



CANADA SCIENCE AND TECHNOLOGY
MUSEUMS CORPORATION
SOCIÉTÉ DES MUSÉES DE SCIENCES
ET TECHNOLOGIES DU CANADA

A FASCINATING WORLD
UN MONDE FASCINANT



Canada Science and Technology Museums Corporation

Summary of the Corporate Plan 2016–2017 to 2020–2021

Summary of the Operating Budget 2016–2017

Summary of the Capital Budget 2016–2017

Table of Contents

EXECUTIVE SUMMARY	2
1.0 MANDATE	5
1.1 SUPPORTING GOVERNMENT PRIORITIES.....	6
2.0 CORPORATE PROFILE	7
2.1 MUSEUMS AND THE COLLECTION	7
2.2 GOVERNANCE STRUCTURE	8
2.2.1 Board of Trustees.....	8
2.2.2 Board Committees.....	8
2.2.3 Executive Management.....	9
2.2.4 Performance Evaluation.....	10
3.0 STRATEGIC ISSUES	11
3.1 ENVIRONMENTAL SCAN	11
3.2 RISKS AND MITIGATION STRATEGIES	12
3.3 HIGHLIGHTS AND CHALLENGES FROM 2015–2016.....	14
3.3.1 Highlights.....	14
3.3.2 Challenges and Lessons Learned.....	15
4.0 STRATEGIC OBJECTIVES.....	16
4.1 THE PLANNING PROCESS	16
4.2 PROGRAM ALIGNMENT ARCHITECTURE AND STRATEGIC OBJECTIVES	16
4.3 STRATEGIES AND ACTIVITIES	17
4.3.1 Best in Class — Collection.....	17
4.3.2 Best in Class — Education and Exhibitions.....	19
4.3.3 National Reach.....	21
4.3.4 Sustainable and Profitable.....	23
4.3.5 Renewed and Innovative Physical Infrastructure.....	25
5.0 FINANCIAL DISCUSSION	28
5.1 FINANCIAL OVERVIEW.....	28
5.2 FINANCIAL PLANNING ASSUMPTIONS AND PROJECTIONS.....	29
5.2.1 Parliamentary Appropriations.....	29
5.2.1 Revenue Projections.....	29
5.3 OPERATING BUDGET	33
5.3.1 Planned Expenditures.....	33
5.3.2 Operating Budget Summary.....	34
5.4 CAPITAL BUDGET SUMMARY.....	36
5.4.1 Major Capital Projects.....	37
5.4.2 Corporate-Wide Assets.....	41
5.4.3 Unfunded Capital Requirements.....	41
5.5 FINANCIAL SUSTAINABILITY.....	42
6.0 FINANCIAL STATEMENTS	44
ANNEX 1 — PLANNED EXHIBITIONS FOR 2016–2017	49
ANNEX 2 — CSTMC BOARD OF TRUSTEES	50

EXECUTIVE SUMMARY

The Canada Science and Technology Museums Corporation (CSTMC or the Corporation) is mandated under the *Museums Act* to preserve Canada's scientific and technological heritage, and to promote, celebrate, and share knowledge of that heritage with Canadians. A federal Crown corporation, the CSTMC proudly operates the Canada Science and Technology Museum (CSTM) and its two affiliated museums: the Canada Aviation and Space Museum (CASM) and the Canada Agriculture and Food Museum (CAFM). The CSTMC uses, displays and interprets Canada's science and technology innovations to inspire Canadian youth to explore science, technology, engineering, arts and mathematics and the many careers that stem from them.

Strategic Objectives

The CSTMC will undertake activities in support of its five strategic objectives to help promote a national culture of science, technology, and innovation with a particular focus on youth—the innovators of tomorrow – by encouraging participatory heritage. These activities will include digitizing the museum experience, developing collaborations that promote and enrich Canadian scientific culture and enterprise, and inspiring Canadian youth to explore careers in science, technology, engineering and mathematics.

Best in Class – Collection

- continuing to rationalize and digitize the collection;
- implementing a subject area research plan which aligns with corporate priorities;
- developing virtual collection tours; and
- using the collection to attract new national and international partners.

Best in Class – Education and Exhibitions

- developing new exhibitions at CAFM and CASM;
- modernizing the CSTM exhibition space; and
- developing celebrations for Canada's 150th anniversary.

National Outreach

- building, managing and enriching outreach pipelines;
- exploring new national programs around gaming, mining, space exploration and food preservation;
- building brand awareness; and
- developing new mobile applications and gamification.

Sustainable and Profitable

- implementing CSTM, CASM and CAFM business plans;
- continuing to contribute to open heritage data platforms;
- growing business development; and
- fostering a healthy work place.

Renewed and Innovative Infrastructure

- completing work on the CSTM infrastructure modernization;
- beginning the development and design for the purpose-built Collections Conservation Centre;
- exploring the feasibility of a capital campaign for the Food Innovation Centre at CAFM; and
- exploring funding opportunities for a facility for conservation and restoration of the aviation collection.

During the 2016-2017 to 2020-2021 planning cycle the CSTM, CASM and CAFM will reach, connect and engage with Canadians with tangible experiences at the museums and through a variety of digital platforms. The three museums will create encounters that tell the stories of great Canadians and their innovations. They will illustrate modern scientific and technological developments and developers—and the commercial partners that nurture them. They will offer unique experiences that will make Canadians proud of their common past and motivate future innovators. The museums will be inspiring places where Canada's scientific and technological past meets the innovations of the future and where new ideas are sparked.

The CSTMC will pursue initiatives to increase its digital footprint with a vision of participatory culture and heritage engagement. Activities will focus on becoming online engagement specialists, content coordinators and quality control overseers rather than being a sole source of content creation. The CSTMC will focus on creating a digital representation of the national science and technology collection through various platforms, including 3D scanning and gamification, and delivering the museums' content in a variety of innovative and creative ways. To remain relevant and innovative, the Corporation will explore ways it can have meaningful engagements with Canadians through the digital public sphere by using information technologies and digital media platforms to deliver museum programming more efficiently and effectively, and provide access to its collection to a greater number of Canadians.

Over 2016-2017, the re-construction of the CSTM building envelop will be completed and exhibits will be designed and produced for installation to begin in April 2017. The planning and design will be completed for the Collections Conservation Centre (CCC), with ground-breaking expected to occur in Fall 2016. Given the ambitious 24-month construction time table for the CCC, the Corporation will closely monitor progress and keep key stakeholders engaged in order to promptly address issues and stay on schedule.

Key Risks

The key risks facing the Corporation in 2016-2017 are as follows:

Risk 1: *The impact of any cost overruns for the CSTM infrastructure modernization project or the Collections Conservation Centre project.*

Due to operating funding pressures and its limited base appropriations, the Corporation would not be able to absorb any cost overruns for either of these projects without negatively impacting the operations at CASM or CAFM. To reduce this risk, the CSTMC has put in place a highly qualified team of professionals to deliver the CSTM modernization project, and is currently doing the same for the Collections Conservation Centre project. The Board of Trustees' Major Facilities Committee will continue to ensure additional project oversight.

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

As the CSTMC has not received a permanent increase to its base funding for over 20 years, financial pressures caused by increasing costs to operate and recapitalize its museums and associated sites continue to compromise the CSTMC's ability to invest in new programming and exhibitions, with more interactivity, both on site and on digital platforms. The Corporation aggressively seeks sponsors and collaborators to fund digital, exhibition and programming initiatives.

Risk 3: *Endangering the national collection in storage due to inappropriate storage conditions.*

During the construction of the Collections Conservation Centre, the national collection will continue to be at risk due to overcapacity and inappropriate environment and security controls in the current facilities. In the interim, the Corporation will progress with the collection rationalization project to manage its collection and find operational efficiencies, while performing minimal repairs to the leased buildings to ensure the health and safety of staff and the protection of the artifacts.

Budgets

The Corporation presents balanced operating and capital budgets for 2016-2017. The total operating budget for 2016-2017 will be \$34.255 million, which includes base operating appropriations of \$26.865 million and projected revenues of \$7.685 million from admissions to CAFM and CASM, memberships and programming, commercial operations, sponsorships, and philanthropic donations.

The total 2016-2017 capital budget of \$89.230 million includes base funding of \$0.8 million and temporary capital funding for two major infrastructure projects: the CSTM modernization project and the construction of the new Collections Conservation Centre; and deferred appropriations from 2015-2016.

1.0 MANDATE

Government Legislation

The Canada Science and Technology Museums Corporation (CSTMC or the Corporation) was established as an autonomous Crown corporation on July 1, 1990, with the passage of the *Museums Act*. The CSTMC operates at arm's length from government with regard to operating and programming decisions. The CSTMC proudly operates the Canada Science and Technology Museum (CSTM) and two affiliated national museums: the Canada Aviation and Space Museum (CASM) and the Canada Agriculture and Food Museum (CAFM).

Under the *Museums Act*, the Canada Science and Technology Museums Corporation¹ is a distinct legal entity, wholly owned by the Government of Canada. The CSTMC is subject to the financial provisions governing Crown corporations set out in Part X of the *Financial Administration Act*, and is required to comply with a range of other statutes, including those governing official languages, employment equity, multiculturalism, and access to information and privacy.

Public Policy Role

The CSTMC's broad public policy role is expressed in the preamble of the *Museums Act*, which states that each National Museum:

- "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;" and
- "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 (as stated in the *Museums Act*)

"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 in a place where innovations of the past meet the future.

¹ The Canada Science and Technology Museums Corporation's legal name is the National Museum of Science and Technology.

Values

The CSTMC follows the Government of Canada's public service values of respect, stewardship, integrity and excellence. Through an extensive consultative process, involving all staff, the following new corporate values have been established that will guide the decisions and actions taken by the CSTMC as an institution and by individual employees. These are: creativity; respect; accountability; collaboration; integrity and pride.

1.1 Supporting Government Priorities

The CSTMC is a member of the Canadian Heritage Portfolio and contributes to the government's objective for heritage preservation. The Corporation maintains rigorous stewardship over financial resources, assets and human resources, while ensuring a commitment to being open and transparent in its activities.

The CSTMC's mandate and activities are aligned with the government's priorities with regard to learning, innovation, and research and development in support of the knowledge-based economy. Through educational programs, informative websites, social media tools, digital content and a variety of other media, the Corporation's three museums give Canadians of all ages the opportunity to engage with science and innovations from Canada's past, with developments from today and visions of tomorrow. The CSTMC aims to inspire youth to explore careers in science, technology, engineering and mathematics, which are sectors vital to Canada's future economic prosperity.

2.0 CORPORATE PROFILE

2.1 Museums and the Collection

The CSTMC's three museums and collection are housed in 19 buildings in three locations throughout Ottawa. The Canada Science and Technology Museum is located on St. Laurent Boulevard surrounded by three leased storage warehouses which include the corporate offices. The Canada Aviation and Space Museum and Hangar are at the Rockcliffe Airport and the Canada Agriculture and Food Museum is located at the Central Experimental Farm. All three sites have space for exhibitions, programming, facility rentals and offices.

Canada Science and Technology Museum

The Canada Science and Technology Museum is Canada's only comprehensive science and technology museum. It offers dynamic exhibitions and interactive programming as a nexus of knowledge on Canadian science and technology that is shared with Canadians through travelling exhibitions, an extensive website, and an active artefact loan program. It was the first museum in Canada to engage audiences through interactive exhibitions in the area of science and technology.

The CSTM's collection, the most extensive research collection of scientific and technological artefacts in Canada, is particularly rich in the areas of communication, manufacturing, natural and renewable resources, scientific instrumentation and transportation. The collection of artefacts, trade literature, documents and photographs plays a central role in the museum's exhibitions and is preserved as a resource for future generations of Canadians.

The museum is closed during a major infrastructure modernization project that includes replacing the roof, retrofitting the building to adhere to seismic codes, and improving the external façade. CSTM is also undergoing a complete modernization of the exhibition floor and will reopen in late 2017.

Canada Agriculture and Food Museum

The Canada Agriculture and Food Museum's vision is to inspire Canadians to re-engage with the evolution of agriculture. The CAFM aims to inspire visitors, both on site and virtually, to explore the necessity of agriculture to Canadians' quality of life—food, fibres, energy and industry depend on it.

The CAFM offers a unique experience: a demonstration working farm combined with museum exhibitions and interpretation. Located in the heart of the nation's capital on the Central Experimental Farm National Historic Site, the museum is a showcase for Canadian agriculture, food production and the science and technology that feeds, clothes and powers the nation.

The CAFM offers programs, special events and exhibitions which explore Canada's proud agricultural heritage, as well as the contemporary benefits and relationships between agriculture and Canadians' everyday lives with a strong focus on food literacy. This theme, relevant to audiences of every age, background and gender, will enable the museum to grow its collaborations and relationships with organizations in the health, food safety, environment education, and culture sectors.

Canada Aviation and Space Museum

The Canada Aviation and Space Museum's vision is to invite Canadians to explore the wonders of flight and the contribution of aviation to the transformation and development of Canada. To realize this vision, the CASM will collect, preserve, depict and display aeronautical artefacts and interpret their significance—scientific and technical, social and cultural, historic and contemporary. It will tell the stories of the men and women who followed their dreams and it will provide a venue for the next pioneers and trail blazers to share their exploits and explorations.

The extensive aviation collection of the CASM is deemed by historians and museums alike as among the best in the world. The CASM collects artefacts illustrating the development of aviation in times of peace and war, from the earliest days of manned flight to the present, as well as forays into space. The museum highlights Canadian achievements in aerospace science and technology, complemented by aircraft and related artefacts from many other nations, thus providing an international context. The CASM aims to be a source of inspiration, both on site and virtually, for Canada's youth, through the presentation and interpretation of innovative discoveries and new horizons in aerospace and aviation both in Canada and in the world.

The CASM offers programming that brings aviation history to life and stimulates a lasting interest in the fascinating world of flight. On site or online, visitors experience the story of humanity's preoccupation with the dream of flight, and learn about the significant contributions Canadians have made to aviation and space flight from the 1909 beginnings of flight in Canada to the present day.

2.2 Governance Structure

2.2.1 Board of Trustees

The *Museums Act* provides for a Board of Trustees, consisting of up to 11 trustees (including a chair and a vice-chair), appointed by the Minister of Canadian Heritage with the approval of the Governor-in-Council. (Current trustees are listed in Annex 2.)

The board serves as the CSTMC's governing body and is accountable to Parliament for the affairs of the Corporation through the Minister of Canadian Heritage. The trustees, acting collectively as the board, are responsible to oversee the business management, activities and affairs of the CSTMC, ensuring that strategic issues are resolved, and that all the duties conferred on the Corporation by the *Museums Act* and Part X of the *Financial Administration Act* are carried out.

The full board meets from four to six times per year. The board also engages the public on an annual basis, communicating its mandate, priorities, and financial and programming results and plans at the annual public meeting.

2.2.2 Board Committees

The Board of Trustees is supported by four committees: the executive committee; the governance committee; the finance, audit and risk management committee; and the building committee. Each committee is governed by terms of reference. Committees typically meet on a quarterly basis or more frequently as required.

Executive Committee

The executive committee establishes the annual performance objectives of the President and CEO. This committee also exercises full authority under exceptional circumstances should the full Board of Trustees be unable to meet in a timely fashion. The executive committee's membership consists of the board's chair, the vice-chair and two additional trustees. The President and Chief Executive Officer (CEO) of the Corporation sits on the committee as a non-voting member.

Finance, Audit and Risk Management Committee

The finance, audit and risk management (FARM) committee oversees the CSTMC's financial management controls, its practices and its information systems. The committee reviews and advises the Board of Trustees on the CSTMC's five-year operating and capital plans, as well as the annual and quarterly financial statements. In addition to providing oversight of the risk management policies and practices within the CSTMC, the FARM committee also selects internal audits and reviews and advises the Board of Trustees on plans and reports from internal and external auditors. The committee is composed of no less than four trustees, plus the President and CEO and the Chair of the Board who are non-voting members of the committee.

Governance Committee

The governance committee (GC) monitors and reviews the governance of the CSTMC regarding best practices for corporate governance and stewardship, and recommends appropriate changes to enhance corporate functioning and decision-making. The GC reviews the board's committee structure and oversees the board's annual performance self-evaluation process. The chair of the board informs the responsible minister of the performance results.

The GC supports the board's succession planning by ensuring that the board's skills matrix is regularly updated and identifying any gaps in skills, experience or representation. The GC is comprised of no less than four trustees, plus the Chair of the Board and the President and CEO, who are non-voting members of the committee.

Major Facilities Committee

The major facilities committee (MFC) provides enhanced oversight of the major infrastructure projects that the CSTMC is undertaking, as well as the long-term infrastructure plans for the CSTM, CASM and CAFM. The MFC is composed of no less than four trustees, plus the Chair of the Board, who is a voting member of the committee, and the President and CEO, who is a non-voting member.

2.2.3 Executive Management

The CSTMC's daily operations are managed by the President and CEO, who is supported by an executive leadership team. The executive team include the Chief Operating Officer, the Director General of each museum, the Director, Business Development, the Vice-President, Human Resources, the Vice-President, Public Affairs and the Vice-President, Collections and Research have been combined into one position of Vice-President, Collection, Research and Corporate Governance.

2.2.4 Performance Evaluation

The Chair of the Board of Trustees is responsible for the establishment of an annual performance agreement with the CEO. The CEO's performance agreement is prepared by the board's executive committee at the onset of the fiscal year and consists of objectives with performance measures aligned with the approved corporate plan as well as with current government priorities along the following categories: policy and program; management; shareholder and stakeholder relations; leadership results; and corporate results. The Board of Trustees is presented with quarterly reports on the CEO's performance. At year end, the board prepares a written assessment of the CEO's performance and makes a recommendation to the Minister of Canadian Heritage with respect to a performance rating.

Annual performance evaluations of members of the executive leadership team are conducted by the President and CEO against the objectives stated in their individual performance agreement aligned with the activities set out in the corporate plan. Evaluations are conducted both at mid-year to track progress on objectives and to identify any performance adjustments, and at year-end. Depending on an individual employee's duties, job performance is assessed according to eight measures of effectiveness: job knowledge; problem analysis and judgment; communication skills; interpersonal and working relationships; teamwork; financial management; leadership of human resources; and general management and accountability.

3.0 STRATEGIC ISSUES

3.1 Environmental Scan

Demographics

To remain relevant to the citizens they serve, museums must be aware of changing demographics in Canadian society. Canada now has more people 65 years and older than children (Statistics Canada, 2015). This growing demographic group is more likely to spend money on travel and leisure activities, and will become a significant part of the CSTMC's visitor population and volunteer community. A large immigrant population must also be taken into consideration; 60% of Canada's population growth is attributed to international migration (Statistics Canada, 2015). These demographic trends are diversifying and enriching Canadian society and changing the typical museum visitor. The CSTMC continues to examine ways to adjust programming, services, and accessibility to account for this varied population in order to be more inclusive of all Canadians.

Economic Climate

The Canadian economy continues to undergo complex adjustments due to the recent challenges in the global oil market and the strengthening US economy and the value of the Canadian dollar. Spending on tourism tends to be strongly driven by the health of the economy; any setbacks would place downward pressure on tourism. The combination of highly-indebted households and over-valued housing markets in the largest centres will remain constraining factors on consumer spending (TD Economics, Provincial Economic Forecast, July 2015).

The CSTMC will continue to monitor these changing economic conditions in the context of pricing and revenue projections, as well as in cost forecasting for major infrastructure projects.

Tourism

The CSTMC's revenues are highly dependent on attendance, which is directly influenced by Canadian and global economies as well as the travel and tourism market. Economic uncertainty means that museums need to continue to find innovative ways to attract and engage visitors through outstanding exhibitions, programming and a focus on the visitor experience.

International tourism to the National Capital Region has begun to see modest increases. Potential travelers are increasingly using the Internet and social media tools to learn about new attractions around the world and to find the least expensive way to reach these destinations. Consumer expectations of value for money are becoming higher, and travelers are seeking novel experiences that satisfy their curiosity (Canada's Federal Tourism Strategy).

The CSTMC will continue to offer value-rich experiences to grow tourism visitation to its museums.

Digital Environment

Few initiatives museums could undertake represent so great a service to research and education as digitization and digital engagement (Smithsonian Institution Digitization Plan). Only a small portion of the Canadian population is located in cities where national museums reside.

Hence, to increase public access to collections, the CSTMC will continue to prioritize digitization, adapting to new technologies, and investigating the best digital strategies and platforms as a means to reach Canadians with stories of their scientific and technological past, present and future. With the intention of becoming a cultural industry leader in the use of digital technologies and digital engagement strategies, the CSTMC is exploring applications of augmented reality in a museum context. Virtual connections and conversations will continue to be a primary way of engaging Canadians in discussions on STEAM (science, technology, engineering, art and mathematics).

The use of mobile applications (apps) in museums is an emerging trend which takes advantage of location awareness and GPS to provide supplemental information to the visitor about an exhibition, artefact, or the museum itself. Apps such as the CSTMC's ACE Academy, Black Flight and Spaceborne: Critical Red, offer opportunities to engage with virtual visitors. Online presence such as an interactive Canada 150 platform and the presentation of 107,000 artefacts online using Google Cultural Institute expands the museums' experience and reach globally. The CSTMC is well positioned and will continue to monitor opportunities and trends in digital education and distance learning as a means to engage a geographically expansive national audience.

In an increased effort to merge the preservation of the past with the introduction of technologies of the future, 3D technologies have been incorporated in several museums globally. 3D printing and scanning of museum artefacts increases opportunities for public access to collections. The emerging technology allows the creation of replicas for public access while preserving delicate artefacts. The CSTMC is already creating 3D models of artefacts and 3D wireframes to be accessible on the Internet. The CSTMC will build on best practices and lessons learned to maximize the benefits of using this newly accessible technology.

Workforce

The Canadian labour market has been resilient despite a challenging global economic environment; the unemployment rate has remained steady. Canada is, like other G20 countries, recognizing the aging population and the future impacts on the workforce. As baby boomers reach retirement age, employers are looking at ways to sustain the workforce with skilled workers. To address workplace employment trends, the CSTMC Executive Leadership Team has been focused on the professional development and growth of employees in support of succession planning, with a view to retaining corporate knowledge and expertise as long-tenured employees approach retirement.

To attract and retain a talented workforce, the Corporation has developed and implemented programs and activities with respect to building a healthy, respectful and supportive workplace. These programs and activities included raising awareness of mental health issues and training opportunities to foster a workplace free of harassment and discrimination. The Corporation continues to foster a corporate culture that respects employees and adheres to the Corporation's Value and Ethics Code.

3.2 Risks and Mitigation Strategies

In October 2015 the CSTMC completed a risk assessment exercise against the five objectives for the planning period. Analysis of assessment results identified the most important drivers of risk, as well as the strategic initiatives with the highest risk profiles. These findings serve as the basis for the CSTMC's new

three-year audit plan. The following three risks were identified as the most prominent in terms of impact and/or likelihood:

1. the impact of any cost overruns for the Corporation's two major infrastructure projects;
2. the loss of relevance due to limited capacity to invest in new programming and exhibitions on multiple platforms; and
3. endangering the national collection in storage due to inappropriate storage conditions.

Risk 1: *The impact of cost overruns for the CSTM infrastructure modernization project and the Collections Conservation Centre project.*

Due to operating funding pressures, and its limited base capital appropriations, the Corporation would not be able to absorb any cost overruns for both major capital projects without negatively impacting the operations at CASM or CAFM. The complexities associated with both projects and the timelines to deliver a practically whole new national museum and new state of the art collections facility are relatively short and the budgets for both projects are modest.

Mitigation: The CSTMC has put in place a highly qualified team of construction, engineering, and architectural professionals to deliver the CSTM infrastructure project, and is currently putting together a similar team for the Collections Conservation Centre project. The CSTM modernization project was broken down into two components, one for the structural work and a second for the exhibition modernization work. Work is being done concurrently on the structural construction work while the CSTMC's executive team focuses on the development of the new exhibition program and seeking contributions and sponsorships for the project. A specialized project manager oversees each project team to ensure rigorous adherence to the schedule and budget. The CSTMC also included budget contingencies of 15 to 20% at the design phase and the construction phase, as well as an overall project contingencies for both major capital projects. The Corporation will closely monitor progress and keep key stakeholders engaged in order to promptly address issues to ensure that the projects stay on their respective schedule. The Board of Trustees major facilities committee receives regular progress updates on the schedule and budget of the project. This has provided an added layer of oversight to ensure adherence to the allotted schedule and budget.

Risk 2: *The loss of relevance due to limited capacity to invest in digital initiatives, programming and exhibitions on multiple platforms.*

While the significant capital investments to modernize the CSTM and build the Collections Conservation Centre will solve important infrastructure issues that had been plaguing the Museum for many years, the CSTMC has not received an increase in base funding for over 20 years. The CSTMC's appropriations are not indexed to protect it against the impact of inflation on utilities, property taxes and other fixed building operations costs. Year after year, this represents a greater financial challenge as the costs rise due to market forces, while base appropriations are eroded by increases in building operations costs, salary increases, and rising costs associated with all aspects of its operating and capital expenditures. The Corporation continues to use an increasing portion of its operating funding to pay for the cost of operating its public facilities as well as fund the salary envelope. This situation is exacerbated by the operations and maintenance expenses the CSTMC has had to absorb since the addition of the CAFM

facilities in 1997 and the hangar at the CASM in 2005 to its portfolio, for which the CSTMC's base appropriations were never adjusted. All of these financial pressures severely compromise the CSTMC's ability to fund digital, exhibition and programming initiatives from its base appropriations. The Corporation's dependence on the private sector to fully fund new initiatives is not a sustainable model.

Mitigation: The CSTMC will continue to inform the government of the financial pressures that challenge its ability to ensure its financial sustainability and more importantly, its ability to deliver its mandated program activities to preserve and present the national science and technology collection. The Corporation is committed to finding efficiencies and savings, diverse revenue generating opportunities and contributions and sponsorships. Despite the Corporation's considerable efforts, a significant funding gap remains. In order to balance, the CSTMC is maintaining reductions in program offerings and services, which impact its effectiveness in delivering on its mandate. By creating a purpose-built collection storage facility, the Corporation will reduce reliance on leased space as well as reduce the increasing operational funds required due to continuously needed facility upgrades and repairs. These savings will be put towards the operation and maintenance of the new facility.

Risk 3: *Endangering the national collection due to inappropriate storage conditions.*

The CSTMC is responsible for an extensive collection of scientific and technological artefacts and materials. The collection is currently housed in three leased non-purpose-built warehouse buildings, which are at 130% capacity. Furthermore, these buildings have inadequate temperature and humidity controls, providing a challenge for preserving existing artefacts as well as acquiring new artefacts to enhance the collection. These conditions may force a moratorium on acquisitions which would create a gap in the national collection for future generations.

Mitigation: During the construction of the Collections Conservation Centre the national collection will continue to be at risk. In the interim, the Corporation will proceed with the collection rationalization project 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.

3.3 Highlights and Challenges from 2015–2016

3.3.1 Highlights

As the CSTMC reflects on the mid-year results of 2015–2016, several successes have already been achieved. They include:

- **ScienceMobile:** CSTMC experienced tremendous success with the introduction of a mobile programming unit which travels throughout the National Capital Region (NCR) to deliver exciting and educational programming at festivals, conferences, schools and community events.
- **Baconpalooza:** Focused on an older foodie crowd, this new event brought in a host of new partners who have already shown their interest in the second annual event in 2016.

- **Outreach:** The CSTMC has been very successful expanding its outreach programming to new audiences through newly established partnerships such as ComicCon.
- **Digital Citizenship:** Continuing with the development of the Corporation's digital engagement, a second mobile app game was released (Ace Academy: Black Flight), and contributions to Open Data continue as well as exhibition contributions to the Google Cultural Institute (GCI). The CSTMC remains the only Canadian national museum to be present on GCI.
- **3D Scanning Lab:** A dedicated space for 3D scanning of artefacts was established within the Collection Reserve. This space is fitted with scanners that will allow iconic artefacts in the collection to be scanned and shared online, including wireframes for 3D printing.
- **Tee-Off Four Tech:** The first annual fundraising golf tournament was a sold-out success with an impressive participation from partners and sponsors. Many have already signed up to take part in the second annual tournament in 2016.

3.3.2 Challenges and Lessons Learned

The CSTMC has faced a number of challenges in the first half of 2015–2016. It has learned key lessons and made adjustments in its plans to meet these challenges as follows:

- **Hilarious Histories:** In an effort to reach a new audience, the CSTMC embarked on a project to create short comedic videos. Comedians were invited into the collection and asked to improvise while being introduced to a variety of different artefacts. The project did not garner the anticipated uptake and will not be continued.
- **National Education Strategy:** During the research on the development of a National Education Strategy it was discovered that several organizations already had very well established programs in place. The CSTMC will therefore leverage partnerships with these organizations to encourage STEAM learning through a wide variety of accessible media platforms.
- **Canada Science and Engineering Hall of Fame:** Beleaguered by criticisms of insufficient youth and female nominations, the CSTMC is re-evaluating the need for the Hall of Fame. With the establishment of a partnership with the Governor General's Innovation Awards, the Corporation believes this to be a better alignment to promote Canada's great innovators. It should be noted that the current inductees into the Hall of Fame will be incorporated into the Canada 150 Innovation web platform.

4.0 STRATEGIC OBJECTIVES

4.1 The Planning Process

For 2016-2017, the CSTMC will continue working with the five-year strategic framework developed in 2015-2016.

4.2 Program Alignment Architecture and Strategic Objectives

The program alignment architecture (PAA) is a framework describing the CSTMC's programs that are designed to achieve overall strategic outcomes. The Corporation establishes plans and priorities and receives parliamentary appropriations according to the PAA. The CSTMC established five strategic objectives for the planning period of 2016–2017 to 2020–2021, which serve as goals for its programs. Table 1 presents the strategic objectives and their expected outcomes, aligned with the PAA framework.

Table 1

Strategic Objectives According to the Program Alignment Architecture

PROGRAMS	STRATEGIC OBJECTIVES AND OUTCOMES	
<p>Sharing Knowledge</p> <p>Interpretation of the collection and demonstration of scientific and technological products and processes to Canadians.</p>	<p>Strategic Objective: Best in Class – Education and Exhibitions</p> <p><u>Outcome:</u> The CSTMC delivered programs, products and services that tell the stories of Canadian ingenuity and innovation.</p>	<p>Strategic Objective: National Reach</p> <p><u>Outcome:</u> The CSTMC developed and created products that reached, connected and engaged with new and existing audiences outside the museums.</p>
<p>Heritage Preservation</p> <p>Corporate activities dedicated to developing and preserving the collection.</p>	<p>Strategic Objective: Best in Class – Collection</p> <p><u>Outcome:</u> The CSTMC has a well-researched, preserved, comprehensive and rationalized collection that is accessible virtually and physically to all Canadians.</p>	
<p>Internal Services</p> <p>Stewardship and management of corporate infrastructure, resources and services.</p>	<p>Strategic Objective: Sustainable and Profitable</p> <p><u>Outcome:</u> The CSTMC is a profitable, innovative, well organized, and financially viable organization.</p>	
<p>Accommodations</p> <p>The physical environment required to house, protect and display the collection; the public facilities where hundreds of thousands of on-site visitors are welcomed each year; and office and administration space for staff.</p>	<p>Strategic Objective: Renewed and Innovative Physical Infrastructure</p> <p><u>Outcome:</u> The CSTMC has three museum campuses that are recognized by Canadians and international audiences as destinations of choice in the Canada's Capital Region.</p>	

4.3 Strategies and Activities

For each strategic objective, the CSTMC has identified strategies, activities, performance indicators and measures for 2016–2017, as well as activities for the subsequent four years of the planning period. As the second year of a five-year strategic framework, many of the activities identified in the 2015-2016 year will continue to be pursued in 2016-2017 as the framework continues to be implemented. The closure of the CSTM and the ensuing major capital infrastructure project has also reduced the capacity of the Corporation to embark on new activities. The Corporation will present an assessment of its performance in the corresponding annual report that is prepared following each fiscal year.

4.3.1 Best in Class — Collection

The CSTMC will pursue three strategies under this strategic objective:

1. make the collection more accessible digitally and physically;
2. become a leader in science and technology subject-based research by focusing and sharing expertise; and
3. advance the Collection Rationalization Project (CRP).

Planned activities for 2016–2017 to support these objectives include:

- continue to rationalize and digitize the collection;
- develop virtual exhibitions;
- finalize a subject area research plan which aligns with corporate priorities;
- develop virtual collection tours; and
- use the collection to attract new national and international partners.

For the CSTMC to consider itself “Best in Class” for collections, it aims to continue to develop a renowned and accessible national collection. The CSTMC’s Collection Rationalization Project (CRP), acclaimed as a model of rigour and effectiveness by a number of international museological institutions, continues to direct how it approaches the development of its collection. The CRP consists of historical research which produces two types of assessments: first, historical assessments (HAs) that identify and analyze concepts, ideas and objects that are essential in the development of each main subject area; and second, collection assessments (CAs), which compare the profile of the existing collection with an ideal collection. This understanding of each section of the collection informs recommendations for acquisitions as well as de-accessions. De-accessioning has become an important priority for the development of the collection. With the collection reserve space at 130% capacity, de-accessioning is the main solution to gaining the space needed to acquire important artefacts to complete the collection and better tell the story of Canada and its scientific and technological heritage. The CRP also updates the inventory of artefacts and will be a key activity in preparation of the move to the new purpose-built Collections Conservation Centre.

The CSTMC continues to develop the digitization of the collection. Creating a 3D scanning lab on site has allowed the Corporation to explore a variety of opportunities to share the collection through 3D scans as well as 3D printing. Many artefacts in the national science and technology collection have the potential to be excellent learning tools for educational programming. While the manipulation of the original artefact may not be possible for visitors and students, a working 3D model of the artefact would give them the opportunity to fully understand the mechanics and technology behind the innovation.

In 2015-2016 the Collection, Research and Conservation Division embarked on a process of evaluating areas of study with the goal of streamlining future collecting and becoming leaders in the field of subject-based research. The new research plan, to be finalized and implemented in 2016-2017, puts an emphasis on CSTMC's collection theme of the transformation of Canada into the 21st century, ensures that the collection remains relevant to today's citizens, and helps the CSTMC to fulfill its mandate. The new research plan also provides more flexibility and encourages multi-disciplinary research projects.

The CSTMC will continue to develop a variety of programs to be able to connect with national audiences to share knowledge and expertise. Using Skype, Google Hangouts and other similar platforms, this activity is part of the national outreach strategy and will continue to position the CSTMC as an expert in the eyes of universities, colleges and other collaborating institutions in the field, and allow for constructive dialogue with Canadians wherever they may reside. The Corporation will also continue to pursue the development of virtual exhibitions for the Google Cultural Institute, whose effort is to make important cultural material available and accessible to everyone online and to digitally preserve it to educate and inspire future generations.

The Collection, Research and Conservation team continues to be heavily involved in the CSTM modernization project. They are an integral part of the project team that is developing the thematics, galleries and exhibitions.

Strategic Objective: Best in Class – Collection		Outcome: The CSTMC has a well-researched, preserved, comprehensive and rationalized collection accessible virtually and physically to all Canadians.				
Strategy 1: Make the collection more accessible digitally and physically.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Continue to digitize the collection.						
Develop, promote and deliver virtual collection tours.						
Evaluate virtual collection tours.						
Revise and continue to deliver virtual collection tours.						
Develop virtual exhibitions for Google Cultural Institute.						
Explore other possible hosts for virtual content.						
Strategy 2: Become leaders in science and technology subject-based research by focusing on and sharing expertise.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Finalize and implement a subject-based research plan.						
Revise the subject-based research plan.						
Implement revisions to the plan.						
Continue to use the collection to attract new national and international partners.						
Strategy 3: Advance the Collection Rationalization Project.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Continue to rationalize the collection.						
Prepare for the artifact move to the Collections Conservation Centre (CCC).						
Move the collection into the CCC.						

PERFORMANCE MEASURES AND INDICATORS	
Measures or milestones	Targets 2016–2017
- Percentage of collection digitized - Number of square metres cleared by removing un-catalogued objects from the collection reserve	- 96% of the collection digitized - 400 m ² sq. ft.

4.3.2 Best in Class — Education and Exhibitions

The CSTMC will pursue three strategies under this strategic objective:

1. create unique exhibitions that are relevant, engaging and entertaining experiences;
2. offer STEAM learning programs in formal and informal forums; and
3. celebrate significant and inspiring Canadian science and technology innovations.

Planned activities for 2016–2017 to support these objectives include:

- develop and launch new travelling exhibitions;
- develop virtual and digital educational programs for families;
- modernize the CSTM exhibition space; and
- continue preparations for celebrating Canada’s 150th anniversary.

To be “Best in Class” for education and exhibitions, the CSTMC will continue to challenge itself to create informative, engaging, relevant and compelling physical and digital exhibitions. The CSTMC will continue to support the lifelong learning of Canadians in science, technology, engineering, arts and mathematics (STEAM) through engaging and immersive programs. School programs at the museums will continue to offer teachers curriculum-connected content that will engage students in hands-on STEAM and immerse them in Canadian history. On-site programming will offer experiences for visitors to promote curiosity and critical and innovative thinking. At the CAFM, all visitors are encouraged to use their five senses as they experience a demonstration working farm in the nation’s capital. Visitors to the CASM engage in a lively interactive experience with aircraft and aerospace objects in an inspiring venue alongside an active airport.

The CSTMC continues to be a leader in bringing together a vast array of government, industry and academic organizations to discuss and plan for Canada’s 150th anniversary. The theme of “Canada’s Spirit of Innovation” is resonating with this diverse group. The main project component is a comprehensive digital platform that showcases the people, places and things that have contributed to Canadian innovation over the past 150 years since Confederation. The CSTMC has secured the website www.InnovationCanada150.ca and is currently in beta testing for the platform. In 2016-2017, a variety of engagement activities, primarily executed through different social media platforms, will reach, connect and engage with target audiences to help grow the content and build momentum to 2017. The CSTMC will continue to seek sponsorships and collaborations to be able to see this project to its fullest potential.

During the CSTM closure the education team is still hard at work bringing programming to the local community. The ScienceMobile is a van that travels within the National Capital Region, delivering exciting STEAM learning programs. The ScienceMobile not only presents at schools, but has also been to a

number of festivals, community centres, conferences and retirement homes. The team is also working with the Ottawa Children’s Treatment Centre for training and developing programs for children with special needs. The requests for the ScienceMobile continue to diversify and grow as the CSTM team carries on exploring other opportunities to bring the engaging programming to participants, wherever they may be. The CSTM has also engaged local graffiti artists to work with aboriginal and underprivileged children to help create murals along the boarding currently encircling the construction site. The painting project will begin in the late spring of 2016.

The CSTMC will continue to rejuvenate and create new exhibitions and programming relevant to today’s audiences for the CAFM and CASM to ensure visitor satisfaction and encourage return visits. The CSTMC continues to explore blockbuster exhibitions and will be hosting **Star Trek: StarFleet Academy** launching in May 2016 at the CASM. All new exhibitions will continue to be developed through strong sponsorships and collaborations.

The modernization of the CSTM exhibition space will allow for new, dynamic and immersive exhibition techniques. The exhibitions will focus on telling the stories of Canadian ingenuity and inventions and their impacts on Canadians. The Master Concept Plan was developed in 2015-2016 and provided a framework to base the galleries and exhibitions. Six galleries will be developed, each with two to three exhibitions based on the gallery thematic. The galleries include: Creating and Using Knowledge, Transforming Resources, Moving and Connecting, Technology and Our Lives, Children’s Innovation Gallery, and Artefact Alley. Summative and formative evaluations during the development of each of the new and modernized exhibitions will ensure the CSTMC meets its own and industry-established standards for exhibitions and visitor satisfaction. The grand re-opening of the CSTM in November 2017 will be a unique opportunity to wrap up a year of Canada 150 celebrations. While official planning will begin in 2017, early ideas include a month-long celebration with a number of activities including the 50th anniversary of the CSTM itself.

Strategic Objective: Best in Class – Education and Exhibitions		Outcome: The CSTMC delivered programs, products and services that tell the stories of Canadian ingenuity and innovation.			
Strategy 1: Create unique exhibitions that are relevant, engaging and entertaining experiences.					
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	
Launch Game Changers travelling exhibition.	Launch radar satellite travelling exhibition in partnership with the Canadian Space Agency	Launch Soil Science exhibition	Launch the Space Collaboration exhibition.	Launch Canola Oil exhibition.	Launch Robotics exhibition.
Develop, produce and begin installation of new exhibitions at CSTM.	Reopen CSTM.				
		Open Star Trek: Fleet Academy blockbuster exhibition at CASM.	Open blockbuster exhibition at CASM.	Open blockbuster exhibition at CSTM.	Open blockbuster exhibition at CASM.

Sustain established, and develop new, collaborations with academia, industry and government to showcase cutting-edge innovations at the CSTM, CASM and CAFM.				
Strategy 2: Offer STEAM educational programming in formal and informal forums.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Develop and deliver virtual and digital educational programs for families. Deliver the virtual and digital educational programs for families. Evaluate and adjust the programs (if necessary).				
Develop a business plan for selling summer camp packages to third party conveners.				
Strategy 3: Celebrate significant and inspiring Canadian science and technology innovations.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Prepare for celebrations for Canada’s 150 th anniversary of Confederation. Continue Canada 150 celebrations and the CSTM’s 50 th anniversary.				

PERFORMANCE MEASURES AND INDICATORS	
Measures or milestones	Targets 2016–2017
- Attendance at CAFM and CASM	- CAFM: 148,000 / CASM: 300,000
- Number of downloads of educational materials	- 50,000 downloads
- Percentage of visitor and user satisfaction	- 90% visitor and user satisfaction
- Number of school programs delivered / number of participants	- CSTM: 100 school programs / 4000 participants; CASM: 725 / 25,800; CAFM: 625 / 18,000

4.3.3 National Reach

The CSTMC will pursue three strategies under this strategic objective:

1. build a creative and relevant line of outreach products;
2. build and sustain strong regional, national and international networks; and
3. increase awareness with new marketing and branding strategies.

Planned activities for 2016–2017 to support these objectives include:

- implement a 3D outreach strategy;
- collaborate to create travelling exhibitions;
- explore augmented reality in museums;
- develop new mobile applications;
- build, manage and enrich outreach pipelines, domestically and internationally;
- explore new national programs around gaming, mining, space exploration and food preservation;
- implement new marketing and branding strategies.

To effectively increase national presence and outreach, the CSTMC and its three national museums have been pursuing ways to maximize their recognition across the country as trusted authorities and leaders in their fields. They continue to find alternative ways to communicate more narratives, to reach broader audiences and to engage in national story telling. The CSTMC also recognizes the importance of being relevant to ensure its sustainability. The Corporation will endeavour to reach, connect and engage with Canadians across the country through a variety of innovative ways, with a particular focus on digital natives. In pursuit of these objectives, the CSTMC will continue to provide digital programs, such as distance education via Skype and other similar platforms, increasing national presence and knowledge of the collection. New and existing distance connections will be formalized, to increase the regularity of the connections, reach new audiences and ensure the programs are impactful to the community. Building on the success of the *Ace Academy* app from the CASM, the Corporation launched a second *Ace Academy: Black Flight* gaming app which immerses the user in the stories of Canadian First World War fighter pilots. An app on space exploration is in development and a third app on the theme of agriculture is being explored.

The CSTMC continues to develop, create and produce products that reach, connect and engage with new and existing audiences outside of the museums. New networks and innovative partnerships will continue to be built and fostered to support national outreach initiatives. Based on the success of the Let's Talk Energy pan-Canadian initiative, new national programs on video games, mining, space exploration and food preservation will be explored. Efforts to bring the science and technology national collection to Canadians from coast to coast to coast will increase as the Corporation explores ways to develop collaborations to produce new products such as travelling exhibitions and displays.

Building on the popularity of programming at high attendance events such as ComicCon, the Corporation will be exploring having a presence at the Calgary Stampede and Toronto FanExpo. The CSTMC will also finalize an outreach strategy based on the opportunities brought by 3D scanning and printing.

The Corporation will continue to promote world-leading excellence in science, technology and innovation. The CSTMC aims to foster academic, government and private sector relations and provide a showcase for Canada's newest innovations on the world front. The Corporation has begun nurturing relationships with organizations in the United States, the United Kingdom, Israel and Italy.

An important part of broadening the reach of the CSTMC is to increase its brand awareness. In 2015–2016 the CSTMC was further marketed through collaborations with partners such as ComicCon. The Corporation will continue to explore new and creative opportunities to reach diverse audiences and market the brand in unexpected ways.

Strategic Objective: National Reach		Outcome: The CSTMC created products that reached, connected, and engaged with new and existing audiences outside the museums.		
Strategy 1: Build a creative and relevant line of outreach products.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Implement 3D outreach strategy. <p style="text-align: center;">Evaluate and adjust 3D outreach strategy.</p> Promote and coordinate artefact loans across Canada. Develop collaborations to create travelling exhibition products. <p style="text-align: center;">Produce, promote and coordinate itineraries for new travelling exhibition products.</p> Explore augmented reality options for the CSTM modernization. Launch new mobile applications.				
Strategy 2: Build and sustain strong regional, national and international networks.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Continue to contribute, enrich and manage outreach pipelines and networks (academia, industry, culture and heritage, science centers, informal learning organizations, etc.). Sustain, establish and develop new relationships with international organizations aligned with the CSTMC’s mandate.				
Strategy 3: Increase awareness with new marketing and branding strategies.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Implement new marketing and branding strategies. <p style="text-align: center;">Evaluate impact of new marketing and branding strategies.</p> Review impact of Google Cultural Institute membership.				

PERFORMANCE MEASURES AND INDICATORS	
Measures or milestones	Targets 2016–2017
- Number of virtual engagements (web, social media, etc.)	- 5.3 million virtual engagements
- Number of connections and engagements (virtual and physical)	- baseline year
- Attendance for travelling products	- 3.5 million visitors

4.3.4 Sustainable and Profitable

The CSTMC will pursue three strategies under this strategic objective:

1. implement a sound business model that is diversified and maximizes commercial returns;
2. invest in a digital (creative) infrastructure; and
3. invest in its workforce and workplace.

Planned activities for 2016–2017 to support these objectives include:

- implement CSTM, CASM and CAFM business plans;
- review sales strategy to grow business development;
- contribute to open heritage data platforms;
- explore options for digital asset management system;
- refine 3D workflows and develop partnerships with 3D technology specialists; and
- foster a healthy work place.

In 2015-2016 the CSTM, CASM and CAFM developed their own business operation plans and visions that align with the CSTMC's mandate, vision and priorities and seek consistency to increase efficiencies and sustainability. With a clear vision of what their unique visitor experience will be and consistent approaches to the development and execution of revenue-generating activities, each campus will continue to work on an aggressive approach to facility rentals, combined with outstanding program delivery in order to continue to generate incremental revenues.

With a new digital strategy that includes Open Heritage and acknowledges that external engagement is driving information management requirements, the CSTMC will re-evaluate and explore options for a Digital Asset Management (DAM) system to ensure the agility needed. The DAM system will provide an effective solution for the CSTMC to store, organize, find, retrieve and share digital assets such as photographs, design files and videos.

The CSTMC will continue to focus its efforts on obtaining sponsorships and donations, developing cooperative relationships and putting a greater emphasis towards increasing philanthropic activities. A driver for success for the Corporation is the development of collaborative approaches and presenting a diverse range of offerings and meaningful engagement opportunities for a variety of organizations and individuals.

A highly skilled workforce remains one of the Corporation's greatest assets. Dedicated to fostering leadership and providing career development opportunities and learning objectives to all staff, the Corporation will continue to offer training and development to encourage effective communication and leadership opportunities across the Corporation. The CSTMC will concentrate on succession planning for key positions, with a focus on upcoming retirements.

The CSTMC continues to implement measures to foster a workplace that does not tolerate harassment or discrimination and where all employees are respected. Concrete actions have already been taken to support open and stigma-free dialogues in the workplace with joint learning programs dealing with mental health and its challenges in both the workplace and in the home.

Strategic Objective: Sustainable and Profitable		Outcome: The CSTMC is a profitable, innovative, well organized, and financially viable organization.		
Strategy 1: Implement a sound business model that diversifies and maximizes commercial returns.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Implement site-specific business plans for CASM, CAFM and CSTM. Revise and update business plans on a yearly basis. Continue monthly financial monitoring and reporting structure. Revise and adjust sales strategy for business development. Continue with successful sales strategy for business development.				
Strategy 2: Invest in digital (creative) infrastructure.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Explore option for a Digital Asset Management System (DAM). Develop and implement DAM system. Evaluate effectiveness of the DAM and make required adjustments. Continue to contribute to Open Heritage data platforms. Refine 3D workflows and develop partnerships with 3D technology specialists. Launch digital outreach projects built on 3D technology. Evaluate 3D strategic for effectiveness and adjust accordingly.				
Strategy 2: Invest in our workforce and workplace.				
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Foster a healthy work place.				

PERFORMANCE MEASURES AND INDICATORS	
Measures or milestones	Targets 2016–2017
- Amount of operating revenue generated	- \$7.685 million in revenue generation
- Amount of contributions from donations, sponsorships and in-kind	- \$1.6 million in in-kind contributions
- Number of training hours for staff	- 1,800 hours

4.3.5 Renewed and Innovative Physical Infrastructure

The CSTMC will pursue four strategies under this strategic objective:

1. launch the renewed CSTM;
2. address the need for a conservation and restoration facility for the aviation collection;
3. launch a capital campaign for the Food Innovation Centre at CAFM; and
4. design and build a purpose-built building for the storage and preservation of the national collection.

Planned activities for 2016–2017 to support these objectives include:

- complete the infrastructure modernization of the CSTM building envelop;
- explore funding opportunities for a facility for the conservation and restoration of the aviation collection;
- explore the feasibility of a capital campaign for the Food Innovation Centre at CAFM; and
- plan, design and start construction on the Collections Conservation Centre.

Accommodations include all activities which involve the physical environments that are required to house, protect and display the collection; the public facilities where hundreds of thousands of on-site visitors are welcomed each year; and office and administration space for staff. The CSTMC will create nationally recognized destinations for all Canadians, enriching the collection and its reputation and demonstrating responsible fiscal management.

The Corporation began work on a large capital project to resolve infrastructure issues at CSTM in December 2014. In November 2014, the government announced that it would provide infrastructure funding to replace the roof and reinforce the walls and fire-suppression system to withstand seismic disturbances. Included in the announcement was funding to modernize the exterior façade and renovate the interior exhibition space of the museum for a planned re-opening in 2017. (See Section 5.4.3, Major Capital Projects.)

As the aviation collection expands, so does the Corporation's need for a conservation and restoration facility at the CASM. Based on its understanding of the aviation industry and its existing relationship with institutions and schools that provide pilot training and education, the Corporation has noted the need for pilot training and technical laboratory space for the growing astronautics industry. The technical laboratory space is the same type of space that the Corporation would need to do conservation and restoration work on aircraft.

The Corporation has completed a business case for the construction of a prefabricated fabric and steel hangar, at a cost of approximately \$3.7 million that would provide a technical laboratory space to serve its immediate needs as well as those of the industry. The hangar would be erected on a cement base where the conservation and restoration facility was identified in the CASM site plans. The building would be referred to as the Aviation Training and Research Centre (ATRC), and include space for pilot training that would be leased out to the schools and institutions.

The hangar would serve as a temporary solution until funding to build a permanent aviation conservation and restoration facility is identified, which the Corporation will pursue in the long term. The business case evaluates the cost-benefit of the hangar, including its potential to be self-sustaining from lease revenues. As the Corporation does not have funds available to construct or operate the hangar, funding will be sought from other sources, including the private sector. Revenues generated could also help fund large-scale conservation projects.

As the CAFM explores new frontiers and diversifies its audiences with the Learning Centre, it continues to look to the future. To complete the final phase of the Master Site Plan, the CAFM will continue to raise awareness and investigate the feasibility of a capital campaign for the Food Innovation Centre (FIC). This space will not only provide revenue-generating opportunities such as facility rentals, gift shop and food

services, it will also be a place where the national collection will serve as an inspiring backdrop for national discussions on food literacy, food security and food policy.

The CSTMC's current artefact storage consists of three leased, industrial-grade buildings not deemed suitable for the proper preservation of the national collection. As part of the federal infrastructure initiative announced in Budget 2016, the CSTMC has received approval of funding of \$156.4 million over two years to support the expansion of the CSTMC through the construction on a new Collections Conservation Centre to preserve and protect priceless Canadian heritage artifacts. Given the ambitious 24-month construction time table for the CCC, the Corporation will closely monitor progress and keep key stakeholders engaged in order to promptly address issues and stay on schedule.

Strategic Objective: Renewed and Innovative Infrastructure		Outcome: The CSTMC has three museum campuses that are recognized by Canadian and international audiences as destinations of choice in the Canada's Capital Region.				
Strategy 1: Launch the renewed CSTM.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Complete the infrastructure modernization of the CSTM building. Install exhibitions, complete façade modernization and reopen the CSTM.						
Strategy 2: Address the need for a conservation and restoration facility for the aviation collection.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Explore funding opportunities for a facility for the conservation and restoration of the aviation collection. Build and open the hangar should funding be secured.						
Strategy 3: Capital campaign for Food Innovation Centre at CAFM.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Explore the feasibility of conducting a capital campaign for the Food Innovation Centre.						
Strategy 4: Design and build a purpose-built building for the storage and preservation of the national collection.						
2016–2017	2017–2018	2018–2019	2019–2020	2020–2021		
Plan, design and begin construction of the Collections Conservation Centre. Complete construction of the Collections Conservation Centre.						

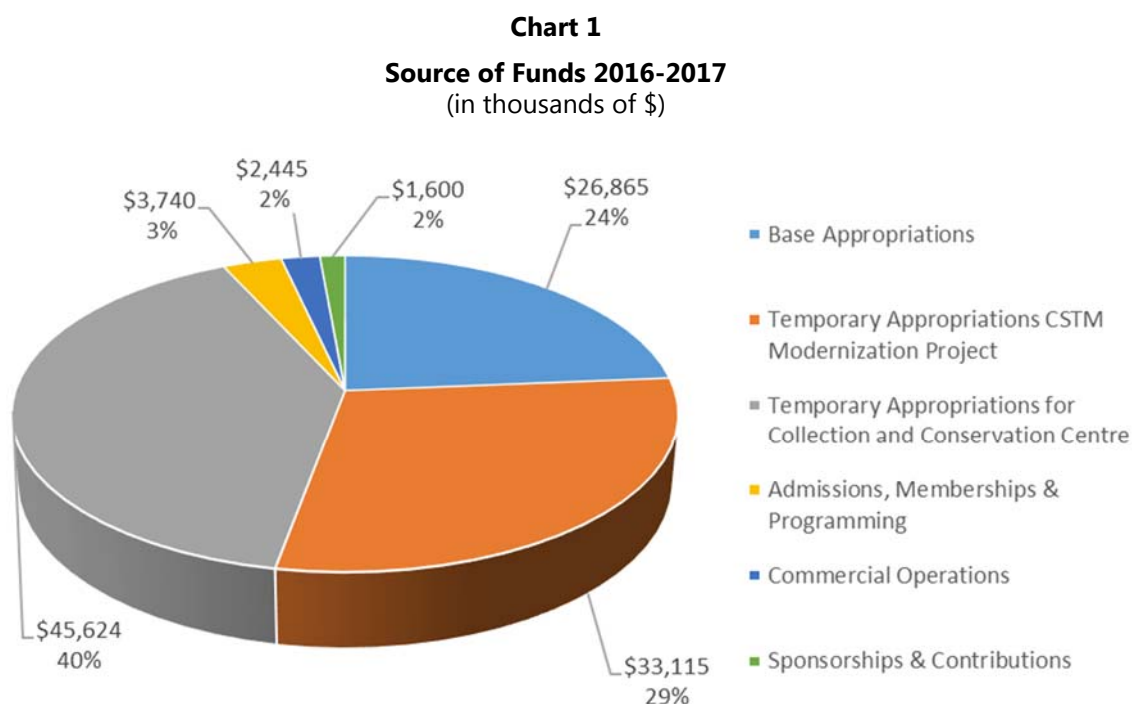
PERFORMANCE MEASURES AND INDICATORS	
Measures or milestones	Indicators 2016–2017
- Meet project milestones for the CSTM modernization	- Milestones met
- Successfully launch the capital campaign for the FIC	- Capital campaign launched
- Identify funding for ATRC	- Funding identified
- Meet milestones for the Collections Conservation Centre	- Milestones met

5.0 FINANCIAL DISCUSSION

5.1 Financial Overview

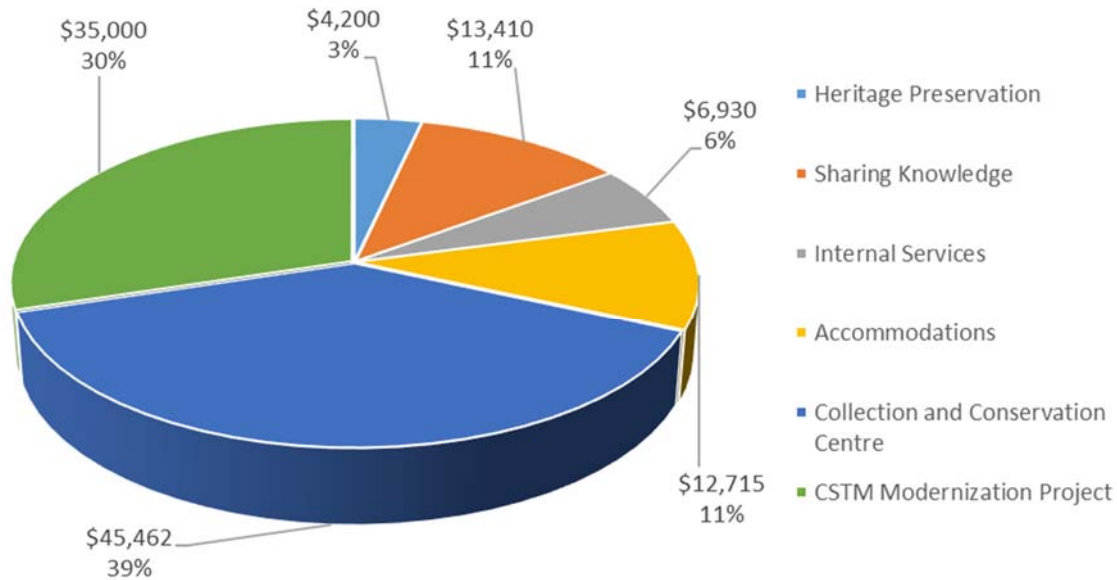
Over the planning period of 2016-2017 to 2020-2021, the Corporation expects to present balanced operating and capital budgets with the exception of 2017-2018. The Corporation plans to use a portion of its unrestricted net assets to invest in the reopening of the CSTM and will consequently post a deficit of \$2 million for that fiscal year. This additional funding will be used to enhance the visitor experience.

The Corporation's budgets are funded from a combination of Parliamentary appropriations, revenues, and contributions. The following chart shows the expected sources of funds for the Corporation's operating and capital budgets for 2016-2017.



The majority of the Corporation's spending in 2016-2017 will be to pursue the infrastructure modernization at CSTM, and to build the new Collections Conservation Centre. In terms of operating spending, in 2016-2017, the CSTMC will spend 47% of its operating budget on heritage preservation and sharing knowledge programs, which reflect the CSTMC's mandate, while the remaining 53% will be spent on internal services and the accommodations program, as shown in the chart below. (The amortization of capital assets is accounted for in the Accommodations program.)

Chart 2
Expenditures by Program 2016–2017
(in thousands of \$)



5.2 Financial Planning Assumptions and Projections

5.2.1 Parliamentary Appropriations

The CSTMC parliamentary appropriation for the fiscal year 2016–2017 is \$105.604 million on a cash basis, comprised of the CSTMC’s base appropriations of \$26.865 million, of which \$26.065 million will be used for operating, and \$800,000 will be used for capital expenses; and temporary additional capital funding of \$33.115 million for the modernization of the CSTM, and \$45.624 million for the Collections Conservation Centre.

Appropriations have been reported on a cash basis except for the appropriation amount presented in the Statement of Operations (see Section 6.0) that is reported on an accrual basis in accordance with the Canadian public sector accounting standards applicable to government-not-for-profit organizations.

5.2.1 Revenue Projections

The Corporation expects to supplement its budget with a number of funding sources including revenues, sponsorships, and philanthropic support. Total revenue from all sources for the Corporation is projected at \$7.685 million for 2016–2017, which is expected to be an exceptional year due to the planned presentation of the **Star Trek: StarFleet Academy** exhibition at CASM. The projection for 2016–2017 is based on the experience of 2013–2014, when the Corporation recorded significant revenues due to the presentation of the *Star Wars™ Identities* exhibition at the CASM, coupled with the negative impact that the CSTM closure has on revenues.

Since the closure of the CSTM in September 2014, revenues have dropped significantly and are not expected to return to their 2012–2013 level until 2018–2019. No other significant revenue gains are expected although the Corporation aims to maximize revenues from all possible sources. It has limited means to invest further in expanding or creating new revenue-generating opportunities.

Attendance

Revenue projections are intrinsically linked to visitor attendance at the museums. Visitors typically pay admission and parking; they have the option of partaking in a thematic experience at an extra cost, purchasing food or beverages, and shopping in the boutique. The total visitor projections take into consideration the closure of the CSTM since September 2014 and the planned presentation of the **Star Trek: StarFleet Academy** exhibition at CASM during the peak season. In 2013–2014, the CASM visitor attendance had a spike in visitors due to the Star Wars™ Identities exhibition. The CAFM's attendance for 2016–2017 is expected to decrease compared to 2015–2016 considering that there will be no Easter between April 1, 2016 and March 31, 2017, and this period represents the busiest week-end of the year in terms of visitor attendance for the CAFM (see Table 2).

Table 2

Visitor Attendance¹

	2012–2013 Actual	2013–2014 Actual	2014–2015 Actual	2015–2016 Forecast	2016–2017 Budget year
CSTM – Paid	263,986	253,456	144,652	-	-
CSTM – Non-Paid	31,198	31,807	20,986	-	-
CASM – Paid	146,378	313,325	167,148	162,000	300,000 ²
CASM – Non-Paid	43,911	45,336	44,003	40,000	40,000
CAFM – Paid	140,481	123,209	146,703	155,000	148,000
CAFM – Non-Paid	27,269	21,867	32,861	30,000	35,000
Total	653,223	789,000	556,353	387,000	523,000

¹ Paid attendance includes members, facility rentals, educational programs and reduced-rate admission periods, which distort the revenue per visitor.

Admissions, Memberships and Programming

The estimated revenue from admissions for the budget year 2016–2017 is based on expected visitor attendance. It also takes into consideration that the CASM will be presenting the exhibition **Star Trek: StarFleet Academy**, for which there will be a surcharge for visitors. The projected attendance for the exhibition **Star Trek: StarFleet Academy** is similar to the visitor attendance recorded for the Star Wars™ Identities exhibition presented in 2013–2014 at the CASM.

The Corporation's approach is a tiered membership-sales strategy that provides different categories of memberships for families, seniors, students, major donors and others. Membership privileges include: unlimited admission to the CSTM, CASM and CAFM, discounts on regularly priced merchandise in the museums' gift shops and cafeterias, early registration to summer camp programs, and invitations to exclusive members-only events and tours. As members receive unlimited admission to the museums, they

are included in the attendance numbers above and are considered paying visitors for the calculation of admission revenue.

Up until the closure of the CSTM, membership sales were on target to reach record levels in 2014-2015. The closure of CSTM continues to impact membership revenue: new memberships and renewals have declined significantly. The Corporation's revenue projection for 2016-2017 has been reduced by 23% compared to what had been projected prior to closure. While still providing excellent value for members at the CAFM and CASM, members will be offered new programs, "members only" collections tours and invitation-only events to help keep them engaged. Once CSTM reopens, the CSTMC will commence an aggressive marketing strategy to regain lapsed members and gain new ones.

Revenue is generated from fees charged to school groups for education programs. The Corporation's museums carry out educational programs for school ages that range from kindergarten to grade 12, and host an average of 1,950 school groups per year, primarily from the Canada's Capital Region and surrounding areas. In addition to programs offered by the CASM and the CAFM on their museum sites, the CSTM is now travelling to schools and events to deliver CSTM educational programs through its "Museum On the Go" program. Revenue is also generated from fees charged for summer camps. The Corporation's camps are very popular and provide many unique experiences such as interactive gaming, cooking classes, scientific experiences and farm animal care.

Commercial Operations

Boutique Sales

The museums have boutiques on site (CASM and CSTM only) and online retail sites that sell books, toys and games, giftware, apparel, and other branded merchandise related to the subject matter and exhibitions of each museum. Due to the closure of the CSTM, the Corporation anticipates a significant decrease in retail sales for the fiscal years 2015-2016 to 2017-2018 with the exception of 2016-2017, due to the presentation of the **Star Trek: StarFleet Academy** exhibition which has its own temporary boutique at the exit of the exhibition. The Corporation's retail revenue per museum visitor is lower than the average spending according to the Museum Store Association due to limited physical retail space, limited marketing budget, and investments needed for improving the online boutique. The Corporation installed its first "pop-up" boutique in 2015-2016. This test pilot provided a number of lessons learned; opening up a "pop-up" boutique in 2016-2017 is currently being considered.

Parking revenue

In May 2013, the Corporation implemented paid parking at the three museum sites. The maximum charge is \$6 per day, and visitors can re-use the parking receipt throughout the day at any of the Corporation's museums. The parking is monitored by a third-party company which is responsible for collecting parking fees and for the maintenance of the machines.

The forecasted parking revenues include temporary parking revenues from additional space provided to the Montfort Hospital and the Canada Mortgage and Housing Corporation, both located near the CASM site. The presentation of the **Star Trek: StarFleet Academy** exhibition in 2016-2017 will help offset part of the parking revenue losses associated with the CSTM closure.

Facility rentals

The calculation of facility rentals revenue uses a fee per event model plus a profit-sharing model with the cafeteria/catering services. It is assumed that the overall number of bookings for all rentable spaces in the Corporation's two open museums will grow as event spaces have been expanded at CASM and the CAFM Learning Centre, the latter having been recently renovated to be open 12 months of the year.

Farm operations

The CAFM includes a demonstration working farm which generates revenues from milk production. Revenues from this activity remain relatively constant for the planning period.

Thematic experiences

Visitors may opt to participate in unique thematic experiences offered at the museums at an additional cost. The CASM has much success with this strategy with aircraft rides, for which it receives a commission for each ride sold, as well as simulator rides at CASM for which visitors pay an extra fee. These supplementary activities represent a constant source of revenue highly correlated to the museums' visitor attendance. With the closure of the CSTM, the additional revenues from the SIMEX space simulator thematic experience are lost. Hence revenues from this source are projected lower until CSTM reopens.

Other revenue

An amount has been budgeted, normally on a cost-recovery basis, for revenues from travelling exhibitions, licensing and copyright. Possible increased revenues from these sources will be investigated further in future years.

Contributions

The sponsorship target for 2016–2017 is feasible given the successful initiatives and programs the Corporation has recently developed. For instance, the Corporation secured significant funds for initiatives such as the exhibitions **Living in Orbit: The International Space Station** and **Food Preservation: The Science You Eat**, as well as for the Let's Talk Energy pan-Canadian initiative. The Corporation seeks to increase sponsorship and create long-term collaborations to enhance programs and deliver on its mandate. The CSTMC will focus on identifying opportunities to leverage collaborations with federal government departments and agencies, post-secondary and other academic institutions, as well as the private sector, by offering a public face to communicate their priorities and innovations in the areas of science, technology, engineering, art and mathematics (STEAM). The revenues and expenses of projects funded from new sponsorships will permit the CSTMC to advance projects showing corresponding income and expenses and will not affect the net income for the planning period. It should be noted that until CSTM reopens in 2017, it may be more challenging to attract new sponsors across the Corporation.

Each year, the CSTMC Foundation undertakes a range of philanthropic initiatives in order to support the programming of the museums. The Corporation supports the foundation's fundraising opportunities by providing venue space for special events and personnel to carry out fundraising activities. The Foundation recently hired a new executive director to focus its efforts on annual appeals, fundraising events, and major donations. As a result, the Corporation expects that fundraising targets will increase over time.

Other contributions in this category include contributed support from employees from other government organizations for which the fair market value can be determined, and so are considered “in-kind”.

Investment Revenues (Interest)

The short-term cash balance is invested in low-risk vehicles (i.e. GICs, Canada Savings Bonds) with an expected yield of 1.0%. The increase in the cash balance to help fund the completion of the capital investments will have an impact on revenue and should compensate for the decrease in interest rates. Timing of the availability of the capital infrastructure funding and of work completion of major capital projects will have an impact on cash balance, and consequently on investment revenue.

5.3 Operating Budget

5.3.1 Planned Expenditures

Planned expenditures for 2016–2017 and subsequent years take into consideration the closure of the CSTM from September 2014 to November 2017. However, projected expenditures for the planning period do not reflect the impact of salary economic increases. A new collective agreement will be negotiated in 2016–2017 and expenditures will be adjusted accordingly to balance the budget.

The Corporation’s expenditures are divided according to the four elements of the program alignment architecture (see the Statement of Operations).

Heritage Preservation: \$4.20 million

(Strategic Objective: Best in Class – Collection)

Heritage preservation includes all corporate activities dedicated to developing and preserving the collection, such as documenting, cataloguing, conserving artefacts, historical research, the library and related services. The CSTMC aims to enrich the collection and enhance its national and international reputation.

In doing so, work on collection documentation and basic preventive conservation measures will be undertaken. A focus on sharing the collection with museums across Canada will help to alleviate some overcapacity and the added storage pressure caused by the closure of the CSTM. Borrowing institutions will be required to incur the associated costs—these amounts will be accounted for as agreements are brokered.

Sharing Knowledge: \$13.47 million

(Strategic Objectives: Best in Class – Education and Exhibitions and National Outreach)

Sharing knowledge includes all activities dedicated to the interpretation of the collection and the demonstration of scientific and technological processes to Canadians. The CSTMC aims to engage Canadians with the past, present and future of science, technology and society through rich and compelling experiences. It also aims to increase its outreach with a variety of stakeholders involved in science, technology and culture in all provinces and territories.

The main investment for these goals will be in programs to interpret the collection and the upkeep of current exhibitions at CASM and CAFM, as well as the implementation of the national outreach strategy. New exhibitions will continue to be dependent on collaborators. The Corporation will continue to make small changes to the CASM and CAFM and maintain the visitor base through enhanced visitor experiences. Initiatives such as Let's Talk Energy and **Food Preservation: The Science You Eat** will allow the Corporation to continue to work with institutions across the country to help promote science literacy. Sharing knowledge expenses spiked in 2013–2014 due to the expenses related to the **Star Wars™ Identities** exhibition and will spike again in 2016–2017 due to the expenses related to the **Star Trek: StarFleet Academy** exhibition.

Internal Services: \$6.93 million

(Strategic Objective: Sustainable and Profitable)

Internal services support all of the Corporation's activities, and include costs pertaining to governance, management and reporting requirements, as well as efforts to increase revenue generation through sponsorships and commercial activities and accommodations expenditures to operate the CSTMC's three museums' facilities.

Internal services comprises all support activities which involve the stewardship and management of corporate infrastructure, resources and services. The CSTMC aims to demonstrate responsible management and governance of financial and other resources, and to attract, develop, support and retain a highly skilled, dynamic workforce.

This area continues to be studied in an effort to minimize all operating costs. Investments in tools to streamline processes and gain longer-term efficiencies such as a new human resource management system and a digital asset management system will be the focus.

Accommodation: \$12.715 million

(Strategic Objective: Renewed and Innovative Infrastructure)

Accommodations includes all activities which involve the physical environments that are required to house, protect and display the collection; the public facilities where hundreds of thousands of onsite visitors are welcomed each year; and office and administration space for staff. The CSTMC will create nationally recognized destinations for all Canadians, enriching the collection and its reputation and demonstrating responsible fiscal management.

Ageing infrastructure among the Corporation's portfolio is causing increased repairs and maintenance costs. Inflationary costs of service providers and increases in utility costs are other sources adding to pressure in this spending area. In 2016–2017, accommodation expenses will decrease due to the CSTM closure. The Corporation is projected to spend an extra \$505,000 for the final aspects of the mold remediation and stabilization plan at the CSTM.

5.3.2 Operating Budget Summary

As Table 3 shows below, the Corporation's second largest operating expenses is for its facilities (line 2), which are forecasted to be approximately \$8.155 million in 2016–2017. The Corporation attempts to slow the increase in facilities costs by using energy efficiency programs, minimizing maintenance, and other

cost-containment measures. For the balance, the Corporation bridges the gap between the base appropriations and the expenses it incurs for operating its facilities by reducing spending in other areas, such as programming and service delivery.

Table 3
Operating Budget 2016-2017

<i>(in thousands of \$)</i>	2013-2014 Actual	2014-2015 Actual	2015-2016 Forecast	2016-2017 Budget
Personnel costs	\$20,488	\$19,447	\$18,420	\$18,755
Facilities fixed costs	\$9,443	\$7,995	\$7,735	\$8,155
Urgent mold remediation	\$0	\$1,135	\$823	\$320
Collection moving	\$0	\$0	\$0	\$0
Amortization	\$3,312	\$5,025	\$3,300	\$3,300
Collection development and management	\$520	\$510	\$575	\$575
Programming and exhibitions	\$5,100	\$1,511	\$2,625	\$3,725
Internal services support	\$1,820	\$1,545	\$1,595	\$1,650
Advertising	\$797	\$335	\$230	\$230
Gift shop products	\$949	\$328	\$240	\$560
Total	\$42,429	\$37,831	\$35,543	\$37,315

1 Increase in personnel costs, programming and exhibitions, and gift shop products is expected in 2016-2017 due to the presentation of the **Star Trek: StarFleet Academy** exhibition.

Full-Time Equivalent (FTEs)

The CSTMC's knowledgeable and dedicated employees are its greatest asset and key to its success. Collectively, the CSTMC's staff strive to fulfill the Corporation's mandate by inspiring Canadians to understand and engage with science, technology, engineering and mathematics; and in making each visit at the museums an educative, inspiring and memorable experience. Over four of the last five fiscal years, the government had frozen transfers for salary economic increases, which impacted the CSTMC's operating budget by a total of \$900,000. The Corporation has reduced FTEs to offset this salary funding loss.

Human resources absorb approximately 50% of the Corporation's available operating funds, including both base appropriations and earned income. In 2016-2017, a new round of bargaining is expected to begin for the Corporation's employees who are represented by the Public Service Alliance of Canada.

In 2016-2017, the CSTMC projects a count of 218 full-time equivalent (FTE) positions. This count reflects temporary resources hired with specific skill sets required to support the CSTM modernization project and the construction of the new CCC until 2018. With the planned **Star Trek: StarFleet Academy** exhibition at CASM and preparations for upcoming exhibitions at CAFM through 2016, there will be a temporary increase of staff to support these initiatives.

As of 2017-2018, the Corporation will have a better understanding of the impact of the modernization of the CSTM exhibitions, the reopening of the CSTM, as well as the additional workload associated with the development of the new Collections Conservation Centre. The reopened CSTM will require more floor

staff to ensure visitors are fully engaged with all that the new exhibitions and new experiences have to offer. Facilities resources will also be needed for the new building.

5.4 Capital Budget Summary

The total capital budget for 2016-2017 on a cash basis is \$89.23 million (see Table 4 below). The Corporation will use its base capital funding of \$0.8 million to replace critical components of its building operating systems and capital assets. The remaining \$88.43 million will be provided for the two major infrastructure projects that the Corporation is currently pursuing: the CSTM building and exhibition modernization for which capital funding is being provided totalling \$77.955 million. Secondly, as part of the federal infrastructure initiative announced in Budget 2016, the CSTMC is receiving \$150.15 million in capital appropriations to support the expansion of the CSTMC through the construction on a new Collections Conservation Centre.

Table 4
CSTMC Capital Budget 2016-2017, by Major project, Museum and Corporate Assets

	2015–2016		2016–2017
	Budget	Forecast	Budget
CSTM Modernization project	\$29,355,000	\$14,300,000	\$42,806,000
Collections Conservation Centre project	\$0	\$0	\$45,624,000
CSTM grounds	\$0	\$0	\$25,000
CASM repairs			
Building envelope	\$150,000	\$150,000	\$125,000
CAFM repairs			
Building envelope	\$0	\$0	\$25,000
Mechanical	\$75,000	\$75,000	
Electrical	\$0	\$0	\$50,000
Grounds	\$50,000	\$150,000	\$0
Farm equipment	\$25,000	\$25,000	\$25,000
Corporate			
IT infrastructure	\$250,000	\$250,000	\$200,000
Technical equipment	\$50,000	\$50,000	\$150,000
Fleet and other equipment	\$75,000	\$75,000	\$75,000
Tenant Improvements	\$125,000	\$25,000	\$125,000
TOTAL	\$30,155,000	\$15,100,000	\$89,230,000

5.4.1 Major Capital Projects

Canada Science and Technology Museum Modernization Project

The Canada Science and Technology Museum modernization project's estimated total cost is \$77,954,990 which takes into account the \$70,715,000 that was requested for temporary capital funding for the project, the funds provided from the commissioning of studies and estimates which were provided before the project funding was approved (\$3.74M), as well additional funds the Corporation intends to contribute from sponsorships (\$1.5M) and its equity (\$2.0M). The entire project will require a temporary museum closure of up to 38 months with a reopening planned for late 2017.

As the Museum's mandate is tied to science and technology literacy, the Corporation believes very strongly that the exhibits and programming that will be offered in the renewed Museum should incorporate digitally-driven interactivity to the highest degree possible so that visitors can experience hands-on the science and technology innovations they are learning about. However, to digitize the Museum experience requires significant investments in IT infrastructure, content management systems, technological equipment, hardware and software. The Corporation has been consulting other science museums and national museums to understand the types of investments that would be required, for instance with the Canadian Museum for Human Rights, whose artefacts and exhibits are mainly digital. As a result of these consultations, the Corporation is seeking to increase investments in IT. The Corporation is pursuing partnerships with the technology sector to leverage private funds for the Museum. It also seeks to attract the academic sector to enhance the research and education capacity of the Museum.

Component 1

The first component of the project consists of the structural stabilization, as well as the repair to the CSTM base building envelope (walls and roof), which includes the removal of the existing roof while adhering to asbestos abatement procedures, and bringing the building perimeter walls up to code for seismic disturbance.

As of March 2016, the CSTM building has been completely emptied, items were decontaminated of mold spores and are currently stored in a temporary location. All displaced staff have been accommodated in the Corporation's other office buildings. The contracts for the project management firm and prime consultant were awarded. The demolition of the existing roof and perimeter walls is complete. The structural supports for the new perimeter walls and roof have been erected and the new roofing materials are being installed.

By the end of 2016–2017, the new roof and walls, the internal mechanical and electrical systems, including the fire suppression system, will be completed. The transfer of the building to the exhibition team for the second component is anticipated to happen at the end of the 2016-2017 fiscal year.

Component 2

The second component consists of every element and activity related to the exhibition space modernization which includes the interior renovations and fit-up, thematic framework development, design and fabrication of new and rejuvenated exhibitions, and their installation inside the museum, at a total projected cost of \$28.55 million.

The process that the Corporation has undertaken follows standard recognized practices used when designing either a large facility or a major exhibition space. It began with a master concept plan which includes a visitor and program experience plan and a concept and implementation plan for all the public spaces. The plan describes the rejuvenated and modernized exhibitions, their look and feel, the overall visitor experience and the many adjacent spaces needed for the museum to deliver on its mandate. The plan was approved by the CSTMC Board in fiscal 2015-16 and is being further developed by the CSTM's exhibition development group. The firm who helped coordinate the plan will also remain on board during the entire design process to ensure the adherence to the design concept.

Consultations

When deemed appropriate by the CSTMC, exhibition content will be reviewed by internal and external subject matter experts to ensure accuracy. The CSTMC has a long established tradition of developing the content of its exhibitions from a combination of internal expertise and external research material from academia, governments, industry partners, scientists, economists, historians and museum professionals from across the country. The Corporation takes pride in its integrity and its credibility with its audience and will have the final say in the content of its exhibitions.

Public consultations for the renewed CSTM kicked off in May 2015. A variety of activities were carried out, including: staff engagement sessions, web surveys, community consultations, and stakeholder interviews. Master planning consultations wrapped up at the end of June 2015 with a web survey that garnered over 2,600 responses from individuals across the country, in addition to 537 responses from the museum's members. Three 'open house' community consultations were also held, welcoming over 200 individuals to view the early designs and interact with museum staff. From the public survey, a total of 935 individuals signed on to take part in future consultations about the museum's galleries, exhibitions, or programs.

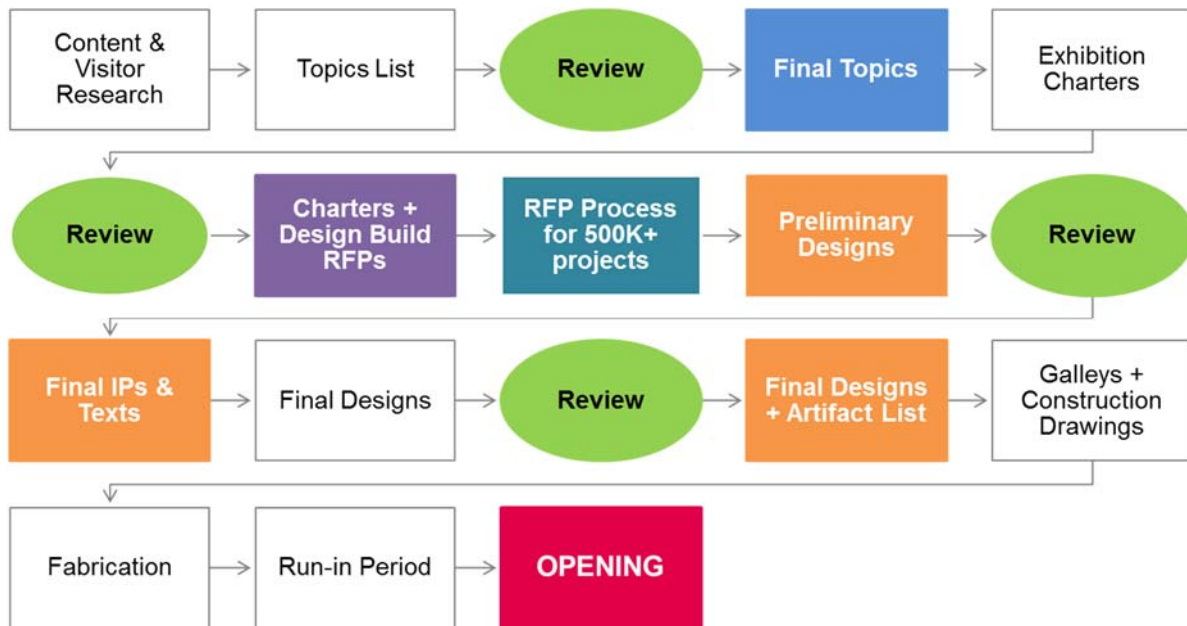
Curatorial leads for each gallery will establish and manage a group of key stakeholders whose specialized knowledge complements internal expertise and enhances the cross-Canada perspective of the galleries. Members (4 to 6 per gallery) will be selected for their specialized scientific, technical, historical, or other expertise. Participants' profiles will vary according to the exhibition topics, and will be drawn from areas such as universities, research centres, industry, museums and archives, national organizations and government departments and agencies.

Staff engagement in various forms took place to engage staff from different departments in the exhibition development process. Ideas for visitor experiences generated through these sessions can often be transferred to pilot testing, which tries out early concepts with visitors.

Piloting new ideas and testing concepts, ideas, themes, and visitor experiences will be ongoing. To date, the exhibition renewal group piloted new hands-on experiences for the core galleries, tested a series of 39 exhibition topics with visitors to the CAFM and CASM, and completed a front-end evaluation to assist with the development of the moving and connecting gallery. Other studies are currently being planned.

The following flow chart depicts the various levels of consultation during the exhibition development component.

Chart 3
Consultations Process



Design, fabrication and installation

The Corporation will be using external museum exhibition design experts to both design and build the exhibitions. A senior project manager responsible for the overall management of the project has been hired to track the many contracts and interact with the project management firm responsible for retrofitting the base building. While the majority of the design and fabrication of the exhibitions will occur in 2016–2017, preliminary design concepts began in 2015–2016. Contracts have been issued to five individual design-fabrication firms to develop, design, fabricate and install the many elements of the renewed and modernized exhibition space.

Internal teams comprised of curators, project managers and education and interpretation officers are developing the exhibitions for each of the six galleries and will work with the contractors to ensure they reflect the museum’s needs. Information gleaned from the various consultations is invaluable to team decision making. The exhibition fabrication will be done off-site starting towards the end of 2016–2017 while the repairs to the building are completed. Installation of the exhibitions in the museum will begin in late spring 2017 for the anticipated reopening in the fall of 2017.

Base building and exhibition space fit-up

The detailed base building renewal has been redesigned where possible to meet exhibition requirements and closely coordinated to result in the most effective building possible within the financial envelope and schedule. Construction of the base building will begin once the roof replacement work is complete and will consist of the construction of new walls, flooring, painting, electricity, security, IT and other exhibition fit-ups.

Collections Conservation Centre Project

As part of the federal infrastructure initiative announced in Budget 2016, the CSTMC has received approval of funding of \$156.4 million over two years (\$45.6 million in 2016-2017) to support the expansion of the CSTM through the construction of a new Collections Conservation Centre to preserve and protect priceless Canadian heritage artifacts. Given the ambitious 24-month construction time table for the CCC, the Corporation will closely monitor progress and keep key stakeholders engaged in order to promptly address issues and stay on schedule.

The CSTMC will undertake the construction of a collection storage and conservation building adjacent to the Canada Science and Technology Museum building. The Corporation will oversee the construction and ongoing operation of the building, which will be the primary occupant, shared with the National Gallery of Canada (NGC), and Canadian Conservation Institute (CCI), all three part of the Canadian Heritage Portfolio. This building will be shared with other federal heritage organizations in order to maximize natural synergies between these institutions, which all require specialized temperature and humidity controlled, sealed and secure artefact storage space, laboratories and workshops, as well as the technical equipment to preserve and conserve collections. The building will provide space for collection storage, conservation and research laboratories, workshops, meeting rooms, common areas and offices, totalling 550,000 square feet.

Over the spring and summer of 2016, the project will be anchored in planning and design phases. A functional programme for the building is being finalized in May 2016 by an expert firm, based on previous functional programmes and extensive consultations with the CSTMC, CCI and NGC. The approach developed in the functional programme will help plan for separate rooms to accommodate different types of artifacts of the collections, with each room having environmental controls according to the needs of the objects they contain. This will serve to reduce energy consumption by isolating vulnerable artifacts from those that are more robust and can withstand uncontrolled relative humidity.

The collection spaces will be maximized with tall, compact, moveable shelving, as appropriate. However, larger and oversized objects would be stored separately, as harmonizing artifact sizes has been shown to reduce storage space by 5% compared to spaces which have a mix of object sizes. This size categorization will improve circulation, and reduce artifact handling for improved conservation and greater efficiency.

By creating a purpose built collection storage reserve the Corporation will reduce reliance on leased space as well as reduce the increasing operational funds required due to continuously needed facility upgrades and repairs. These savings will be put towards the operation and maintenance of the new facility, a crown owned building.

A Site Master Plan is also being developed. Some preliminary artistic renderings have also been completed of the building in June 2016.

The team of professionals and consultants who will implement the delivery of the building will be hired by the summer 2016. The Corporation expects to break ground by November 2016, upon approval of the National Capital Commission of the site master plan and designs.

5.4.2 Corporate-Wide Assets

Corporate assets are primarily operational and consist of equipment, including a fleet of eight vehicles, material handling equipment, information technology assets, furniture and fixtures. As the external environment points toward greater reliance on information, the Corporation is required to redirect some of its appropriation to this area. The sharing knowledge portion of its mandate has changed drastically as well, with external and internal clients expecting increased access to digital information and images. Data servers, bandwidth, firewalls and digital equipment have become a necessity, and will require increased resources. The CSTMC's total asset value and investment over the last two years has focused these investments on operational efficiencies.

5.4.3 Unfunded Capital Requirements

There is a pressing need to address upgrades and site improvements in order to enhance the visitor experience and to ensure that the Corporation's capital infrastructure does not deteriorate or fail, which would impede delivery of its mandated activities. For instance, the Corporation has prepared long-term site plans for the CASM and CAFM. These plans have been approved by the CSTMC's Board of Trustees and the National Capital Commission. Should additional resources become available after budgetary pressures have been addressed, the Corporation would invest in the capital improvements.

Budget 2016 proposes to provide a total of \$105.6 million to help address the operating and capital funding pressures of the national museums. The allocation of this funding over the next five years is not yet known, however, it is expected that a portion of the funding will be provided to the CSTMC to address capital repairs. More information will be provided in next year's capital budget.

Required New Facilities

Canada Aviation and Space Museum (CASM)

The CASM consists of two main buildings and two smaller supporting structures. Phase II of this project will be the implementation of its long-term site plan, including a weather-protected link between the museum and the airplane hangar buildings (at an estimated \$1.75 million). The lack of this physical link is dissuading visitors, especially persons with disabilities, seniors, and school groups during cold, windy and wet days, from experiencing the entire CASM collection. The CASM will also be involved in the coordination of the reconstruction of the Rockcliffe Airport buildings, as they form an integral part of the site plan.

The Corporation requires a space to conserve and restore large-scale aviation artefacts at CASM. Such a facility, at an estimated cost of \$24 million, was included in the site plan developed for CASM; however, no source of funds has been identified. As the aviation collection expands, so does the Corporation's need for a conservation and restoration facility to grow and protect its aviation and space collection. The Corporation is examining other options and solutions to address these needs until a permanent solution is found.

The CSTMC recognizes the ever-growing fascination of space exploration, expanding in both the public mind and in industry's ventures. Current space and science research on the International Space Station would not have been possible without Canadian innovations and technology, such as the Canadarm and Dextre. To celebrate Canada's space heritage and explore new and developing technologies and

innovations in space exploration, the CSTMC will begin to explore the idea of a new wing of the CASM dedicated to this theme, to be better able to reach its full mandate.

Canada Agriculture and Food Museum (CAFM)

The CAFM is located at the Central Experimental Farm (CEF) in Ottawa. The CEF has been designated a national heritage site and provides a perfect setting for the museum. The CAFM occupies five Agriculture and Agri-Food Canada (AAFC) buildings. The site benefited from infrastructure upgrades, including a purpose-built visitor centre, new classrooms and improved exhibition space. The site plan also addresses traffic flow for enhanced operations and increased visitor safety on the site. Further phases of the long-term capital plan, such as the final fit-up of the Learning Centre (estimated at \$425,000), and civil work to enhance visitor access and safety, including site circulation and parking relocation (estimated at \$3.2 million), remain unfunded.

As the CAFM continues to explore new frontiers and diversify its audiences with the Learning Centre, it continues to look to the future. To complete the final phase of its master site plan, the CAFM will begin raising awareness and launching a capital campaign to help finance the Food Innovation Centre (FIC). At this time, the amount that could be fundraised in a capital campaign is unknown; further analysis will be conducted in 2016-2017. The FIC will be a multi-function facility that will fulfil the CAFM's requirements for visitor accessibility, revenue generation, programming, and safety.

5.5 Financial Sustainability

The CSTMC is in a fragile financial situation caused by base appropriation levels that have not kept pace with escalating costs associated with operating and maintaining its facilities and delivering its mandated activities over the last 20 years. This is due to inflation and the addition of new responsibilities, such as site expansions at CAFM and CASM for which no permanent funding has been established.

The Corporation continues to use an increasing portion of its operating funding to pay for the cost of operating its public facilities, collection storage and office spaces, as well as fund the salary envelope. To do this, it has had to cut staff and services, limit investments in programming, exhibitions, and outreach as well as suspend critical maintenance.

The Corporation continues to strive to use its current funding in a sustainable manner and to increase revenues, contributions and sponsorships to offset rising costs. It continues to develop fundraising opportunities with public and private partners and collaborators to enhance the museum's offerings.

Over the years, the Corporation has implemented and continues to pursue an array of cost-reduction measures in order to balance its budget in the face of the escalating financial pressures, including:

- apply a moratorium on new exhibition development unless funded by sponsorships or a return on investment is guaranteed;
- stretch the use of equipment beyond its expected duration;
- restrain discretionary spending;
- maximize operational efficiencies;
- maintain reduced levels of hospitality expenses;

- evaluate relevancy of existing programs and reduce or reallocate funds as appropriate;
- pursue energy efficiency programs; and
- postpone building maintenance and repairs at CAFM, CASM and the administrative building.

Although these strategies have yielded some results, they have only served to offset a portion of the cost increases associated with inflation. The CSTMC has not been able to make substantial gains given the limited means that the Corporation has to invest in pursuing new programming or services to increase and leverage contributions or in operational efficiencies that would eventually lead to cost reductions.

The creation of the Collections Conservation Centre will reduce reliance on leased space, which will reduce the Corporation's exposure to inflation and market risks when renewing the leases, as well as reduce the increasing funds required due to continuously make upgrades and repairs to ageing facilities. The new facility is expected to operate at costs below the amount that the CSTMC is currently paying in total rent and operating costs for the leased facilities. These savings will be put towards the operation, maintenance and recapitalization of the new federal asset.

Ultimately, the Corporation would like to have sufficient funds to invest in the proper care of its facilities, to renew its programs and exhibitions on a more timely basis, and invest in efficiencies and strategic opportunities that are essential to its sustainability.

6.0 FINANCIAL STATEMENTS

The following tables are presented on the accrual basis of accounting, consistent with the Corporation's financial statements and other reports.

This presentation displays revenues by source and expenses by activity, consistent with the CSTMC's program alignment architecture reported in the *Main Estimates*.

Pro Forma Financial Tables

The *pro forma* financial statements have been prepared in accordance with Section 4200 series of the Canadian Public Sector Accounting Standards applicable to government-not-for-profit organizations. They are consistent with those reported in the institution's annual report. The Corporation applies the deferral method of accounting for contributions for not-for-profit organizations.

Table 6
Balance Sheet – Accrual Basis
(in thousands of dollars)

	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
	Actual	Forecast	Budget	Projections			
ASSETS							
Current							
Cash and cash equivalents	\$9,039	\$31,798	\$21,707	\$7,007	\$6,997	\$7,097	\$7,197
Accounts receivable:							
- Government departments	\$7,614	\$900	\$900	\$900	\$900	\$900	\$900
- Trade	\$438	\$325	\$325	\$325	\$325	\$325	\$325
Inventories	\$522	\$450	\$450	\$450	\$450	\$450	\$450
Prepaid expenses	\$67	\$120	\$120	\$120	\$120	\$120	\$120
	\$17,680	\$33,593	\$23,502	\$8,802	\$8,8792	\$8,892	\$8,992
Collection	\$1	\$1	\$1	\$1	\$1	\$1	\$1
Capital assets	\$63,894	\$75,694	\$161,624	\$286,829	\$279,829	\$272,829	\$265,829
	\$81,575	\$109,288	\$185,127	\$295,632	\$288,622	\$281,722	\$274,822
LIABILITIES AND EQUITY							
Current							
Accounts payable and accrued liabilities:							
- Government departments	\$315	\$500	\$500	\$500	\$500	\$500	\$500
- Trade	\$3,591	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Current portion of employee future benefits	\$618	\$220	\$220	\$220	\$220	\$220	\$220
Deferred revenue	\$9,380	\$26,502	\$16,452	\$3,777	\$3,777	\$3,777	\$3,777
	\$13,904	\$29,722	\$19,672	\$6,997	\$6,997	\$6,997	\$6,997
Employee future benefits	\$205	\$200	\$190	\$180	\$170	\$170	\$170
Long-term advance*	\$4,533	\$4,533	\$4,408	\$4,308	\$4,208	\$4,208	\$4,208
Deferred capital funding	\$50,018	\$61,918	\$147,942	\$273,232	\$266,332	\$259,432	\$252,532
	\$68,660	\$96,373	\$172,212	\$284,717	\$277,707	\$270,807	\$263,907
Net Asset							
Unrestricted	\$2,813	\$2,813	\$2,813	\$813	\$813	\$813	\$813
Investment in Capital	\$10,102	\$10,102	\$10,102	\$10,102	\$10,102	\$10,102	\$10,102
	\$12,915	\$12,915	\$12,915	\$10,915	\$10,915	\$10,915	\$10,915
	\$81,575	\$109,288	\$185,127	\$295,632	\$288,622	\$281,722	\$274,822

Note: The Investment in capital line represents the land transferred to the Corporation when it became custodian of its museums.

*Long term advance: The Corporation received funding from Treasury Board Secretariat between fiscal years 2008 and 2010 to construct revenue generating facilities (\$4.2 million) at the CASM and establish a foundation (\$0.3 million). The funding was received on the basis that a repayment mechanism be established but no repayment schedule has been established yet. The Corporation is making the assumption that \$125,000 will be reimbursed in 2016-2017.

Table 7
Statement of Operations – Accrual Basis
(in thousands of dollars)

	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
REVENUE	Actual	Forecast	Budget	Projections			
Admission							
Science and Technology	\$889	\$60	\$60	\$800	\$1,400	\$1,440	\$1,440
Aviation and Space	\$674	\$720	\$2,720	\$710	\$680	\$690	\$700
Agriculture and Food	\$717	\$750	\$730	\$720	\$650	\$660	\$670
Boutique Sales	\$682	\$520	\$975	\$800	\$1,100	\$1,160	\$1,190
Facility Rentals and concessions	\$325	\$320	\$280	\$310	\$325	\$335	\$350
Parking	\$441	\$380	\$300	\$250	\$320	\$330	\$330
Membership	\$452	\$300	\$230	\$300	\$430	\$470	\$500
Farm Operations	\$358	\$340	\$325	\$340	\$350	\$355	\$360
Thematic Experiences	\$99	\$75	\$75	\$110	\$125	\$130	\$135
Other	\$261	\$250	\$250	\$250	\$250	\$250	\$250
	\$4,898	\$3,715	\$5,945	\$4,590	\$5,630	\$5,820	\$5,925
Contributions	\$1,979	\$1,600	\$1,600	\$2,600	\$1,600	\$1,600	\$1,650
Interest	\$151	\$140	\$140	\$120	\$90	\$90	\$90
Total Revenue	\$7,028	\$5,455	\$7,685	\$7,310	\$7,320	\$7,510	\$7,665
EXPENSES							
Heritage preservation	\$4,120	\$4,200	\$4,200	\$4,225	\$4,250	\$4,300	\$4,300
Sharing knowledge	\$13,667	\$11,565	\$13,470	\$11,700	\$12,635	\$12,650	\$12,680
Support activities	\$6,563	\$6,705	\$6,930	\$7,004	\$7,100	\$7,125	\$7,150
Accommodation	\$13,481	\$13,073	\$12,715	\$20,364	\$17,100	\$17,200	\$17,300
Total Expenses	\$37,831	\$35,543	\$37,315	\$43,293	\$41,085	\$41,275	\$41,430
Net Results of operations before government funding	-\$30,803	-\$30,088	-\$29,630	-\$35,983	-\$33,765	-\$33,765	-\$33,765
Parliamentary Appropriation*	\$31,686	\$30,088	\$29,630	\$33,983	\$33,765	\$33,765	\$33,765
Net earnings (Loss) **	\$883	\$0	\$0	-\$2,000	\$0	\$0	\$0

*Appropriation has been reported on an accrual basis, modified from our parliamentary vote as shown in Table 8.

** The Corporation is expecting to use a portion of its unrestricted net assets to invest in its capital infrastructure for the reopening of the CSTM and consequently post a deficit for the year 2017-2018.

Table 8
Parliamentary Appropriations – Accrual Basis
(in thousands of dollars)

	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
	Actual	Forecast	Budget	Projections			
Base Appropriations	\$26,865	\$26,865	\$26,865	\$26,865	\$26,865	\$26,865	\$26,865
One time funding	\$226	\$0	\$0	\$0	\$0	\$0	\$0
CSTM mold remediation funding	\$6,279	\$2,890	\$505	\$168	\$0	\$0	\$0
CSTM Infrastructure modernization and Collections Conservation Centre funding	\$0	\$29,355	\$78,234	\$116,995	\$0	\$0	\$0
Total appropriations	\$33,370	\$59,110	\$105,604	\$144,028	\$26,865	\$26,865	\$26,865
Deferred appropriations used in current year	\$32	\$5,090	\$22,212	\$12,690	\$0	\$0	\$0
Appropriations approved in current year for specific projects in future years	-\$5,090	-\$22,212	-\$12,156	\$0	\$0	\$0	\$0
Amount used to purchase capital assets	-\$798	-\$15,100	-\$89,230	\$126,235	-\$800	-\$800	-\$800
Amortization of deferred Capital funding	\$4,172	\$3,200	\$3,200	\$3,500	\$7,700	\$7,700	\$7,700
Appropriations reported in Statements	\$31,686	\$30,088	\$29,630	\$33,983	\$33,765	\$33,765	\$33,765

Table 9

Statement of Cash Flows

(in thousands of dollars)

	2014- 2015 Actual	2015- 2016 Forecast	2016- 2017 Budget	2017-2018	2018- 2019 2019- 2020 2020- 2021 Projections	2019- 2020 2020- 2021	2020- 2021
CASH FLOWS FROM/(USED IN) OPERATING ACTIVITIES							
Cash received (clients)	\$5,357	\$32,754	\$18,107	\$4,590	\$5,630	\$5,820	\$5,926
Parliamentary Appropriations used for operations	\$26,208	\$26,888	\$26,430	\$30,483	\$26,065	\$26,065	\$26,065
Cash Paid (employees and suppliers)	-\$32,683	-\$32,933	-\$33,325	-\$39,203	-\$32,595	-\$32,775	-\$32,930
Cash Received for restricted contributions	\$191	\$1,000	\$900	\$2,100	\$900	\$900	\$950
Interest received	\$152	\$140	\$140	\$120	\$90	\$90	\$90
Net Cash Generated (used) through operating activities	-\$775	\$27,849	\$12,252	-\$1,910	\$90	\$100	\$101
CASH FLOWS USED IN CAPITAL ACTIVITIES							
Payments related to capital acquisitions	-\$1,821	-\$15,100	-\$89,230	-\$128,805	-\$800	-\$800	-\$800
Net Cash used through Capital Activities	-\$1,821	-\$15,100	-\$89,230	-\$128,805	-\$800	-\$800	-\$800
CASH FLOWS FROM FINANCING ACTIVITIES							
Funding for acquisition of capital assets	\$1,067	\$10,010	\$67,018	\$116,115	\$800	\$800	\$799
Pay back loan on establishment of CSTMC Foundation	\$0	\$0	-\$125	-\$100	-\$100	\$0	\$0
Total Cash flows from Financing Activities	\$1,067	\$10,010	\$66,893	\$116,015	\$700	\$800	\$799
Increase (Decrease) in Cash and short-term investments	-\$1,529	\$22,759	-\$10,091	-\$14,700	-\$10	\$100	\$100
Cash and cash equivalents, beginning of the year	\$10,568	\$9,039	\$31,798	\$21,707	\$7,007	\$7,097	\$7,097
Cash and cash equivalents, end of the year	\$9,039	\$31,798	\$21,707	\$7,007	\$6,997	\$7,097	\$7,197

ANNEX 1 — PLANNED EXHIBITIONS FOR 2016–2017

Canada Agriculture and Food Museum

- **Taste of Science** travelling exhibition
- **Pulses: An Ideal Partner** travelling display
- **RADARSAT Technology and Precision Agriculture** travelling display under development

Canada Aviation and Space Museum

- **Star Trek: Starfleet Academy**

Canada Science and Technology Museum (Closed until 2017)

- **Climate Change is Here** travelling photographic display

ANNEX 2 — CSTMC BOARD OF TRUSTEES

(as of January 31, 2016)

Note: At the end of their term, trustees continue to serve on the board until a replacement is named. There is currently one trustee whose term has expired.

Board Member	City, Province	Current Term
Gary Polonsky, Chairperson	Courtice, Ontario	January 14, 2014–January 13, 2018
Jim Silye, Vice-Chairperson	Arnprior, Ontario	June 18, 2014–June 17, 2018
Marie-Claire Bélanger	Montréal, Quebec	March 1, 2012–February 29, 2016
Harold F. Bjarnason	Gimli, Manitoba	October 1, 2013–September 30, 2017
Jane Hungerford	Vancouver, B.C.	March 7, 2013–March 6, 2017
Helen Johns	Exeter, Ontario	October 4, 2013–October 3, 2016
Glenn Schmidt, P.Eng., MBA	Calgary, Alberta	December 17, 2013–December 16, 2017
E. Virginia I. McLaughlin	Cobourg, Ontario	December 18, 2012–December 17, 2016
David Cohen	Westmount, Quebec	June 13, 2014–June 12, 2018
Neil Gary Russon, FCMA, FCPA	Fredericton, N.B.	March 1, 2012–February 29, 2016
David Desjardins	New Maryland, N.B.	February 5, 2015–February 4, 2019
President and Chief Executive Officer		Term
Alex Benay		July 2, 2014–July 1, 2019
