

Ingenium – Canada’s Museums of Science and Innovation

Annual Report 2019-2020



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Message from Ingenium Chair and CEO

It has been another highly successful year for Ingenium—Canada’s Museums of Science and Innovation. Through its many activities, from exhibitions and educational initiatives to apps and summer camps, Ingenium celebrates centuries of scientific and technological achievement in this country.

Towards the end of this fiscal year, as the country faced the COVID-19 pandemic and physical distancing became paramount, science became more important than ever. Institutions like Ingenium are a vital link between science and society, and must remain trusted sources of information. In times of crisis, when public confidence in science wavers and misinformation abounds, our role becomes more important than ever.

At Ingenium and its three museums —the Canada Agriculture and Food Museum, the Canada Aviation and Space Museum, and the Canada Science and Technology Museum— we continue to take science engagement to the next level. We do this by co-creating participatory experiences, by serving as community hubs and connectors, by helping Canadians contribute to solving global challenges, and by creating a collective impact that extends far beyond our physical spaces.

We value experimentation, interdisciplinary conversation, and an openness to risk-taking. Taken together, they will foster innovation. We are committed to building a learning organization — one that is data driven and responsive, moving nimbly from knowledge to action.

We understand that to be successful, Ingenium must respect and reflect this growing, diverse, and changing nation. Although we live in increasingly complex times, museums remain some of the most trusted institutions in the world. Our collection—rooted in stories of Canadian innovation—will provide a link between our past and our future.

This was the final year of Ingenium’s current five-year Strategic Plan, and we are pleased to report that Ingenium has surpassed the vast majority of its performance targets. Visitor satisfaction levels averaged 97.3% for all three museums, far above our target of 90%. The number of school programs and program participants surpassed targets by about 5%.

Engagement through outreach also continued to grow. Travelling products and national programs attracted 4.4 million people, more than 11% above our target. Educational materials were downloaded nearly 93,000 times, surpassing our goal by 3%. And the popularity of EduKits exceeded all expectations, reaching five times as many schools and more than six times as many students as anticipated.

In addition, Ingenium generated \$9.79 million in operating revenue, exceeding our target by almost 8%. Fundraising efforts were similarly fruitful, raising \$260,000 more than our \$1.6 million target.

We will continue to evolve and to inspire the country we serve, becoming an ever-increasing asset to Canada and the world. Reflecting this ongoing evolution, in November 2019 we launched our new Strategic Plan 2020–2025.

The Plan sets a clear direction for Ingenium, as we continue to build public trust in science and technology.

Our new Strategic Plan features three guiding principles, each with its own strategic directions.

Collaborate to Innovate: Inspiring Canadian ingenuity includes strategic directions related to empowering a culture of Canadian innovation; bridging science, technology, and society on the key issues of our time; and being a leader and partner of choice across the STEAM ecosystem.

Access for All: Pushing the boundaries of engagement includes strategic directions related to harnessing the power of digital technologies to connect with Canadians; respecting and including diverse voices and communities; and championing physical, cognitive, sensory, and socio-economic accessibility.

Strengthen Our Foundations: Ensuring long-term sustainability includes strategic directions related to unlocking the full potential of the Ingenium Centre and our national collection; making the museums destinations of choice; increasing and diversifying revenue, sponsorship, and philanthropic funding; and empowering our team to reflect our shared values.

Along with our new Strategic Plan, we developed a new vision: “Ingenium ignites ingenuity,” redefining Ingenium as an institution that is creative, inclusive, collaborative, and accountable. Coupled with this is a mission to make Ingenium a catalyst for unlocking the curious and creative minds of a nation of innovators.

The journey ahead includes building a nation of collaborators, communicators, and critical thinkers: a nation that works together to build a better world for all. We will achieve this through the Canada Agriculture and Food Museum, the Canada Aviation and Space Museum, the Canada Science and Technology Museum, along with the new Ingenium Centre.

The Ingenium Centre houses Canada’s science and technology collection, with more than two million archival items and more than 85,000 artifacts. It is also home to the Ingenium Research Institute and the Ingenium Digital Innovation Lab. Through bold engagement and worldwide collaboration, both of these initiatives will put the Ingenium Centre at the heart of discovery and innovation, involving researchers, educators, and the public in new and creative ways. In 2019–2020, the Ingenium Centre was completed, and the moving of artifacts continued.

A worldwide crisis like the current pandemic has multiple implications for individuals, corporations, governments, and institutions such as ours. Sustained closures of our physical facilities—as well as ongoing uncertainties about what a post-crisis world may look like—are certain to affect both our long-term financial sustainability, and our ability to engage and connect with Canadians.

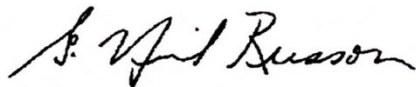
As we explore and implement new ways of working, we must not lose sight of the powerful impact that today’s youth can have on our collective future. In April, we hosted the annual STEAM Horizon Awards, encouraging a new generation of Canadian innovators to excel in science, technology, engineering, the arts,

and mathematics. It is essential that we continue to enhance our engagement and connection with budding young scientists, educators, researchers and partners. Similarly, we must not stop looking for innovative ways to reach diverse and underserved audiences, while also championing accessibility in all its forms.

Everything Ingenium does is the work of many hands, hearts and minds. Our sincere thanks, first and foremost, to our talented and dedicated staff, whose creativity, commitment and connection with our audiences is a source of considerable pride. It is also a joy and a privilege to work with such a committed Board, whose goal is always the continued success and well-being of this organization. Our thanks, as well, to our partners and volunteers, who make so many projects and initiatives possible, and to our donors, patrons and sponsors for their belief in the work we do.

Particular thanks are due, as always, to the federal government for its ongoing support, which makes it possible for us to share stories of scientific and technological innovation and achievement with Canadians everywhere, especially in times such as these.

We are Canada's museums of science and innovation. We hope you will join us on this journey.



Neil Russon
Chair of the Board of Trustees



Christina Tessier
President and CEO

Governance

Ingenium is a Crown corporation governed by a Board of Trustees, who are appointed by the Minister of Canadian Heritage, with the approval of the Governor-in-Council, and are selected from across the country through open, transparent and merit-based selection processes. They are representative of Canada's regions, linguistic duality, and cultural diversity. The Board is accountable to Parliament, through the Minister of Canadian Heritage, for Ingenium's business affairs.

The Board is composed of up to 11 Trustees, including a Chair and Vice-Chair, from across Canada. Trustees are nominated for a period not exceeding four years, and each is eligible to serve three consecutive terms (or, in the case of the Chair and Vice-Chair, two consecutive terms). If a Trustee has not been appointed by the time the term of an incumbent expires, the incumbent Trustee may continue in office until a successor has been appointed. As at March 31, 2020, one Trustee, whose term of office has expired, continues in her role until a new appointment is announced. Trustees are collectively responsible for strategic leadership and accountability, management of Ingenium's business activities and affairs, for assessing the CEO's performance, and ensuring that all duties conferred upon Ingenium by the *Museums Act* and Part X of the *Financial Administration Act* are carried out. The full Board met six times during the 2019–2020 fiscal year.

Four committees support the work of the Board: the Executive Committee; the Finance, Audit and Risk Management Committee; the Governance Committee; and the Major Facilities Committee.

In addition to meetings of the Board and Board Committees, Trustees take part in meetings with Management, as well as special activities on behalf of Ingenium. The Board also engages with the public at its Annual Public Meeting, during which it shares Ingenium's mandate, priorities, and fiscal oversight.

COMMITTEE STRUCTURE

Board Committees usually meet before each Board of Trustees meeting, or via teleconference, and report on their activities at Board meetings. The four Board Committees are described below.

Executive Committee

The Executive Committee (EC) consists of the Chair, the Vice-Chair, two additional Trustees designated by the Board, and the President and CEO, who sits as a non-voting member. This Committee establishes the President and CEO's annual performance objectives, and has full authority to act when the full Board of Trustees is unable to meet in a timely fashion. The Executive Committee held one meeting during the 2019–2020 fiscal year.

Finance, Audit and Risk Management Committee

The Finance, Audit and Risk Management Committee (FARMC) oversees Ingenium's financial management, its practices, and its information systems. This Committee reviews and advises the Board of Trustees on Ingenium's five-year operating and capital plans, as well as annual and quarterly financial statements. The Committee also selects internal audits; reviews and advises the Board of Trustees on plans and reports from

auditors; and oversees Ingenium’s risk management policies and practices. The Committee comprises no fewer than four Trustees, in addition to the Chair of the Board and the President and CEO, who are non-voting members of the Committee. The Finance, Audit and Risk Management Committee held five meetings in 2019–2020.

Governance Committee

The Governance Committee (GC) monitors and reviews governance of Ingenium in relation to best practices, and recommends changes aimed at enhancing operational effectiveness. This Committee also reviews the Board’s committee structures and memberships, and ensures that a Board self-assessment process is in place. The Committee reviews and recommends nominations for trustee appointments and reappointments, and comprises no fewer than four Trustees, as well as the Chair of the Board and the President and CEO, who are non-voting members. The Governance Committee held five meetings in 2019–2020.

Major Facilities Committee

The Major Facilities Committee (MFC) was formed to provide additional Board oversight for the renewal of the Canada Science and Technology Museum, and the construction of the new Ingenium Centre. The Committee comprises no fewer than four Trustees, as well as the Chair of the Board. The President and CEO is a non-voting member of the Committee. The Major Facilities Committee held seven meetings in 2019-2020.

Board of Trustees

Name, Region

Term – BOARD COMMITTEES

Neil Russon, New Brunswick

May 9, 2019 to May 8, 2023 – Board Chair, EC (Chair), FARMC, GC, MFC

Mr. Russon replaced former Board Chair Dr. Gary Polonsky*, Ontario, who continued to serve until Mr. Russon’s appointment.

Marian K. Brown, British Columbia

June 30, 2019 to June 29, 2023 – Board Vice-Chair, EC, FARMC, MFC

Ms. Brown replaced former Board Vice-Chair Jim Silye*, Alberta, who continued to serve until Ms. Brown’s appointment.

Michael A. Geist, Ontario

March 1, 2018 to February 28, 2022 – GC

A. Christian Idicula, Alberta

March 1, 2018 to February 28, 2022 – FARMC

Radosveta Ilieva, Quebec

October 27, 2017 to October 26, 2020 – FARMC

Paul Johnston, Ontario

June 1, 2018 to May 31, 2022 – FARMC (Chair), EC, GC

Heather Kennedy, Alberta

June 13, 2018 to June 12, 2021 – GC, MFC (Chair)

Dr. Matthew A. Lafrenière, Ontario
May 21, 2019 to May 20, 2022 – FARMC, GC
Dr. Lafrenière replaced former trustee Dr C. David Desjardins*, New Brunswick,
who continued to serve until Dr. Lafrenière's appointment.

Andréanne Leduc, Quebec
October 27, 2017 to October 26, 2021 – MFC

Virginia McLaughlin, Ontario
December 18, 2009 to February 20, 2020 – EC, GC (Chair), MFC

Dr. Marianne D. Sadar, British Columbia
October 27, 2017 to October 26, 2021 – GC

*Although the terms of Chair Dr. Gary Polonsky and Vice-Chair Jim Silye expired in 2018 and that of Trustee Dr. C. David Desjardins in 2019, they continued to serve on the Board until their successors were appointed, as per the *Museums Act*.

Executive Management

Ingenium's daily operations are managed by its President and Chief Executive Officer, supported by an executive team listed below.



Overview of Ingenium – Canada’s Museums of Science and Innovation

Vision

Ingenium ignites ingenuity

Mission

Ingenium is a catalyst for unlocking the curious and creative minds of a nation of innovators

Mandate

Ingenium – Canada’s Museums of Science and Innovation, whose legal name is the National Museum of Science and Technology, was established as an autonomous Crown corporation on July 1, 1990, under the *Museums Act*. As stated in the Act, the mandate of Ingenium is:

“To foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technological objects, with special but not exclusive reference to Canada, and by demonstrating the products and processes of science and technology and their economic, social and cultural relationships with society.”

Ingenium – Canada’s Museums of Science and Innovation includes the Canada Agriculture and Food Museum, the Canada Aviation and Space Museum, the Canada Science and Technology Museum, and the Ingenium Centre. The three museums and the Ingenium Centre are located in Canada’s Capital Region. All three museums examine the impact of science and technology on everyday life. From the animals we raise, to the skies above, to the technologies behind everything from Space travel to medicine, the museums explore the history of Canadian innovation and its promise for the future. Together, the Ingenium Centre and the museums are responsible for preserving Canada’s scientific and technological heritage, while also promoting, celebrating, and sharing knowledge of that heritage.

Canada Agriculture and Food Museum

The Canada Agriculture and Food Museum offers hands-on food literacy demonstrations and immersive exhibitions on a working farm, in the heart of our nation’s capital. The museum showcases milestones in Canadian agriculture—which inform and inspire the future of food security—and highlights the relationship between agricultural science and technology and Canadians’ everyday lives.

Canada Aviation and Space Museum

The Canada Aviation and Space Museum brings Canadian aviation to life—from its beginnings in 1909 to today. Showcasing the largest aviation collection in Canada—and one of the finest in the world—the museum holds over 130 aircraft and artifacts, from both civil and military service. The original Canadarm used on the Endeavour space shuttle is a highlight amidst the museum’s space technology exhibitions.

Canada Science and Technology Museum

The Canada Science and Technology Museum tells Canada's innovation story through discovery, play, and experiential learning. Acting as a bridge between science and technology and visitors, the museum's immersive spaces inspire each of us to better understand the integral role innovation plays in shaping our shared future.

Ingenium Centre

The new Ingenium Centre will house Canada's science and technology collection, with over two million archival items and more than 85,000 artifacts once the move is complete. It is home to the Ingenium Research Institute and the Ingenium Digital Innovation Lab. Through bold engagement and worldwide collaboration, both of these initiatives will put the Ingenium Centre at the heart of discovery and innovation, involving researchers, educators, and the public in new and creative ways.

Highlights

Highlights: Canada Agriculture and Food Museum

Agriculture and the food industry are among humankind's earliest activities. From small-scale farming to industrial operations, the Canada Agriculture and Food Museum (CAFM) explores the practices and innovations behind the food we eat.

With successful completion of a five-year Food Literacy initiative that reached more than three million people, the Museum team transitioned to the next phase: Food Security. This new phase began on April 1, 2019, and will carry through to 2024. New onsite and national programming will explore sustainable agriculture, links between food security and health, and workforce development. The Museum's programming incorporates many aspects of the United Nations Sustainability Goals, which include a focus on responsible production and consumption of goods, and on climate action, health, and clean technology in support of agricultural processes.

In April 2019, the Museum was thrilled to be the site for the world launch of the exhibition **Edible Futures: Food for Tomorrow**. Produced by the Dutch Institute of Food & Design, and presented by the Embassy of the Kingdom of the Netherlands, this series of art installations challenged visitors to reflect upon global food security, while imagining the future of food, and the role each of us can play in shaping that future.

Serving diverse audiences throughout Canada is a key priority for the Museum. A new partnership was launched with Connected North to provide immersive and interactive distance-learning sessions to more than 40 remote schools. In addition, the Museum's three travelling exhibitions were on display in 14 different venues from coast to coast, and the Museum's science advisor and education specialists took programming on the road with community visits to Garden River First Nation in Ontario, to Montreal and to other cities.

Although visits to the Museum's historical site slow down during the winter months, the team was kept busy delivering community programs to Eastern Ontario and Western Quebec through the AgVenture program. Thanks to ongoing philanthropic support, this program expanded this year to include outreach to 45 classes of

1,200 total students, and to 12 libraries, delivering programming related to nutrition, soil science, and animals.

In early March 2020, the Museum opened **The Soul of Rurality**, a photographic exhibition celebrating International Women's Day and the UN's Sustainable Development Goal of gender equality. Celebrating women who run small-scale farms, manage businesses, and provide community leadership, this Vogue Brazil production was presented in partnership with the Inter-American Institute for Cooperation on Agriculture (IICA).

Educational initiatives remained key throughout the year as well. The Museum's popular Food for Thought series included sessions on biodiversity, heritage seeds, food security, the future of proteins and agri-food innovation, zero-waste living, viticulture, and the Tr'ondëk Hwëch'in Teaching Farm in the Northwest Territories. In addition, the Museum participated in the 4th Indigenous Youth Symposium with the Ottawa-Carleton District School Board, and in cultural events such as Canada Day, the summer solstice, and agricultural fairs across the greater National Capital Region.

Ongoing elementary school programming remained popular as well, and the first session in the Museum's Culinary Curiosities cooking workshops for ages 15+ quickly sold out. In addition, new arts programming and displays to support the Museum's STEAM commitment were a big success, including an artist talk, art workshops for children and adults, and examples of art pieces from Ingenium's collection.

Working with community partners is one of the Museum's strengths. This year, summer camp participants were welcomed from the Children's Hospital of Eastern Ontario's Recreation Therapy program and Big Brothers Big Sisters, and the Museum piloted a leadership camp for skills development. The Museum also kicked-off the well-attended Welcome Wednesdays—free evening sessions featuring immersive activities, promoted to underserved communities. A pilot project was initiated as well with the Royal Ottawa Hospital, towards empowering recovery through a "Prescription Pass."

Academic partnerships are important in ensuring that the Museum's programming remains engaging, while also promoting careers in STEAM. The Museum worked this year with Algonquin College veterinary technicians, University of Ottawa engineering students, and Carleton University engineering and architecture students. In addition, the Museum's curatorial team worked with students and interns from Laurentian University, the University of Regina and McGill University on soil science and research into Indigenous foodways.

The Museum's year-end was disrupted by its mid-March closure in response to the COVID-19 pandemic. This resulted in cancellation for Ontario students and their families of March Break programming which was to focus on Nutrition Month. A March lecture on nutrition trends and myths by a registered dietitian was also cancelled. As of the end of the fiscal year, it was unclear whether summer day camps—which quickly sold out when registration was launched in February—will be offered during the summer of 2020.

None of what the Museum does would be possible, of course, without its dedicated staff, volunteers and partners—all of whom have adjusted admirably to these challenging times. From those who work with animals and crops, to those who deliver

demonstrations in all kinds of weather, to those who continue to work tirelessly on programming and exhibitions, our sincere thanks for another outstanding year.

Highlights: Canada Aviation and Space Museum

Although powered flight has only existed in Canada for 110 years, humankind has reached for the stars from time immemorial. At the Canada Aviation and Space Museum, we explore every aspect of aerospace, from the flight of the *Silver Dart*—the first powered aircraft to fly in Canada—to our country's Astronaut Program.

Over the past year, we have enhanced favourite exhibitions and developed new displays. The Museum's First World War area was updated with new interpretive panels for the aircraft on view, and thematic panels to help visitors connect with the experiences of First World War aircrew. New panels were also developed for the eight combat aircraft in the Second World War area, and two aircraft in the Bush Flying section. The propeller display was redeveloped, as well, focusing on wooden propellers from the 1910s to 1930s.

Canadian aerospace ingenuity was celebrated during the summer with display of a Delta Test Vehicle (DTV). This is the first artifact recovered from Lake Ontario by the Raise the Arrow project, which is searching for free-flight testing models of the iconic Avro Arrow—Canada's only supersonic interceptor. The DTV is one of three models that were fired over Lake Ontario in 1954 in a possible lead up to Arrow free flight models. The DTV was a popular draw when it went on display on July 1, 2019.

This past summer, the Museum also marked the 50th anniversary of the Apollo 11 Moon Landing, with a display of the *Eagle* lunar lander, highlighting landing gear made by Héroux Inc., a Quebec company.

Another proud moment for the Museum was installation of a Sikorsky Sea King C-124 helicopter. The helicopter was unveiled during a ceremony with the Department of National Defence—including an address by Brigadier-General Lise Bourgon, who flew this particular Sea King. Bourgon was the first female pilot in Canada to command a squadron, to become a general, and to command a combat mission overseas.

Rounding out its exhibition program, the Museum hosted **Above and Beyond**, a highly interactive exhibition celebrating aerospace innovation. The exhibition was adapted for a bilingual national audience. Produced by Boeing and its partners, **Above and Beyond** welcomed 48,000 visitors during its three-month presentation at the Museum.

Public programs and special events remain a cornerstone of the Museum's activities. New school programs were launched in May 2019, with a 120% increase in participation during the first quarter alone. Summer camps, which began in July 2019, remained as popular as ever, with more than 600 campers throughout the summer. In August, the Museum hosted a Parks Canada "Learn to Camp" overnight camping event on its grounds.

Part of what the Museum does is encourage young people to consider careers in STEAM-related disciplines. This past year, in addition to camps and educational

programs, the Museum hosted World Space Week programming with the Royal Astronomical Society of Canada in October, and an Astro Pi coding event in February.

Family activities this year included wildly successful Canada Day programming, welcoming more than 8,700 visitors throughout the day. Holiday programming was another popular draw from December 23 through January 5, as were activities for Family Day on February 17, and for National Aviation Day on February 23. Programming for the Quebec school break, from February 28 to March 8, was well attended, attracting more than 5,200 visitors over the ten-day period.

It is important that the Museum continue to honour and acknowledge veterans and serving military personnel. During the past year, the Museum hosted the 79th anniversary Battle of Britain ceremony with the Royal Canadian Air Force, and Remembrance Week programming from November 3 to 11, 2019.

Innovation often begins in the sharing of ideas through lectures and conferences. This year's Kenneth Molson Lecture in May 2019—“Eyes on the Sky”—explored innovation in air traffic control, and was presented in partnership with NAV Canada. In June, the Museum hosted the Canadian Women in Aviation Conference, and in July presented a sold-out lecture for the 50th anniversary of the Moon Landing.

Community outreach is also key. Ingenium's Teachers Night was held at the Canada Aviation and Space Museum in October 2019, and a special Canadian citizenship ceremony was hosted with the Institute for Canadian Citizenship in January 2020. Expanding beyond the National Capital Region, the Museum was represented at the Eureka Science Festival in Montreal in June 2019, and organized and hosted a special Career Exploration tour of Ottawa and Montreal for ten students from Makivik, Nunavik (Northern Quebec), in February 2020.

The mid-March closure of the Museum, in response to the COVID-19 pandemic, led to the cancellation of programming for Ontario's March Break. It is also unclear whether the Museum's highly popular day camps will go ahead in the summer of 2020.

The Museum's success over the past year would not have been possible without its dedicated staff, its devoted teams of volunteers, and its many partners. Our sincere thanks to them all for making it possible to share the story of Canadian aerospace innovation with visitors from across Canada and around the world, especially in difficult times such as these.

Highlights: Canada Science and Technology Museum

Scientific and technological changes have driven human development for millennia, and the Canada Science and Technology Museum continues to explore the history and future of innovation, and its impact on the world in which we live.

Over the past year, exhibitions remained a popular draw. **Leonardo da Vinci: 500 Years of Genius**—hailed as one of the most comprehensive exhibitions on da Vinci ever produced—featured 200 displays, including reproductions of machines and Renaissance art, immersive animations, and in-depth analysis of da Vinci's notebooks and his most famous painting, the *Mona Lisa*. Developed by Australia's

Grande Exhibitions and its European partners, the exhibition attracted nearly 54,000 visitors during its four-month presentation at the Museum.

Further enhancing the accessibility of its displays, the Museum added eight tactile elements and Braille text to **Artifact Alley** and **Medical Sensations**. The Museum also invited the general public to see a bit of behind-the-scenes exhibition magic, as a locomotive and three rail cars were moved into the new Ingenium Centre.

The event received national media coverage, was attended by more than 600 people, and trended on Twitter.

Public programming makes it possible for the Museum to engage directly with audiences of all ages, from summer camps and educational programs to workshops and special events. This year, the Museum's regular summer camps were sold out, and its new "Little Geniuses" day camp for children ages four and five was an instant hit. Helping children explore a more conventional type of camping, the Parks Canada "Learn to Camp" initiative was offered every Wednesday from June 26 to August 21, 2019.

Educational initiatives this year included the development of two new programs for launch in September 2019, and the new Water Systems School Program, launched in January 2020.

Outside a classroom setting, the Museum offered a variety of activities, including four new workshops in Exploratek, four Curiosity on Stage evening events, a well-attended Artificial Intelligence demonstration in collaboration with Reimagine AI of Montreal, and a Cool Science Saturday as part of Winterlude in February 2020.

STEAM-related initiatives are a priority for the Museum, as it works towards encouraging students to see themselves as innovators. Throughout the year, three cohorts were hosted in the STEAM Effect project for high school students, and the STEAM Residency program for students in Grades 6 to 8 launched its second year in October, with all 15 available weeks fully booked.

The Museum continues to expand both outreach and accessibility, often in association with specific communities and organizations. To engage individuals on the autism spectrum, planning tools were developed and uploaded, including three social stories, a sensory guide and a sensory map. Seventeen students with Autism Spectrum Disorder were also given a special workshop in Exploratek.

Three afterschool workshops and an intergenerational group continued in partnership with the Wabano Centre for Aboriginal Health, with 28 youth participants. In addition, the Museum worked with the Children's Hospital of Eastern Ontario, the University of Ottawa, and the Vanier Community Service Centre on a new community support project for youth. Five spots for day camps in summer 2020 were also offered to children from both the Wabano Centre and the Vanier Community Service Centre, to encourage participation from Indigenous and underserved communities.

The COVID-19 pandemic resulted in a number of cancellations in the final two weeks of the fiscal year, and will likely continue to affect programming for weeks, or even months, to come. The impact has been felt in public programming in particular, with cancellations of March Break activities for Ontario students, STEAM Effect Project sessions, and Curiosity on Stage demonstrations. It remains unclear whether the Museum will be able to offer day camps in the summer of 2020.

Beyond these cancellations, however, the Museum has also been quick to respond to this worldwide health crisis. On February 7, a floor demonstration opened in reaction to news of a deadly virus spreading from Wuhan, China. The goal was to raise awareness of the importance of proper handwashing to kill viruses and bacteria, and was popular among visitors, with more than 650 interactions before the Museum's mid-March closure. In addition, staff developed and promoted online content and try-this-at-home activities to support parents during mandatory social distancing and home-schooling.

It has been a busy year, with much to celebrate even in these challenging times, as the Museum explores the intersections of innovation and everyday life. Its success owes much to the hard work of Museum staff, the dedication of its volunteers, and the support of its many partners—all of whom are essential to the Museum's ongoing engagement with audiences of all ages.

Highlights: Collection and Research

Ingenium's collections are among the finest of their kind in the world. With tangible and intangible resources ranging from aircraft and livestock to nuclear medicine and audio recordings, Ingenium's three museums explore the past, present and future of Canadian innovation, along with its impact on daily life.

One of the collection highlights of this past year was the move of a locomotive and three rail cars into the Ingenium Centre. This public event attracted more than 600 people, and was covered by national media.

The Ingenium Centre has also made the collection far more accessible. During the past year, curatorial staff gave tours to students from the University of Maine and several other universities, to participants in the Indigenous Internship Program in museum practices, to diplomats from the Norwegian Embassy, and to Transit Systems Accessibility officials in relation to the public transportation collection. Classes from Algonquin College, La Cité collégiale, Carleton University and the University of Ottawa were also hosted at the Ingenium Centre, and included students studying disciplines such as the history of architecture, theatre and public history. Graduate history and theatre students recorded their performances in the new Digital Innovation Media Lab.

The breadth of Ingenium's collection also makes it possible to explore innovative ways of bringing science and technology to life for visitors. One method involves the possible live operation of artifacts such as the made-in-Canada electronic sackbut—the world's first electronic music synthesizer—a project that is attracting international attention. 3D scanning of objects from the collection also continues. Ten models are currently available on multiple online platforms, allowing users to adapt them and create new models or educational activities.

Thoughtful acquisitions also enhance Ingenium's ability to share stories of Canadian innovation in compelling ways. Given the immense task of rehousing the collection, a general moratorium was declared on new acquisitions this fiscal year, with a few important exceptions. One of these was a Sikorsky CH-124 Sea King helicopter. Used by the Canadian Forces, the Sea King helicopter is a famous piece of Canadian military equipment. It was unveiled to the public at a special ceremony on December

2019, and has become part of a permanent display at the Canada Aviation and Space Museum.

As museums expand and change, it is important to periodically assess collections, determining what needs to be deaccessioned, what should be kept, and where to focus accession budgets and activities. Ingenium's Collection Rationalization Project is progressing nicely in Year 2, with 1,325 artifacts and 2,791 inventory lots reviewed, exceeding established targets.

Research is also essential. Throughout the year, Ingenium curators study material in the collection, often presenting their research at conferences, and sharing their findings with the general public. The public Digital Archives portal added 12,000 assets in Q4 alone.

This past year, Ingenium curators gave interviews, served as visiting scholars overseas, delivered papers and led panels at conferences, and published articles and books on topics as wide-ranging as bicycles, Ingenium's collection of Ottoman scientific instruments, and the ear phonograph—a project that won a Canadian Museums Association research award.

In collaboration with the University of Ottawa and Carleton University, Ingenium received two Social Science and Humanities Research Council (SSHRC) grants this year: \$68,000 for the Indigenous Sky Knowledge Symposium, and \$25,000 for the Designing Domestic Dining Project (a collaboration with the Anatolian community). In addition, the Canadian Institute of Mining and Metallurgy provided funding to expand hydrometallurgy research.

Ingenium also works with institutional and academic partners on various initiatives. This year, Ingenium's Library and Archives team was part of three SSHRC grant applications on The Future of Reference, with the University of Ottawa and Brock University; Metrics Literacy, with the University of Ottawa; and Archives and Artificial Intelligence, with the University of British Columbia.

As part of ongoing efforts to support and shape the future of innovation in Canada, Ingenium curators often work with universities. Ingenium received approval this year for its first-ever shared position with the University of Ottawa: a tenure-track professorship and curatorship on the Indigenous Basis of Scientific Knowledge.

In addition, with support from Ingenium's curatorial staff, a Carleton University class developed the first prototype of a project providing augmented reality, web-based experiences in relation to aviation artifacts. Ingenium also continued a research project on the economic impact of Canadian innovation in mining and metallurgy, with partners from Canadian Institute of Mining, the University of Toronto and Dr. Peter Warrian, Munk School of Global Affairs.

Ingenium's Library and Archives team was equally active, giving a presentation to a University of Ottawa Research Methods class, and reopening to reference requests. External researchers, including a Master's-level class from Carleton University, are making good use of the collection and Ingenium Centre spaces.

Even in times of crisis, most activities continue, albeit adapted to changing circumstances. When COVID-19 made onsite visits impossible after mid-March, Ingenium moved to support its many practicum students and interns by virtual means, allowing them to complete these graduation requirements.

Collections and research underpin Ingenium's ability to share stories of scientific innovation with audiences everywhere. It is a testament to staff—and their ability to adjust to challenging circumstances—that Ingenium's collection remains world-class, that its curators are known internationally for their research and expertise, and that Ingenium has robust policies in place to support the work it does.

Highlights: Outreach

Outreach is a core aspect of everything we do. Through travelling exhibitions, educational initiatives, social media, offsite lectures and events, and publications, Ingenium shares stories of Canadian innovation with audiences around the world.

Ingenium products were presented in multiple venues throughout the year. Canada Science and Technology Museum exhibitions on tour included **Echoes in the Ice: Finding Franklin's Ship**, physical and digital versions of **Climate Change Is Here**, **Cipher|Decipher**, **Iron Willed: Women in STEM** and **Game Changers**.

Travelling presentations of Canada Aviation and Space Museum products included the Ace Academy interactive, **On the Trail of the Monarch Butterfly**, and **Health in Space**. Canada Agriculture and Food Museum exhibitions on tour included **Canola! Seeds of Innovation**, **A Taste of Science**, and **Space to Spoon**.

In a new venture, Ingenium is also managing the tour of Canadian Geographic's exhibition **Unmasking Influenza**, on the impact of the Spanish flu epidemic in Canada. To date, the exhibition has been presented at two venues in Ontario.

Planning is ongoing for the international project, **One Sky, Many Worlds: Indigenous Voices in Astronomy**. The Ingenium team continues to develop relationships with Indigenous traditional knowledge-keepers and scholars in North America, Africa, Australia, New Zealand, Mexico and Hawaii, and the project has already attracted interest from venues in the U.S. and Europe.

Educational outreach is equally important, with digital resources and onsite school programs promoted to teachers throughout the year in targeted outreach initiatives. In addition, Ingenium Edukits, originally designed for classroom use, have become highly popular with summer camps, libraries and home schooling groups during the summer months.

Broader public education continued through Ingenium's Let's Talk Energy program, rebranded on March 31, 2020, as the Science Communication Knowledge Dissemination initiative. Dynamic interpretive elements were installed in New Brunswick and British Columbia for the Department of Fisheries and Oceans Canada, and educational videos on the Arctic Road and Urban Trees were produced and disseminated as part of a partnership with Natural Resources Canada. Looking ahead, the initiative will cover a broader range of topics, including climate change, oceans, human-planet interactions, and clean technology.

STEAM and STEM initiatives are an Ingenium outreach priority, with a focus on attracting women and girls to STEM-related disciplines. The travelling display *Iron Willed: Women in STEM* is currently on tour, and on International Women in Engineering Day, a second Wikipedia Edit-a-Thon was held in association with Engineers Canada, inviting volunteers to improve Wikipedia content related to women in STEM.

Encouraging conversations around equity, diversity and inclusion, downloadable educational resources were developed in partnership with the Laurier Centre for Women in Science. The series includes posters, a timeline, and a Women in STEM website. The current 21 posters are also featured in the card game *Phylo Deck of Women in STEM*, produced in partnership with the Canadian Coalition of Women in Engineering, Sciences, Trades, and Technology. In addition, 12 of the posters were provided to Canadian embassies and missions in countries including Chile, Costa Rica, Ethiopia, Kazakhstan and Kuwait, for display at a variety of events.

A Women in STEM Instagram campaign, featuring 20 video profiles, was completed this year in association with the National Film Board, the Department of Fisheries and Oceans Canada, and the Canadian Museum of Nature. Ingenium also participated in a Canadian Science Policy Centre symposium exploring barriers to gender equity in STEM, and hosted the annual STEAM Horizon Awards at the Canada Aviation and Space Museum.

Sharing expertise through lectures, conferences, cooperative international research, and digital means not only expands Ingenium's reach across Canada and around the world, but also establishes Ingenium as a trustworthy source of information. Curatorial staff delivered guest lectures and media interviews, and archival and library assets were made available online through the Digital Archives web portal.

In addition, Library and Archives staff published three articles on the Ingenium Channel, launched a Twitter campaign for staff, and participated in the #ArchivesHashtagPartEH campaign highlighting archives and collection on social media. Ingenium's social media reach was further enhanced this year by its participation in the takeover of the 52 Museums channel (international) and National History Week (national). The Augmented Alley app was also launched this year, as was the new Nintendo Switch game, *STAR BLOX, INC.*

Outreach involves targeted promotional events and campaigns as well. Public Affairs staff pitched Ingenium to international journalists and tour operators at conferences in Ottawa and Toronto. Ingenium's Annual Public Meeting also served as a soft launch for the Ingenium Centre, and included the presentation of Ingenium's 2020–2025 Strategic Plan.

In the final weeks of the fiscal year, the COVID-19 pandemic began affecting outreach in a number of ways. Travelling exhibitions that had opened in February—including *Unmasking Influenza*, *Women in STEM*, and *Health in Space*—closed within weeks. All other travelling exhibitions are closed as well, pending the easing of social distancing across the country.

Ingenium itself has proactively responded to the crisis. Curatorial staff launched a *Curating under Quarantine* campaign, documenting social and technological change during the COVID-19 pandemic, in association with partners across the country.

In addition, staff have developed new online activities to support home-schooling families, and are forging ahead on upcoming onsite exhibitions and programming, in anticipation of the eventual reopening of its three museums.

By maintaining a full slate of outreach initiatives, despite the difficulty of operating public facilities during a national lockdown, Ingenium has continued to cement its reputation as a key resource in the exploration of science and technology in compelling new ways.

Report on Performance Measures

Ingenium surpassed the vast majority of its performance targets over 2019-2020 as it pursued the final year of its current five-year strategic plan. The public health measures taken in response to the COVID-19 pandemic resulted in underperformance for two indicators due to the unanticipated temporary closure of Ingenium's museums beginning in mid-March 2020.

Despite the closure, Ingenium reached 86% of its attendance target thanks to a range of programming, events, and exhibitions, as well as this year's unique offerings. The Canada Science and Technology Museum welcomed the **Leonardo da Vinci – 500 Years of Genius** special exhibition and hosted special "Learn to Camp" programming with partner Parks Canada. The Canada Agriculture and Food Museum hosted the **Edible Futures – Food for Tomorrow** travelling exhibition in partnership with the Embassy of the Kingdom of the Netherlands and launched a new inclusivity initiative 'Welcome Wednesdays' to facilitate museum access for underserved communities. The Canada Aviation and Space Museum hosted the **Above and Beyond** interactive flight exhibition and celebrated the Year of Space with events featuring Canadian astronauts.

All three museums launched new school programs with themes and topics including space, Halloween, and water systems. The Canada Agriculture and Food Museum expanded its popular AgVenture outreach program to deliver more curriculum-linked programs in the community. The Canada Science and Technology Museum continued its STEAM Residency program in partnership with the Ontario Science Centre. Through a partnership with Connected North, Ingenium also delivered real-time virtual school programs to students in northern Canada.

Reflecting its commitment to national and global reach, Ingenium exceeded its travelling products and national programs target with attendance of more than 4.4 million thanks to strong demand for Ingenium offerings and the tour launch of the travelling exhibition **Iron Willed: Women in STEM** (science, technology, engineering, and math). The target for digital offerings was also greatly exceeded, with over 71 million interactions across Canada and in more than 180 countries worldwide.

Ingenium grew its network of partners, collaborators, and sponsors to support its activities, including on-site and travelling exhibitions, research projects, and programming initiatives, to enrich and expand the reach of Ingenium's content.

In 2019-2020, the Ingenium Centre was substantially completed and the artifact move continued, including the move of Ingenium's unique and much-loved locomotives. A critical component of this project is clearing space in the existing storage, and

Ingenium exceeded this target by 50%. Planning continued for new facilities at both the Canada Agriculture and Food Museum and Canada Aviation and Space Museum, and important repairs were completed at the Canada Aviation and Space Museum site to better serve visitors and protect the collection.

Ingenium’s successes in 2019-2020 realized the goals set out at the beginning of this five-year plan: a strengthened collection, relevant and engaging exhibitions and programs, increased national reach, an improved business model, and revitalized sites. These achievements and lessons have informed Ingenium’s new strategic plan (2020-2021 to 2024-2025), and provides the strong foundation that the Corporation will build from for the next five years and beyond.

Measures	Indicator result / Target	Result above (↑), on (→) or below (↓) target
Strategic Objective 1: Best in Class - Collection		
<i>Strategy 1.1: Make the collection more accessible digitally and physically.</i>		
<i>Strategy 1.2: Become leaders in science and technology subject-based research by focusing and sharing expertise.</i>		
<i>Strategy 1.3: Advance the Collection Rationalization Project.</i>		
% of collection digitized	96% (Target: 96%)	→
# of m ² cleared in collection storage space	756 m ² (Target: 500 m ²)	↑

Strategic Objective 2: Best in Class – Education and Exhibitions		
<i>Strategy 2.1: Create unique exhibitions that are relevant, engaging and entertaining experiences.</i>		
<i>Strategy 2.2: Offer STEAM educational programming in formal and informal forums.</i>		
<i>Strategy 2.3: Celebrate significant and inspiring Canadian science and technology innovations.</i>		
Attendance CAFM, CASM and CSTM	CAFM: 192,914 (Target: 211,000) CASM: 208,400 (Target: 233,000) CSTM: 365,272 (Target: 449,000) TOTAL: 766,586 (Target: 893,000)	↓
# of downloads of educational materials	92,769 (Target: 90,000)	↑
% visitor satisfaction	CAFM: 97% (Target: 90%) CASM: 98% (Target: 90%) CSTM: 97% (Target: 90%)	↑
# of school programs delivered / # of participants	CAFM: 563 / 15,675 (Target: 500 / 15,000) CASM: 329 / 10,015 (Target: 300 / 11,000) CSTM: 933 / 20,490 (Target: 900 / 23,000) TOTAL: 1,825 / 46,180 (Target: 1,700 / 49,000)	→

Strategic Objective 3: National Outreach		
<i>Strategy 3.1: Build a creative and relevant line of outreach products.</i>		
<i>Strategy 3.2: Build and sustain strong regional, national and international networks.</i>		
<i>Strategy 3.3: Increase awareness with new marketing and branding strategies.</i>		
# of virtual engagements (Reach: impressions for Twitter & Facebook, Flickr and website views; Connect: number of followers; Engage: re-tweets, comments, shares, clicks on shared content and YouTube views)	Reach: 69,645,447 Connect: 10,731 Engage: 2,073,719 TOTAL: 71,729,897 (Target: 26.2 million)	↑
Attendance of travelling products and national programs	4,409,741 (Target: 3.97 million)	↑
# of Edukits rentals and # of youth engaged	50 rentals / 3,310 youths (Target: 10 schools / 500 youth engaged)	↑

Strategic Objective 4: Sustainable and Profitable		
<i>Strategy 1: Implement a sound business model that diversifies and maximizes commercial returns.</i>		
<i>Strategy 2: Invest in digital (creative) infrastructure.</i>		
<i>Strategy 3: Invest in our workforce and workplace.</i>		
Amount of operating revenue generated	\$9.79 million (Target: \$9.07M)	↑
Amount of contributions from donations, sponsorships and in-kind (cash basis)	\$1.86 million (Target: \$1.60M)	↑
Number of new collaborative agreements	3 new agreements (Target: 3)	↑
Number of training hours for staff	3,693 hours (Target: 2,000)	↑

Strategic Objective 5: Renewed and innovative Infrastructure		
<i>Strategy 1: Launch the renewed CSTM.</i>		
<i>Strategy 2: Address the need for a conservation and restoration hangar for the aviation collection.</i>		
<i>Strategy 3: Capital campaign for Food Innovation Centre at CAFM.</i>		
<i>Strategy 4: Design and build the Collections Conservation Centre.</i>		
<i>Strategy 5: Implement health and safety projects identified for Budget 2016 funding.</i>		
Renew and reopen the CSTM	The CSTM opened in November 2017	→
Successfully launch the capital campaign for the Food Innovation Centre at CAFM	Environmental scan and partner planning consultation on-going (Target: Continue planning capital campaign)	→
Identify funding for Aviation Training and Research Centre	Funding strategy development continued (Target: Develop funding strategy)	→
Meet project milestones for the Ingenium Centre	Building substantially complete, addressing final deficiencies and remedial work. Racking installation and move delayed due to temporary closure. (Target: Building completed)	↓
Health and Safety projects funded through Budget 2016 are completed on time and within budget	Completed identified building lifecycle repairs and replacement projects at CASM. (Target: CASM projects completed)	→

Partnerships and Collaborations

PARTNERSHIPS

Ingenium is active in generating revenues through sponsorships and partnerships. Through its Business Development Division and the support of management, fiscal year 2019-2020 saw the successful signing and renewal of several multi-year cash and in-kind agreements with various private- and public sector partners, as well as the continuation of numerous others. Ingenium sincerely thanks all of its sponsors and partners for helping to make the following initiatives and programs possible for the benefit of Canadians.

Aquaculture in Canada Project

Department of Fisheries and Oceans Canada

Avro Arrow Project

OEX Recovery Group

Canada from Space Giant Floor Maps

Canadian Space Agency

Canada Day at Canada Aviation and Space Museum

NAV CANADA

Canada's Energy Mix Map Interactive

Canada Energy Regulator

Canola Initiative

Agriculture and Agri-Food Canada
Alberta Canola Producers Commission
Canadian Canola Growers Association
Canola Council of Canada
Government of Manitoba
Government of Saskatchewan
Manitoba Canola Growers Association
Saskatchewan Canola Development Commission

Capture Canada Project

Environment and Climate Change Canada
Department of Canadian Heritage
Parks Canada

Cipher / Decipher Exhibition

Communications Security Establishment

Climate Change is Here Exhibition

Natural Resources Canada
Environment and Climate Change Canada

Earth to Us Gallery
Mining Association of Canada

Exploratek Space
ArcelorMittal Canada

Exploring Earth Project
Canadian Space Agency

Eyes on the Sky Exhibition
NAV CANADA

Food Literacy Initiative
Agriculture and Agri-Food Canada

Health in Space Exhibition
Canadian Space Agency

Hidden Worlds Exhibition
Fisheries and Oceans Canada

Historical Assessment on Hydrometallurgy
Canadian Institute of Mining

Kenneth Molson Lecture Series
Kenneth M Molson Foundation

Living Lab
University of Ottawa

Medical Sensations Exhibition
Toshiba Canada Medical Systems
Visible Body

National Pollutant Registry Index Public Engagement
Environment and Climate Change Canada

Open Science Data Portal
Transport Canada

Science Enterprise Centres
Fisheries and Oceans Canada

Space to Spoon Exhibition
Canadian Space Agency

Soil Initiative

Canadian Seed Growers' Association
Canadian National Railway
Fertilizer Canada
Glacier FarmMedia
Nutrients for Life
Soil Conservation Council of Canada

Sound by Design and STEAM: A World in Motion Exhibitions

The Peter and Melanie Munk Charitable Foundation

Study on Economics Benefits of Research and Development in Metallurgy and Mining

Canadian Institute of Mining

STEAM Horizon Awards

Indspire
Lockheed Martin Canada
Natural Sciences and Engineering Research Council of Canada
Syncrude Canada Ltd.

Technology in our Lives Exhibition

Ziebarth Electrical Contractors

Tectonic Shift: The Search for Northern Boundaries Documentary

Natural Resources Canada

To What Degree? Canada in a Changing Climate Exhibition

Environment and Climate Change Canada
Fisheries and Oceans Canada
Health Canada
Indigenous Services Canada
Natural Resources Canada
Public Health Agency of Canada
Transport Canada

Wi-Fi at Ingenium

CommScope

Women in STEM Initiative

Canadian Museum of Nature
Fisheries and Oceans Canada

ZOOM! Mobile

Michelin North America

NOTE: All financial and in-kind partnerships are subject to the Ingenium Policy on Revenue Generation. This Policy includes conditions to ensure that there is no conflict of interest when an entity is both a funder and a contractor or supplier, as well as no undue influence on Ingenium content or experiences.

COLLABORATIONS

Ingenium has Memoranda of Understanding and/or has collaborated with the following organizations in 2019-2020. Memoranda of Understanding with external partners support collaboration, as well as the pooling of knowledge and services toward the development of programs and exhibitions that meet common goals. Ingenium is grateful to all of its collaborators who contribute to enriching museum experiences and Canadian cultural content.

4-H Canada
Actua
Aéroports de Montréal
Agriculture and Agri-Food Canada
Aldrich Pears Associates
Algonquin College
Agriculture in the Classroom
Apple Blossom Farms
Association francophone pour le savoir
Bedford Oceanographic Institute
Bell Canada
Blue Shoes Honey
Bombardier
Bouwdesign and Associates
British Columbia Medical Association
Bytown Railway Society
Cadets 51 Squadron
CAE
Canadian Agriculture Hall of Fame Association
Canadian Association of Physicists
Canadian Association of Science Centres
Canadian Aviation Historical Society
Canadian Conservation Institute
Canadian Museums Association
Canadian Museum of History
Canadian Nuclear Safety Commission
Canadian Space Agency
Canada-Wide Science Fair
Canada Wind Energy Association
Cardiff University
Carleton University
Carl Zeiss Canada
Chef Bruce Wood
Chef Lynn Crawford
Children's Hospital of Eastern Ontario
Clean Foundation
Clean Growth Hub
Colliers International
Connected North
Conseil des écoles publiques de l'Est de l'Ontario
Conseil des écoles catholiques du Centre-Est
Council of Canadians with Disabilities
CREO Inc.

Dairy Distillery
Dairy Farmers of Canada
Dairy Farmers of Ontario
Dalhousie University
Defence Research and Development Canada
Department of Canadian Heritage
Department of Mining Engineering, Queen's University
DigiHub Shawinigan
Dominion City Brewing Co.
École de musique Sonart
Ecology Ottawa
EDM Studio
EEPMON
Electric Vehicle Council of Ottawa
Embassy of the Kingdom of the Netherlands
Energy Education
Environmental Education Communication Network
Environment Canada and Climate Change Canada
EOS Lightmedia
Experimental Aircraft Association
Ferme et Forêt
First Mobile Education
Fisheries and Oceans Canada
Franklin Institute
Galileo Museum
Garden Promenade Ottawa
Gartner Canada
Gees Bees
Geological Survey of Canada
Globalive XMG
Google Expedition
Governor General's Innovation Awards
Groupe Lapsus Inc.
GSM
Health Canada
Heiltsuk Nation
Héli-Tremblant
Heritage Livestock Canada (Formerly Rare Breeds Canada)
Hummingbird Chocolate
Impact Group
Indigo Park
Information Communications Technology Council
Inside Education
International Plastic Modeller Society
J.A. Laporte Flowers & Nursery
Kind Village
La Nation Huron-Wendat
La Trappe à Fromage
Laurier Centre for Women in Science (Wilfrid Laurier University)
Les Toques Blanches
Lixar

L'Oréal Canada
Lumos Energy
Lumbec
M42 Group Incorporated
MacOdrum Library, Carleton University
Magellan
Maker Faire
Manitoba First Nation Education Resource Centre
Marine Biology Laboratory, University of Chicago
Master Gardeners of Ottawa Carleton
McGill University
MDA
Milkhouse Dairy
Mission Control
Musée des Arts et Métiers, Paris
Musée des Hospitalières de l'Hôtel-Dieu de Montréal
My Tiny Cupboard
Native Skywatchers
National Film Board of Canada
National Geographic
National Research Council Canada
Natural Science and Engineering Research Council of Canada
Neal Brothers Foods
Newfoundland and Labrador English School District
Nutrients for Life
Nunavik Creations
Ontario Ministry of Education
Ontario Science Centre
OpenText
Osler Library for the History of Medicine, McGill University
Ottawa Biplane Adventures
Ottawa Community Foundation
Ottawa Food Bank
Ottawa Society of Botanical Artists
Ottawa Valley Border Collie Club
Ottawa Valley Mobile Radio Club
Ottawa Volunteer Search and Rescue
Overflow Brewing Company
pHacktory
Pomerleau
Pratt & Whitney Canada
Proto3000
Public Policy Forum
Public Health Agency of Canada
Quality Urban Energy Systems of Tomorrow
Research and Education in Accessibility, Design, and Innovation (READi)
Redefined Wood
Rick Hansen Foundation
Roberta Bondar Foundation
Rockcliffe Flying Club

ROTO
Royal Astronomical Society of Canada
Royal Canadian Air Force
Royal Canadian Geographical Society/Canadian Geographic
Royal College of Physicians and Surgeons of Canada
Rum&Code
Ryerson University
Savvy Company Inc.
Science Museum, London
Science World British Columbia
Scientific Instrument Commission
SE3D Interactive
Sensigent
Sheep Herder Werner Reitboeck
Sheep Shearer Ross Creighton
Siemens
SimentIT Inc.
SimWave
Smithsonian Enterprises
Spiria
St. Cloud State University
Department of Women and Gender Equality
Stetson Flyers
Student Energy
Telus Spark
The Learning Partnership
The Piggy Market
The Taylor Group
Think Data Works
Title Entertainment Inc.
Toboggan Design Inc.
Top Shelf Preserves
University of Ottawa
University of Toronto
University of Waterloo
Vanderlaand Farm
verTerra Corporation
Westcoast Women in Engineering Science and Technology (WWEST)
Western University
Willow Hollow Farm
Willow Lane Farm
Winterlude
Youth Climate Lab
ZEISS Canada

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Management Discussion and Analysis

Ingenium – Canada’s Museums of Science and Innovation is committed to achieving the mandate established by the *Museums Act*, while providing the financial and operational foundation necessary to support ongoing renewal and delivery of its many programs and projects.

As a cultural Crown corporation, the Corporation operates at arm’s length from government with regard to operating and programming decisions, and is subject to the financial provisions governing Crown corporations set out in Part X of the *Financial Administration Act*. Ingenium is governed by a Board of Trustees, which is accountable to Parliament for the stewardship of the Corporation through the Minister of Canadian Heritage.

The Corporation operates three national museums in the execution of its mandate: the Canada Science and Technology Museum (CSTM), the Canada Aviation and Space Museum (CASM), and the Canada Agriculture and Food Museum (CAFM).

PUBLIC POLICY ROLE	<p>“plays an essential role, individually and together with other Museums and like institutions, in preserving and promoting the heritage of Canada and all its peoples throughout Canada and abroad, and in contributing to the collective memory and sense of identity of all Canadians;”</p> <p>“is a source of inspiration, research, learning and entertainment that belongs to all Canadians and provides, in both official languages, a service that is essential to Canadian culture and available to all.”</p>
MANDATE	<p>“To foster scientific and technological literacy throughout Canada by establishing, maintaining, and developing a collection of scientific and technological objects, with special but not exclusive reference to Canada, and by demonstrating the products and processes of science and technology and their economic, social and cultural relationships with society.”</p>
MISSION	<p>To collect, explore, and engage through science, technology, and engineering.</p>
VISION	<p>To inspire Canadians to celebrate and engage with their scientific, technological and innovative past, present and future.</p>
VALUES	<p>Accountability — Collaboration — Creativity — Integrity — Pride — Respect</p>

Strategic Directions

Over 2019-2020, Ingenium pursued the long-term strategic objectives established by the Board of Trustees for the 2015-2016 to 2019-2020 planning period. The five strategic objectives derive from its mandate and guide the delivery of its programs. The Corporation's parliamentary appropriations are allocated against four Core Responsibilities.

Strategic Objectives and Outcomes mapped to the Core Responsibilities

CORE RESPONSIBILITIES	STRATEGIC OBJECTIVES AND OUTCOMES
<p><i>Heritage Preservation and Research</i></p> <p>Developing and preserving a comprehensive national science and technology collection; providing access to the collection; and sharing research and expertise to enhance knowledge of the collection.</p>	<p>Best in Class – Collection</p> <p>The Corporation has a well-researched, preserved, comprehensive and rationalized collection that is accessible virtually and physically to all Canadians.</p>
<p><i>Exhibitions, programs and outreach</i></p> <p>Interpretation of the collection and demonstration of scientific and technological innovations and inventions, and their impact on society, through the delivery of virtual and physical exhibits and educational programs for museum visitors and global audiences.</p>	<p>Best in Class – Education and Exhibitions</p> <p>The Corporation delivered programs, products and services that tell the stories of Canadian ingenuity and innovation.</p>
<p><i>Museum and Collection Buildings</i></p> <p>Managing the physical environments that house collection objects and exhibits stored and on display at the Canada Agriculture and Food Museum, the Canada Aviation and Space Museum, and the Canada Science and Technology Museum as well as laboratory, workshop and administrative spaces.</p>	<p>National and Global Reach</p> <p>The Corporation developed and created products that reached, connected and engaged with new and existing audiences outside the museums.</p>
<p><i>Internal Services</i></p> <p>Stewardship and management of corporate infrastructure, resources and services.</p>	<p>Renewed and Innovative Physical Infrastructure</p> <p>The Corporation's NMST has three museum campuses that are recognized by Canadians and international audiences as destinations of choice in the Canada's Capital Region.</p>
	<p>Sustainable and Profitable</p> <p>The Corporation is a profitable, innovative, well organized, and financially viable organization.</p>

Environmental Scan

Key Internal Factors

Ingenium's greatest strength is its knowledgeable and experienced staff, complemented by more than 300 volunteers. The Corporation monitors the retirement eligibility for staff in critical positions and provides training and learning opportunities according to its succession plan. It offers internships, co-ops, and fellowships that provide youth with work experience and help with recruitment. To create a more diverse workforce, it is also working to identify and eliminate barriers for individuals from underrepresented communities.

The Corporation strives to maximize and diversify self-generated revenues as well as contributions in the face of a growing funding deficit due to a lack of indexation and adjustments for increased operating and capital expenses. It continues to expand its network of collaborators, at home and abroad, to further science and technology literacy programs and remain a digital leader in the heritage sector.

With the highest level of memberships ever attained, which peaked at over 17,600 in winter 2019, the Corporation is aggressively pursuing retention strategies, including members' benefits and technological solutions for ease of renewal.

Major infrastructure projects, including the renewed Canada Science and Technology Museum and the new Ingenium Centre, have had a significant positive impact on the Corporation's ability to fulfill its mandate.

Key External Factors

Demographic trends: To remain relevant to the citizens they serve, Canada's museums must be aware of changing demographics in society and adapt their offerings in collaboration with stakeholders representing a range of perspectives and needs. Most notably, Canada is experiencing a population growth, mainly attributable to immigrant and Indigenous youth populations that are growing at three times the national average. The Corporation takes this diversity into consideration when developing programming and exhibitions, and continues to work in collaboration with communities that have traditionally been underrepresented.

Economic trends: As of 2019, tourism in the National Capital Region returned to normal average of about three million visitors annually after a tourism increase in 2017-2018 due to celebrations commemorating 150 years of Confederation. The stable Canadian economy continued to support healthy consumer spending through most of 2019-2020, however the impact of the COVID-19 pandemic is likely to have a severe negative impact. There is increasing competition in the sponsorship and philanthropic market, with over three hundred new charities registered in Canada annually. The Corporation must continue to promote its unique value proposition for the sector.

Digital trends: Canadians expect more than just to access cultural content online—they expect to engage with that content in different forms including virtual and augmented reality applications and to participate in co-creation of that content. The Corporation continues to use and develop digital products and platforms to share Canadian stories about science and innovation with domestic and international audiences. This includes the development of a variety of new apps and experiences for its museums that allow on-site and off-site visitors to engage with the collection.

Social trends: There is a growing expectation that public institutions like museums should contribute to address social issues, be fully accessible and respond to community needs. It presents an opportunity for Ingenium to grow national conversations about contemporary science, technology and innovation issues, through a social impact lens. For instance, the Corporation supports initiatives that encourage women and youth in careers in the fields of science, technology, engineering, and mathematics (STEM). Ingenium also continues to improve accessibility across its sites and programs, including changes to built infrastructure as well as adapted programs and resources for individuals on the Autism Spectrum.

Risk Analysis

For 2019-2020, the Corporation identified three major risks in its corporate plan that have the high likelihood and impact of jeopardizing its ability to deliver results on its strategic objectives. These were: the risk of incurring cost overruns for the Ingenium Centre project and the inability to successfully complete the project with proper building and site functionality; the risk of potentially losing relevance due to limited capacity to invest in new programming and exhibitions; and the risk of endangering the national collection in storage due to inappropriate housing conditions in current leases, or during the collection move to the new Ingenium Centre.

Risk 1: The impact of cost overruns for the Ingenium Centre project and the inability to successfully complete the project with proper building and site functionality.

The project budget for the construction of the Ingenium Centre was established based on an order of magnitude estimate ($\pm 50\%$). Complex building systems are required for storage conditions and laboratories that enable collection preservation. Due to its limited base appropriations, Ingenium could not absorb cost overruns without significantly negatively impacting operations at the museums.

Ingenium put in place a variety of mitigation measures to protect the project budget, including a highly qualified team of internal staff and external professionals with strengthened executive and Board oversight, continuous value-engineering and a 15% contingency fund, and extending the schedule to save acceleration fees. Despite these efforts, market prices, unfunded site costs and new regulatory requirements created budget pressures. The Corporation will be using its earned equity to cover a portion of the cost overruns, while some equipment fit-up will be delayed, downgraded or eliminated.

Risk 2: The potential loss of relevance due to a limited capacity to invest in new programming and exhibitions on multiple platforms.

Ingenium's appropriations are not indexed to protect it against the impact of inflation and market forces on goods and services, utilities, property taxes and other non-discretionary costs. Ingenium continues to use an increasing portion of its operating funding to operate its 19 facilities, which impact its ability to fund new digital, exhibition and program initiatives.

Ingenium mitigated the risk of losing relevance due to the widening gap between operational costs and funding by practicing sound financial management, by finding efficiencies and savings in its operations, by seeking diverse revenue generating opportunities, and expanding its pipelines for contributions and sponsorships. It also reached out domestically and internationally to establish collaborative relationships to deliver programs. Ingenium uses digital means in order to reach a broader public more efficiently. Recent significant federal investments in the Corporation's infrastructure are being used to repair and renew facilities and render them more energy efficient in order to reduce operating costs. Additionally, the move into the Ingenium Centre has begun to reduce Ingenium's reliance on leased buildings.

Risk 3: Endangering the national collection in storage due to inappropriate storage conditions or during their move to the Ingenium Centre.

During the construction of the Ingenium Centre, the national collection will continue to be at risk due to the inappropriate environment and security controls in the current facilities. During their move into the Ingenium Centre, artifacts may become damaged, lost or cause injury to staff and contractors involved in the move that will take three years to complete (2019 to 2021).

Once the national collection is moved into the new Ingenium Centre, the risk of its accelerated deterioration will be eliminated as the new purpose-built storage facility provides the appropriate environmental controls for artifact preservation. In the interim, Ingenium has accelerated collection rationalization and surplus inventory disposal to manage its holdings and prepare for the move. It has made repairs to the leased buildings with funding from Budget 2016. The move team has implemented a variety of risk mitigation actions, including fabricating customized pallets and crates to secure artifacts, identifying and removing or containing hazards, and health and safety training. A firm specializing in heavy equipment was engaged in 2019 to move oversized, extra-heavy artifacts.

Audit

The Office of the Auditor General of Canada (OAG) conducts an annual attestation audit, as well as a special examination at least once every 10 years, pursuant to the *Financial Administration Act*.

The OAG completed a special examination of the Corporation, which was published in spring 2019. The OAG made nine recommendations for improvement, for which the Corporation developed an action plan in fall 2019. Six of the recommendations were addressed by March 31, 2020, the remaining will be completed in 2020-2021.

Financial Overview

2019-2020 represented the second full fiscal year of operating the renewed Canada Science and Technology Museum (CSTM) since it re-opened in November 2017. Although revenues are still higher than prior the CSTM closing, the positive impact of the reopening on revenues is leveling out with time.

A major milestone in 2019 was the completion of the new Ingenium Centre and the move of employees to the new building, which led to an increase in expenditures compared to previous fiscal year.

The Corporation's total budget for 2019-2020, reported on an accrual basis, was \$54.5 million, comprising funds from three sources: parliamentary appropriations, operating revenues, and contributions.

Despite the Ontario Teachers strike and the closure of the museums in mid-March as a public health measure in response to containing the COVID-19 pandemic, the Corporation surpassed its revenue targets for 2019-2020. This is a testament to the excellent content and experiences Ingenium offers.

Sources of funds

Parliamentary Appropriations

Parliamentary appropriations recognized on an accrual basis increased from \$36.6 million in 2018-2019 to \$40.3 million in 2019-2020 reflecting the increase in amortization of deferred capital funding. On a cash basis, appropriations for 2019-2020 totaled \$30.9 million, a slight increase compared to the 2018-2019 appropriations of \$30.2 million.

Revenues

Overall, the Corporation saw a \$2 million or 12% decrease in total revenues and contributions year-over-year, from a total of \$16.2 million in 2018-2019 representing the highest revenues in the Corporation's history, to \$14.2 million in 2019-2020.

Operating Revenues

Operating revenues decreased significantly over the previous year, from \$11.4 million in 2018-2019 to \$9.8 million in 2019-2020. In fact, 2018-2019 saw record-breaking attendance at the Canada Science and Technology Museum following its re-opening in November 2017. In addition to admission and program revenues at the CSTM, the 2018-2019 fiscal year also marked a peak in memberships and commercial revenues (i.e. retail, farm operations, parking, thematic experiences and others).

The Corporation surpassed its revenue target of \$9.1 million in 2019-2020 by 8% mainly due to better results than expected from CAFM admissions, facility rentals and travelling exhibitions.

Contributions

Contributions recognized as revenues vary from year to year, based on the revenues required to fund specific programs and install new exhibitions. Contributions increased by \$0.5 million year-over-year, from \$3.1 million in 2018-2019 to \$3.6 million in 2019-2020. The Corporation recognized important contributions in 2019-2020 from Agriculture Agri-food Canada, the Department of Fisheries and Oceans Canada and the Communications Security Establishment.

Interest Revenues

The Corporation generates interest income by investing its short-term cash balance as well as its earned equity in low-risk vehicles. The 2019-2020 interest income decreased by approximately \$1.0 million when compared to 2018-2019, for a total of \$0.8 million in 2019-2020, mainly due to significant payments made to complete the construction of the new Ingenium Centre.

Operating Expenditures

The Corporation's total expenses for 2019-2020 reached a total of \$55.2 million, compared to \$52.6 million in 2018-2019. The difference is largely attributable to the relatively significant expenses associated with the management and operation of the new Ingenium Centre (Payments-in-lieu-of-taxes, amortization of capital assets, maintenance, security and utilities).

Heritage Preservation and Research

Expenses increased to \$6.5 million in 2019-2020, as compared to \$5.8 million in 2018-2019, in the heritage preservation and research activities. The increase is primarily due to the temporary resources to move the collection into the new Ingenium Centre.

Exhibitions, programs and outreach

Expenses remained relatively stable among the exhibitions, programs and outreach activities at \$20.0 million in 2019-2020 compared to \$20.3 million in 2018-2019. The slight decrease is largely due to lower expenditures incurred to develop new exhibitions in 2019-2020 when compared to 2018-2019.

Museums and Collection Buildings

Expenses increased from \$17.9 million in 2018-2019 to \$20.4 million in 2019-2020, primarily due to the additional costs incurred to operate the renewed CSTM and the new Ingenium Centre.

Internal Services

Internal Services expenditures decreased from \$8.6 million in 2018-2019 to \$8.3 million in 2019-2020, mainly due to the decrease in retail operations and a few temporary vacant positions in corporate services.

Net Results of Operations and Year-End Position

The net results of operations yielded a loss of \$701,000 in 2019-2020, reducing its total earned equity to \$2.64 million. Before the beginning of the fiscal year, the Corporation had projected a loss for the fiscal year 2019-2020 since it had planned to use part of its unrestricted net assets to cover unavoidable additional costs related to the Ingenium Centre project and operating its facilities, for which the Corporation receives no inflationary funding.

Capital Assets and Collection

Tangible capital assets increased from \$254.6 million in 2018-2019 to \$264.6 million in 2019-2020, due to the construction of the new Ingenium Centre, which provides purpose-built environments for preserving the national science and technology collection.

Outlook

On March 11, 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. Based on pandemic containment and public health protection measures, Ingenium swiftly closed its museums and moved the vast majority of its workforce to teleworking. In implementing these measures, the Corporation incurred unforeseen costs and a significant loss of operating revenues.

The Corporation is actively monitoring the recommendations of public health agencies and will adapt its operations and visitor services accordingly. However, as uncertainty remains about when the museums will welcome visitors and deliver on-site programs at full capacity, the loss of operating revenues during the pandemic is of significant concern

for the financial viability of the Corporation. In addition to reducing its discretionary spending, Ingenium was fortunate to receive financial support from the federal government in order to alleviate the current financial pressures related to COVID-19 impacts and meet its financial obligations.

As 2019-2020 was the last year of implementation of Ingenium's strategic plan 2015-2020, the Corporation has developed a bold new vision in close collaboration with the Board of Trustees and in consultation with staff and stakeholders for the period of 2020 to 2025. The Strategic Goals for this new plan are: (1) Collaborate to Innovate - helping Canadians build the confidence and skills they need to become innovators; (2) Access for All – making our experiences more accessible and meaningful for more audiences, especially those who have traditionally faced barriers; and (3) Strengthen our Foundations – delivering quality visitor experiences and ensuring its long-term sustainability.

The closure of the CSTM for its renewal, and more recently, the temporary closure in response to the COVID-19 pandemic containment measures, continue to inspire Ingenium to find innovative ways to leverage digital technologies to reach local, national and international audiences with science and technology knowledge, programs and exhibitions. Rooted in a technology mandate, Ingenium will continue to use digital technologies and platforms, such as 3D scanning, mobile apps and games, and virtual exhibitions, to redefine museum access in the digital era. Ingenium will deepen its engagement with Indigenous groups as well as diversity and accessibility groups and support the creation of enriched and diverse cultural heritage content in the public sphere.

To ensure the long-term preservation of Canada's rich science and technology heritage, the Corporation will work to safely move the artifacts into the new Ingenium Centre. A newly launched Ingenium Research Institute will foster the creation of new and strengthened research projects and partnerships. Ingenium will continue to attract collaborators to create knowledge and to innovate with the collection in ways that more Canadians to access, engage with, and contribute to our shared innovation heritage.

Looking forward to the next five years and beyond, Ingenium will build on its remarkable successes to date, to provide more opportunities and experiences that empower Canadians to participate in Canada's innovation culture.

Financial Statements

Management's Responsibility for Financial Statements

The financial statements contained in this annual report have been prepared by Management in accordance with Canadian Public Sector Accounting Standards for Government not-for-profit organizations, and the integrity and objectivity of the data in these financial statements are Management's responsibility. Management is also responsible for all other information in this annual report and for ensuring that this information is consistent, where appropriate, with the information and data contained in the financial statements.

In support of its responsibility, Management has developed and maintains books of account, records, financial and management controls, information systems and management practices. These are designed to provide reasonable assurance as to the reliability of financial information that assets are safeguarded and controlled, and that transactions are in accordance with Part X of the *Financial Administration Act* ("FAA") and regulations, as well as the *Museums Act* and regulations, the by-laws of the Corporation and the directive issued pursuant to section 89 of the FAA described in Note 1 to the financial statements.

The Board of Trustees is responsible for ensuring that Management fulfils its responsibilities for financial reporting and internal control. The Board of Trustees exercises its responsibilities through the Finance, Audit and Risk Management Committee, which includes a majority of members who are not officers of the Corporation. The Committee meets with Management and the independent external auditor to review the manner in which Management is performing its responsibilities and to discuss auditing, internal control, and other relevant financial matters. The Finance, Audit and Risk Management Committee has reviewed the financial statements and has submitted its report to the Board of Trustees. The Board of Trustees has reviewed and approved the financial statements.

The Corporation's external auditor, the Auditor General of Canada, audits the financial statements and reports to the Minister responsible for the Corporation.



Christina Tessier
President and CEO



Fernand Proulx
Chief Operating Officer and Capital Projects

23 June 2020



Office of the
Auditor General
of Canada

Bureau du
vérificateur général
du Canada

INDEPENDENT AUDITOR'S REPORT

To the Minister of Canadian Heritage

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the National Museum of Science and Technology (the Museum) which comprise the statement of financial position as at 31 March 2020, and the statement of operations, statement of changes in net assets and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Museum as at 31 March 2020 and the results of its operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

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 *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Museum 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.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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 public sector accounting standards, 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 Museum'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 Museum or to cease operations, or has no realistic alternative but to do so.

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

Auditor's 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 auditor's 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 these 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 Museum'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 Museum's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's 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 auditor's

report. However, future events or conditions may cause the Museum 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.

We 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.

Report on Compliance with Specified Authorities

Opinion

In conjunction with the audit of the financial statements, we have audited transactions of the National Museum of Science and Technology coming to our notice for compliance with specified authorities. The specified authorities against which compliance was audited are Part X of the *Financial Administration Act* and regulations, the *Museums Act* and regulations, the by-laws of National Museum of Science and Technology, and the directive issued pursuant to section 89 of the *Financial Administration Act*.

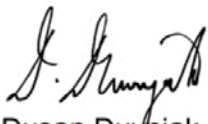
In our opinion, the transactions of the National Museum of Science and Technology that came to our notice during the audit of the financial statements have complied, in all material respects, with the specified authorities referred to above. Further, as required by the *Financial Administration Act*, we report that, in our opinion, the accounting principles in Canadian public sector accounting standards have been applied on a basis consistent with that of the preceding year.

Responsibilities of Management for Compliance with Specified Authorities

Management is responsible for the National Museum of Science and Technology's compliance with the specified authorities named above, and for such internal control as management determines is necessary to enable the National Museum of Science and Technology to comply with the specified authorities.

Auditor's Responsibilities for the Audit of Compliance with Specified Authorities

Our audit responsibilities include planning and performing procedures to provide an audit opinion and reporting on whether the transactions coming to our notice during the audit of the financial statements are in compliance with the specified authorities referred to above.



Dusan Duvnjak, CPA, CMA
Principal
for the Auditor General of Canada

Ottawa, Canada
23 June 2020

STATEMENT OF FINANCIAL POSITION

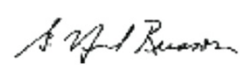
As at March 31

<i>(in thousands of dollars)</i>	2020	2019
ASSETS		
Current		
Cash and cash equivalents (Note 3)	\$19,688	\$49,196
Accounts receivable		
Government departments	963	3,767
Trade	522	418
Inventories	631	551
Prepaid expenses	630	945
	<u>22,434</u>	<u>54,877</u>
Collection (Note 4)	1	1
Capital assets (Note 5)	264,606	254,642
	<u>\$287,041</u>	<u>\$309,520</u>
LIABILITIES		
Current		
Accounts payable and accrued liabilities (Note 6)	\$7,644	\$17,683
Current portion of employee future benefits (Note 7)	343	447
Deferred contributions and deferred revenues (Note 8)	10,579	32,259
	<u>18,566</u>	<u>50,389</u>
Employee future benefits (Note 7)	268	292
Long-term advance (Note 9)	4,208	4,208
Deferred contributions related to capital assets (Note 10)	251,257	241,188
	<u>274,299</u>	<u>296,077</u>
NET ASSETS		
Unrestricted	2,640	3,341
Investment in capital assets	10,102	10,102
	<u>12,742</u>	<u>13,443</u>
	<u>\$287,041</u>	<u>\$309,520</u>

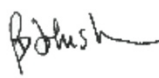
Contractual obligations, contractual rights and contingencies (Notes 15, 16 and 18)
The accompanying notes and schedules form an integral part of these financial statements.

Approved by the Board of Trustees

Recommended by Management



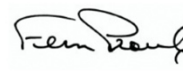
Neil Russon
Chairman



Paul Johnston
Chair, Finance, Audit and
Risk Management Committee



Christina Tessier
President and CEO



Fernand Proulx
Chief Operating Officer and
Capital Projects

STATEMENT OF OPERATIONS

For the year ended March 31

<i>(in thousands of dollars)</i>	2020	2019
REVENUES		
Operating (Schedule 1)	\$9,791	\$11,377
Contributions (Schedule 1)	3,637	3,095
Interest	786	1,766
Total revenues	14,214	16,238
EXPENSES (Schedule 2)		
Heritage preservation and research	6,536	5,839
Exhibitions, programs and outreach	20,041	20,343
Internal services	8,256	8,557
Museums and collection buildings	20,357	17,855
Total expenses	55,190	52,594
Deficit before parliamentary appropriations	(40,976)	(36,356)
Parliamentary appropriations (Note 11)	40,275	36,583
Surplus (loss) for the year	(\$701)	\$227

The accompanying notes and schedules form an integral part of these financial statements.

STATEMENT OF CHANGES IN NET ASSETS

For the year ended March 31

<i>(in thousands of dollars)</i>	2020	2019
INVESTMENT IN CAPITAL ASSETS		
Investment in capital assets, beginning of year	\$10,102	\$10,102
Change in investment in capital assets for the year	-	-
Investment in capital assets, end of year	10,102	10,102
UNRESTRICTED NET ASSETS		
Unrestricted net surplus, beginning of year	3,341	3,114
Surplus (Loss) for the year	(701)	227
Unrestricted net surplus, end of year	2,640	3,341
NET ASSETS, END OF THE YEAR	\$12,742	\$13,443

The accompanying notes and schedules form an integral part of these financial statements.

A Statement of Remeasurement Gains and Losses has been excluded as there have been no remeasurement gains or losses.

STATEMENT OF CASH FLOWS

For the year ended March 31

<i>(in thousands of dollars)</i>	2020	2019
OPERATING ACTIVITIES		
Cash received (clients and donors)	\$12,773	\$13,791
Parliamentary appropriations received for operations	27,347	27,294
Cash paid to suppliers	(20,587)	(22,632)
Payments related to salary and benefits	(23,328)	(23,212)
Cash received from the Foundation	77	233
Interest received	854	1,862
Net cash used through operating activities	(2,864)	(2,664)
CAPITAL ACTIVITIES		
Payments related to capital acquisitions	(30,830)	(78,858)
Net cash used through capital activities	(30,830)	(78,858)
FINANCING ACTIVITIES		
Sponsorship received for the acquisition of capital assets	550	769
Appropriations received for the acquisition of capital assets	3,636	2,955
Net cash generated through financing activities	4,186	3,724
Net decrease in cash and cash equivalents	(29,508)	(77,798)
Cash and cash equivalents, beginning of year	49,196	126,994
Cash and cash equivalents, end of year	\$19,688	\$49,196

The accompanying notes and schedules form an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS

March 31, 2020

1. Authority, mandate and operations

The National Museum of Science and Technology (the Corporation) was established by the *Museums Act* on July 1, 1990, and is a Crown corporation named in Part I of Schedule III to the *Financial Administration Act* and is not subject to income taxes under the provisions of the *Income Tax Act*.

The mandate of the Corporation, as stated in the *Museums Act*, is to foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technical objects, with special but not exclusive reference to Canada, and by demonstrating the products and processes of science and technology and their economic, social and cultural relationships with society.

The Corporation operates as the Ingenium - Canada's Museums of Science and Innovation. It manages three museum sites: the Canada Science and Technology Museum, the Canada Aviation and Space Museum, and the Canada Agriculture and Food Museum. The Corporation's operations are organized by functionality as follows:

Heritage Preservation

This includes documentation, cataloguing, conservation, historical research, the library and related services.

Sharing Knowledge

This includes the development and maintenance of exhibitions, interpretive and educational activities, communication and promotion, Web activities and other services to visitors.

Internal Services

This includes services such as human resources, finance and facilities management, corporate development and commercial operations, all of which are provided centrally.

Accommodation

This includes operating and maintenance expenses for all owned and leased facilities including protection services, leases of buildings and property taxes. It also includes a significant portion of the amortization expense since the main capital acquisitions relate to the Corporation's facilities.

Directive pursuant to section 89 of the *Financial Administration Act*

In July 2015, the Corporation was issued a directive (P.C. 2015-1105) pursuant to section 89 of the *Financial Administration Act* to align its travel, hospitality, conference and event expenditures policies, guidelines and practices with Treasury Board policies, directives and related instruments on travel, hospitality, conference and event expenditures in a manner that is consistent with the Corporation's legal obligations, and to report on the implementation of this directive in the Corporation's next corporate plan. The Corporation has complied with this directive, including implementing subsequent amendments to Treasury Board's Directive on Travel, Hospitality, Conference and Event Expenditures.

2. Accounting policies

The significant accounting policies are as follows:

(a) Basis of presentation

These financial statements have been prepared in accordance with Section 4200 of the Canadian Public Sector Accounting Standards applicable to government not-for-profit organizations. The Corporation applies the deferral method of accounting for contributions.

(b) Cash and cash equivalents

The Corporation's investments are highly liquid as they are redeemable on demand without prior notice or penalty and limited to fixed income securities in reputable financial institutions that are members of the Payments Canada and rated good quality (A-1, A or better) by the Canadian Bond Rating Services (DBRS).

Restricted cash and cash equivalents may arise from unused appropriations and deferred contributions from individual and corporate entities for a specific purpose.

(c) Accounts receivable

Accounts receivable are stated at amounts expected to be ultimately realized. The Corporation establishes an allowance for doubtful accounts that reflects the estimated impairment of accounts receivable. The allowance is based on specific accounts and is determined by considering the Corporation's knowledge of the financial condition of its customers, the aging of accounts receivable, current business climate, customers and industry concentrations and historical experience.

All write-downs against accounts receivable are recorded within operating expenditures on the Statement of Operations.

(d) Inventories

Inventories are valued at the lower of cost and net realizable value. Inventory cost is determined by using the weighted average cost method, and net realizable value is based on retail price.

(e) Collection

The collection constitutes a significant portion of the Corporation's assets but is shown at a nominal value of \$1,000 on the Statement of Financial Position because of the practical difficulties in reflecting it at a meaningful value.

Items purchased for the collection are recorded as expenses in the year of acquisition. Items donated to the Corporation are recorded as assets at the nominal value. Proceeds of sales from collection items, if any, are recorded as revenue in the year of disposal.

(f) Capital assets

Capital assets are recorded on the following basis. Acquired capital assets owned by the Corporation are recorded at cost and amortized over their estimated useful life. Land and buildings owned by the Government of Canada and under the control of the Corporation are recorded at their estimated historical cost for land and at their estimated

historical cost less accumulated amortization for buildings. The estimated historical net costs of the buildings have been credited to deferred contributions related to capital assets, and the estimated historical cost of the land has been credited to net assets under the heading of investments in capital assets on the Statement of Financial Position. Land for which the historical cost cannot be reasonably determined is recorded at a nominal value with a corresponding amount credited to net assets. Improvements that extend the useful life or service potential of buildings and exhibits are capitalized and recorded at cost. Building and exhibit improvements are amortized over the estimated useful life of the improvements. Permanent exhibitions represent costs that are directly attributable to the exhibition and meet the definition of a capital asset. They may include employee salaries and benefits, professional service fees, permanent exhibit and building structures as well as images and copyrights.

When conditions indicate that a capital asset no longer contributes to the Corporation's ability to provide goods and services, or that the value of future economic benefits associated with the capital asset is less than its net book value, the cost of the tangible capital asset is reduced to reflect the decline in the asset's value. The net write-down is then accounted for as an expense on the Statement of Operations.

Amortization of assets is calculated on a straight-line basis over their estimated useful lives, using a half year-rule in the year of acquisition, as follows:

Buildings	10 to 40 years
Building improvements	10 to 25 years
Office furniture	5 to 12 years
Equipment	5 to 12 years
Computer software	5 years
Museum permanent exhibitions	5 to 20 years

Land, easement rights and capital projects in progress are not amortized. Amounts included in capital projects in progress are transferred to the appropriate capital asset classification upon completion, and are amortized accordingly.

(g) Employee future benefits

i) Benefits

Substantially all of the employees of the Corporation are covered by the public service pension plan (the "Plan"), a contributory defined benefit plan established through legislation and sponsored by the Government of Canada. Contributions are required by both the employees and the Corporation to cover current service cost. Pursuant to legislation currently in place, the Corporation has no legal or constructive obligation to pay further contributions with respect to any past service or funding deficiencies of the Plan. Consequently, contributions are recognized as an expense in the year when employees have rendered service and represent the total pension obligation of the Corporation.

ii) Severance and termination benefits

Prior to May 11, 2012, eligible employees of the Corporation were entitled to specified benefits as provided for under labour contracts and conditions of employment, through a severance benefit plan. The Corporation has eliminated this benefit as of May 11, 2012 and any outstanding payments due as at year-end have been accrued and are remeasured on a yearly basis to take into consideration salary increases.

The Corporation continues to provide termination benefits to employees that are being laid-off. Severance and termination benefits are not pre-funded and thus have no assets. Severance and termination benefits will be paid from future appropriations.

iii) Sick leave benefits

Employees accumulate unused sick leave days available, which may be used in future years. An employee's unused sick leave balance is carried forward until the employee departs the Corporation, at which point any unused balance cannot be redeemed for pay and the Corporation's liability lapses. The Corporation recognizes the cost of future sick leave benefits over the periods in which the employees render services to the Corporation. The valuation of the liability is based on Management's best estimate of inflation, discount rate, employee demographics and sick leave usage of active employees.

(h) Revenue recognition

i) Parliamentary appropriations

The Government of Canada provides funding to the Corporation.

Parliamentary appropriations received for the purchase of amortizable capital assets including exhibitions with a useful life of over one year are initially recorded as deferred contributions on the Statement of Financial Position. When a capital asset purchase is made, the portion of parliamentary appropriation used to make the purchase is recorded as deferred contributions related to capital assets and is recognized as revenue on the same basis and over the same periods as the related capital assets acquired.

Parliamentary appropriations restricted for specific expenses are deferred on the Statement of Financial Position and recognized as revenue on the Statement of Operations in the period that those expenses are incurred.

Parliamentary appropriations that are not restricted to a specific purpose are recognized as revenue on the Statement of Operations in the period for which the parliamentary appropriation is authorized.

ii) Operation revenues

Revenues from Museum operations include the sale of general admission and programs, boutique sales, facility rentals, memberships, farm operations, parking and other revenues. They are recognized in the year in which the sale of goods is completed or the services are provided.

iii) Contributions

Contributions from sponsorships received for the purchase of amortizable capital assets including exhibitions with a useful life over one year are recorded as deferred contributions related to capital assets and are recognized as revenue on the same basis and over the same periods as the related exhibition acquired.

Contributions externally restricted for specific expenses and purposes are deferred on the Statement of Financial Position and recognized as revenue on the Statement of Operations in the period in which the related expenditures are recognized and requirements are met.

Unrestricted contributions are recognized as revenue on the Statement of Operations when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Contributions in kind, when used in the normal course of the Corporation's operations and would otherwise have been purchased are recorded at their estimated fair value when they are received. Because of the difficulty in determining their fair value, donated objects for the collection (Note 4) are not recognized in these financial statements.

iv) Interest revenues

Interest revenues are recognized in the period in which they are earned using the effective interest rate method.

(i) Foreign currency translation

Transactions involving foreign currencies are translated into Canadian dollar equivalents using rates in effect at the time of those transactions. Monetary assets and liabilities denominated in foreign currencies are translated using exchange rates at March 31.

Realized gains and losses resulting from foreign currency translation are reported on the Statement of Operations. Gains are reported as other revenues on the Schedule of Operating Revenues and Contributions, and losses are reported as miscellaneous expenses on the Schedule of Expenses.

(j) Financial assets and liabilities

The classification of financial instruments is determined by the Corporation at initial recognition and depends on the purpose for which the financial assets were acquired or liabilities were incurred. All financial instruments are recognized initially at fair value.

The fair value of financial instruments on initial recognition is based on the transaction price, which represents the fair value of the consideration given or received. Subsequent to initial recognition, financial instruments are measured based on the accounting treatment corresponding to their classification.

Financial assets and financial liabilities are measured at cost or amortized cost. Financial assets consist of cash and cash equivalents, and accounts receivable net of tax receivable. Financial liabilities consist of long-term advance, and accounts payable and accrued liabilities.

(k) Related party transactions

i) Inter-entity transactions

Inter-entity transactions are transactions between commonly controlled entities. Inter-entity transactions, other than restructuring transactions, are recorded on a gross basis and are measured at the carrying amount, except for the following:

- Inter-entity transactions are measured at the exchange amount when undertaken on similar terms and conditions to those adopted if the entities were dealing at arm's length, or where cost provided are recovered.
- Goods or services received without charge between commonly controlled entities are not recorded.

ii) Other related party transactions

Related party transactions, other than inter-entity transactions, are recorded at the exchange amount.

(l) Contingent liabilities

Contingent liabilities are potential liabilities that may become actual liabilities when one or more future events occur or fail to occur. If the future event is likely to occur or fail to occur, and a reasonable estimate of the loss can be made, an estimated liability is recognized and an expense recorded. If the likelihood is not determinable or an amount cannot be reasonably estimated, the contingency is disclosed in the notes to the financial statements.

(m) Measurement uncertainty

The preparation of financial statements in accordance with Canadian Public Sector Accounting Standards applicable to government not-for-profit organizations requires Management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses for the year.

Accrued liabilities, allowance for doubtful accounts, employee future benefits and the estimated useful lives of capital assets are the most significant items for which estimates are used.

Actual results could differ significantly from those estimated. These estimates are reviewed annually, and as adjustments become necessary, they are recorded in the fiscal year in which they become known.

3. Cash and cash equivalents

The Corporation makes short-term, low-risk investments in guaranteed fixed income securities and high-interest savings accounts. The overall portfolio yield as at March 31, 2020 was 1.20% (2019 - 2.10%).

<i>(in thousands of dollars)</i>	2020	2019
Total cash and cash equivalents	\$19,688	\$49,196
Less amounts allocated for restricted purposes	(10,882)	(31,796)
<u>Unrestricted cash and cash equivalents</u>	<u>\$8,806</u>	<u>\$17,400</u>

Amounts allocated for restricted purposes represent unspent appropriations and sponsorships received for specific projects.

4. Collection

Part of the mandate of the Corporation is “to foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and technological objects.” This collection is the main asset of the Corporation and is divided in the following areas:

- Communications
- Non-renewable resources and industrial design
- Natural resources
- Physical sciences and medicine
- Renewable resources, including agriculture and forestry
- Instruments, tools and systems with direct application to mathematics, chemistry, physics, as well as astronomy, astrophysics, meteorology, surveying and mapping, and information technology
- Transportation: land, marine, and air and space

During the year ended March 31, 2020, the Corporation disposed of 2,373 objects (2019 - 169 objects), for a total amount of \$0 (2019 - \$5,000). During the year ended March 31, 2020, the Corporation acquired 10 objects (2019 - 65 objects) to its collections through the accessioning/de-accessioning process for artifacts.

5. Capital assets

	2020			2019		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Land	\$10,102	-	\$10,102	\$10,102	-	\$10,102
Buildings	259,898	\$38,449	221,449	116,620	\$33,630	82,990
Building improvements	22,934	19,487	3,447	22,553	18,496	4,057
Office furniture	1,509	1,229	280	1,416	1,139	277
Equipment	5,124	3,438	1,686	4,107	3,163	944
Computer software	1,412	1,376	36	1,380	1,355	25
Museum permanent exhibitions	31,180	9,545	21,635	31,180	6,175	25,005
Easement rights	147	-	147	147	-	147
Capital projects in progress	5,824	-	5,824	131,095	-	131,095
	\$338,130	\$73,524	\$264,606	\$318,600	\$63,958	\$254,642

For the fiscal year ended March 31, 2020, the Corporation disposed of assets with an acquisition cost of \$55,000 (2019 - \$35,000) and a net book value of \$0 (2019 - \$0).

For the fiscal year ended March 31, 2020, the Corporation recorded no write-downs (2019 - no write-downs).

For the year ended March 31, 2020, capital transactions for a total amount of \$11,245,000 (2019 - \$460,000) required the use of cash or cash equivalents, and consequently these transactions have been added to the capital activities on the statement of cash flows.

The capital projects for the Ingenium Centre were completed in 2019-20 and the cost of these projects was transferred to the cost of buildings.

6. Accounts payable and accrued liabilities

	2020	2019
Trade accounts payable	\$3,716	\$15,083
Government departments, agencies and Crown corporations	2,150	931
Accrued salaries and other salary-related liabilities	1,778	1,669
	\$7,644	\$17,683

7. Employee future benefits

(a) Pension benefits

The President of the Treasury Board sets the required employer contributions based on a multiple of the employees' required contribution. The required employer contribution rate for 2019-20 was dependent on the employee's employment start date. For employment start dates before January 1, 2013, the Corporation's general contribution rate effective at year-end was 9.53% (2019 - 9.56%), and for employment start dates after December 31, 2012, the Corporation's general contribution rate effective at year-end was 8.69% (2019 - 8.68%). Total contributions of \$1.68 million (2019 - \$1.77 million) were recognized as an expense in the current year.

The Government of Canada holds a statutory obligation for the payment of benefits relating to the Plan. Pension benefits generally accrue up to a maximum period of 35 years at an annual rate of 2% of pensionable service times the average of the best five consecutive years of earnings. The benefits are coordinated with Canada/Québec Pension Plan benefits and are indexed to inflation.

(b) Severance, termination and sick leave benefits

Information about the benefit plans, measured as at the Statement of Financial Position date, is as follows:

<i>(in thousands of dollars)</i>	2020	2019
Accrued benefit obligation, beginning of year	\$826	\$689
Cost for the year	183	321
Benefits paid during the year	<u>(312)</u>	<u>(184)</u>
Accrued benefit obligation, end of year	697	826
Unamortized actuarial losses	<u>(86)</u>	<u>(87)</u>
Accrued benefit liability, end of year	<u>\$611</u>	<u>\$739</u>
Short-term portion	\$343	\$447
Long-term portion	<u>268</u>	<u>292</u>
Accrued benefit liability	<u>\$611</u>	<u>\$739</u>

8. Deferred contributions and deferred revenues

Deferred revenues represent amounts received in advance of services rendered or due at March 31. Deferred parliamentary appropriations represent approved parliamentary appropriations received for work not yet completed or received in advance. Deferred contributions represent funds received for a specified purpose and for which the related expenses have not yet been incurred.

Changes in the deferred revenues and deferred contributions balance during the fiscal year are as follows:

<i>(in thousands of dollars)</i>	2020	2019
Balance, beginning of year	\$32,259	\$109,338
ADD:		
Restricted contributions from the Canada Science and Technology Museums Corporation Foundation	222	181
Restricted appropriations received or due	3,525	2,850
Sponsorships and other contributions received or due	1,105	1,901
Funds received for the provision of goods and services	1,251	2,086
LESS:		
Restricted contributions from the Canada Science and Technology Museums Corporation Foundation recognized	(222)	(181)
Restricted appropriations used	(23,021)	(79,584)
Sponsorships and other contributions used during the year	(2,523)	(1,808)
Funds used for goods and services	(2,017)	(2,524)
Balance, end of year	\$10,579	\$32,259

As of March 31, 2020, unused deferred parliamentary appropriations totaled \$9,220,000 (2019 - \$28,717,000), deferred grants and sponsorships totaled \$708,000 (2019 - \$2,126,000) and other deferred revenues totaled \$651,000 (2019 - \$1,416,000).

9. Long-term advance

The Corporation received funding from the Treasury Board between fiscal years 2008 and 2010 to construct educational facilities, retail space and an auditorium at the Canada Aviation and Space Museum.

<i>(in thousands of dollars)</i>	2020	2019
Funding for construction of revenue generating facilities	\$4,208	\$4,208
	\$4,208	\$4,208

The Corporation received the funding on the basis that a repayment mechanism be established. However, repayment of the funding for the construction of revenue-generating facilities was not expected before 25 years after the project commences. As of March 31, 2020, a repayment mechanism has yet to be established. The Corporation is not subject to paying interest on this funding.

10. Deferred contributions related to capital assets

Deferred contributions related to capital assets represent the unamortized appropriation and sponsorships used to acquire amortizable capital assets. Deferred contributions related to capital assets are recognized as appropriation and sponsorship revenue on the same basis and over the same periods as the related capital asset is amortized.

Changes in the deferred contributions related to capital assets balance are as follows:

<i>(in thousands of dollars)</i>	2020	2019
Balance, beginning of year	\$241,188	\$170,507
Amounts used to purchase capital assets	19,585	78,399
Amortization of deferred contributions related to capital assets	(9,516)	(7,718)
Balance, end of year	\$251,257	\$241,188

For the year ended March 31, 2020, amounts used to purchase capital assets were funded by appropriations totaling \$19,004,000 (2019 - \$77,476,000) and sponsorships totaling \$581,000 (2019 - \$923,000). As of March 31, 2020, amortization of deferred contributions related to capital assets - portion sponsorships totaled \$668,000 (2019 - \$636,000) and amortization of deferred contributions related to capital assets - portion appropriations totaled \$8,848,000 (2019 - \$7,082,000).

11. Parliamentary appropriations

<i>(in thousands of dollars)</i>	2020	2019
Main estimates amount provided for operating and capital expenditures	\$30,856	\$30,158
SUPPLEMENTARY ESTIMATES:		
Severance adjustments and retroactive wage settlements	81	85
	30,937	30,243
Deferred appropriation used in current year	23,019	79,201
Appropriations approved in current year for expenses and purchases of capital assets in future years	(3,525)	(2,467)
Amounts used to purchase depreciable capital assets	(19,004)	(77,476)
Amortization of deferred contributions related to capital assets	8,848	7,082
Parliamentary appropriations	\$40,275	\$36,583

For the year ended March 31, 2020, parliamentary appropriations totaling \$3,525,000 (2019 - \$2,850,000) were received as part of the Main estimates for the Corporation's capital infrastructure renewal.

12. Canada Science and Technology Museums Corporation Foundation

The Canada Science and Technology Museums Corporation Foundation (the "Foundation") was incorporated under the *Canada Corporations Act* on November 14, 2007 and has been a registered charitable non-profit organization under the *Income Tax Act* since April 1, 2008. This is a separate legal entity from the National Museum of Science and Technology, and all funds that will be raised by the Foundation will be for projects determined by the Foundation.

The Foundation raises funds from patrons, corporations, associations and the community. The amounts granted to the Corporation by the Foundation are recorded as contributions in the Corporation's Statement of Operations. For the fiscal year 2019-20, the Foundation made a contribution of \$224,000 (2019 - \$181,000) to the Corporation. These funds were spent in accordance with donors' wishes.

The Corporation and the Foundation are related by virtue of the Corporation's economic interest in the Foundation. The Corporation is considered to have significant influence based on the Foundation's purpose being integrated with that of the Corporation, the Corporation's involvement in setting policies and strategic direction of the Foundation, and the significant amount of funds raised by the Foundation for the benefit of the Corporation.

In 2019-20, direct expenses related to fundraising costs and disbursed by the Corporation were absorbed by the Corporation to recognize the Foundation's efforts to bring in sponsorships that have been recorded directly in the Corporation's financial statements in the amount of \$185,000 (2019 - \$158,000). No amount was recorded as an "account receivable from the Foundation" by the Corporation (2019 - \$27,000).

As at March 31, 2020, the amount due by the Foundation to the Corporation was \$229,000 (2019 - \$87,000).

It is the Corporation's policy not to allocate the costs relating to building and equipment maintenance, administration services, and information technology to other functions of the Corporation and to the Foundation. These administrative support costs provided without charge to the Foundation are estimated at \$70,000 (2019 - \$70,000).

The financial statements of the Foundation have not been consolidated in the Corporation's financial statements and are available upon request.

13. Rockcliffe Flying Club

The Rockcliffe Flying Club ("RFC") is a non-profit organization which has for objective to both conduct a Department of Transport Flying Training Course for club members and provide aircraft to club members for recreational flying. The RFC operates the Rockcliffe Airport that is owned by the National Museum of Science and Technology and located on the grounds of the Canada Aviation and Space Museum. The Corporation has an economic interest in the RFC due to the significant resources provided to the RFC in exchange for maintenance of the property. The Corporation provides the RFC with the airport at no cost in exchange for the operation and maintenance of the airport runways, taxiways, aprons, grounds, parking lots and access roadway. Because of the difficulty

in determining the fair value of the services received or the services given, the transactions are not recognized in these financial statements.

14. Financial instruments and exposure to risk

The Corporation has identified and assessed its exposure as follows:

(a) Fair value

The carrying amounts of the Corporation's cash and cash equivalents, accounts receivable net of tax receivable, and accounts payable and accrued liabilities approximate their fair values due to their short-term to maturity.

The fair value related to the Corporation's long-term advance was determined using the expected future cash flows and was discounted using government bond rates with similar terms and characteristics:

<i>(in thousands of dollars)</i>	2020		2018	
	Carrying value	Fair value	Carrying value	Fair value
Long-term advance	\$4,208	\$3,548	\$4,208	\$3,202

(b) Credit risk

Credit risk is the risk of financial loss to the Corporation associated with a counterparty's failure to fulfill its financial obligations and arises principally from the Corporation's cash and cash equivalents (including restricted portion) and accounts receivable net of tax receivable. The Corporation has determined that the risk is not significant.

i) Cash

The Corporation has deposited cash with reputable financial institutions that are members of the Payments Canada. The Corporation has determined that the risk of loss is not significant.

ii) Cash equivalents

The Corporation manages its exposure to credit risk arising from cash equivalents of \$6,595,000 (2019 - \$6,498,000) by limiting the investment to short-term fixed income securities. Per the Corporation's Investment and Banking policy, corporate bonds must be rated good quality (A-1, A or better) by DBRS.

iii) Accounts receivable

The Corporation is exposed to credit risk from customers in the normal course of business. As at March 31, 2020, accounts receivable net of tax receivable totaled \$918,000 (2019 - \$1,431,000). These figures are reported net of an allowance for doubtful accounts of \$8,000 (2019 - \$13,000), which are established based on specific credit risk associated with individual clients and other relevant information. Concentration of credit risk with respect to receivables is limited, due to the small value of transactions with clients other than government departments.

The change in the allowance for doubtful accounts receivable during the year ended March 31, 2020 was a decrease of \$3,000 (2018 - decrease of \$22,000) relating to past due balances.

As at March 31, 2020, \$80,000 (2019 - \$51,000) of accounts receivable were past due (over 30 days), but not impaired.

(c) Market risk

Market risk is the risk that changes in market price, such as foreign exchange rates and interest rates, will affect the Corporation's future cash flows or the fair value of its holdings of financial instruments. The Corporation has determined that the risk is not significant.

i) Foreign currency risk

The Corporation is exposed to foreign currency risk on its cash and cash equivalents, prepaid expenses, and accounts payable principally denominated in US dollars.

The Corporation operates primarily within Canada. Foreign currency risk is limited, due to the small value of transactions in currencies other than the Canadian dollar. As at March 31, 2020, cash and cash equivalents and current liabilities include US \$88,000 (2019 - US \$408,000) and US \$3,000 (2019 - US \$68,000), respectively, which are exposed to changes in the US-Canadian dollar exchange rate.

The approximate impact of a 10% rise in the Canadian dollar compared to the US dollar on these exposed balances as at March 31, 2020 is a \$12,000 (2019 - \$45,000) decrease in surplus. The approximate impact of a 10% decline is a \$12,000 (2019 - \$45,000) increase in surplus.

A sensitivity of 10% has been selected as this is considered reasonable given the current level of exchange rates and the volatility observed on an historical basis and market expectations for future movement of the Canadian and US dollar.

ii) Interest rate risk

The Corporation is exposed to interest rate risk on cash equivalents. The risk is not significant due to their short-term nature.

(d) Liquidity risk

Liquidity risk is the risk that the Corporation will not be able to meet its financial obligations as they fall due. Financial obligations include accounts payable and accrued liabilities, and repayment of the long-term advance.

The Corporation manages liquidity risk through the management of its cash and cash equivalents (Note 3). The Corporation's objective for managing liquidity risk is to manage operations and cash expenditures within the appropriation authorized by Parliament and the Corporation's self-generated revenues. Due to the COVID-19 pandemic (Note 19), the Museums have been temporarily closed and accordingly, the self-generated revenues have been affected considerably. The federal government has announced that it will be providing financial support to the Corporation for an amount of \$5.3M.

Based on funding received and impacts of the COVID-19 pandemic on its financial situation, the Corporation will assess appropriate cost reductions to ensure it continues to meet its financial obligations.

As at March 31, 2020, the entire balance of the Corporation's accounts payable and accrued liabilities is due within 365 days (2019 - within 365 days). No repayment mechanism has been established yet for the Corporation's long-term advance.

The Corporation's objectives, policies and processes for managing the risks and methods used to measure the risks are consistent with those in place as at March 31, 2019, apart from the fact that the Corporation is presently looking at potential measures for the return to work and the reopening of its museum facilities. The Corporation is actively monitoring the recommendations of public health agencies and will adapt its strategies accordingly.

15. Contractual obligations

As at March 31, 2020, the Corporation had entered into various agreements for building construction, accommodations, protection services, facilities management services and exhibition rentals, for a total of \$14,810,000. The future minimum payments for the next five years and subsequent years are as follows:

<i>(in thousands of dollars)</i>	2020
2020-21	\$5,706
2021-22	2,996
2022-23	2,444
2023-24	2,425
2024-25	943
2025-26 and subsequent years	296
	\$14,810

16. Contractual rights

As of the end of March 2020, the Corporation has entered into various agreements for sponsorship of exhibits and programs for a total of \$1,423,000. The future expected minimum amount to be collected for the next four years are as follows:

<i>(in thousands of dollars)</i>	2020
2020-21	\$610
2021-22	413
2022-23	350
2023-24	50
	\$1,423

The Corporation has also entered into various agreements for which the total future amount cannot be determined. These agreements are for periods of 3 to 5 years and include visitor parking operations, milk production, food catering and cafeterias, and banking investments.

17. Related party transactions

The Corporation is related as a result of common ownership to all Government of Canada departments, agencies and Crown corporations. Related party also includes key management personnel having authority and responsibility for planning, directing and controlling the activities of the Corporation. This includes the Senior Management Team, all members of the Board of Trustees and immediate family members thereof. With the exception of transactions described below, the Corporation enters into transactions with these entities in the normal course of operations, under the same terms and conditions that apply to outside parties. These transactions are recorded at the exchange amount.

During the year, the Corporation received services that were obtained without charge from Agriculture and Agri-Food Canada and from the Office of the Auditor General of Canada. Lease of buildings for the Canada Agriculture and Food Museum buildings located on the Central Experimental Farm site and auditing services were provided without charge. These services are not significant to the overall operations and therefore have not been recorded in the Corporation's Statement of Operations.

The Corporation is also related to other entities by virtue of the Corporation's significant influence over these organizations. Related party transactions with the Foundation (Note 12) and the Rockcliffe Flying Club (Note 13) are disclosed elsewhere in these financial statements.

18. Contingencies

In the normal course of its operations, the Corporation becomes involved in various claims or legal actions. To the extent that the future event is likely to occur or fail to occur, and a reasonable estimate of the loss can be made, an estimated liability is accrued and an expense is recorded in the Corporation's financial statements. As at March 31, 2020, no provision has been recorded based on the Corporation's and external legal firm assessment of potential liability (2019 - no provision). The effect, if any, of ultimate resolution of these matters will be accounted for when determinable. As at March 31, 2020, the Corporation had no contingent assets to disclose.

19. Covid-19 Pandemic

On March 11, 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization and has had a significant financial market and social dislocating impact. As such, based on public health recommendations, the Corporation has taken actions to slow the transmission of the virus. Since March 11, the Corporation closed its museums resulting in the loss of operating revenues and mandatory working from home requirements were implemented for those able to do so. The loss of operating revenues up to March 31, 2020 was not significant.

As a result of uncertainty of when and how the museums will reopen, the loss of operating revenues during the pandemic may have a significant impact on operations even though the Corporation's primary source of funding is parliamentary appropriations. The federal government has announced that it will be providing financial support for an amount of \$ 5.3M to the Corporation. Based on funding received and impacts of the COVID-19 pandemic on its financial situation, the Corporation will assess appropriate cost reductions to ensure it continues to meet its financial obligations. The measurement of the estimated impact of the financial effect related to the COVID-19 pandemic on our operations is not practicable at this time.

The Corporation is presently looking at potential measures for the return to work and the reopening of its museum facilities. The Corporation is actively monitoring the recommendations of public health agencies and will adapt its strategies accordingly.

20. Comparative figures

Certain 2019 comparative figures have been reclassified to conform to the presentation adopted in 2020.

SCHEDULE 1: SCHEDULE OF OPERATING REVENUES AND CONTRIBUTIONS

For the year ended March 31

Operating Revenues

<i>(in thousands of dollars)</i>	2020	2019
General admissions and programs		
Science and Technology	\$2,663	\$3,648
Aviation and Space	910	942
Agriculture and Food	927	882
Membership	1,094	1,499
Boutique sales	1,166	1,294
Parking	1,126	1,289
Facility rental and concessions	617	606
Farm operations	390	348
Travelling Exhibitions	220	113
Other	678	756
TOTAL	\$9,791	\$11,377

Contributions

<i>(in thousands of dollars)</i>	2020	2019
Grants and sponsorships	\$2,782	\$2,411
Other contributions from individuals and corporations	631	503
Contributions from the Foundation	224	181
TOTAL	\$3,637	\$3,095

SCHEDULE 2: SCHEDULE OF EXPENSES

For the year ended March 31

<i>(in thousands of dollars)</i>	2020	2019
Personnel costs	\$23,308	\$23,276
Amortization and write-downs of capital assets	9,621	7,823
Professional and special services	3,783	2,995
Property taxes	2,646	2,335
Property management services	2,394	2,145
Utilities	2,278	1,693
Leases of buildings	2,014	2,108
Material and supplies	1,854	1,590
Repairs and upkeep of buildings	1,738	2,137
Design and display	1,239	2,044
Protection services	1,181	1,092
Advertising	812	674
Gift shops and product marketing	536	647
Repair and upkeep of equipment	401	600
Travel	266	265
Communications	252	240
Miscellaneous	206	188
Freight, express and cartage	195	252
Publications	176	223
Office supplies and equipment	149	130
Rentals of equipment	116	74
Books	24	30
Purchase of objects for the collection	1	33
TOTAL	\$55,190	\$52,594