

# CANADA SCIENCE AND TECHNOLOGY MUSEUMS CORPORATION

## ANNUAL REPORT 2016-2017



CANADA SCIENCE AND TECHNOLOGY  
MUSEUMS CORPORATION

Canada 

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## **Message from the Chair of the Canada Science and Technology Museums Corporation, Dr Gary Polonsky**

From early stone tools to supercolliders, science and technology have always reflected humankind's desire to innovate, overcome limitations, and answer big questions. Throughout history, and even prehistory, we have sought to improve crop yields and fight pests. We have sought to soar into the skies higher and faster. We have sought cures for diseases. We have also studied the what, how and why of everyday life.

At the Canada Science and Technology Museums Corporation, we celebrate innovation. At our three museums, we look at the science and technology behind agriculture and food, aviation and Space, as well as the scientific principles and technologies that make the world go 'round.

To accomplish all of this, we work through five corporate priorities: an outstanding collection, education and exhibitions, outreach, sustainability and profitability, and a renewed and innovative infrastructure.

The collection lies at the heart of everything we do. And it abounds in rare and outstanding objects and archival material. It features made-in-Canada innovations such as canola, Canadarm and the snowmobile. These share space with more conventional aspects of science and technology, from bees to livestock, airplanes to flight suits, and cameras to locomotives.

Building upon the riches in our collection, we offer outstanding educational tools and exhibitions. Making science relevant and personal is key to everything we do. It is rewarding to us when students begin to see science as fun. Or one of our apps makes history come to life. Or an exhibition piques a visitor's interest in learning more.

Outreach does much the same thing. Our educational materials are available across the country. We are thus able to provide teachers with the tools they need to help students see the importance of science and technology to their own lives. In addition, through special events, lectures and performances, we bring people together to share stories and experiences of everything from bush flying to medicine. And, through travelling exhibitions and online resources, we provide virtual visitors everywhere with a compelling look at Canada's scientific and technological heritage.

In today's museum world, we are also tasked with ensuring the sustainability and profitability of everything we do. Innovation is in this corporation's DNA. As such, we have continued to look for new ways to attract partners and donors. We have also found new ways to streamline our processes, and boost the corporation's bottom line. And all while never losing sight of the visitors we serve.

And finally: a renewed and innovative infrastructure. This year marks an important new chapter for the Corporation. In November 2017, we will launch a renewed Canada

Science and Technology Museum, marking 50 years since the Museum first opened in 1967. Work on the new facility is entering the final stretch. When it opens, it will be a state-of-the-art facility worthy of Canada's unquestionable scientific and technological legacy. We have been hard at work planning and designing a new collections storage facility, which is just beginning construction. This new Collections Conservation Centre will ensure that priceless artifacts are preserved for generations to come.

This year, Canada marks 150 years as a nation. But the Canada Science and Technology Museums Corporation is not only looking back at homegrown innovations of the past several centuries. It is also looking forward—into a future in which Canadian achievements in sciences, technology, and engineering will continue to transform this country, while also ensuring a safer and more prosperous world for all.

## Message from the Interim President and CEO, Fernand Proulx

This is an exciting time for the Canada Science and Technology Museums Corporation, as we look forward to launching the new Canada Science and Technology Museum this fall. By the time it reopens in November 2017, a mere three years will have elapsed. This, as anyone will tell you, is a nearly unheard-of timeline to decontaminate, empty and demolish a building, then rebuild and update an entire national museum and its content.

The renewed Canada Science and Technology Museum will feature ten brand new highly interactive exhibitions, among them **From Earth to Us, Steam: A World in Motion, Technology in Our Lives, Medical Sensations**, and **ZOOM!** Visitor favourites will return, including a refreshed Crazy Kitchen and the Museum's collection of steam locomotives. In addition, the Museum will be showcasing its outstanding collection in the new Artifact Alley, which will use augmented reality to connect with Museum visitors. Other important features of the new Museum include a demonstration stage, classrooms, and a maker space.

We are also working on the plans and design for a new Collections Conservation Centre to properly house and maintain the national science and technology collection. A plan is currently in the works to develop the Centre into a shared facility in consultation with the Canadian Conservation Institute and the National Gallery of Canada. The long term vision for the Centre is to expand as needed as the Corporation's collection of Canada's scientific and technological heritage grows.

There is just as much to celebrate at the Canada Agriculture and Food Museum, and the Canada Aviation and Space Museum. Both institutions have continued to innovate—along with the Canada Science and Technology Museum—when it comes to engaging with visitors across Canada and around the world.

One of the key ways in which our three Museums connect with visitors is through exhibitions—onsite, online and travelling. This past year, exciting new exhibitions and displays were, of course, presented at our Museums and on our website. But they also travelled as far afield as the Northwest Territories, Nunavut, and Mexico City.

We have also continued to develop new Edukits. These are made available to teachers across the country. These ever-popular resources help teachers present scientific principles—from circuitry to the principles of flight—in an engaging way. I am pleased to say that with the help of sponsors we have been able to send Edukits to distant schools in northern communities in Nunavut. In addition to Edukits, the Museums offer a wide range of educational tools online, tailor-made to support Canadian curricula.

And, as befits an organization focused on technological innovation, we are also active in the digital world. This year we produced highly popular apps on First World War flying aces and bees, introducing players to solid scientific and historical content in a fun way,

and in a space in which they feel comfortable. Equally important when it comes to digital innovation is the Corporation's Open Heritage initiative, which makes our collections and documents readily available online.

Rounding out our efforts to engage with Canadians, wherever they may be, we have continued to create stories for [innovation150.ca](http://innovation150.ca). In addition, we loan artifacts across the country and around the world, and have taken our ScienceMobile to a number of locations. We have also launched publications, produced discussion panels, and delivered conference presentations, both nationally and internationally.

Partnerships also continue to be a mainstay of everything we do. Without partners, today's museums would not be able to deliver as many programs and services as they do. In addition to support from Canada's government and other federal institutions, we work with a wide range of corporations, companies and individuals. A complete list is provided in the Sponsorships and Partnerships section of this report.

Science and technology haven't always felt welcoming to certain sectors of society. Chief among these are women and girls. As a result, we are actively trying to make science, technology, engineering and mathematics (STEM) a more attractive option to this half of our population. We are doing this through videos and an upcoming documentary series on women's scientific and technological achievements. We have established a STEM-themed fellowship at the University of Ottawa. And we are researching content for a Women in STEM travelling display, while also continuing to network with other stakeholders.

Indigenous peoples have played a key role in our history; we have undertaken consultations on collaborative research, collections development, and exhibitions to showcase their ingenuity. This has resulted in the integration of Indigenous elements in our new galleries, and the exploration of potential exhibitions and other initiatives on topics such as Indigenous astronomy and Algonquian cuisine.

Youth are another important focus. They are the future of science and technology, and we continue to encourage their interest and engagement. In addition to developing compelling programs and tools, often direct input from youth, we have launched an Innovation Influencers Group. We have also created the STEAM Horizon Awards program designed to support youth education in science and technology. And we continue to engage with youth on their own terms, through apps, social media, and a recent Facebook Live event on climate change.

The future remains bright for the Corporation and its three outstanding Museums. From physical renewal to new ways of delivering content, our Museums remain on the cutting edge of what's possible. Some of this innovation was spearheaded by our former President and CEO, Alex Benay. As we look ahead, it will be a pleasure to continue on the projects and initiatives he set in motion—while also continuing to innovate as we share Canada's remarkable scientific and technological heritage with the wider world.

## Governance

The Corporation is governed by a Board of Trustees, appointed by the Minister of Canadian Heritage, with the approval of the Governor-in-Council. The Board is accountable to Parliament, through the Minister of Canadian Heritage, for the Corporation's business affairs. The full Board held seven meetings during the 2016–2017 fiscal year.

The Board is composed of up to 11 Trustees, including a Chair and Vice-Chair from across Canada. 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. Trustees are collectively responsible for strategic leadership and accountability, management of the Corporation's business activities and affairs, and ensuring that all duties conferred upon the Corporation by the *Museums Act* and Part X of the *Financial Administration Act* are carried out. The Corporation reports to Parliament through the Minister of Canadian Heritage.

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 the Corporation. The Board also engages with the public at its Annual Public Meeting, during which it shares the Corporation's mandate, priorities and fiscal management.

### **COMMITTEE STRUCTURE**

Board Committees usually meet before each Board of Trustees meeting, or via teleconference, and report on their activities at Board meetings. There are currently four Board Committees, as 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 Corporation'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 four meetings during the 2016–2017 fiscal year.

#### **Finance, Audit and Risk Management Committee**

The Finance, Audit and Risk Management (FARM) Committee oversees the Corporation's financial management, its practices, and its information systems. This Committee reviews and advises the Board of Trustees on the Corporation's five-year operating and capital plans, as well as annual and quarterly financial statements. The FARM Committee also selects internal audits; reviews and advises the Board of Trustees on plans and reports from auditors; and oversees the Corporation's risk management policies and practices. The Committee is composed of no less than four Trustees, in addition to the Chair of the Board. The President and CEO is a non-voting member of the Committee. The Committee held five meetings in 2016–2017.

### **Governance Committee**

The Governance Committee (GC) monitors and reviews governance of the Corporation in relation to best practices, and recommends changes aimed at enhancing operational effectiveness. The GC 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 is comprised of no less than four Trustees, as well as the Chair of the Board. The President and CEO is a non-voting member of the Committee. The Committee held four meetings in 2016–2017.

### **Major Facilities Committee**

The Major Facilities Committee (MFC) was formed as a result of the additional Board oversight required for the renewal of the Canada Science and Technology Museum, and the planning and construction of the new Collection and Conservation Centre announced in March 2016. The Committee is comprised of no less than four Trustees, as well as the Chair of the Board. The President and CEO is a non-voting member of the Committee. The Committee held 20 meetings in 2016-2017.

### **Board of Trustees (over the 2016-2017 fiscal year)**

Name, Region

Term – BOARD COMMITTEES

Dr Gary Polonsky, Ontario

January 14, 2010 to January 13, 2018 – Board Chair, EC (Chair), FARM, GC, MFC

Jim Silye, Ontario

June 18, 2010 to June 17, 2018 – Board Vice-Chair, EC, FARM, MFC

Dr Marie-Claire Bélanger, Quebec

March 1, 2012 to February 29, 2016\* – GC, MFC

Dr Harold Bjarnason, Manitoba

April 23, 2009 to September 30, 2017 – FARM

David James Cohen, Quebec

June 13, 2014 to June 12, 2018 – MFC

Dr C. David Desjardins, New Brunswick

February 5, 2015 to February 4, 2019 – GC

Jane Hungerford, British Columbia

March 7, 2013 to March 6, 2017\* – GC



Helen Johns, Ontario  
October 4, 2012 to October 3, 2016\* – FARM

Virginia McLaughlin, Ontario  
December 18, 2009 to December 17, 2016\* – EC, GC (Chair), MFC

Neil Russon, New Brunswick  
January 29, 2008 to February 29, 2016\* – EC, FARM (Chair)

Glen Schmidt, Alberta  
December 17, 2013 to December 16, 2017 – FARM, MFC (Chair)

\*Although the terms of Trustees Dr Marie-Claire Belanger, Jane Hungerford, Helen Johns, Virginia McLaughlin, and Neil Russon expired in 2016-2017, they continue to serve on the Board until their successors are appointed, as per the *Museums Act*.

### **Executive Management**

The Corporation's daily operations are managed by its President and Chief Executive Officer, supported by a senior management team consisting of the Director General of each Museum; the Chief Operating Officer and Capital Projects; the Vice-President, Collection, Research and Corporate Governance; the Vice-President, Business Development, the Vice-President, Public Affairs and Marketing; and the Vice-President, Human Resources.

Corporate Reporting Structure

Board of Trustees

President and Chief Executive Officer



## Overview of the Corporation

### **Vision**

To inspire Canadians to celebrate and engage with their scientific, technological and innovative past, present and future in a place where innovations of the past meet the future.

### **Mission**

To collect, explore, and engage through science, technology, and engineering.

### **Mandate**

The Corporation was established as an autonomous Crown corporation on July 1, 1990, under the *Museums Act*. As stated in the Act, 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, 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 Canada Science and Technology Museums Corporation includes the Canada Agriculture and Food Museum, the Canada Aviation and Space Museum, and the Canada Science and Technology Museum. The Corporation and its three Museums are located in Canada’s Capital Region. Together, the three 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 (CAFM)**

Located on the Central Experimental Farm near downtown Ottawa, the Canada Agriculture and Food Museum is Canada’s national museum of agricultural science and technology. As a working farm, the Museum maintains poultry and livestock—including many rare breeds—along with features such as a demonstration dairy operation, a bee colony, and a biodigester.

All aspects of the Museum’s operations are supported by exhibitions and educational programming, exploring the important relationships between the environment, agriculture, technology, and the food we eat. The Museum, a popular destination for local families and school groups, also reaches Canadians across the country through online educational tools and activities and travelling EduKits. In addition, the Museum participates in national initiatives such as food literacy, and Canadian Agricultural Literacy Week, which encourages Canadians to visit farms and agricultural museums in their own communities.

### **Canada Aviation and Space Museum (CASM)**

The Canada Aviation and Space Museum is Canada's national museum of aerospace technology. Located next to a working airport, the Museum is home to one of the world's finest collections of aircraft, including some that are the last of their kind. Its outstanding exhibitions, programming, and applications for mobile devices transport visitors through time from the dawn of human-powered flight to the International Space Station, to life in a colony on Mars.

Commemorations are another important part of the Museum's activities. A wide range of programs, apps, and exhibits have been produced for the First World War centenary, supplementing the Museum's ongoing slate of concerts, workshops, and more. Throughout the year, the Museum also acknowledges the sacrifices and achievements of Canadian aviators through special events marking Operation Manna, D-Day, the Battle of Britain, and Remembrance Day.

### **Canada Science and Technology Museum (CSTM)**

Reopening in November 2017, the Canada Science and Technology Museum is Canada's national museum of science and technology, and one of the oldest of its kind in the world. It is also Canada's largest and most comprehensive science and technology museum, and was the first science museum in the country to feature interactive exhibitions and public programming.

Closed to the public since late 2014, the Museum is putting the finishing touches on a major renovation. Despite the closure, the Museum continued to deliver exciting content to local audiences at partner institutions and through its ScienceMobile, and across the country through online initiatives. When it reopens, the Museum will feature 7,400 square metres (80,000 square feet) of new exhibitions, in addition to many visitor favourites.

The Corporation is currently constructing a new state-of-the-art facility for the conservation and storage of the collection. The new Collections Conservation Centre will open in 2018-2019 on the Canada Science and Technology Museum's site.

Together, the Corporation's three Museums demonstrate the importance of science and technology to every aspect of daily life. From the cars we drive and the food we eat, to the energy we use and the satellites that make smartphones possible, the Museums explore not only the history of innovation, but also its impact on the present and its promise for the future.

## Museums' and Corporate Highlights

### **Kerry-Leigh Burchill, Director General, Canada Agriculture and Food Museum**

It has been a banner year for the Canada Agriculture and Food Museum. Exhibitions for national audiences have been a particular highlight. Our travelling exhibition, *Pulses: The Ideal Partner* explored crops such as beans, peas and lentils in an engaging format during 2016, which was declared International Year of Pulses by the Food and Agriculture Organization of the United Nations. The exhibition also showcased Canada's position as one of the world's top pulse producers and exporters. The exhibition has already visited 23 cities, with more to come.

Another new exhibition, *Canola: A Story of Canadian Innovation*, explores a truly made-in-Canada crop. 2017 marks the 50th anniversary of canola's development from the humbled rapeseed. It also traces canola's journey from Prairie labs to its current position as an important worldwide oilseed crop.

We also worked with the Canadian Space Agency to develop *Space to Spoon*, a travelling techno-zone that demonstrates how Space technology can benefit sustainable agriculture. It is a perfect example of the science, technology, engineering and math that support the production of our food, fibres and energy sources. It also highlights the Canadian Space Agency's Earth observation satellite, RADARSAT-2, and its cutting-edge successor, RADARSAT Constellation.

But the Agriculture and Food Museum is far more than exhibitions, crops and livestock. Each year, we produce valuable onsite workshops and national content promoting food literacy. In our Learning Centre, we present monthly events exploring international cuisine. We also offer kid-friendly cooking workshops, along with sessions on nutrition and food safety. A new initiative this year sees the Museum teaming up with embassies and local restaurants to produce Global Tastes International Food Nights. At these monthly workshops visitors discover and delight in the tastes of international cuisine.

As an educational institution, the Museum also works hard to raise the profile of science in relation to agriculture and food. New initiatives this year explored the use of Space technologies, engineering, and mathematics to support agriculture. We developed new panels for our biodigester display. And we explored the importance of Canadian scientific and technological innovation in our exhibition on canola.

Although agriculture and food production have been with us since the earliest human civilizations, the Museum's activities are tailored to today's digital world. For example, all of our employees are asked to tweet on behalf of the Museum at some point during the year. From herdspersons to communications officers, staff members share a wide range of perspectives on how food goes from farm to fork.

Throughout the year, we have welcomed families, school groups, and many other visitors from across Canada and around the world. We offer people opportunities to encounter live animals, see farm equipment, and engage in fun activities such as baking bread and making butter.

In the end, however, the Museum is all about science and technology. The science behind the food we eat, the food and bio-products we provide to the rest of the world, and the Canadian innovations around which it all revolves.

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### **Christopher Kitzan, Director General, Canada Aviation and Space Museum**

It has been a busy and rewarding year for the Canada Aviation and Space Museum. With the Canada Science and Technology Museum closed until late 2017, it has also been a privilege to help out by hosting some of their programming.

One of the years' greatest successes was the exhibition, **Star Trek: The Starfleet Academy Experience**, which opened on May 13, 2016. The Starfleet Gala held the night before was a sold-out success, featuring special guest William Shatner, and the Minister of Canadian Heritage. It was attended by more than 1,000 people, setting the stage for a successful summer run. Together, **Star Trek: The Starfleet Academy Experience** and the Starfleet Gala generated more than 9.5 million social media impressions.

Part of this year's Star Trek experience was a Star Trek-themed summer camp. Our summer camps often sell out almost as soon as they become available, and this year was no exception. In a similar vein, we launched the book *Star Trek: The Official Guide to Our Universe* in August 2016. Written by astronomer Andrew Fazekas, the book featured a foreword by Captain Kirk himself. Published by National Geographic, it explores the actual science behind the TV show and movies.

Our summer in Space also included an astronaut event at the Museum in July. *What does it take to be an astronaut? An evening with Canadian astronauts Jeremy Hansen and Robert Thirsk* sold out at the Museum, and was streamed live on Facebook.

But, although we love exploring the final frontier, the Museum also spends considerable time on conventional aviation. This past year, we updated a large portion of our floor display, adding new information on our outstanding collection of aircraft. We also acquired a massive Hercules C-130 cargo aircraft: the workhorse of military and humanitarian missions around the world.

We continue to engage with our audiences in innovative ways. We are currently putting the finishing touches on the third installment of our popular Ace Academy app. The app allows players to take to the skies during the First World War. To date, the first two instalments have been downloaded more than 300,000 times in 185 countries.

Commemoration is also a major part of what we do. This year, we once again hosted events in honour of Operation Manna and the Battle of Britain, among other things. And we're just about to launch the Legacy Project. This six-part video series features numerous interviews with flyers, support staff and civilians from the Second World War. Produced largely by local students over the past couple of years, it is a moving testament to the Greatest Generation.

It has been an outstanding year. In the year ahead, I anticipate that we will continue to innovate, cementing the Canada Aviation and Space Museum's reputation as one of the top institutions of its kind in the world.

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**Christina Tessier, Director General, Canada Science and Technology Museum**

This has been an exciting year for the Canada Science and Technology Museum. As we enter the home stretch towards our November 2017 reopening, we can also look back on some major achievements.

Because we were unable to welcome people to the Museum itself, we took the Museum on the road. The ScienceMobile has travelled throughout the National Capital Region—and as far away as Montreal. At festivals and other events, we connect with thousands of people each month through workshops and other engaging activities.

We have also reached out through travelling exhibitions like our Game Changers video game exhibition, and a few unusual initiatives. This includes the *On Thin Ice* expedition, which was part of the Let's Talk Energy program. In December 2016, members of our own Museum team went to Alberta's Athabasca Glacier. Our team was led by renowned ice-climber and Red Bull athlete Will Gadd, and included University of Alberta glaciologist Professor Martin Sharp. The trip will eventually result in video shorts showcasing the impact of climate change on Canada, through the lens of extreme sport.

As you can imagine, however, the majority of our focus has been on renewing the Museum itself, and creating a vision for what it can and should be.

Over the past year, we have completed detailed design for 11 exhibitions, working with 5 exhibition design build firms from Ontario, Quebec, and the United States. By the time we're done, we will have filled an impressive 7,400 square metres of exhibition space with compelling new experiences. And we're not doing it alone. We have been building these experiences through ongoing community consultations and with incredible partners.

Of course, that's not all. Development of new educational and public programming is well underway. So are plans for exciting new spaces, including a central demonstration stage and the Exploratek maker studio. In addition, we are working on mobile apps

involving augmented reality and a virtual reality experience involving our iconic 6400 locomotive.

We don't see our November 2017 reopening as a culmination of the Museum's renewal. We see it as a launching point for the new vision we have been building. A vision founded on a sense of play, discovery and collaboration, taking risks and learning from failure. We celebrate human ingenuity. We deliver experiences that spark imaginations, engage creativity, and inspire the next generation of innovators.

We can't wait to share it with you this fall!

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**Monique Horth, Vice-President, Collection, Research, and Corporate Governance**

Collections are the heart of museums, and the Corporation's national collection is one of the best of its kind in the world. From aircraft and turbine engines to clothing and photographs, it is also one of the most diverse.

Each year, the Corporation acquires significant artifacts. We add to our library and archives. We incorporate scientific instruments and large artifacts such as aircraft into the collection, and we also welcome heritage breeds to our herds. Each and every new acquisition enhances Canada's scientific and technological heritage.

Notable acquisitions this year include important archival materials from distinguished collector Lorne Shields. The Lorne Shields Trade Literature Collection contains more than 150 items, most of which are 20th-century trade catalogues from Canadian manufacturing companies.

In addition, the Lorne Shields Photograph Album Collection comprises six large photograph albums. Together, they contain more than 1,000 photographs documenting construction of the Alexander Generating Station in Northern Ontario, from 1926 to 1930.

Across the Corporation's Museums, we acquired several artifacts of national significance. A Hercules C-130 transport aircraft, has been added to the collection at the Canada Aviation and Space Museum. In addition, the Parks Explorer vehicle, designed to help people with physical disabilities enjoy the great outdoors, will be on display in the renewed Canada Science and Technology Museum.

Curatorial staff have been collaborating with Indigenous communities to create content for the renewed Canada Science and Technology Museum. This includes exhibition subject matter and acquiring artifacts such as snowshoes, as well as a traditional Inuit amauti parka from Nunavik.



We have also acquired a considerable number of scientific instruments and objects. These include an outstanding collection of geometric models from one of the world's pre-eminent mathematicians, Canadian Donald (H.S.M.) Coxeter. Another exciting object is a SeeHorse biometric tracking device. This is the first product from our partnership with the Canadian Smart Textile and Wearables Innovation Alliance.

Canadian sports are represented as well. We acquired a sensor-equipped "hexoskin" shirt worn by Gold Medal Olympian Erica Wiebe. We also acquired sports equipment for athletes with disabilities, including a Sonic 80X kayak, and a sit-ski. The Corporation's Museums also collect objects reflecting everyday life. This year, for example, we acquired an iconic Canadian-made Clairtone stereo from the 1960s. Nor has art been overlooked. Donated by local artist Elaine Goble, *Portrait, Canadian Tamworth* is a large and dramatic painting starring the Agriculture and Food Museum's very own Tamworth pig.

This year marks the 150th anniversary of Confederation. As such, it seems only fitting that we have acquired a maple leaf flag. But this is no ordinary flag. It is, in fact, the very example that set technical standards for our new flag back in 1965. Donated by the National Research Council, it also includes test flags and technical logbooks.

Given the diversity of our collection, and the size of many of its objects, storage and conservation are key. I am proud to report that the planning and designing of the new Collections Conservation Centre are underway. This new state-of-the-art structure will be built next to the Canada Science and Technology Museum.

## Report on Performance Indicators

The Corporation met or exceeded the majority of its performance targets this year. This success was made possible by the Corporation's commitment to working more openly, collaboratively, strategically, and with an unwavering entrepreneurial spirit, which led to four new travelling exhibitions in locations spanning across Canada and in the United States and Mexico; enhanced museum experiences, such as the **Star Trek: The Starfleet Academy Experience**; new digital assets and platforms, such as Open Archives and the crowd-sourced innovation150.ca; and new mobile gaming apps, including *Bee Odyssey* and *Space Frontiers: Dawn of Mars*.

Although the Canada Science and Technology Museum (CSTM) was closed this year, its programming was delivered through outreach activities like the national *Let's Talk Energy* program, which reached nearly 500,000 people, and ScienceMobile, which delivered programs at schools, festivals, and events across Canada's Capital Region and in surrounding communities, reaching more than 27,000 people.

As the diversity of the above examples show, the Corporation has the unique opportunity, as the steward of three national museums, to engage citizens through a broad range of science and technology topics. In total, the Corporation's physical and virtual offerings reached more than 15 million Canadians, as well as citizens in more than 180 countries by the end of 2016-2017.

For the few targets that were not met, such as the number of square metres cleared through collection rationalization, this was due to resources being focused on the Canada Science and Technology Museum renewal. Aside from not meeting the ambitious **Star Trek** exhibition visitor target, the Canada Aviation and Space Museum's educational and public programs exceeded targets. Although the Corporation did not distribute as many Edukits as last year, in 2016-2017 Edukits were distributed for the first time to schools in Nunavut and a workshop for teachers was held in Iqaluit. While the CSTM modernization remains on track and on budget, with re-launch plans for November 2017 underway, unforeseen site complexities led to delays with the Collections Conservation Centre project, which broke ground in February 2017.

Overall, the performance results for 2016-2017 demonstrate that the Corporation's efforts in showcasing and fostering science and technology innovations resonate with, and are relevant to, Canadians, and increasingly, with citizens around the world.

Measures	Indicator result / Target	Result above (↑), on (→) or below (↓) target
<b>Strategic Objective 1: Best in Class - Collection</b>		
<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 94%)	↑
# of square meters cleared in collection storage	135 m <sup>2</sup> (Target: 400 m <sup>2</sup> )	↓

<b>Strategic Objective 2: Best in Class – Education and Exhibitions</b>		
<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 at CAFM and CASM	TOTAL: 467,992 (Target: 448,000) CAFAM: 174,291 (Target: 148,000) CASM: 293,701 (Target: 300,000)	↑
# of downloads of educational materials	87,588 downloads (Target: 50,000)	↑
% visitor satisfaction	94.5% (Target: 90%)	↑
# of school programs / # of participants	1,541 programs / 48,596 participants (Target: 1,450 programs / 47,800 participants)	↑

Measures	Indicator result / Target	Result above (↑), on (→) or below (↓) target
<b>Strategic Objective 3: National Outreach</b>		
<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 reach, connections, and engagements	TOTAL: 13,644,928 (Target: 5.3 million) Reach: 12,598,738 (impressions for Twitter & Facebook, Flickr views and website views) Connect: 436,650 (number of followers) Engage: 609,540 (re-tweets, comments, shares, clicks on shared content, and YouTube views)	↑
Attendance of travelling products	TOTAL: 5,285,108 (Target: 3.5 million) Travelling exhibition attendance: 1,332,036 Montreal-Pierre Elliott Trudeau International Airport: 3,500,000	↑
# of schools that used Edukits and students engaged	12 schools, including 4 from Northern communities, and 846 students engaged (Target: 18 schools/1,286 students)	↓

<b>Strategic Objective 4: Sustainable and Profitable</b>		
<i>Strategy 4.1: Develop a sound business model that diversifies and maximizes commercial returns.</i>		
<i>Strategy 4.2: Leverage the government's Innovation Agenda with partners and sponsors.</i>		
<i>Strategy 4.3: Invest in our workforce and workplace.</i>		
Amount of operating revenue generated	\$5.53M (Target: \$5.37 million)	↑
Amount of contributions from donations, sponsorships, and in-kind	\$1.73M (Target: \$1.60 million)	↑
Number of training hours for staff	3,986.5 hours (Target: 2,000 hours)	↑

<b>Strategic Objective 5: Renewed and innovative Infrastructure</b>		
<i>Strategy 5.1: Complete the infrastructure modernization of the CSTM building.</i>		
<i>Strategy 5.2: Explore funding opportunities for a facility for the conservation and restoration of the aviation collection.</i>		
<i>Strategy 5.3: Explore the feasibility of conducting a capital campaign for the Food Innovation Centre.</i>		
<i>Strategy 5.4: Plan, design, and begin construction of the Collections Conservation Centre.</i>		
Meet project milestones for the CSTM Renewal	Milestones met for opening in November 2017.	→
Identify funding for a conservation and restoration hangar at CASM	Business case development continued.	→
Successfully launch the capital campaign for the Food Innovation Centre at CAFM	On hold pending completion of other major capital projects.	N/A
Meet project milestones for the Collections Conservation Centre	Milestones met.	→

## Sponsorships, Partnerships, Agreements and Collaborations

### **SPONSORSHIPS AND PARTNERSHIPS**

The Corporation is active in generating revenues through sponsorships and partnerships. Through its Business Development Division and the support of management, fiscal year 2016–2017 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. The list below identifies the initiatives supported by each partner.

#### **Baconpalooza**

Albion Rooms  
Chef Lynn Crawford  
Clocktower Brew Pub  
Fireplace Center and Patio Shop  
NewCap Radio (LiVE 88.5 FM)  
Seed to Sausage

#### **Canada Aviation and Space Museum Digital Interactive Guide**

Kenneth M Molson Foundation  
Richardson Foundation

#### **Canadian Entrepreneurs Exhibition**

Public Services and Procurement Canada (Build in Canada Innovation Program)

#### **Canada from Space Giant Floor Maps**

Canadian Space Agency

#### **Canada Science and Technology Museum Renewal**

Department of Fisheries and Oceans  
Fraser Somers  
Hydro Ottawa  
Mining Association of Canada  
Michelin North America (Canada)  
SimentIT  
The Peter and Melanie Munk Charitable Foundation  
Toshiba Canada Medical Systems  
University of Ottawa

#### **Canola Initiative**

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

Saskatchewan Canola Development Commission

**Capture.Canada**

Environment and Climate Change Canada  
Department of Canadian Heritage

**Climate Change**

Department of Fisheries and Oceans  
Environment and Climate Change Canada  
Health Canada  
Natural Resources Canada  
Transport Canada

**Digitization**

DigiHub Shawinigan  
OpenText  
Proto3000  
ThinkDataWorks

**Food Literacy**

Agriculture and Agri-Food Canada  
Bernardin  
Canadian Food Inspection Agency  
Health Canada (Food Directorate)  
Nestlé Canada  
Public Health Agency of Canada

**From Rock to Reality: The Mining and Metallurgy Legacy Project**

Canadian Institute of Mining, Metallurgy and Petroleum  
Canadian Mineral Processors  
Hatch  
MetSoc (Metallurgy & Materials Society)  
United Steelworkers

**Future of Food Preservation**

Department of Fisheries and Oceans

**Game Changers**

Electronic Arts (EA Games)  
Social Sciences and Humanities Research Council

**Kenneth Molson Lecture Series**

Kenneth M Molson Foundation

### **Let's Talk Energy**

Big Ass Fans

Canadian Association of Petroleum Producers

Canadian Natural Resources Limited

Canadian Nuclear Safety Commission

Cenovus Energy

ConocoPhillips Canada

Encana Corporation

Imperial Oil Foundation

Natural Resources Canada

Suncor Energy Foundation

Sustainable Development Technology Canada

TELUS Spark

University of Ottawa School of Electrical Engineering and Computer Science

### **Life in Orbit: The International Space Station**

Canadian Space Agency

### **National Science and Innovation Gala**

4elements

Algonquin College

Avant-Garde Designs

CAE

Carleton University Department of Engineering

CBC/Radio-Canada

Ciena

Colliers International

Craviations

Facebook

Hampton Inn

Holiday Inn Express & Suites

IBM Canada

Instagram

Invest Ottawa

iPolitics

Lixar

Lockheed Martin

MDA Corporation

Mission Control

National Research Council Canada

Ontario Drive & Gear

Quanergy Systems

SEDS-Canada

SimWave

Spiria

Steampunk Ottawa  
Summa Strategies  
Syncrude Canada  
University of Ottawa

**Open Heritage Portal**

Environment and Climate Change Canada

**Potash: Feeding the World**

Agrium  
Canadian Fertilizer Institute  
PotashCorp  
The Mosaic Company

**Pulses: The Ideal Partner**

Pulse Canada

**RADARSAT Space to Spoon Technozone**

Canadian Space Agency

**Soil Science**

Fertilizer Canada  
Nutrients for Life  
Soil Conservation Council of Canada

**Starfleet Gala**

Cineplex  
Mattel  
Resonance  
Royal Canadian Mint  
Star Motors of Ottawa  
Twitter Canada  
VLN Advanced Technologies

**STEAM Horizons Awards**

Facebook  
Indspire  
Instagram  
Invest Ottawa  
Natural Sciences and Engineering Research Council of Canada  
Shopify  
Syncrude Canada  
Vintage Wings of Canada  
VLN Advanced Technologies



**Tee Off FORE Tech**

Aldrich Pears  
BDMK Consultants  
Emerion  
Genband  
Globalive XMG  
Iron Horse  
MacEwen Petroleum  
OpenText  
Star Motors of Ottawa  
Pomerleau

**Wi-Fi**

Ruckus Wireless

**Women in STEM Initiative**

Canadian Museum of Nature  
Department of Fisheries and Oceans  
The Franklin Institute

**AGREEMENTS AND COLLABORATIONS**

The Corporation has Memoranda of Understanding and/or has collaborated with the following organizations. Memoranda of Understanding with external partners support collaboration, as well as the pooling of knowledge, services, and financial resources toward the development of programs and exhibitions that meet common goals.

Memoranda of Understanding and other collaborations:

- Actua
- Aéroports de Montréal
- Agriculture in the Classroom
- Bloomfield Science Museum
- Branham Group
- Brocade
- Calgary Stampede
- Canadian Space Agency
- Canadian Association of Science Centres
- Canadian Conservation Institute
- Canadian Museums Association
- Canadian Smart Textile and Wearables Innovation Alliance
- Canadian War Museum
- Carl Zeiss Canada
- Città della Scienza, Naples
- CREO

- Dairy Farmers of Canada
- Defence Research and Development Canada
- Embassy of the Republic of Serbia
- Embassy of the Republic of Turkey
- Fluor Canada
- Heiltsuk Nation
- Huron-Wendat Nation
- Illumination Games
- Institute for Quantum Computing at the University of Waterloo
- LeadersGC
- Le Musée des arts et métiers, Paris
- L'Oréal Canada
- Lumbec
- Makivik Corporation of Nunavik
- Manitoba First Nations Education Resource Centre
- McGill University
- National Film Board
- National Geographic
- Native Skywatchers
- Nomad Exhibitions
- Nunavik Creations
- Ontario Ministry of Education
- Parks Canada Agency
- Perimeter Institute for Theoretical Physics
- Phactory
- Queen's University, Department of Mining Engineering
- Red Bull
- Royal Canadian Geographical Society
- Saskatchewan Ski Association
- Savvy Company
- Science Museum, London
- Sensigent
- SE3D Interactive
- Shanghai Science and Technology Museum
- Sightline Innovation
- Smithsonian Enterprises
- Sound Venture Productions
- St. Cloud University
- TELUS Edmonton Community Board
- TELUS Montreal Community Board
- TELUS Ottawa Community Board
- Title Entertainment Inc.
- Toshiba

- Université de Lyon
- Universum Bremen

## Management Discussion and Analysis

The Canada Science and Technology Museums Corporation 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, while subject to the financial provisions governing Crown corporations set out in Part X of the *Financial Administration Act*. It is also required to comply with a range of other statutes, including those governing official languages, employment equity, multiculturalism, and access to information and privacy.

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

“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;”  
“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.”

### MANDATE

“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.”

### MISSION

To collect, explore, and engage through science, technology, and engineering.

### VISION

To inspire Canadians to celebrate and engage with their scientific, technological and innovative past, present and future.

### VALUES

Accountability — Collaboration — Creativity — Integrity — Pride — Respect

## Strategic Direction

Over 2016-2017, the Corporation 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 are tied to its programs. Performance measures are monitored to assess the Corporation's progress toward achieving the key outcomes of its strategic objectives. As this Annual Report demonstrates, over the past

year the Corporation worked diligently toward achieving results against these strategic objectives.

### Strategic Objectives and Outcomes mapped to the Program Alignment Architecture

PROGRAMS	STRATEGIC OBJECTIVES AND OUTCOMES	
<p><i>Sharing Knowledge</i></p> <p>Interpretation of the collection and demonstration of scientific and technological products and processes to Canadians.</p>	<p><b>Best in Class – Education and Exhibitions</b></p> <p>The Corporation delivered programs, products and services that tell the stories of Canadian ingenuity and innovation.</p>	<p><b>National Outreach</b></p> <p>The Corporation developed and created products that reached, connected and engaged with new and existing audiences outside the museums.</p>
<p><i>Heritage Preservation</i></p> <p>Corporate activities dedicated to developing and preserving the collection.</p>	<p><b>Best in Class – Collection</b></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>Internal Services</i></p> <p>Stewardship and management of corporate infrastructure, resources and services.</p>	<p><b>Sustainable and Profitable</b></p> <p>The Corporation is a profitable, innovative, well organized, and financially viable organization.</p>	
<p><i>Accommodation</i></p> <p>The physical environment required to house, protect and display the collection; the public facilities where on-site visitors are welcomed; and office and administration space for staff.</p>	<p><b>Renewed and Innovative Physical Infrastructure</b></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>	

## Environmental Scan

### **Demographic trends**

To remain relevant to the citizens they serve, Canada’s museums must be aware of changing demographics in society. 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 services and continues to work in collaboration with Indigenous communities on exhibition content and experiences.

For the first time, in 2016-2017, the Corporation delivered a teacher’s workshop in an Iqaluit high school, and shared Edukits with four northern communities, reaching hundreds of Indigenous youth.

### **Economic trends: Tourism and Workforce**

Ottawa is expecting an additional 1.7 million visitors in 2017 to celebrate Canada’s 150<sup>th</sup> anniversary of Confederation. Although the increase in the city’s tourism may not have a significant impact on attendance at its museums, which are located outside of the downtown core, the Corporation will continue to seek opportunities to attract visitors to its museums with diverse programming and events over 2017. For example, the Corporation began unveiling aspects of the renewed CSTM, by sharing designs, photos,

and stories, to generate excitement and anticipation around the Museum's re-opening in November 2017.

As Canada's largest demographic is aging and preparing for retirement, both the Indigenous and immigrant youth populations will be needed to fill vacancies in the workforce and sustain the Canadian economy. The Corporation supports the development of programs and initiatives that encourage women and youth in careers in the fields of science, technology, engineering, and mathematics (STEM).

### ***Digital trends***

Canadians expect access to their cultural content online; to have opportunities to engage with that content; and even co-create that content. Digitizing the national collection significantly increases Canadians' public access to their cultural content.

The Corporation continues to use and develop tools such as online databases, blogs, virtual exhibitions, virtual tours, mobile apps, open data, social media, crowdsourcing, live streaming, videos, video conferencing, virtual reality, and augmented reality application as means to reach, connect and engage with domestic and international audiences. The use of mobile applications (apps) in museums is an emerging trend which takes advantage of location awareness and GPS.

The Corporation pursued the development of new apps for its museums that will allow on-site and off-site visitors to engage with artifacts through a 3D enhanced experience. It also piloted and supported the innovation150.ca platform that crowd-sources content. As well, the Corporation presents exhibitions on the Google Cultural Institute.

### **Risk Analysis**

The Corporation completes an annual risk assessment and monitors risks to ensure they are appropriately mitigated. For 2016-2017, the Corporation identified three major risks having the highest likelihood and impact that could jeopardize its ability to deliver results on its strategic objectives. These were: the risk of incurring cost overruns for the two major capital infrastructure projects; the risk of losing relevance due to limited capacity to invest in new programming and exhibitions; and endangering the national collection in storage due to inappropriate housing conditions in current leases.

To mitigate the risk of cost overruns, the Corporation put in place a highly qualified team of internal staff and external professionals to deliver the CSTM infrastructure modernization project and the construction of the new Collections Conservation Centre. The Board of Trustees and the Corporation's executive have strengthened oversight and guidance to the project team to ensure respect of budget and timelines.

The Corporation mitigated the risk of losing relevance due to the widening gap between operational costs and funding 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. Recent significant federal investments in the Corporation's infrastructure are being used to off-set pressures related to having to continuously make facility upgrades and repairs and make buildings more energy efficient in order to reduce operating costs.

Once the national collection is moved into the new Collections Conservation Centre, the risk of its accelerated deterioration will be eliminated as the new purpose-built storage facility will provide the appropriate environmental controls for artifact preservation. In the interim, the Corporation has developed a plan for collection rationalization to manage its collection and find efficiencies, while performing minimal repairs to the leased buildings to ensure the health and safety of staff and protection of the artifacts.

## **Budget Overview**

The Corporation's total budget funding available for 2016-2017, reported on an accrual basis, was \$39.3 million, comprising funds from three different sources: parliamentary appropriations, operating revenues, and contributions. The closure of the Canada Science and Technology Museum (CSTM) since September 2014 for remediation and modernization work is having significant impacts on earned revenues. This will be the case until the work is completed in November 2017.

### **Sources of funds**

#### ***Parliamentary Appropriations***

Parliamentary appropriations increased slightly from \$30.8 million in 2015-2016 to \$31.5 million in 2016-2017 on an accrual basis. On a cash basis, total voted appropriations for 2016-2017 were \$108.4 million as the Corporation received temporary significant capital funding for the construction of a new Collections Conservation Centre and for the modernization of the CSTM building (including a new roof and seismic retrofit), and completely renewed exhibitions.

#### ***Operating Revenues***

Operating revenues increased by about \$1.6 million from \$3.9 million in 2015-2016 to \$5.5 million in 2016-2017. This increase is mainly due to the presentation of a blockbuster exhibition, **Star Trek: The Starfleet Academy Experience** at the Canada Aviation and Space Museum from May to September 2016. Revenues for this exhibition were projected to be even higher but had to be revised at mid-year.

#### ***Contributions***

Contributions recognized as revenues vary from year to year, based upon the revenues required to fund specific programs and install new exhibitions. Contributions increased by just more than \$250,000, from \$1.5 million in 2015-2016 to \$1.75 million in 2016-2017. This was due primarily to successful sponsorships for new exhibitions at CAFM (Canola) and CASM (Living in Space).

### **Operating Expenditures**

The Corporation's total expenses for 2016-2017 were \$39.3 million, compared to \$36.1 million in 2015-2016. The increase can largely be attributed to relatively significant expenses associated with the presentation of the **Star Trek: The Starfleet Academy Experience** exhibition held at the CASM during the summer of 2016, and the development of new exhibitions at the three museums. Personnel costs continue to be the largest use of funds, amounting to \$19.8 million in 2016-2017, up from \$18 million in 2015-2016.

### ***Sharing Knowledge***

Expenses related to Sharing Knowledge increased from \$11.3 million in 2015-2016 to \$14.1 million in 2016-2017. This increase is largely due to additional personnel, marketing, and exhibition costs associated with the presentation of the **Star Trek: The Starfleet Academy Experience** exhibition.

### ***Heritage Preservation and Internal Services***

Expenses related to Heritage Preservation remained relatively stable at \$4.7 million, as compared to \$4.4 million in 2015-2016. Internal Services increased from \$7.3 million in 2015-2016 to \$8 million in 2016-2017, due primarily to the costs associated with the operation of a temporary retail shop for the **Starfleet Academy Experience** exhibition.

### ***Accommodation***

Expenses related to Accommodation decreased slightly from \$13.1 million in 2015-2016 to \$12.5 million in 2016-2017. This decrease is due primarily to a significant write-down of capital assets in 2015-2016 in relation with the CSTM's closure.

### **Net Results of Operations and Year-End Position**

The net results of operations yielded a surplus of \$1,000 in 2016-2017. Savings were made in personnel and accommodation costs due to the closure of the Canada Science and Technology Museum and compensated for the loss of revenues associated with the CSTM's closure.

### **Capital and Collection**

Tangible capital assets increased from \$71.9 million in 2015-2016 to \$117.9 million in 2016-2017, due to investments in the modernization of the Canada Science and Technology Museum and the construction of the new Collections Conservation Centre. The Corporation also acquired 85 objects in its collection; most of these acquisitions were made for exhibitions that will be displayed in the renewed CSTM.

### **Outlook**

The year 2017 will be a remarkable year for the country, which celebrates its 150th year of Confederation, and for the Corporation, as the Canada Science and Technology Museum turns 50 and re-opens in November 2017, completely transformed and modernized inside and out. Re-construction of the building to properly protect and



preserve artifacts, coupled with the renewal of the exhibition space with more artifacts and interactives, will allow the Museum to engage visitors and citizens in new and richer stories of, and experiences with, science and technology.

The closure of the CSTM also became a catalyst for rethinking how museums could deliver their program mandate without physical walls. The re-opening of the Museum will not deter the Corporation's efforts to reach out domestically and abroad, will invite others to collaborate in fostering knowledge of their science and technology heritage, and will inspire future innovations.

Through this lens, the Corporation will continue to find innovative ways to facilitate physical and virtual encounters with Canada's science and technology collection by telling the stories of the scientists, inventors and innovators, and the research fields and industries that nurture them, for local, national and international audiences. These efforts will be supported and enhanced with the implementation in 2017-2018, of a new curatorial research strategy that fosters diversity, external collaborations, and interdisciplinary approaches.

To ensure the long-term preservation of Canada's rich science and technology heritage, the Corporation will work diligently on the design and construction of the new Collections Conservation Centre, as well as other site repairs and improvements, as it pursues its five-year plan to recapitalize and address health and safety concerns related to its capital infrastructure thanks to significant federal infrastructure investments from Budget 2016.

Over 2017-2018, the Corporation will build on the successes of its travelling exhibitions, digital offerings, national initiatives, programs, events, and awards to deepen its reach, connection, and engagement with Canadians and the world, as it becomes Canada's communications platform for science and technology. Development of this platform is underway and science advisors were brought on board to enhance science communications. This platform will also support the Corporation's global outreach strategy objective to grow its brand nationally and internationally in order to promote Canada's science and technology innovation culture.

To satisfy citizens' desire for openness and accessibility, the Corporation will continue to lead by example as it pursues its "open by default" objective and adds resources such as open data, open heritage, and open archives to its offerings. Rooted in a technology mandate, the Corporation 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.

By fostering collaborations and contributions from citizens, governments, industry, heritage organisations, research and educational institutions across Canada and abroad, the Corporation will continue to support the creation of enriched and diverse cultural heritage content in the public sphere. The museums will continue to offer unique

experiences and enriching learning opportunities whereby Canada's scientific and technological past and present inspire the breakthroughs of the future.

Over 2017-2018, as it pursues the third year of its five-year strategic objectives, the Corporation will support its entrepreneurial staff to develop engaging collaborations, products, programs, and exhibitions that deepen visitor engagement and broaden the Corporation's revenue streams. The growth in the number of visitors generated by the re-opening of the CSTM is expected to lead to increased earned revenues and contributions in 2017-2018 and over the next few years. The increase in revenues should contribute to offset the increased expenditures associated with the operation of the renewed CSTM building.

# 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.



Fernand Proulx  
Interim President and CEO



Yannick Brazeau  
Comptroller

27 June 2017



## INDEPENDENT AUDITOR'S REPORT

To the Minister of Canadian Heritage

### Report on the Financial Statements

I have audited the accompanying financial statements of the National Museum of Science and Technology, which comprise the statement of financial position as at 31 March 2017, and the statement of operations, statement of changes in net assets and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these 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.

#### *Auditor's Responsibility*

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

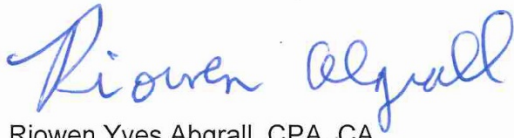
#### *Opinion*

In my opinion, the financial statements present fairly, in all material respects, the financial position of the National Museum of Science and Technology as at 31 March 2017, and the results of its operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

### **Report on Other Legal and Regulatory Requirements**

As required by the *Financial Administration Act*, I report that, in my opinion, the accounting principles in Canadian public sector accounting standards have been applied on a basis consistent with that of the preceding year.

Further, in my opinion, the transactions of the National Museum of Science and Technology that have come to my notice during my audit of the financial statements have, in all significant respects, been in accordance with Part X of the *Financial Administration Act* and regulations, the *Museums Act* and regulations, the by-laws of the National Museum of Science and Technology, and the directive issued pursuant to section 89 of the *Financial Administration Act*.



Riowen Yves Abgrall, CPA, CA  
Principal  
for the Auditor General of Canada

27 June 2017  
Ottawa, Canada

# STATEMENT OF FINANCIAL POSITION

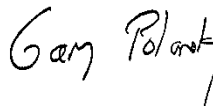
As at March 31


<i>(in thousands of dollars)</i>	2017	2016
<b>ASSETS</b>		
Current		
Cash and cash equivalents (Note 3)	\$77,176	\$38,318
Accounts receivable		
Government departments	1,579	1,685
Trade	368	375
Inventories	380	401
Prepaid expenses	494	592
	<u>79,997</u>	<u>41,371</u>
Collection (Note 4)	1	1
Capital assets (Note 5)	117,947	71,911
	<u>\$197,945</u>	<u>\$113,283</u>
<b>LIABILITIES</b>		
Current		
Accounts payable and accrued liabilities (Note 6)	\$14,229	\$6,549
Current portion of employee future benefits (Note 7)	315	297
Deferred contributions and deferred revenues (Note 8)	61,507	30,295
	<u>76,051</u>	<u>37,141</u>
Employee future benefits (Note 7)	130	196
Long-term advance (Note 9)	4,208	4,533
Deferred contributions related to capital assets (Note 10)	104,282	58,140
	<u>184,671</u>	<u>100,010</u>
<b>NET ASSETS</b>		
Unrestricted	3,172	3,171
Investment in capital assets	10,102	10,102
	<u>13,274</u>	<u>13,273</u>
	<u>\$197,945</u>	<u>\$113,283</u>


Contractual obligations and contingencies (Notes 15 and 17)  
The accompanying notes and schedules form an integral part of these financial statements.

Approved by the Board of Trustees

Recommended by Management

  
\_\_\_\_\_  
Gary Polonsky  
Chairman

  
\_\_\_\_\_  
Neil Russon  
Chair, Finance, Audit and  
Risk Management Committee

  
\_\_\_\_\_  
Fernand Proulx  
Interim President and CEO

  
\_\_\_\_\_  
Yannick Brazeau  
Comptroller

## STATEMENT OF OPERATIONS

For the year ended March 31

<i>(in thousands of dollars)</i>	2017	2016
<b>REVENUES</b>		
Operating (Schedule 1)	\$5,535	\$3,856
Contributions (Schedule 1)	1,747	1,484
Interest	516	273
Total revenues	7,798	5,613
<b>EXPENSES (Schedule 2)</b>		
Heritage preservation	4,723	4,380
Sharing knowledge	14,091	11,328
Internal services	7,993	7,254
Accommodation	12,466	13,132
Total expenses	39,273	36,094
Deficit before parliamentary appropriations	(31,475)	(30,481)
Parliamentary appropriations (Note 11)	31,476	30,839
Surplus for the year	\$1	\$358

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>	2017	2016
<b>INVESTMENT IN CAPITAL ASSETS</b>		
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
<b>UNRESTRICTED NET ASSETS</b>		
Unrestricted net surplus, beginning of year	3,171	2,813
Surplus for the year	1	358
Unrestricted net surplus, end of year	3,172	3,171
<b>NET ASSETS, END OF THE YEAR</b>	<b>\$13,274</b>	<b>\$13,273</b>

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>	2017	2016
<b>OPERATING ACTIVITIES</b>		
Cash received (clients and donors)	\$6,864	\$4,708
Parliamentary appropriations received for operations	28,439	26,658
Cash paid to suppliers	(16,015)	(13,717)
Payments related to salary and benefits	(19,536)	(18,520)
Cash received from the Foundation	208	42
Interest received	480	247
Net cash generated (used) through operating activities	440	(582)
<b>CAPITAL ACTIVITIES</b>		
Payments related to capital acquisitions	(42,008)	(9,964)
Net cash used through capital activities	(42,008)	(9,964)
<b>FINANCING ACTIVITIES</b>		
Repayment of long-term advance	(325)	-
Sponsorship received for the acquisition of capital assets	525	868
Appropriations received for the acquisition of capital assets	80,226	38,957
Net cash generated through financing activities	80,426	39,825
Increase in cash and cash equivalents	38,858	29,279
Cash and cash equivalents, beginning of year	38,318	9,039
Cash and cash equivalents, end of year	\$77,176	\$38,318

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

## NOTES TO FINANCIAL STATEMENTS

March 31, 2017

### 1. Authority, mandate and operations

The National Museum of Science and Technology 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 Canada Science and Technology Museums Corporation. 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 expenditure policies, guidelines and practices with Treasury Board of Canada Secretariat ("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. To fulfill this reporting requirement, and in order to ensure compliance with the directive, the Corporation reviewed and revised its policies, guidelines and practices to align with Treasury Board instruments. Effective April 1, 2016, the Corporation has complied with this directive and has aligned its policies and practices to the Treasury Board policies, directives and related instruments for travel, hospitality and event expenditures. In 2017–18, the Corporation plans to put in place the reporting and proactive disclosure requirements per Treasury Board instruments. Reporting on the implementation of this directive has been included in the 2017–18 to 2021–22 Corporate Plan.

## 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 for not-for-profit organizations.

### (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 and political 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 average weighted 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. Items disposed from the collection 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 10 years
Computer software	5 years
Museum permanent exhibitions	5 to 20 years
Equipment	5 to 12 years

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) Pension 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.

Actuarial gains (losses) are recognized on a systematic basis over the estimated remaining service life of the related employee group.

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 exhibits with a useful life of over one year are initially recorded as deferred contributions on the Statement of Financial Position. When a 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 and developments of exhibitions with a useful life over one year are initially recorded as deferred contributions on the Statement of Financial Position. When a purchase is made, the portion of sponsorships 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 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, contributed services from volunteers and contributed services from the Rockcliffe Flying Club (Note 13), the lease from Agriculture and Agri-Food Canada (Note 16), and 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

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

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

(k) 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.

(l) 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 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 became necessary, they are recorded in the fiscal year in which they become known.

There are no other accounting assumptions or estimates that have been identified to have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities in the next fiscal year.

### 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, 2017 was 1.00% (2016 - 1.02%).

<i>(in thousands of dollars)</i>	2017	2016
Total cash and cash equivalents	\$77,176	\$38,318
Less amounts allocated for restricted purposes	(61,080)	(29,938)
<u>Unrestricted cash and cash equivalents</u>	<u>\$16,096</u>	<u>\$8,380</u>

### 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, 2017, the Corporation de-accessioned 619 objects (2016 - 177 objects) for a total amount of \$24,000 (2016 - nil) and accessioned 85 objects (2016 - 96 objects) to its collections through the accessioning/de-accessioning process for artifacts. Proceeds of sales of artifacts from 2016 disposals were used to support collection management and development.

## 5. Capital assets

<i>(in thousands of dollars)</i>	2017			2016		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Land	\$10,102	-	\$10,102	\$10,102	-	\$10,102
Buildings	67,902	28,165	39,737	67,902	26,374	41,528
Building improvements	21,248	16,311	4,937	21,955	16,168	5,787
Office furniture	1,204	903	301	1,143	800	343
Equipment	3,549	2,583	966	3,327	2,413	914
Computer software	1,380	1,297	83	1,380	1,244	136
Museum permanent exhibitions	2,768	1,038	1,730	2,504	686	1,818
Easement rights	147	-	147	147	-	147
Capital projects in progress	59,944	-	59,944	11,136	-	11,136
	<u>\$168,244</u>	<u>\$50,297</u>	<u>\$117,947</u>	<u>\$119,596</u>	<u>\$47,685</u>	<u>\$71,911</u>

Capital assets with a net book value of \$14,000 (2016 - \$590,000) were written off during the fiscal year. Capital assets with an original cost of \$1,028,000 (2016 - \$9,922,000) and a net book value of nil (2016 - \$532,000) were written off due to the closure of the Canada Science and Technology Museum and the Corporation's plan to leave the current occupied leased buildings. The write-off amount has been presented under amortization and write-downs of capital assets expense on the Schedule of Expenses.

Capital projects in progress include the renewal of the Canada Science and Technology Museum building and exhibition for a net book value of \$51,094,000 (2016 - \$10,649,000) and the construction of the Collection Conservation Centre for a net book value of \$7,343,000 (2016 - nil).

In March 2016, the Federal Government announced a \$156 million investment to build a new Collection Conservation Centre to preserve and protect Canadian heritage artifacts. The construction will be completed during the next two fiscal years, which could result in early lease terminations, thus impacting the useful life of certain building improvements. However, as at March 31, 2017, there is insufficient information to determine if a change in the useful life of the associated building improvements is warranted.

## 6. Accounts payable and accrued liabilities

<i>(in thousands of dollars)</i>	2017	2016
Trade accounts payable	\$11,930	\$4,509
Government departments, agencies and Crown corporations	479	785
Accrued salaries and other salary-related liabilities	1,820	1,255
	<u>\$14,229</u>	<u>\$6,549</u>



## 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 2016–17 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 9.57% (2016 - 10.41%), and for employment start dates after December 31, 2012, the Corporation's general contribution rate effective at year-end was 8.39% (2016 - 8.73%). Total contributions of \$1.51 million (2016 - \$1.54 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>	2017	2016
Accrued benefit obligation, beginning of year	\$624	\$1,012
Cost for the year	137	117
Benefits paid during the year	(207)	(505)
Accrued benefit obligation, end of year	554	624
Unamortized actuarial losses	(109)	(131)
Accrued benefit liability, end of year	\$445	\$493
Short-term portion	\$315	\$297
Long-term portion	130	196
Accrued benefit liability	\$445	\$493

## 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>	2017	2016
Balance, beginning of year	\$30,295	\$9,380
<b>ADD:</b>		
Restricted contributions from the Canada Science and Technology Museums Corporation Foundation	116	78
Restricted appropriations received or due	80,803	32,245
Sponsorships and other contributions received or due	1,287	1,633
<b>LESS:</b>		
Restricted contributions from the Canada Science and Technology Museums Corporation Foundation recognized	(116)	(78)
Restricted appropriations used	(49,586)	(11,603)
Sponsorships and other contributions used during the year	(1,420)	(1,205)
Funds received (used) for the provision of goods and services	128	(155)
<b>Balance, end of year</b>	<b>\$61,507</b>	<b>\$30,295</b>

As of March 31, 2017, unused deferred parliamentary appropriations totaled \$59,678,000 (2016 - \$28,461,000), deferred grants and sponsorships totaled \$1,402,000 (2016 - \$1,477,000) and other deferred revenues totaled \$427,000 (2016 - \$357,000).

## 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. The Corporation also received funding in fiscal year 2008 to establish a foundation for the Canada Science and Technology Museums Corporation.

<i>(in thousands of dollars)</i>	2017	2016
Funding for construction of revenue generating facilities	\$4,208	\$4,208
Funding to establish a Foundation	-	325
	<b>\$4,208</b>	<b>\$4,533</b>

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, and the repayment of the funding received to establish the Foundation was not anticipated before six years after the date the Foundation starts its operations. In 2016–17, the Corporation made the repayment of the funding received to establish the Foundation. As of March 31, 2017, a repayment mechanism has yet to be established for the funding received for the construction of revenue-generating facilities. 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>	2017	2016
Balance, beginning of year	\$58,140	\$50,018
Amounts used to purchase capital assets	49,692	12,244
Amortization of deferred contributions related to capital assets	(3,550)	(4,122)
<b>Balance, end of year</b>	<b>\$104,282</b>	<b>\$58,140</b>

For the year ended March 31, 2017, amounts used to purchase capital assets were funded by appropriations totaling \$49,009,000 (2016 - \$12,037,000) and sponsorships totaling \$683,000 (2016 - \$207,000). As of March 31, 2017, amortization of deferred contributions related to capital assets - portion sponsorships totaled \$276,000 (2016 - \$205,000) and amortization of deferred contributions related to capital assets - portion appropriations totaled \$3,274,000 (2016 - \$3,917,000).

## 11. Parliamentary appropriations

<i>(in thousands of dollars)</i>	2017	2016
Main estimates amount provided for operating and capital expenditures	\$27,370	\$29,755
<b>SUPPLEMENTARY ESTIMATES:</b>		
CSTM building infrastructure and exhibition renewal	80,803	29,355
Severance adjustments and retroactive wage settlements	256	491
	108,429	59,601
Deferred appropriation used in current year	-	-
Appropriations approved in current year for expenses and purchases of capital assets in future years	(31,218)	(20,642)
Amounts used to purchase depreciable capital assets	(49,009)	(12,037)
Amortization of deferred contributions related to capital assets	3,274	3,917
<b>Parliamentary appropriations</b>	<b>\$31,476</b>	<b>\$30,839</b>

## 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 Canada Science and Technology Museums Corporation, 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 2016–17, the Foundation made a contribution of \$116,000 (2016 - \$78,000) 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 2016 -17, direct expenses related to fundraising costs and disbursed by the Corporation were:

- In part, charged to the Foundation and recorded as an "account receivable from the Foundation" by the Corporation for the amount of \$28,000 (2016 - \$46,000).
- In the other part, 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 \$416,000 (2016 - \$386,000).

As at March 31, 2017, the amount due by the Foundation to the Corporation was \$186,000 (2016 - \$265,000).

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 \$75,000 (2016 - \$75,000).

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 Transport Canada approved flight training school. The RFC operates the Rockcliffe Airport that is owned by the Canada Science and Technology Museums Corporation 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 transaction is 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>	2017		2016	
	Carrying value	Fair value	Carrying value	Fair value
Long-term advance	\$4,208	\$2,920	\$4,533	\$3,335

#### (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 \$5,396,000 (2016 - \$5,347,000) 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, 2017, accounts receivable net of tax receivable totaled \$986,000 (2016 - \$1,125,000). These figures are reported net of an allowance for doubtful accounts of \$26,000 (2016 - \$27,000), 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, 2017 was a decrease of \$1,000 (2016 - decrease of \$44,000) relating to past due balances.

As at March 31, 2017, \$184,000 (2016 - \$226,000) 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, 2017, cash and cash equivalents and current liabilities include US \$1,116,000 (2016 - US \$1,292,000) and US \$371,000 (2016 - US \$6,000), 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, 2017 is a \$99,000 (2016 - \$167,000) decrease in surplus. The approximate impact of a 10% decline is a \$99,000 (2016 - \$167,000) 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. The Corporation has determined that the risk is not significant.

As at March 31, 2017, the entire balance of the Corporation's accounts payable and accrued liabilities is due within 365 days (2016 - 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, 2016. In addition, the exposure to the risks and how they arise also remained unchanged with the prior year.

## 15. Contractual obligations

As at March 31, 2017, the Corporation had entered into various agreements for accommodations, protection services, facilities management services and exhibition rentals, for a total of \$146,864,000 (2016 - \$60,195,000). The future minimum payments for the next five years and subsequent years are as follows:

<i>(in thousands of dollars)</i>	2016
2017-18	\$72,427
2018-19	65,549
2019-20	2,386
2020-21	1,323
2021-22	1,323
2022-23 and subsequent years	3,856
	<u>\$146,864</u>

## 16. 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. 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.

In addition to those related party transactions disclosed elsewhere in these financial statements, the following transactions were carried out with related parties. The Corporation

has transactions with related parties including but not limited to sales and purchases of goods and rendering and receiving of services. The most significant transactions with related parties include the property taxes and employee benefits expenses.

<i>(in thousands of dollars)</i>	2017	2016
<b>REVENUES FROM RELATED PARTIES</b>		
Operating revenue	\$169	\$82
Contributions	992	851
	\$1,161	\$933
<b>EXPENSES WITH RELATED PARTIES</b>		
Personnel costs	\$3,395	\$3,207
Property taxes	967	829
Other expenses	318	397
	\$4,680	\$4,433
Sponsorships and other contributions used to purchase capital assets during the year	\$195	\$171

Also, 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 and are not presented in the Corporation's Statement of Operations.

## 17. 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 recorded in the Corporation's financial statements. As at March 31, 2017, no provision has been recorded based on the Corporation's and external legal firm assessment of potential liability (2016 - \$25,000). The effect, if any, of ultimate resolution of these matters will be accounted for when determinable.

## 18. Canada Science and Technology Museum temporary closure

On September 11, 2014, the presence of airborne mould was discovered at the Canada Science and Technology Museum ("CSTM"). Consequently, the CSTM was closed from that date. On November 17, 2014, the Government of Canada announced an \$80.5 million investment to repair and upgrade the CSTM. This funding is essential to address the health and safety issues that are of immediate concern, and to support the Corporation's work promoting Canada's long history of scientific and technological achievement. Specifically, the funds are going toward removing the mould and replacing the CSTM's roof, retrofitting and upgrading the CSTM's exhibition spaces and floor space, upgrading the building's fire suppression systems and its seismic structural strength, and bringing the CSTM's exterior facade up to date to match the new, modern interior. The work will be completed during the next fiscal year, and the CSTM is expected to re-open in November 2017.

The impact of the closure resulted in savings in operating costs, mainly in personnel costs, repairs and upkeep of buildings, and utilities. These savings are compensating for the loss of revenues associated with the closure.

## SCHEDULE 1: SCHEDULE OF OPERATING REVENUES AND CONTRIBUTIONS

For the year ended March 31

### Operating Revenues

<i>(in thousands of dollars)</i>	2017	2016
General admissions and programs		
Science and Technology	\$78	\$37
Aviation and Space	1,657	767
Agriculture and Food	708	834
Boutique sales	828	503
Facility rental and concessions	413	315
Parking	566	468
Membership	285	270
Farm operations	363	347
Thematic experiences	74	63
Other	563	252
<b>TOTAL</b>	<b>\$5,535</b>	<b>\$3,856</b>

### Contributions

<i>(in thousands of dollars)</i>	2017	2016
Grants and sponsorships	\$1,086	\$1,257
Other contributions from individuals and corporations	545	149
Contributions from the Foundation	116	78
<b>TOTAL</b>	<b>\$1,747</b>	<b>\$1,484</b>



## SCHEDULE 2: SCHEDULE OF EXPENSES

For the year ended March 31

<i>(in thousands of dollars)</i>	2017	2016
Personnel costs	\$19,790	\$18,039
Amortization and write-downs of capital assets	3,654	4,228
Professional and special services	2,825	2,666
Leases of buildings	2,221	2,195
Property taxes	1,397	1,258
Property management services	1,130	1,180
Utilities	1,051	1,040
Repairs and upkeep of buildings	853	627
Material and supplies	1,276	1,200
Protection services	747	693
Design and display	1,183	731
Advertising	929	495
Gift shops and product marketing	492	274
Repair and upkeep of equipment	305	227
Communications	204	211
Travel	411	316
Publications	219	216
Office supplies and equipment	110	126
Purchase of objects for the collection	117	79
Miscellaneous	72	53
Freight, express and cartage	118	89
Rentals of equipment	130	114
Books	39	37
<b>TOTAL</b>	<b>\$39,273</b>	<b>\$36,094</b>