practices in position posting, search, and selection. With EDI principles central to the recruitment and outreach process, the inaugural Council formed in September 2020 exemplified a strong group of researchers with highly diverse backgrounds. Just over 50% of the Researcher Council identifies as women, 25% as visible minorities, and two with a disability. Additionally, 57% of the Council can communicate in both of Canada's official languages.

While the results of this Researcher Council recruitment outreach were strong, we continue to focus on deepening engagement with the Indigenous research community for future participation on the Council. In the interim, remedial action is taking place to ensure Indigenous researcher participation through Council advisory committees or groups. Outreach efforts will continue in an effort to ensure lasting Indigenous researcher involvement with the Researcher Council.

Public commitments toward increased representation and recognition of diverse groups will involve participation in the Government of Canada's "50-30 Challenge." This Challenge asks that organizations aspire to two goals:

1) Gender parity ("50%") on Canadian board(s) and senior management; and,
2) Significant representation ("30%") on Canadian board(s) and senior management of other under-represented groups, including racialized persons, people living with disabilities (including invisible and episodic disabilities) and members of the LGBTQ2+ community. The program and participants recognize that First Nations, Inuit and Métis peoples as founding peoples of Canada are under-represented in positions of economic influence and leadership.

The "50-30 Challenge" will be an important accountability mechanism for NDRIO to ensure increased representation and inclusion of diverse groups, while highlighting the benefits of EDI to our overarching organizational goals.

We acknowledge that challenges remain in achieving the full participation of equity-seeking groups (including women, Indigenous Peoples, persons with disabilities, members of visible minority/racialized groups, and members of the LGBTQ2+ community) in research careers and we are committed to identifying and eliminating barriers that may exist within our own hiring process, programs and practices. In that regard, our inaugural CEO Nizar Ladak, a visible minority himself, set and achieved a target of gender parity among NDRIO's Senior Leadership Team. Under his stewardship, NDRIO also aspires to achieve a target of 30% of all staff identifying as members of underrepresented groups.

Between late 2020 and early 2021, we began to formalize our interim EDI planning roles and responsibilities within the NDRIO team, and sought partnership opportunities with CANARIE on EDI training and Action Plan development. In parallel, we began internal and external consultations to inform the development of our Official Languages Communications Guidelines. Going forward, it will be crucial to build on this progress in EDI planning through continued feedback and engagement with the NDRIO team, Researcher Council, Board, Members, and various stakeholders.

Researcher Council
Stories

The Researcher Council is a key part of NDRIO's governance model to help advance the work and growth of NDRIO. Members are multi-disciplinary, with extensive experience and expertise in DRI domains including advanced research computing, research software and data management.

Meet some of our Researcher Council Members and learn more about their exciting work

Girma Bitsuamlak

Western University

Hurricane and tornado-proofing the world's built treasures

Many of the world's most iconic structures, such as the Freedom Tower in New York City, the International Commerce Centre in Hong Kong or the Burj Khalifa in Dubai — had a Canadian professor guiding the extreme wind-proofing necessary for their structural integrity.

Girma Bitsuamlak has consulted on the wind-proofing of some of the world's most high-profile buildings, as a consultant and professor in the Western University's Civil and Environmental Engineering department and as the Canada Research Chair in Wind Engineering. Bitsuamlak is also the director at the WindEEE Research Institute and the Boundary Layer Wind Tunnel Laboratory and the site leader for Sharcnet at Western.

"What I do is design buildings in a sustainable manner," Bitsuamlak says. "I also design buildings that are resilient to extreme climate stressors, including extreme wind and weather, structures that can withstand tornadoes, hurricanes or downburst. Designing for wind is not something new; we have been doing it for the last half of the century but designing for tornadoes or downburst is new."

Bitsuamlak, whose WindEEE Institute houses a first-of-its-kind tornado generator, is frequently called upon by governments that want to know what kind of risk exposure communities might have to tornados.

The historical Boundary Layer Wind Tunnel Lab is another experimental facility. "This is the facility that has tested most of the world's landmark buildings for wind," Bitsuamlak says. "The World Trade Centre, the CN Tower, the Sears (now Willis) Tower and many other iconic buildings worldwide were studied at the Western Wind Lab."

While the study of typical wind is complex itself, wind coupled with heat, rain, wind-born debris, snow, ice, or pollution in cities during major climatic events is even more so. "That is where the supercomputing work comes in," Bitsuamlak says. "We do some work in the experimental lab, but more and more, we are using a computational approach using Sharcnet."

> *"It is amazing how the computational resources help us improve the experimental research and how the laboratory experiments help develop and validate the computational models.*

Bitsuamlak has been instrumental in finding solutions to these multi-physics problems in cities by utilizing computational modelling capabilities.

"I invest my time equally in computational and laboratory experiments, and they fuel each other," he says. "It is amazing how the computational resources help us improve the experimental research and how the laboratory experiments help develop and validate the computational models. This approach propels both computational and experimental research."

He says DRI resources allow his team to do a "more holistic" design incorporating climate resilience, sustainability, and net-zero energy goals.

Bruno Blais

Polytechnique Montréal

How computers can model mixing

Bruno Blais has his finger many pots — at least figuratively. Mastering the art of stirring or mixing are the mainstays of his research work, but he doesn't use spoons or whisks to accomplish his tasks. Instead, he uses super computers.

Indeed, the Research Center in Industrial Flow Process (URPEI) at Polytechnique Montreal, of which Prof. Blais is a member, would not exist without high-performance computing. Using these computers, Blais and his team develop, verify and validate "high-performance digital models for fluid mechanics, heat transfer and complex multi-physical and multi-scale phenomena."

Put more simply, their work brings in chemical and mechanical engineering, applied math and computer science to an area called computational fluid dynamics, which is "anything that flows." Air, water or other liquids are all considered fluids for the purposes of his job.

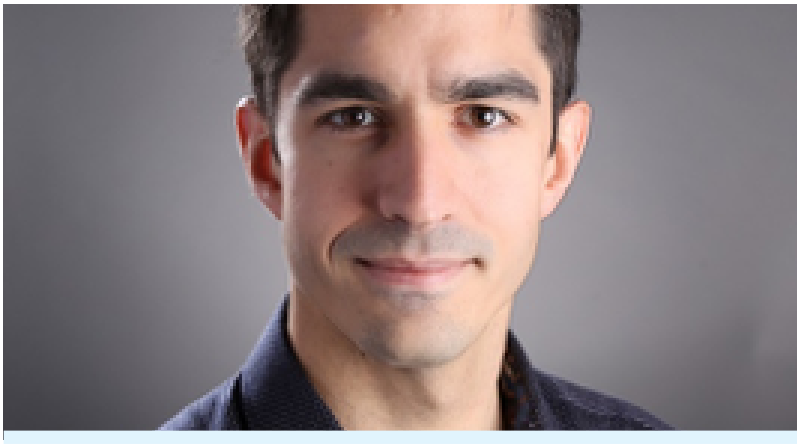
"Predicting the motion of fluid is difficult because fluids have a complex dynamic," he says, and that's where computing comes in.

Blais users high-performance computing to guarantee a chemical process has a good yield, doesn't waste product and has efficient energy consumption.

"To do that, you need to understand what is going on within the chemical process" — something he does using computer modelling.

His work with the private sector extends broadly, from a chemical process electrification and polymer recycling company called PyroWave and Pratt & Whitney's motor division, to a bakery in Sherbrooke and a carbon capture company in France.

"Mixing is the same as putting sugar in coffee," he says. "If you just let it sit, it would take forever to mix in, so you take a spoon and blend it. But at the industrial scale, it's much more complex. If I have a vessel that's several metres tall and I'm putting different components in it, I can't just use a spoon. There you need an agitating system. But that's complicated. How should it be designed so it mixes in the least amount of time as possible? Should it be round, flat, tall? If we can simulate how the coffee would move, we can predict the same thing with the agitator in the mixing vessel regarding how long will it take to blend."



> *"high-performance digital models for fluid mechanics, heat transfer and complex multi-physical and multi-scale phenomena.*

Mixing is critical for some suppliers.

"Say a pharmaceutical company wants to make a pill," he says. "The active ingredient is tiny; there's a lot of non-active to put in the pill. They'll want to create a homogenous mixture of powder, but some granular components tend to segregate. If this happens with your pill, you're doomed. That's a classical application."

Guillaume Bourque

McGill University

Fighting COVID with genetics

Guillaume Bourque has been on the front lines of the fight against COVID since the pandemic began. His weapons? A computer and some genome scans.

A professor at McGill University's department of human genetics, Bourque studies genetics to understand disease in humans and one of his current projects looks why some COVID patients have mild symptoms while others are hospitalized with severe symptoms.

"We take the two cohorts of COVID patients and compare their genomes and look for genetic differences that might explain the different reactions," Bourque says. "But it's not just genomes, it's also other factors, such as whether you've been exposed to similar viruses before, so we need to collect genetic and other information, such as whether that person's been vaccinated."

Bourque says just organizing so much data is a challenge, so in addition to working on the genetic analysis, his lab specializes in data organization and data collection.

"Working with hospitals is also a challenge," he says. "How do you collect information in a way that will be secure and also make sure you have patient consent?"

In addition, for meaningful results, he needs to expand the study across the country.

"You want to build a federated database," he says. "So you might have study in Quebec and Ontario. You're not putting them together, but you're organizing them so you can compare them. If we're able to do that, we can look at COVID across the country and potentially connect to databases in other countries as well."

Bourque's cancer research is similar. He profiles the genomes of patients with a particular cancer. One finding has shown never-seen-before mutations in pediatric brain tumours that are genetically different from adult brain tumours.

> *"But it's not just genomes, it's also other factors, such as whether you've been exposed to similar viruses before, so we need to collect genetic and other information, such as whether that person's been vaccinated.*

"It's not as though you then have a cure, but just to understand this is something," he says. "And then there's additional work to look for potential earlier detection or, ultimately, therapies. But step one is to understand at that molecular level what exactly is happening."

When Bourque sequences a genome, he breaks it up into small pieces and then sequences all the pieces multiple times. It ends up being a computational challenge to sequence even one genome so that's where DRI resources come in.

"With COVID, the objective is to sequence 15,000 patients in the next year or so," he says, adding that he uses high-performance computing, research software and research data management.

Carolyn Coté Lussier

Institut National de la Recherche Scientifique

Innovating in the fields of crime and safety

When Carolyn Coté Lussier describes herself as "a very interdisciplinary researcher," she's not kidding. The assistant professor of urban studies at Montreal's Institut national de la recherche scientifique has a background in criminology, social psychology, social research methods and public health. Her current work incorporates all of it.

In the first of three research streams, she studies intergroup relations, examining stereotypes about criminalized individuals and how they affect the way society feels about crime and criminals and how those opinions affect justice policy preferences. She sometimes uses surveys, but also psycho-physiological ways to measure emotion.

"I measure facial micro-movements when people look at pictures of alleged criminalized individuals," Côté-Lussier says. "I try to detect the emotions they're feeling and how those emotions impact their attitudes towards crime."

Her second stream of research grew from her post-doctoral fellowship in social preventative medicine. Working with doctors, epidemiologists and kinesiologists, she developed a social-epidemiological model to see how individuals perceive their environment in relation to crime and safety. She then looked at how those perceptions impact health outcomes, including physical fitness and mental wellness. Her public health research draws from secondary datasets including from large cohort studies, Statistics Canada and Geographic Information Systems.

"Looking at wider and broader datasets helps us better understand neighbourhood environments," she says.

Her third research stream is refining and developing better and more accessible social research measures. She's currently developing a project using a volunteered geographic information system.

> *"Looking at wider and broader datasets helps us better understand neighbourhood environments.*

"I'll be asking citizens to pin on a map where they were stopped by police," she says, adding that she'll also ask about their experiences. "That kind of data is controlled by certain institutions so I'm looking for a new way to measure these things."

She's also interested in contributing to open-access data.

"People will be able to see the spatial distribution of police stops," she says. "The programming will be placed on an open repository so that anybody could do the same thing with their city. It's an open citizen science approach."

Her interest in making research data and methods accessible, and in reducing social inequities, represent some of the expertise she brings to the Researcher Council.

"World-class science requires equity, diversity and inclusivity in science," she says. "We need to work to reduce inherent biases, for instance, in field such as artificial intelligence and machine learning, which are notoriously dominated by men."

Rebecca Davis

University of Manitoba

‘Making atoms come together’ to help human health

Thanks to the breadth of her work in chemical biology, Rebecca Davis gets to work on everything from early detection of Parkinson’s Disease and antibiotic resistance to new areas in research into cancer and multiple sclerosis.

“That’s the glory of what I do,” says Davis, who is an associate professor at the University of Manitoba. “Drugs have specific targets and behave in very different ways and that’s based on how they interact. But I’m only interested in the reaction, so that allows me to work in numerous fields. We’re looking at gene protein interactions and how to modulate those so we get to solve various problems because the level I’m working at is fundamental to all of them.”

Simply put, Davis creates quantum mechanical and molecular mechanical models to try and understand how molecules interact with one another.

“I deal in a world where we can’t see what we’re studying,” she says. “We’re using everything physics can give us to try and explain and predict the world around us and life in particular.”

Her goal is to understand how things such as drugs and potential drug toxins interact in biological systems so that, in a perfect world, she and her team can help to develop new drugs. Known as the Davis Research Group, the team also looks to understand how the compounds it makes interact with each other so it can approach design of drug development more rationally in the future. Another area of study is trying to understand what toxins from the environment are interacting strongly in human bodies.

“We’ve moved into focussing on green methods to make compounds and we do a lot of modelling on methods we think might work,” Davis says. “We take the quantum mechanical realm and then try to make atoms come together in new ways.”

> *“Most of the DRI resources that I employ have been heavily in the modelling because we deal in very complex models and we need a lot of data.*

Davis and her team rely heavily on modelling and high-performance computing (HPC). In fact, Davis says, her field wouldn’t exist without HPC.

“Most of the DRI resources that I employ have been heavily in the modelling because we deal in very complex models and we need a lot of data,” she says.

Quantum mechanics is very advanced and “computationally expensive” because it’s modelling multiple atoms coming together.

“My field simply wouldn’t exist without these resources. They’re the foundation of everything we do.”

Laura Estill

St. Francis Xavier University

Mining Shakespeare's gold

Laura Estill finds some interesting things when she's scouring old manuscripts. The associate professor of English and Canada Research Chair in Digital Humanities at St. Francis Xavier University studies how plays by Shakespeare and his contemporaries have been received — from their earliest moments of performance and publication to the present day.

The manuscripts she studies provide handwritten evidence of how people interacted with Shakespeare's work, whether they were reading or attending a performance.

"I have some fantastic examples of people using Shakespeare's plays to find pickup lines," Estill says. "Or examples of plays that we no longer read anymore being someone's favourite, or lines that become proverbs."

The challenge with studying centuries-old manuscripts is that they are in repositories around the world and exist only in a single copy that often has not been digitized. That's where Estill's research comes in: She creates manuscript transcriptions to make the contents of the manuscripts searchable using metadata, so scholars — and even everyday people — can better understand how people read and understood these examples of early modern drama.

After she transcribes the manuscripts, she encodes them using TEI, an XML language that can be used to create digital editions or websites.

"Increasingly, making manuscripts searchable is going to change the way we understand reception history," Estill says. "I am also interested in how we represent these plays online, through the digital resources we create to understand literature. What do we highlight and emphasize, and what gets pushed to the margins?"

Estill's digital project, DEx: A Database of Dramatic Extracts, also involves manuscript study. It can show, for example, which plays people copied from the most and which character a given reader preferred. She's working on this project with colleague Beatrice Montedoro, of the University of Zurich.

> *"I am also interested in how we represent these plays online, through the digital resources we create to understand literature. What do we highlight and emphasize, and what gets pushed to the margins?*

"None of that is in the original manuscripts," Estill says. "They don't usually say 'Here's a passage from Othello.' They'd just write the passage down. We add all of that metadata to make it searchable."

She says it's important to fund digital projects in the humanities as 45 per cent of them end up being abandoned within 10 years of being launched.

"People are creating these resources, but then they're being lost because of funding, or challenges with evolving platforms," she says. "The humanities face a research data management crisis."

Estill uses research software and research data management tools to do her work.

Marie-Jean Meurs

Université du Québec à Montréal

Building elegant models for tough problems

Marie-Jean Meurs has a background in theoretical math, applied math and computer science. So why is she studying the mental state of social-media posters and the health of urban forests?

"I like applying elegant mathematical models to address real-life problems," Meurs says. "For more than 10 years, I've been working mostly with colleagues in different disciplines. The real fun for me is working with people in other fields because I learn so much from them. That makes it very interesting, so that's what we do in my research group."

To that end, for the past five years, she and her team of 10 have been working with colleagues in psychiatry to provide indications on the mental state of people based on what they write on social media. She's keen to provide practitioners and patients with tools to help with their diagnoses and support.

"We're not doing diagnosis, we're just trying to help," she said. "The practitioners can't read thousands of messages [but using computing], we can go into a lot more volume of content."

Meurs, associate professor with the department of computer science at the University of Quebec in Montreal, and her team build language models using algorithms with the hope that the information they garner helps practitioners with a diagnosis or with patient interaction.

"When you meet with your psychiatrist, you talk about your life," she said. "You won't share your online life. It's interesting what our tool can create in terms of new interactions and links between the patient and the doctor."

Her second project involves protecting urban forests. For instance, in the city of Montreal, whose ash trees are being destroyed by the infamous emerald ash borer, replacing the trees is critical so officials want to do it right, picking trees that will look good, integrate well with city streets and provide as many climate-change proofing benefits as possible.

> *"The practitioners can't read thousands of messages [but using computing], we can go into a lot more volume of content.*

To that end, she and her team built open-source software with which communities can interact. It maps the city, offers an inventory of existing trees and advice about what trees would be good to plant where. It also includes a heat map.

She says she couldn't do either project without high-performance computing.

"The amount of data isn't so big," she says. "It's more about the complexity of the calculation. Even with a small amount of data, your model can be quite huge."

Rebecca Pillai Riddell

York University

Why sick infants might think adults 'suck'

Rebecca Pillai Riddell remembers being in grad school when she read about a 1950s study featuring physicians talking doing major surgery on infants without using pain medications and discussing post-operation survival rates.

"I learned that because the babies didn't die, they considered them not to have experienced pain," explains Pillai Riddell, a psychology professor and associate vice-president of research in York University's Faculty of Health. "It was more considered more dangerous to perform open-heart surgery on an infant with pain medication than without. The worst part is that they knew the baby would squirm around so they would use paralytic drugs."

It was at that point, she decided to study infant pain for the rest of her life. "I knew I had to raise the profile and understanding of babies' pain." Pillai Riddell discusses her decision in a TEDx talk titled "Why Infants in Pain are Allowed to Think Adults Sometimes Suck."

She wants parents and health-care practitioners to understand pain in infants. To that end, she orchestrated one of the largest studies of infant pain the world. Her team followed 760 infants and their caregivers over their first year of life, looking at how the infants reacted when they were given vaccines. They were able to follow up with 300 pairs when the children were preschoolers.

To further that research, Pillai Riddell was about to launch a major study with collaborators in the U.K. in March 2020 when COVID shut them down. She's hoping to restart that work, which will bring together social, natural and health scientists using artificial intelligence solutions to figure out how we know a premature baby is distressed from pain versus being distressed from other things.

"Right now, bedside monitoring uses heartrate, how much oxygen they're using and facial behaviour," she says. "All of those happen when you're stressed, from pain or not."

> *"Until my recent project, I had no knowledge of high-performance computing or digital research infrastructure, but I'm excited to bring a perspective to NDRIO that reaches out to a new cohort of users who are evolving research programs that will require digital research infrastructure.*

She plans to use EEG and cortical mapping to determine when pain happens. Both projects will require mass computing and storage.

Pillai Riddell's delighted to be on NDRIO's Researcher Council because she knows the future is digital.

"Until my recent project, I had no knowledge of high-performance computing or digital research infrastructure, but I'm excited to bring a perspective to NDRIO that reaches out to a new cohort of users who are evolving research programs that will require digital research infrastructure."

Randall Sobie

University of Victoria

Understanding the nature of the universe

Randall Sobie has spent his career trying to understand the nature of the universe, including its fundamental particles and the forces with which they interact.

"To understand the universe, you need large devices," says Sobie, professor and director of the Subatomic Physics and Accelerator Research Centre at the University of Victoria. "We're looking back in time to the origin of the universe — the Big Bang."

He uses accelerators — which he says are essentially microscopes — to look at smaller and smaller dimensions. One such accelerator, which is located at the CERN laboratory in Geneva, is a 27-kilometre tunnel and the energy of the particles that go through it is equal to that of an undercar freight train. That's useful when one's goal is to make the particles collide and examine how they interact.

"This gives us a feeling for the nature of the universe; it allows us to understand basic concepts and then maybe eventually, you'll find an application," he says.

The applications that have come from particle physics are innumerable. Electricity came to be because physicists learned how electrons interact. Nuclear isotopes, now are commonplace in hospitals for cancer treatment and imaging, are similarly useful applications that came out of the science. Then there are more tangential spinoffs, including the internet, which was developed because physicists worldwide needed to communicate.

"That's an example of how something that spun out of basic research has changed the way we do things," Sobie says.

In addition to working with Canada's academic team at CERN, Sobie is working on a Japanese project trying to find out where the world's anti-matter went. "The universe was created with equal amounts of matter and anti-matter; the project in Japan will help us understand why the anti-matter has disappeared."

> *"We collect billions of particle collisions per second and select the most interesting ones. The collision data collection is extremely large and is distributed to centres around the world, including some in Canada.*

For Sobie, DRI resources are invaluable.

"Our experiments collide particles in the middle of large detectors, which are like electronic cameras," he says. "We collect billions of particle collisions per second and select the most interesting ones. The collision data collection is extremely large and is distributed to centres around the world, including some in Canada."

The Canadian and international computing centres analyze the particles in the collisions and help understand the nature of the universe. "These computing resources in Canada are a key contribution to international projects," Sobie says. "They are critical to our research and they help contribute to Canada's reputation abroad."

Canadian Digital Research Infrastructure Needs Assessment- Reflections

Led by the NDRIO Researcher Council, the Canadian Digital Research Infrastructure Needs Assessment was launched on October 22, 2020, to help identify and address DRI and service requirements for the future. To date, the consultations have resulted in 105 Position Papers, 40 Current Documents and 1,380 survey responses.

NDRIO's Senior Analysts offer their insights into Position Paper submissions, which describe individual perspectives on current challenges accessing DRI tools, services and support; the ideal future state of DRI in Canada; and how NDRIO could achieve such a state.

Seppo Sahrakorpi, Senior Analyst- Advanced Research Computing

Seppo was inspired by the breadth and depth, and variety of all the Position Paper submissions. The Canadian research landscape is wide and varied and the potential and need for leveraging digital research infrastructures seems unlimited. Seppo is taken aback by the challenges NDRIO is facing, trying to serve these needs with limited resources that we understandably have available. Clearly the key challenge will be to build infrastructure and services that balance the needs of traditional heavy users while building new services, and improving awareness and accessibility of the DRI ecosystem to new communities and disciplines. The importance and central role of the highly qualified personnel in this endeavor cannot be understated.

Shahira Khair, Senior Analyst – Research Data Management

The level of engagement that we have received from the broader Canadian research community in supporting our information needs has been inspiring. It is a highly complex environment and the community is seeking support in improving both awareness and access to funding opportunities, services, and support. Sustained outreach and communication with the community is crucial to ensure effective development of future systems, platforms, and services.

Felipe Pérez-Jvostov, Senior Analyst – Community Engagement & Planning

It is extremely encouraging to see so many diverse players participate in NDRIO's consultation. From local representatives to national service providers, and from graduate students to established scholars, the Canadian DRI community provided important perspectives for NDRIO to consider as it establishes as a national-researcher oriented organization. The feedback we received was rich and concise, and we are now faced with the important task of responding to the challenge and addressing the needs that we've heard loud and clear. It is a very exciting time for DRI in Canada!

Qian Zhang, Senior Analyst – Planning and Operations

Among 105 submitted Position Papers, over 1/5 were dedicated to research software (RS), along with many others that talked or mentioned RS. Out of those RS-focused PPs, over 55% focused on RS-based research platforms and/or services while the rest on RS tools. From the perspective of domain coverage, it encompassed all disciplines but also reflected domain-specific needs in non-traditional data-/compute-intensive communities such as humanities and social sciences (HSS). By highlighting the current RS challenges from both the cultural and societal, as well as technical perspectives, the RS-PPs also proposed corresponding mitigation recommendations, and more importantly on how to effectively integrate RS with other components (DM, ARC and cybersecurity) of the DRI ecosystem.

Members

NDRIO is a member-based organization, with representation from post-secondary institutions, research hospitals, colleges, and related organizations across Canada. Our Members play a vital role in supporting and guiding our work and governance.

Our membership has remained steady since our initial membership drive, and we continue to reach out to prospective members to increase engagement across the Canadian research ecosystem.

70 Universities
23 Colleges
16 Research Hospitals / Institutions
32 Digital Research Institutes

141 Total members as of March 31, 2021

Members - as of March 31, 2021

Primary Members

Athabasca University
Baycrest
Bow Valley College
British Columbia Institute of Technology (BCIT)
Brock University
Carleton University
Centre for Addiction and Mental Health
CHU Sainte-Justine
Concordia University
Dalhousie University
École de technologie supérieure (ÉTS)
HEC Montréal
Hospital for Sick Children
Kwantlen Polytechnic University
Lakehead University
McGill University
McMaster University
Memorial University of Newfoundland
Queen's University
Royal Military College of Canada
Ryerson University
Saint Mary's University
Simon Fraser University
St. Francis Xavier University
Sunnybrook Research Institute
Unity Health Toronto
Université de Montréal
Université de Sherbrooke
Université du Québec à Chicoutimi (UQAC)
Université Laval
Université TÉLUQ
University Health Network (UHN)
University of Alberta
University of British Columbia
University of Calgary
University of Guelph
University of Manitoba
University of New Brunswick
University of Ottawa
University of Prince Edward Island
University of Regina
University of Saskatchewan
University of Toronto
University of Victoria
University of Waterloo
University of Windsor
Western University
Wilfrid Laurier University
York University

Associate Members

Acadia University
ACENET
ACORN-NS
Amii (Alberta Machine Intelligence Institute)
Aurora College
BCNET
Brandon University
CalculQuebec
Cambrian College of Applied Arts & Technologies

Canadian Astronomical Society (CASCA)

Canadian Astronomy Data Centre

Canadian Federation for the Humanities & Social Sciences

Canadian Institute for Health Information (CIHI)

Canadian Research Data Centre Network

Canadian Research Knowledge Network (CRKN)

Canadore College

CANARIE

Cape Breton University

CARL

Centre de documentation collégiale

Compute Canada

Compute Ontario

Concordia University of Edmonton

Conestoga College

Council of Prairie and Pacific University Libraries (COPPUL)

CUCCIO

Cybera

Durham College

École Polytechnique (Polytechnique Montréal)

École nationale d'administration publique (ENAP)

Emily Carr University of Art and Design

Fanshawe College

Fleming College

Fraser Health Authority

George Brown College

Georgian College

Grande Prairie Regional College

Health Data Research Network Canada

Health Sciences North Research Institute

Humber College

ICES

Institut national de la recherche scientifique (INRS)

Institute of Particle Physics

Lambton College

Lawson Health Research Institute

Lunenfeld-Tanenbaum Research Institute, Sinai Health

MacEwan University

Mila

Mohawk College of Applied Arts and Technology

Mount Royal University College

Mount Saint Vincent University

MRnet

NB/PEI Educational Computer Network

Niagara College

Northern Alberta Institute of Technology (NAIT)

Nova Scotia Community College

NSCAD University

Ocean Networks Canada

Ontario Brain Institute

ORION

Red Deer College

RISQ

Royal Roads University

Saskatchewan Polytechnic

Selkirk College

Seneca College

Sheridan College Institute of Technology and Advanced Learning

SNOLAB

Southern Alberta Institute of Technology (SAIT)

SRNet

St. Joseph's Healthcare Hamilton

Thompson Rivers University

Trent University

TRIUMF

Université de Moncton

Université du Québec

Université du Québec à Montréal (UQAM)

Université du Québec à Rimouski (UQAR)

Université du Québec à Trois-Rivières (UQTR)

Université du Québec en Abitibi-Témiscamingue

Université du Québec en Outaouais

University of Northern British Columbia

University of Ontario Institute of Technology

University of Ottawa Institute of Mental Health Research

University of the Fraser Valley

University of Winnipeg

Vancouver Island Health Authority

Vancouver Island University

Vector Institute

Waypoint

World Data System

Yukon University

Appendix A

11593765 Canada Association
Statement of Investment Strategy

June 11, 2020

Purpose

The purpose of this document is to establish a strategy best suited to meet the needs and objectives of 11593765 Canada Association's (Association) investment portfolio. This document is specifically intended to meet the requirements of s 5.6.6 (b) of the Contribution Agreement(s) between the Association and Her Majesty in Right of Canada.

Strategy

The Association's investment strategy is specifically tailored to the duration and quality constraints imposed by the Statement of Investment Policy. These constraints, while deemed appropriate and necessary to meet the overall objectives of the Association, preclude adding value through active investment management. This conclusion is reached due to the "tightness" of the constraints, tightness which does not allow enough latitude for active investment management to be effective.

Rather than active investment management, the strategy adopted by the Association is "buy and hold", based on the following framework.

- Investment maturities will, wherever possible, match the forecasted cash requirements of the Association.
- The quantitative limits on investment holdings provide ample structural liquidity to meet the needs of the Association. It is appropriate, therefore, to hold fewer liquid types of approved investments. Value added will be achieved by moving out the "liquidity curve" when possible.
- At all times the Association will hold investments deemed eligible under the Statement of Investment Policy. For greater clarity, the determination of eligibility shall be made at the time of purchase. The Association will not be obliged to dispose of investments which become ineligible after the date of purchase but will favour (subject to market conditions) disposing of such securities should assets need to be liquidated. (Refer to the Liquidity policy (s 7) in the Statement of Investment Policy.)

Authority

The Investment Committee shall:

- Establish the Statement of Investment Policy for approval of the Board.
- Recommend to the Board for their approval the appointment of one or more independent, external investment advisors to provide investment advice. The Committee may also recommend to the Board the appointment of one or more professional portfolio managers to invest the Amount in a manner consistent with the approved Statement of Investment Policy and the investment strategy.
- Verify compliance with s 5.6.8 of the Contribution Agreement with respect to conflict of interest as it concerns the Investment Advisor/Manager.
- Ensure that funds are only invested in investments or securities within the terms of the Statement of Investment Policy.
- Ensure that the Board is regularly made aware of any significant financial risks facing the Association, including the consequences of significant potential losses of investments of any or all of the amount.
- Report to the Board on the status, operation and annual performance of the investment portfolio.

- Ensure that adequate safekeeping procedures are in effect for all investment instruments.

Committee Membership

The Committee consists of a minimum of five members, all of whom are members of the Board of Directors, are independent of the Association's management and are financially literate. At least one member should have an accounting background or related financial management experience. The Board Chair is an ex Officio non-voting member of the Committee.

The Board shall appoint one of the Committee members to be the Committee Chair.

Committee members are appointed for a one-year term with the possibility of renewal.

Meetings, Meeting Schedule and Frequency

The Committee meets a minimum of four times annually. The Committee may choose to hold additional meetings if it considers them necessary for it to carry out its responsibilities effectively. Meetings can be held at any time and place as determined by its members, provided notice of such meeting is given to each member of the Committee. Meetings may be held by teleconference or videoconference, provided members have a means to vote. If members cannot participate in person, they may participate in a meeting that is held in-person via the teleconference or telephone.

A majority of the Committee shall constitute a quorum for the transaction of business at any meeting thereof, and the act of a majority of the members of the Committee present at any meeting at which a quorum is present shall be the act of the Committee. The Chair, or in his or her absence, one of the directors shall preside at all meetings of the committee.

As an ex-officio member of the Committee, the Board Chair has voting rights at the Committee meetings that they attend. The Board Chair's attendance is not counted to determine whether a quorum is present at a meeting.

In the event of a vote that results in a tie, the Chair of the Committee has a casting vote.

At each meeting, the members of the committee may meet in private in in- camera sessions with committee members only.

Minutes of meetings will be available to the Board.

Review

This document will be reviewed and updated (if necessary) no less frequently than annually.

Appendix B

11593765 Canada Association
Statement of Investment Policy
March 12, 2020

Purpose

The purpose of this document is to establish an investment policy best suited to meet the needs and objectives of 11593765 Canada Association's (Association) investment portfolio. This document is specifically intended to meet the requirements of ss 5.6.6 (Statement of Investment Policy) of the Contribution Agreement between the Association and Her Majesty in Right of Canada.

All aspects of this Policy are governed by the Prudent Person Principle (refer to ss 5.6.3 of the Contribution Agreement) and the principal objective of investment decisions shall be the preservation of capital to meet future disbursement requirements.

Investment Policy

1) Long-term return objectives and expectations:

The long-term objectives of the portfolio are threefold: (a) to provide funds on an "as needed" basis to meet the disbursement needs of the Association, (b) to maximize the investment income earned by the Association, subject to the Investment Strategy and Investment Policy adopted by the Association.

2) Ratings of Securities:

The deemed rating (the "Rating") of any Eligible Security will be established, at the time of the Association's acquisition of the Eligible Security.

Reference to the "issuer" shall include the unconditional guarantor, if applicable.

The rating category for Investment Policy purposes shall be based on the ratings of at least two of the following four rating agencies: Dominion Bond Rating Service (DBRS), Standard and Poor's (S&P) Rating Services, Moody's Investors Service and Fitch Rating Ltd.

In the case of Commercial Paper and other short-term investments:

To be included in the AAA category, the security must have at least two of the following, where two are available:

(i) R-1 (high) from DBRS

(ii) A-1+ from S&P and the issuer's bonds are rated "AAA" by S&P

(iii) P-1 from Moody's and the issuer's bonds are rated Aaa by Moody's

(iv) F-1+ from Fitch and the issuer's bonds are rated AAA by Fitch

To be included in the AA category, the security must have at least two of the following, where two are available:

(i) R-1 (middle) from DBRS

(ii) A-1+ from S&P

(iii) F-1+ from Fitch

(iv) P-1 from Moody's and the issuer's bonds are rated Aa by Moody's

In the case of bonds and other longer-term investments:

To be included in the AAA category, the security must have at least two o the following:

(i) AAA from DBRS
(ii) AAA from S&P
(iii) AAA from Moody's
(iv) AAA from Fitch

To be included in the AA category, the security must have at least two of the following:

(i) AA from DBRS
(ii) AA from S&P
(iii) AA from Moody's
(iv) AA from Fitch

3) Diversification policy of the investment portfolio, including quantitative limits on investments:

Throughout the life of the Association's portfolio, Association investments in the securities of any one issuer (or two or more affiliated entities) will be limited to an aggregate market value limit based on the Rating of the security:

Rating of Security	AA	AAA
Government Securities	no limit	no limit
Provincial / Municipal Financing Authority	10% of portfolio	10% of portfolio
Municipal Securities	10% of portfolio	10% of portfolio
Other Eligible Securities	10% of portfolio	10% of portfolio

Throughout the life of the Association's portfolio, the Association's investment in the securities of any one category will be limited to an aggregate market value limit of the category, as set out below:

Rating of Security	AA	AAA
Government Securities*	30% of portfolio	no limit
(minimum Government Securities is 10% of the portfolio)		
Provincial / Municipal Financing Authority	70% of portfolio**	same 70%
Municipal Securities	70% of portfolio**	same 70%
Other Eligible Securities	70% of portfolio**	80% of portfolio

* For greater certainty, the phrase "Government Securities" means all securities issued, guaranteed by, or that have the full faith and credit of the federal government or a provincial government.

** The 70% constraint applies to the aggregate of AA securities.

4) Asset allocation strategy:

The portfolio will, at all times, be invested in Eligible Securities (refer to (5) below).

5) Permitted investment instruments and trading activities:

The Association shall invest in Eligible Securities. Eligible Securities are defined as: bank certificates of deposit; banker's acceptances; treasury bills, commercial paper and other short-term securities, bonds and notes issued by the federal government, provincial governments, municipal governments and corporations; cash deposits in banks identified in Schedule I of the Bank Act; guaranteed investment certificates; and other fixed-income securities that carry the full faith and credit of the Government of Canada. For greater certainty, the Association shall not invest in derivatives, swaps, options or futures.

Any securities acquired shall have a Rating of at least AA.

All securities will be denominated in Canadian dollars.

The Investment Advisors/Managers will have authorized power to recommend and execute all trades on behalf of the Association. The Investment Advisors/Managers will notify the Association and include all details of all confirmations of trades.

The Board's Audit and Investment Committee will be advised of the transaction details by email or facsimile the same week that the transactions are authorized, or as soon as practical thereafter.

6) Prohibited investment instruments and trading activities:

Prohibited investments consist of all investments not defined as permitted investment instruments.

7) Liquidity and maturity of securities policy:

A. The maturities and terms of investments shall match the profile of the Association's forecasted disbursements. In cases where the timing of disbursements is unknown, investments shall be held in securities with term to maturity of one year or less.

B. Should an unexpected disbursement or series of disbursements made by the Association reduce the total market value of the portfolio, the Association shall immediately take the steps necessary to comply with the requirements set by the diversification policy (refer to (3) above) within a period of 60 days from the date as of which the Association first failed to meet those requirements. Under no circumstances shall the Association materially fail to comply with the diversification requirements of section 3 for a period of more than 90 consecutive days.

8) Risk management policies:

The purpose of the Association's investment portfolio is to earn investment income until such funds are needed to finance the Association's objectives. The principal risks therefore are liquidity and capital preservation. Both risks, and steps taken to manage such risks, are specifically addressed in the Association's Statement of Investment Policy and Statement of Investment Strategy. In addition to the constraints contained in these documents, certain processes are in place to further manage these risks:

- On a monthly basis the Investment Advisor/Manager receives reports from the Association's management regarding upcoming short- term cash requirements. This is compared to the upcoming maturity schedule with corrective action, if any, being initiated.

- On an annual basis the Investment Advisor/Manager receives a long-term projection of the Association's liquidity requirements. This is compared to the long- term maturity schedule. Based on the comparison of the two, corrective action, if any, is taken. Note that corrective action in this instance may be taken over an extended time period.
- On a quarterly basis the Investment Advisor/Manager reviews the credit ratings of all holdings. This is intended to act as an early warning as to potential, upcoming capital impairment issues.
- On a quarterly basis (or more frequently if necessary) the Investment Advisor/Manager reports to the Audit and Investment Committee on portfolio matters. Such matters include diversification compliance and potential capital impairment situations and recommended corrective actions.

9) Policy on the lending of cash or securities and borrowing:

The lending of cash or securities is not permitted.

The borrowing of money, issuing any debt obligations or securities, guaranteeing or securing a debt or other obligation of a person, mortgagor or other entity, pledging all or any portion of the funds received as outlined in the Contribution Agreement by way of securityfor payment to any creditor or do any other thing that would encumber the funds received as outlined in the Contribution Agreement is not permitted.

10) Performance measurement and monitoring procedures:

Performance is measured first by the prime objective of safety of investment and, secondly, by the ability of the investment portfolio to have funds on hand to meet all expenditure requirements. After those considerations in importance comes performance measurement. This will be addressed in ongoing fashion in reporting on new investments and reinvestments in terms of their yield relative to the Canada Curve (the yield that would be achieved from a benchmark Government of Canada bond of similar duration). Less attention will be paid to annual comparisons with other bond managers, unless they operate under similar constraints.

11) Review

This Statement of Investment Policy shall be reviewed at least once a year.

Appendix C

11593765 Canada Association
Audited Financial Statements

And Independent Auditors' Report thereon

Year ended March 31, 2021

KPMG LLP
150 Elgin Street, Suite 1800
Ottawa ON K2P 2P8
Canada
Telephone 613-212-5764
Fax 613-212-2896

INDEPENDENT AUDITORS' REPORT

To the Directors of 11593765 Canada Association

Opinion

We have audited the financial statements of 11593765 Canada Association (the "Entity"), which comprise:

- the statement of financial position as at March 31, 2021
- the statement of operations and changes in net assets for the year then ended
- the statement of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies.

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements, present fairly, in all material respects, the financial position of the Entity as at March 31, 2021, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

Ottawa, Canada

June 23, 2021

11593765 CANADA ASSOCIATION

Statement of Financial Position

March 31, 2021, with comparative information for 2020

	2021	2020
Assets		
Current assets:		
Cash	$ 2,938,533	$ 841,229
HST recoverable	207,973	96,495
Prepaid expenses	50,470	25,024
	$ 3,196,976	$ 962,748
Liabilities and Net Assets		
Current liabilities:		
Accounts payable and accrued liabilities	$ 557,555	$ 311,379
Deferred funding (note 2)	2,132,664	641,209
	2,690,219	952,588
Net assets	506,757	10,160
	$ 3,196,976	$ 962,748

See accompanying notes to financial statements.

On behalf of the Board:

11593765 CANADA ASSOCIATION

Statement of Operations and Changes in Net Assets

Year ended March 31, 2021, with comparative information for 2020

	2021	2020
Revenue:		
Ministry of Innovation, Science and Industry/ISED funding	$ 6,345,045	$ 1,494,291
Interest income	20,097	10,160
Membership fees	476,500	–
	6,841,642	1,504,451
Expenses:		
Operating:		
Salaries and wages	1,115,526	–
Benefits	37,655	–
Transportation and communication	48,039	157,725
Services	3,949,792	1,156,801
	5,151,012	1,314,526
General and administration:		
Salaries and wages	340,148	–
Benefits	66,889	–
Transportation and communication	3,245	1,417
Services	783,751	178,348
	1,194,033	179,765
	6,345,045	1,494,291
Excess of revenue over expenses	496,597	10,160
Net assets, beginning of year	10,160	–
Net assets, end of year	$ 506,757	$ 10,160

See accompanying notes to financial statements.

11593765 CANADA ASSOCIATION

Statement of Cash Flows

Year ended March 31, 2021, with comparative information for 2020

		2020
Cash provided by (used in):		
Operating activities:		
Excess of revenue over expenses	$ 496,597	$ 10,160
Net change in non-cash working capital:		
HST recoverable	(111,478)	(96,495)
Prepaid expenses	(25,446)	(25,024)
Accounts payable and accrued liabilities	246,176	311,379
Deferred funding	1,491,455	641,209
Increase in cash	2,097,304	841,229
Cash, beginning of year	841,229	–
Cash, end of year	$ 2,938,533	$ 841,229

See accompanying notes to financial statements.

11593765 Canada Association (the "Association") is a not-for-profit organization that was federally incorporated on August 28, 2019 as a member based organization with an agreement between Innovation, Science and Economic Development Canada (ISED) and the Association.

The Association's mandate is to play a critical role in helping advance the establishment of a researcher-focused, accountable, agile, strategic and sustainable Digital Research Infrastructure ecosystem for Canadian researchers.

1. Significant accounting policies:

The financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations and include the following significant accounting policies:

(a) Basis of presentation:

The Association follows the deferral method of accounting for contributions for not-for-profit organizations.

(b) Revenue recognition:

Contributions and funding designated for the Association's mandate are recorded as deferred funding and are recognized as revenue when the related expenditure is incurred. Unrestricted contributions are recorded as revenue in the year received.

Membership fees are recognized in the period to which they relate, providing collection is reasonably assured.

(c) Expenses:

In the statement of operations, the Association presents its expenses by function. Expenses are recognized in the year incurred and recorded in the function to which they are directly related.

(d) Use of estimates:

These financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations and accordingly, require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements and the reported amounts of revenue and expenditures during the reporting period. Actual results could differ from these estimates. The significant estimates in the financial statements include the collectability of receivables, deferred contributions, and the amount of certain accrued liabilities in the year they become known.

2. Deferred funding:

The Association received funding from ISED as follows:

	2021	2020
Balance, beginning of year	$ 641,209	$ –
Contributions received	7,836,500	2,135,500
Recognized as revenue	(6,345,045)	(1,494,291)
Balance, end of year	$ 2,132,664	$ 641,209

3. Contribution agreement:

The Contribution Agreement between the Association and ISED was signed on October 31, 2019 and is to fund the Association's activities. The Agreement ended on March 31, 2021, but subject to conditions as outlined in the Agreement can be extended to March 31, 2024. On March 12, 2021 the Agreement was extended to March 31, 2022.

4. Financial risks:

The Association's financial instruments consist of cash, accounts receivable, and accounts payable and accrued liabilities.

(a) Credit risk:

Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a financial loss. The Association is exposed to this risk relating to its cash and accounts receivable. The Association holds its cash accounts with a federally regulated chartered bank who are insured by the Canadian Deposit Insurance Corporation.

The Association assesses, on a continuous basis, accounts receivable and provides for any amounts that are not collectible in the allowance for doubtful accounts. At year-end, there were no amounts allowed for in accounts receivable.

(b) Liquidity risk:

Liquidity risk is the risk that the Association will not be able to meet all cash outflow obligations as they come due. The Association mitigates this risk by monitoring cash activities and expected outflows through extensive budgeting and keeping accounts payable current throughout the year. The Association is continuously monitoring its cash flow in order to maintain its liquidity moving forward.

4. Financial risks (continued):

(c) Market risk:

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate as a result of market factors.

(i) Foreign currency risk:

Foreign currency risk results from the fluctuation and volatility of exchange rates. The Association is not exposed to foreign exchange risk.

(ii) Interest rate risk:

Interest rate risk is the risk that the fair value of future cash flows or a financial instrument will fluctuate because of changes in the market interest rates. The Association is not subject to significant interest rate risk.

(iii) Other price risk:

Other price risk is the uncertainty associated with the valuation of assets arising from changes in equity markets. The Association is not exposed to other price risk.

(d) Impact of COVID-19:

In March 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. This resulted in governments worldwide, enacting emergency measures to combat the spread of the virus. The COVID-19 pandemic has not had a significant impact on the Association to date. The situation is dynamic and continuously evolving, and the ultimate financial impact of the pandemic on the Association remains unknown as of the date of the approval of these financial statements. Financial statements are required to be adjusted for events occurring between the date of the financial statements and the date of the auditors' report which provide additional evidence relating to conditions that existed at year-end. Management has assessed the financial impacts and there are no adjustments required to the financial statements at this time.

5. Subsequent event

On April 1, 2021 Canadian Association of Research Libraries (CARL) transferred its Research Data Management (RDM) program (Portage) to the Association.

This program transfer is part of an initiative led by Innovation, Science and Economic Development Canada (ISED) to restructure and streamline the organization of Canada's DRI ecosystem and ISED identified the Association as the organization that will assume responsibility for the continued operation, development, and growth of RDM.