



Canada Agriculture Museum



Canada Aviation Museum



Canada Science and Technology Museum

# CORPORATE PLAN SUMMARY

**2004–2005 to 2008–2009**



# OPERATING BUDGET SUMMARY

**2004–2005**



# CAPITAL BUDGET SUMMARY

**2004–2005**



**Canada Science and Technology  
Museum Corporation**

*Canada Agriculture Museum  
Canada Aviation Museum  
Canada Science and Technology Museum*

**Canada**



## **Mission**

To discover and share knowledge about Canada's scientific and technological heritage in order to increase an understanding and appreciation of the role that science and technology have played and continue to play in the transformation of Canada.





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# EXECUTIVE SUMMARY

The Canada Science and Technology Museum Corporation (CSTMC) — originally the National Museum of Science and Technology — was established as an autonomous Crown corporation on July 1, 1990. As a national institution and member of the Canadian Heritage Portfolio, the Corporation is responsible for preserving and protecting Canada's scientific and technological heritage, and for promoting and sharing knowledge about that heritage.

The Corporation and its three museums — the Canada Science and Technology Museum, the Canada Aviation Museum and the Canada Agriculture Museum — collectively reach in excess of two million people annually through onsite and virtual visits. Through their exhibitions, programs and Web sites, the Corporation's museums tell the stories of Canadian ingenuity and achievement in science and technology, and demonstrate how these accomplishments have contributed to the building of our country.

The Government of Canada continues to emphasize the importance of strengthening the bonds of shared citizenship, and creating an environment that allows for a greater understanding of the Canadian context. By preserving and celebrating the scientific and technological heritage of Canada, the Corporation fosters a sense of identity and pride for Canadian achievements in science and technology. With the federal government's commitment to, and support of, the role played by cultural and heritage institutions, the Corporation views the upcoming planning period as one rich in opportunities for sharing the full sweep of Canada's scientific and technological heritage — and the future that heritage implies — with all Canadians, wherever they may live.

## KEY STRATEGIC OBJECTIVES

The Canada Science and Technology Museum Corporation has identified five key objectives for the upcoming planning period.

### Accommodation

As has been the case for the past several years, accommodation-related issues will be a primary focus for the Corporation. The Corporation has identified the need for a new **Canada Science and Technology Museum** building as its number-one accommodation priority. At the request of the Government of Canada, the Corporation undertook to define the needs and costs for a new museum of science and technology which would properly house and showcase Canada's scientific and technological achievements. The completed detailed studies have identified a number of options with respect to phased construction and site location options. Immediate future actions involve briefing the appropriate federal government agencies and departments to secure support, continuing with ongoing planning studies, making clear the Corporation's interest in the identified site with property owners, and initiating, with the support of the Minister of Canadian Heritage, a Memorandum to Cabinet.

The current preservation needs of the aviation collection will be addressed with completion of the collection storage hangar at the **Canada Aviation Museum**, scheduled for early in the upcoming fiscal year. In addition to the storage hangar, proper accommodation will be provided for the Museum's administrative staff, as well as the library and archives. A full project design concept was developed for the site, as part of the design process for the hangar building. Over the planning period, the Corporation will begin to build support for the next design phases, which includes a visitor services entrance for the new hangar, a pedestrian link connecting the new facility to the Museum, a conservation shop, a new auditorium and boutique, and an improved main entrance.

The Corporation also identified the need to address accommodation-related matters facing the **Canada Agriculture Museum**, in order to respond to increased attendance levels. Discussions will be pursued on development of the Museum's Master Site Plan, and on issues such as the availability of additional heated space on-site. Additional space would enable the Museum to present exhibitions year-round. The Museum would also be able to contribute to a more in-depth interpretation of agricultural technology through display of a larger percentage of the collection (from 1 to 10%), and could offer a greater number of exhibitions. Factors such as these are essential to the development of a full-service museum.

### National Outreach

As a national institution, the Corporation strives to make its collection and programs accessible to all Canadians. The Corporation has worked, and will continue to work, collaboratively with other institutions and industry partners to maximize its use of resources, and to develop mutually beneficial results, in keeping with the leadership role expected of a national institution. The Corporation will also continue to develop a corporate strategy and objectives for its outreach activities.

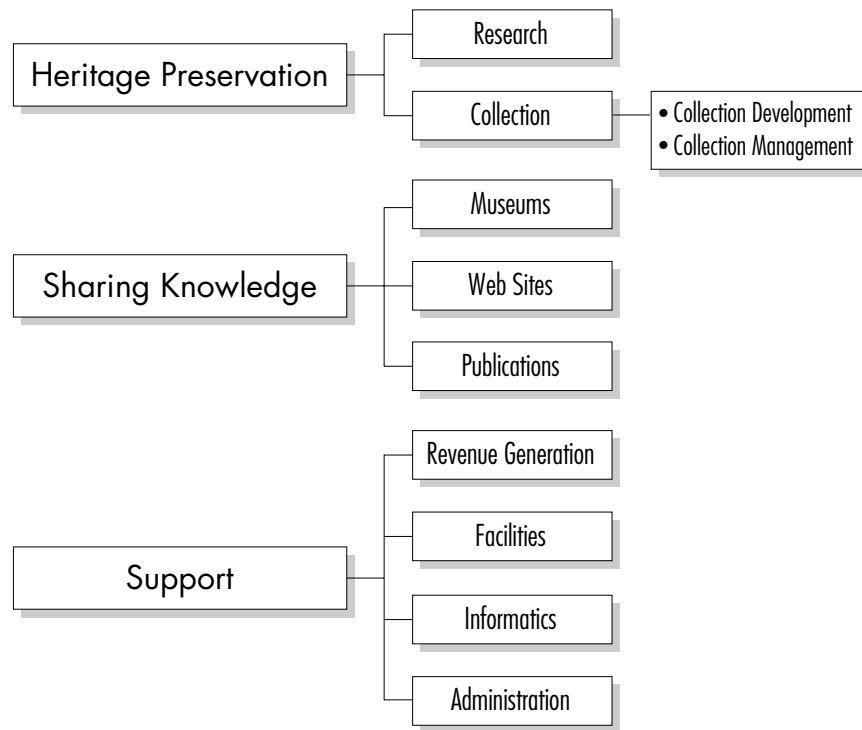
Over the past couple of years, virtual visitors to the Corporation's museum Web sites have substantially increased in number, and this growth is expected to continue over the planning period. The Corporation's Web sites and use of the Internet will be a primary component of its outreach program.

### Financial Position

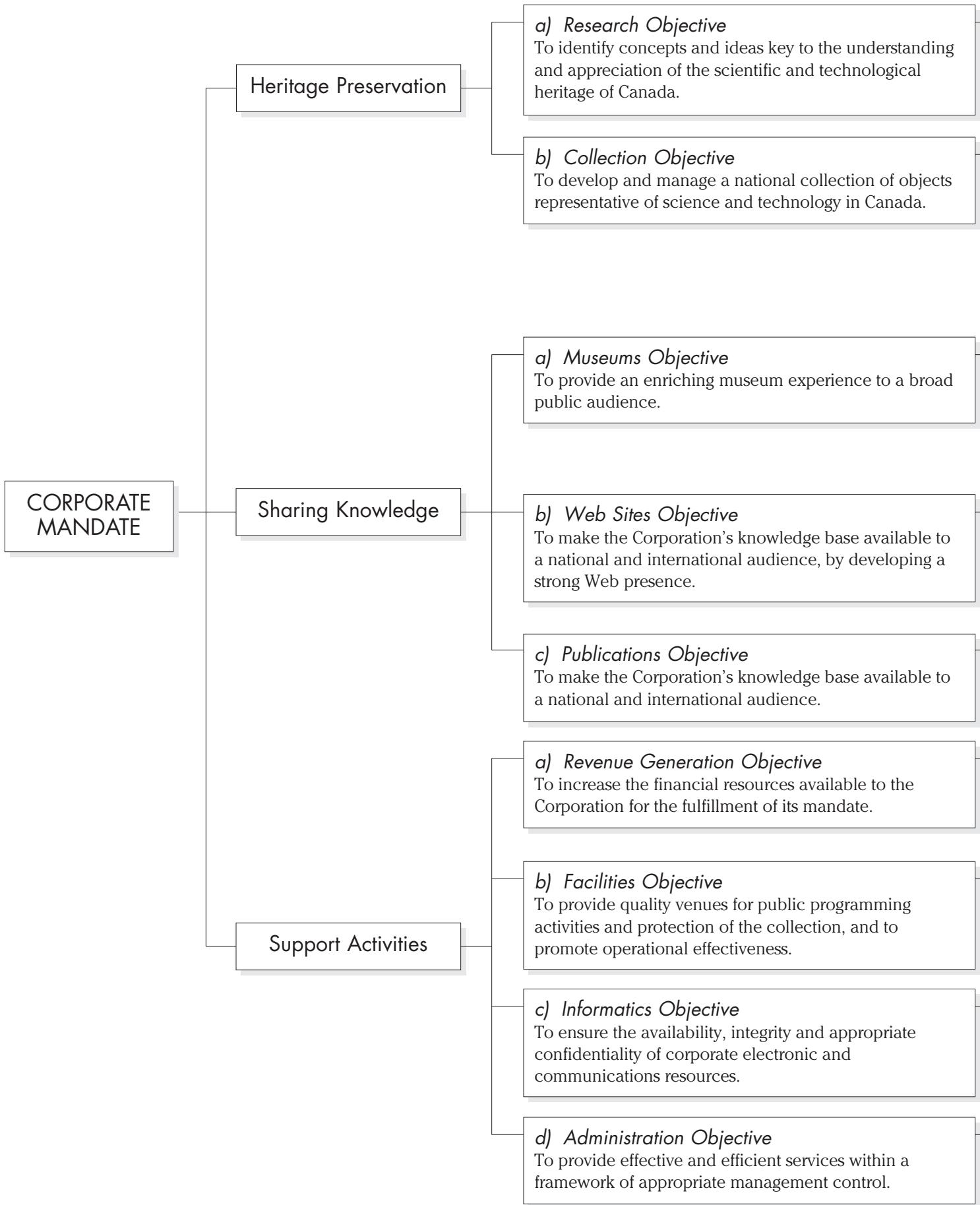
In order to provide sufficient resources which will enable the Corporation to respond to new opportunities while continuing to fulfill its mandated activities, the Corporation will seek to strengthen its overall financial position. The Corporation will continue to work with the Department of Canadian Heritage and central agencies to increase its operational funding and to address funding anomalies arising as a consequence of its status as a Crown corporation. Efforts to look for efficiencies and more effective ways to meet its responsibilities and objectives will continue. Collaborative partnerships and sponsorship/fundraising will also be a key component in the development of new initiatives.

## ONGOING OBJECTIVES

The Canada Science and Technology Museum Corporation is in the business of preserving Canada's scientific and technological heritage and sharing knowledge of that heritage. Three groups of primary activities are carried out in support of the Corporation's mandate:



A detailed description of each activity is provided further in this document.





## Strategies

- Identify and analyze, guided by the *Transformation of Canada* theme, the important concepts, ideas, objects and issues key to the historical development of each of the major subject areas, in order to build the Corporation's knowledge base on the scientific and technological heritage of Canada.
- Complete historical research to guide collection development and provide basic information for exhibitions, interpretative programming and Web presentations.

- Identify and acquire objects and supporting documentation that best reflect a historical framework, and deaccession materials that are not consistent with this framework.
- Provide intellectual access to the collection by managing all documentation in a professional manner that permits retrieval and adaptation to a variety of dissemination media.
- Maintain proper records for each collection item from three perspectives: location and current museum use, history of the item and its condition.
- Provide physical access to the collection by showcasing artifacts in exhibitions and operating an active loan program.

- Develop exhibitions and programs guided by the *Transformation of Canada* theme.
- Maintain a plan for the renewal of exhibitions.
- Develop collaborative partnerships to maximize exhibition and programming development opportunities.
- Monitor and evaluate the Museums' audiences and the visitor experience, in order to make informed decisions.

- Provide the public with direct access to the collection and research results.
- Offer new products which take advantage of the unique properties of the Internet as a communications medium.
- Promote the Corporation's museums and services to a wider and more clearly defined audience.
- Develop collaborative partnerships to maximize Web development.

- Provide a range of materials to serve both a general and specialized audience (printed material will also be made available in electronic format as appropriate).

- Seek opportunities for revenue generation through cost recoveries, commercial endeavours and corporate development activities.
- Ensure that all revenue generating initiatives are within the parameters and spirit of the mandate.
- Ensure that the costs of generating revenues do not exceed the revenues generated.

- Maintain a long-term accommodation plan to ensure the effective use of all facilities.
- Ensure that incremental decisions relating to CSTMC museum sites are in accordance with approved site development plans.
- Conduct a regular program of building inspections to provide for timely maintenance and adherence to applicable building and safety codes.

- Provide appropriate networking tools to enable direct access to collections and research holdings, while meeting existing, and anticipating future, business practices.
- Provide effective, efficient and secure informatics support services for the Corporation, within a framework of appropriate document management control.

- Establish a balance between the quality of a service and its cost.
- Ensure that the Corporation operates effectively, efficiently and economically, in accordance with legislative requirements, sound business practices and ethical management standards.
- Establish and/or negotiate compensation packages and working conditions that will permit the Corporation to recruit, motivate and retain competent employees to meet its ongoing and future organizational demands.

## Main Activities

Historical research.

Collection assessments, cataloguing, conservation, collection storage.

Exhibitions, interpretation and educational activities, school programs, artifact loans.

Data/content management, digitization of assets, Web product development.

Publication of research results.

Cost recoveries, commercial operations, e-commerce and corporate development activities.

Management of facilities and leases.

Maintenance of information technology and Web site infrastructure; support for information technology needs; provision of IT security.

Corporate secretariat, financial management, human resource management.

## Performance Indicators

Completion of research as per annual plan.

- Completion of collection assessments as per annual plan.
- Percentage of artifacts catalogued to CSTMC standards.
- Percentage of artifacts with a conservation report completed.
- Percentage of artifacts stored in accordance with CSTMC standards.

- Number of exhibitions completed on schedule and within budget.
- Number of visits per year.
- Degree of visitor satisfaction.
- Number of visits resulting from school groups.
- Degree of teacher satisfaction.

Number of Web site users.

Complete publications on schedule and within budget.

Percentage of revenue targets reached.

Total occupancy cost per square metre.

- Percentage of workstations that meet the Corporation's hardware standard.
- Percentage of workstations that meet the Corporation's software standard.

Percentage of resources allocated to overhead.





# CORPORATE PROFILE

## MANDATE

The mandate of the Canada Science and Technology Museum Corporation as stated in the *Museums Act* is:

*To foster scientific and technological literacy throughout Canada by establishing, maintaining and developing a collection of scientific and 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

The Canada Science and Technology Museum Corporation has adopted the following mission statement to guide its activities:

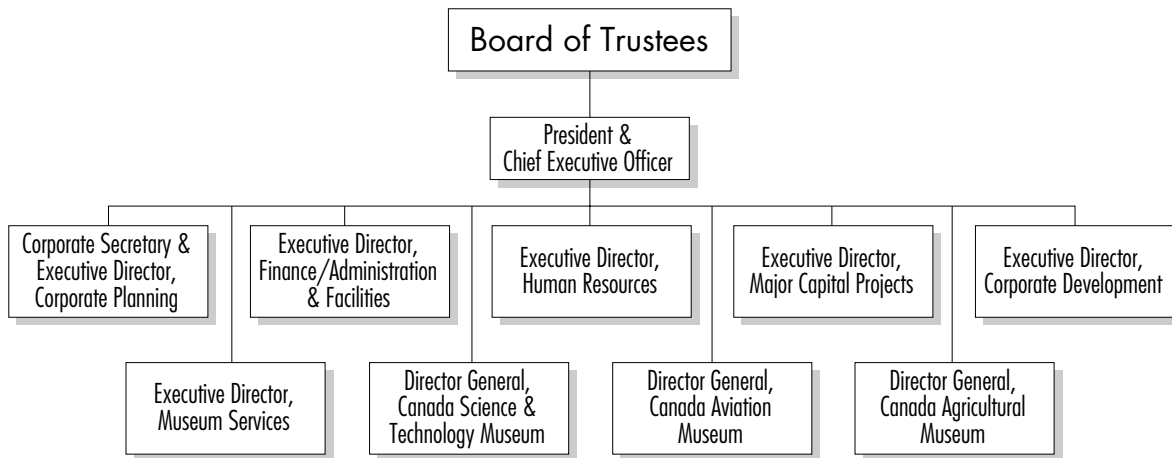
*To discover and share knowledge about Canada's scientific and technological heritage in order to increase an understanding and appreciation of the role that science and technology have played and continue to play in the transformation of Canada.*

By preserving and celebrating the scientific and technological heritage of Canada, the Corporation can foster a sense of identity and pride among all Canadians for Canada's achievements in science and technology.

## STRUCTURE AND LINKS TO GOVERNMENT

The Canada Science and Technology Museum Corporation was established as an autonomous Crown corporation on July 1, 1990, with the passage of the *Museums Act*. It is directed by a Board of Trustees, the members of which are appointed by the Governor-in-Council, from all regions of the country. The Board has up to eleven members, including the Chair and Vice-Chair, and is supported by five committees: an Executive Committee, an Audit Committee, a Development and Marketing Committee, a Major Facilities Committee, and a Canadian Science and Engineering Hall of Fame Committee. The Corporation's day-to-day operations are managed by the President and Chief Executive Officer, with support from a management team which includes the Directors General of each of the three museums, and the Executive Directors of Museum Services, Finance/Administration and Facilities, Human Resources, Corporate Development, Corporate Planning and Major Capital Projects (see Table 1). The Corporation receives an annual appropriation which it supplements through revenue generating activities.

Table 1  
Canada Science And Technology Museum Corporation



The mandate, powers and objectives for the Corporation are set out, in broad terms, in its enabling legislation. It is subject to Part X of the *Financial Administration Act*, which outlines the control and accountability framework for Crown corporations. The Corporation is also required to fulfill its obligations under government legislation in the areas of official languages, employment equity and multiculturalism.

The Corporation is ultimately accountable to Parliament, through the Minister of Canadian Heritage. The Corporation is part of the Canadian Heritage Portfolio, which includes 17 cultural and heritage organizations, including the Department of Canadian Heritage, six departmental agencies and 10 Crown corporations.

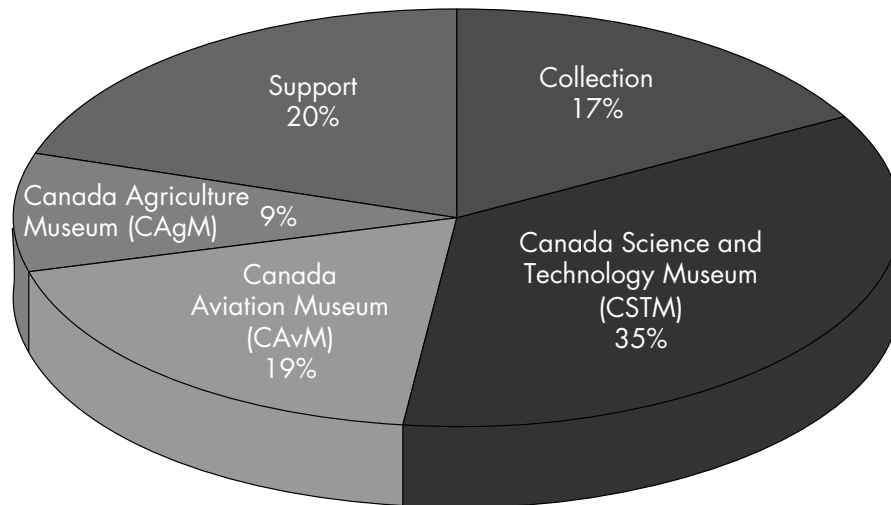
The Corporation is responsible for the development and management of a representative collection of scientific and technological artifacts and materials. The collection focusses on seven major subject areas: aviation, communications, manufacturing, natural resources, renewable resources including agriculture, scientific instrumentation, and transportation. The Corporation manages three museums: the Canada Agriculture Museum, the Canada Aviation Museum and the Canada Science and Technology Museum. Each museum undertakes curatorial work and sets its own public programming activities and strategies, in recognition of the different markets and clientele it serves. The three museums operate under a common set of corporate policies. Support services such as human resources, finance and facilities management are provided centrally.

The Corporation's workforce consists of 230 full-time-equivalent positions. Contracted services are used where they are most cost-effective. The Corporation also benefits from the contributions of a large group of dedicated volunteers who assist in a wide range of activities. The Corporation is housed in a network of buildings located at three sites in Ottawa: Lancaster Road, Rockcliffe Airport and the Central Experimental Farm. These sites provide office, artifact storage, exhibition and programming space.

## FINANCIAL PERSPECTIVE

For the upcoming fiscal year, the Canada Science and Technology Museum Corporation will have a total budget of \$33,768,000 for operating and capital projects. This amount includes special funding for completion of the Canada Aviation Museum hangar project in the amount of \$5,525,000 and internally generated revenues in the amount of \$4,115,000. Table 2 shows the expense allocation for museum and support services for the year 2004–2005. Facility and security costs have been allocated within these.

Table 2  
Resources by Activity







# ENVIRONMENTAL SCAN

Environmental scanning aims at a systematic review of changes — in the economy, in society, among competitors, and in government — which could have an impact on the Corporation's museums. This scan looks three to five years into the future, although a more distant horizon is sometimes required in order to identify more gradual trends. These issues ranged from the basic conditions underlying any organization's planning concerns — such as demographic change — to more particular aspects of museum operation within the National Capital Region.

Examination of other government agencies' environmental scan documents revealed common threads, such as aging populations and technological change. However, other issues arose that the CSTMC had not yet considered. These include Aboriginal society, globalization, and the rise of cities. The work of the Department of Canadian Heritage's Environmental Scanning Network in sharing information was particularly useful.

## DEMOGRAPHIC CHANGE

At the most fundamental level, demographic change is an inexorable force, affecting social, economic, and political issues, as well as local market opportunities. At the turn of the twenty-first century, Canada is characterized by the concerns of the Baby Boom generation which, like the Silent and GI generations which came before, exerts a marked influence upon the world around it. Boomers and their children — Boom Echo or Generation Y — have powered the growth of museums and museum audiences over the past three decades. As the early Boomers' children entered their teen years in 1980, the growth in family visitation to museums began to wane. However, late Boomers' children kept visitation strong as we entered the twenty-first century. In 2003, this market is beginning to evaporate, as these children enter young driver training. By 2020, this cohort's visitation will have ended entirely.

However, other visiting groups will take their place. Museums will still be popular. The Boom Echo's offspring will give rise to a population blip of their own, even if their families will not be large enough to stem an overall population decline. Across the world, changing social values, economies, and technologies have led to a decline in birthrates. Demographers predict this will cause the world population to peak in mid-century at about 7.5 billion people, followed by a decline that will reduce it again to present values another 50 years later. In Canada, the estimated peak will be 37 million, and the decline will begin a decade earlier than elsewhere in the world. Urban institutions such as museums, which rely on large numbers of local families, are likely to continue losing ground against the tide of demographic change.

Organizations will first need to identify the size and growth-potential of specific demographic groups, then pursue market penetration in these subgroups on a priority basis. Lifestyle, leisure time, discretionary income, and parenting responsibilities are not the same across the five generations living today, and CSTMC museum programs should take this into account. Although the Boom generation will be with us for some time yet, particularly in the September empty-nester tourism rush, their interests in museums will be different. Appealing to different generations within the same museum building may present certain challenges in meeting conflicting interests.

Museums share a sensitivity to demographic change with formal educational institutions. School systems have been dramatically affected by shifts in population age and location, with growing school closures, portable classrooms, parent activism and direct government intervention in some cases. Details vary from province to province, but change is ubiquitous. Locally, school visits to small museums seem to be down, but those to larger museums are up, due in part to their ability to accommodate larger groups. Once the Corporation's museums harmonized their school programs with school curricula, the programs grew to make up for losses in family visits. It is conceivable that it is a zero-sum game — that family visits are decreasing because children are getting their annual visit through school. This inter-dependency between schools and museums was seen as an issue to watch in future.

It may be advisable to diversify programming for organized child groups — e.g., create secondary school or teen summer camp programs — to better serve young museum visitors as they pass from primary grades, through secondary levels, to adulthood. This will also enable the CSTMC's museums to disseminate messages at a higher level of discourse, which may be a better match with their collection-based expertise.

If demographic change in museum audiences is a slow sea change, then the demographic impact on museum staffing is more like a hurricane. According to an annual survey by the Conference Board — *THE CEO CHALLENGE: Top Marketplace and Management Issues, 2002* — there will be a shortage in skilled labour in North America, both in numbers and in skills, since there are too few younger workers to replace the baby boomers as they retire. The 2002 Conference Board report predicted that, by 2004, 65% of senior executives will be eligible to retire. By 2005, 57% of these executives will have retired. By 2007, 40% of all management-level staff can be expected to retire. By 2008, 69.2% of staff are eligible to retire. Knowledge-based organizations such as museums will not have the staff to maintain an acceptable level of service to the public. Governments will have difficulty delivering services as well, and will likely follow the general trend towards automation that periods of scarce workforces engender. The health sector is already showing signs of critical shortage, with calls for better pay, more technology, and the importing of foreign workers.

The U.S. Bureau of Labor projects that from 2000 to 2010, two major occupational groups — professionals and service personnel — will increase the fastest and add the most jobs. These groups are at the opposite end of the educational and earnings spectrum. In many occupational groups, replacement openings will exceed growth openings (replacement openings result from workers who leave their jobs to enter other occupations, retire, or leave the workforce for other reasons). More openings will require a post-secondary vocational diploma or an academic degree: "Occupations requiring a post-secondary vocational award or an academic degree, which accounted for 29% of all jobs in 2000, will account for 42% of total job growth from 2000 to 2010" (*Monthly Labor Review, November 2001*).

What does this mean for those working at the Corporation's museums? There will be the obvious disappearance of existing senior staff and an influx of younger workers. Recruitment, training, communication of museum policies and procedures, and supervisory direction will all need to increase. Turnover in newer staff, due to the competition for these mobile, ambitious workers, will make this a seemingly endless task. More experienced staff will not need such a hands-on approach, so a diversity of management approaches will be needed. These conditions may increase stress in the workplace. Leadership, in the form of shared strategic vision, and in effective people management, will become crucial.

## ECONOMIC CHANGE

Growth-based economic theories would obviously be endangered by a lack of continued growth in the world's population, and there is bound to be some scrambling on the economic front to find programs that can stimulate and sustain wealth creation. However, economic forecasts, like hats, come in all sizes, and it is not at all certain what the future will bring. The upcoming demographic shift has many economists predicting a worldwide recession within the next few decades. Most governments, like Canada's, will likely tread a fine line between programs designed to stimulate economic growth and those aimed at controlling inflation and the deficit. Government spending will likely fluctuate to maintain this balance



in a changing world. The fiscal conservatism of the new Liberal government will also be a factor in defining spending priorities and levels. It seems safest to predict that the economy will become more variable, with opportunities for enterprises that can move quickly to exploit them, but disaster for those that cannot adapt.

The local economy in the National Capital Region has seen its own share of volatility, with the bursting of the high-tech/dot-com bubble in particular. The most immediate effects were reduced household income, and some population loss from the region. The west end of Ottawa was hit particularly hard, but since the Corporation's museums never had much penetration in this region, the overall impact will probably be slight. Corporate giving is expected to be down, however.

In the larger American market, museum attendance is mixed, with one-third of institutions polled in a survey undertaken by the Association of Art Museum Directors reporting a drop. Corporate and government funding in the U.S. are down, primarily due to the stock market crash, a weaker economy, and the War on Terror. The Charity Navigator Web site expects this drop to be 25%, based on survey results.

On the other hand, the Smithsonian Institution plans to spend an extra billion dollars on new capital projects and improvements in Washington, D.C. Similarly, Canada has invested in a new Canadian War Museum and is also considering the possibility of a new Canadian History Centre, both situated in Ottawa. Federal governments want a high profile for social policy reasons. The issue in Canada is whether this should be in the form of decentralized handouts to regions, or centralized support for national institutions in Ottawa.

In summary, the Canadian and local economies are expected to remain fairly healthy and somewhat protected from worldwide fluctuations. The current rate of growth can probably not be maintained for ten years, for example, but the near future does not seem to pose any major economic challenges. The link between the economy and museums, however, has never been a simple one.

## SOCIAL CHANGE

Despite this volatility, Canada is still seen as a good place for those with financial capital or skills, so immigration will continue to be an antidote to the drop in Canada's birthrate. Urban areas, in particular, will continue to see an influx of immigrants. Currently, about 7% of adults visiting the Corporation's three museums speak neither English nor French as a first language. This represents only half of those found in the area population. A good many of them have come from European countries in the past, but recent immigrants are more likely to be non-European. Assuming this trend continues, the cultural background of potential visitors may be very different from what CSTMC staff are used to. Although it is over-simplifying to lump all non-European visitors together, this grouping has shown slight but statistically significant differences in their responses to ongoing visitor surveys. They tended to visit more in family-only groups, and as a result of a recommendation from a local resident. More disturbing is that they rated the Corporation's museums as lacking in adequate lighting, while also being harder to understand, with less knowledgeable and courteous staff. When asked whether science, technology, history, agriculture or aviation have any particular personal connection or interest for them, non-Europeans tended to choose "other". Do recent immigrants not visiting our museums hold even more different views? Clearly, museums need to find out what new Canadians know and think about science, technology and Canadian culture. This knowledge must then be integrated into a new science and technology history which has more relevance to new Canadians.

In the past, the CSTMC museums have had limited dealings with First Peoples, as legislated museum mandates made this subject area more the purview of the Canadian Museum of Civilization. Native Canadians are a growing segment of society, however, and reaching out to all Canadians must include them. However, we have limited knowledge about this segment's expectations and relevance to our content. This was seen as a gap in our environmental awareness.

The increased diversity of Canadian society promises not only an increase in diversity within communities served by our museums, and in Canadian society as a whole, but also a need for changes in the service we provide to the public — because now a diverse public, with different needs and expectations, demands it.

Within a political context, these environmental factors have shaped federal government policy, as evidenced in the most recent Speech From The Throne and the direction taken by the Department of Canadian Heritage. The Department has established four key objectives: Canadian content, cultural participation and engagement, connections, and active citizenship and civic participation. The challenge for the CSTMC is to bring Canada's science and technology heritage to the Department's cultural view, which is oriented heavily towards ethnicity and artistic expression. There do appear to be some short-term opportunities by which the CSTMC can help the federal government achieve its social goals. For example, communications technology and its impact on Canadian society is well within our domain. Other programs will need time in which to develop new museum collections and information, but these must be addressed soon. On a positive note, there is some indication that an upcoming federal government priority will be transformative technologies, such as the Internet and biotechnology, and their impacts on society and federal programs.

In addition to issues of relevance, distribution is also important. If we can make the case that excellent central museums provide a base from which meaningful outreach programs can achieve national goals, then the false dichotomy between money spent in Ottawa versus the regions becomes moot. Either way, the CSTMC needs to address its political context, as this is probably its most pressing environmental issue.

## TECHNOLOGICAL CHANGE

Our earlier, brighter outlook on technology has been tempered somewhat by the realization that with technology comes globalization — and the arrival in Canada of problems from hitherto remote corners of the world. Medical disasters such as SARS are predicted to increase. Foreign travel to Canada fell 5.3% in 2002. Museums that rely on the tourist segment have seen a decrease in attendance, according to an informal CMA survey of museums. So far, Ottawa has been relatively unaffected, but an outbreak here like that in Toronto would cripple tourism. An incidence of SARS in a museum staff member could shut down our museums for several weeks, with worldwide image problems for years afterwards.

Still, the technological outlook presents opportunities. The more the world of science and technology changes, the better for science and technology museums. Public interest should remain high as developments in medicine affect our lives, and breakthroughs in the physical sciences affect how we view the universe. On controversial issues such as genetically modified foods or aviation safety, the Corporation's museums can play an intermediary role as objective observers and trusted reporters of technological issues.

Museums have always had real artifacts as their strength and, despite the growth of the Internet, it is felt that Web-surfing cannot hurt museum visitation more than it already has. In fact, the dissemination power of the Internet is seen as a solution to museums' perennial outreach problem. Fast-moving events in science and technology cannot be treated in a timely manner by exhibitions — the lead times for production, and lag in getting potential audiences to visit, are too long. The Internet and mass media are more suited to fast-breaking news, and the CSTMC should expand further into these channels. Our advantage in this area is that our profound knowledge of underlying historical and technological factors enable us to anticipate areas of important breakthroughs and prepare material somewhat in advance of most journalists, who can only respond to events after they have occurred. In addition, the reputation of our museums for expertise and objectivity is a recognized strength upon which to base new electronic dissemination programs.

## THE MUSEUM MARKET

Although local residents mention around 60 activities in which families can “have fun and learn something at the same time”, the seven large museums in the National Capital Region command the lion’s share of attention, with 80% of residents having visited a museum once or more in the last two years. On average, these people visit museums just under four times per year. Clearly, there are more than enough museums to go around. The fact that many museums are targeting the same local family segment adds to the congestion, however. Total attendance at all national museums jumped in the 1990s from 2.5 million visits to about 3.1 million, where it has remained. Within this market, some local museums have maintained or increased their attendance, while others, like the CSTM, have gradually declined, despite investments in programming and communication. Although the local population is growing, growth is mostly in the surrounding suburbs, rather than in the core neighbourhoods which are traditionally the CSTM’s market. Since many tourist visits are intermediated by local hosts, it is doubly important that our museums learn how to target these new markets. Municipal government has changed too, and partnerships with the new amalgamated cities of Ottawa and Gatineau may be worthwhile.

For the tourist segment and Canadians at large, the location, building and public programming of the Canadian Museum of Civilization (CMC) make it a leader within the local museum community. Fourteen percent of Canadians think of it first when asked about museums in the National Capital Region. Combined with results from its affiliate museum, the Canadian War Museum, the CMC Corporation scores 19%. The Canada Science and Technology Museum Corporation total is 13% for its three museums combined. Because of the cost, most national museums do not engage in major national advertising campaigns, usually relying upon media relations and public service announcements. This will probably change with the opening of the new Canadian War Museum, the possible development of a new museum of Canadian history, and relocation of the Currency Museum. The fiercest competition may well be for the awareness of Canadians.

Overall, the exhibition offerings among local museums are aging, with some becoming virtually permanent displays. In many cases, local residents have seen them so often that they have lost interest. Museums use temporary and travelling exhibitions to freshen up their galleries, but this requires genuinely new subject matter, and advertising dollars with which to inform the public in advance. Except for National Gallery blockbusters and new IMAX shows, communication follows the exhibition pattern, with fairly stable advertising expenditures. The CMC has somewhat higher top-of-mind awareness, but the CSTMC’s total share is about equal to that of the CMC Corporation, with around half of area residents recalling a recent ad campaign.

Location was historically not a variable in the museum marketing mix. Indeed, all of Canada’s national museums were once housed in the Victoria Memorial Museum Building on Metcalfe Street, where dinosaurs rubbed shoulders with fine art. Over the years, however, museums worked their way downtown, or out into the surrounding regions. Within the city core, tourism became a major source of visitors, while suburban museums served their local populations and visiting friends and relatives. It seems that non-central museums do not benefit substantially from population growth in more distant neighbourhoods. Whether municipal amalgamation and growth will enable better public transport systems and roadways, or exploding traffic congestion will limit access to our museums, remains to be seen.

Although there is some minor price differentiation among area museums — with the CMC being the most expensive and the CSTMC’s three museums being, on average, the least expensive — area museums wisely don’t compete vigorously on price, because it hasn’t been a driving factor in museum visitation. The economic downturn, wage polarization, and conversion of workers to retirees may change this. Although CSTM visitor surveys since 1991 show fairly steady satisfaction with price, we do not have comparable figures for non-visitors or ex-visitors. Recent qualitative market research has elicited comments about the cost of a museum visit. Price sensitivity in current or potential visitors may increase in the near future, whether through deflation or a reduction in the perceived value of aging museum exhibitions.





## KEY OBJECTIVES FOR THE PLANNING PERIOD

The Canada Science and Technology Museum Corporation has identified five key objectives for the upcoming planning period. Three of these objectives focus on accommodation issues, while the two remaining objectives deal with national outreach and the Corporation's financial situation.

### ACCOMMODATION

#### Canada Science and Technology Museum

The Canada Science and Technology Museum (formerly the National Museum of Science and Technology) opened in November 1967. Although a purpose-built museum in the downtown core had been contemplated in the early to mid-1960s, when it opened, the Museum was housed at its present location: a former bakery distribution warehouse on a 12.2-hectare site at 1867 St. Laurent Boulevard, on what was then the southeastern edge of the urban core. An addition designed to display some of the CSTM's locomotives was constructed prior to the Museum's opening in 1967. It was recognized at the time that this accommodation was temporary, and that it could not provide appropriate long-term museum facilities. The property was leased until 1993, when the site was purchased by the federal government. Over the years, the building was gradually adapted, as well as its structure permitted, to meet the needs of a museum, while also addressing basic health and safety concerns. It is now almost 40 years old and close to the end of its originally anticipated life.

In 1998–1999 a Property Condition Assessment study, commissioned by the Corporation, identified the potential seismic hazard effects on the building, in the event of an earthquake within the upper range to be expected in the National Capital Region. The study recommended a variety of capital improvements, totalling \$1.7 million over a five-year period, to bring the building up to a reasonable standard of safety and environmental control.

In May 2001, the Government of Canada recognized the necessity of dealing with the Canada Science and Technology Museum's inadequate building, and announced that a feasibility study would be undertaken by the Corporation to define the needs and costs of a new facility. The feasibility project initiated in October 2002 was completed by February 2003. The study provided in-depth information and generated a host of ideas for the vision and implementation of a new museum and the demographic segments it would be serving in the future. The project was initiated with a Visioning Study contracted to Lundholm Associates Architects, N.L. Hushion and Associates, and Leger Marketing. The consultant's approach was to divide the study into three phases. Phase One looked at Vision Options by identifying key issues and broad options, giving direction to the study and defining areas requiring further research. Phase Two, Research and Concept Development, incorporated in-house study groups to develop the conceptual framework for collections, exhibitions and programs. This was followed by a market analysis, stakeholder consultations and case study research, which led to the final phase of the study.

Phase Three, Synthesis of the Vision, applied the results of the first two phases in articulating the Museum's future direction. Key to this vision is a proposed new vision statement for the Museum:

*We explore, with all Canadians, the rich connections between science, technology, society and culture — an essential step in our understanding of ourselves and the world.*

The study took into consideration demographics and programming variables, questions of required size, and projected growth, range and emphases of programs: e.g., broad thematic exhibitions as well as technology-specific ones, children's areas, increased interactive exhibitions directed at understanding science, current issue-oriented exhibitions and, as far as possible, full public access to the collection. Collection facilities and opportunities to demonstrate elements of the collection such as rail, land and marine objects were a major aspect of the studies, given that these can have a profound affect on visitor attendance and opportunities to experience unique objects. The study also addressed the types of spaces required. Commercial opportunities, evening access for conferences, facility rentals, dining, entertainment and a multimedia experience were also considered. Also included was the possible development of a centre which would become a site of first contact for Canadians wishing to access or discuss issues related to science and technology.

The feasibility study, undertaken by Provencher Roy + Associés Architectes and the ARCOP Group, required the generation of a great amount of base data, and an assessment of current facilities. It included development of a weighted evaluation grid for a new building location which included such aspects as live rail, proximity of collection, commercial operations, total floor space, adjacencies, sustainable design, exhibition space, theatre space, and a "Big Ticket" attraction. Some of these criteria, such as access to live rail and the ability to attract visitors, had an obvious impact on site requirements. The studies defined the needs of the Museum and its collection, public programs, and the image of a national museum designed to meet the needs of all Canadians. The studies finally looked at the optimum size and location. The final functional study will be a key document for the selected architect.

A major consideration is the type of building that best suits Canada's national science and technology museum. A landmark building on the order of the Canadian Museum of Civilization and the National Gallery of Canada is more in keeping with the requirements and costs associated with a new national museum in the Nation's Capital. With a signature building, the return on investment (ROI) is faster through tourism; building and content would become an international attraction (e.g., the Guggenheim in Bilbao, Spain repaid its investment through tourism within three years). A signature building would, like the Guggenheim Museum did for Bilbao, make Ottawa a must-see destination on the world map. Sustainable technology would be a key element of the design and operation of the building, setting an example for all Canadians and a new standard for future museums internationally. The Museum would thus lead by example, and demonstrate the use of sustainable technology which, while initially more expensive, should cost less to operate in the long run.

In the immediate future, the appropriate government agencies and departments will be briefed in order to secure support, ongoing planning studies will be undertaken, the Corporation will make its interest clear in the identified site with current property owners, and the Corporation will initiate, with the Minister's support, a Memorandum to Cabinet. Given sufficient funds, the tasks to be undertaken during the planning period are:

- Initiate briefings of stakeholders and interest groups to seek support and approval for project.
- Finalize "leave behind" document.
- Develop an interpretation framework and implementation strategy.
- Initiate pre-design activities as per feasibility study.
- Begin feasibility assessment and recommendations for a multimedia attraction and/or conference centre

## Canada Aviation Museum

In 2001, funding was provided to construct a collection storage hangar at the Museum's Rockcliffe site. The new hangar will be situated to the south of the current structure. It will accommodate the seven aircraft stored outdoors, most of those held in open storage, and any aircraft returning from loans to other museums. This storage building is part of a second phase of construction foreseen in the 1992 site development plan for the Museum. At the same time, an addition is being constructed on the north side of the Museum building to accommodate administration facilities as well as the library and archives, replacing existing outdated and temporary facilities.

The Corporation prepared a functional program to outline its accommodation requirements for the new hangar and administrative/library/archives area, and to define the environmental controls required to meet the long-term preservation needs of the aviation collection. The functional program also defined the needs of other building components, in the context of an update to the 1992 site development plan. These include a visitor services entrance for the new hangar, a pedestrian link connecting the new facility to the Museum, additional storage, a conservation shop, a new auditorium and boutique, and an improved main entrance. A phased construction plan, complete with accurate cost estimates, is now in place to build all of the new, and as yet unfunded, facilities mentioned above, as funding becomes available.

The professional team has completed the detailed design of the new spaces and has prepared a cost estimate to build all the facilities included in the long-term plan. The aircraft storage facility, the library, the archives and the administrative offices have been funded, and construction commenced in October 2003. It should be noted that the storage facility being constructed — with an area of 8,160 square metres — falls short of the 9,240 square metres identified by the Museum as the minimum space required to house all of its current holdings and projected near-term additions to the collection. This adjustment was made because the available budget was not adequate for the construction of a building which met both the design approved by the National Capital Commission and preferred size requirements.

The professional team will be providing inspection services during construction to ensure that all work is implemented in accordance with tender documents. The building systems will be systematically commissioned during, and immediately following, the construction process. Commissioning ensures that all systems operate in conformity with the design intent and with requirements outlined in the functional program. It also establishes an operations and maintenance program, and a preventative maintenance program for the ongoing management of the property.

The inauguration of the new collection storage hangar is scheduled to take place in July 2004. At that time, the portion of the collection which will be housed in the new building will be installed. The major steps for the project are outlined below:

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Conceptual design completed . . . . .	2003-04-15
Drawings and specifications started and are ongoing . . . . .	2003-04-30
Issuing of tender packages started and is ongoing . . . . .	2003-09-05
Awarding of contracts started and is ongoing . . . . .	2003-09-16
Inauguration . . . . .	2004-07-01
Substantial construction completed . . . . .	2004-07-30

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## Canada Agriculture Museum

The Canada Agriculture Museum has had a site master plan in place since March 2000. The plan was presented to the NCC Advisory Committee on Planning, Design and Realty, and the report was well received. However, final approval from the NCC for many details of the master plan, such as the location of a Visitor Centre, is contingent upon approval of the Central Experimental Farm (CEF) National

Historic Site (NHS) Management Plan. The Museum has been a key participant in the consultation process on the future of the CEF, which is managed by Agriculture and Agri-Food Canada, and will continue to participate on the CEF Advisory Council and provide input in the development of a National Historic Site Management Plan.

The Museum will pursue discussions on the development of its Master Site Plan and will address issues such as the availability of additional heated space in an adjacent building. Additional space would enable the Museum to present exhibitions year-round, to provide a more in-depth interpretation of agricultural technology through the display of a larger percentage of the collection (from one to 10%), and to offer more exhibitions — all essentials in developing a full-service museum. In addition to better serving the general public, winterized indoor space would also allow school programming to run throughout the school year. Having a larger portion of the collection onsite would also facilitate agricultural material history research: a key element in the Museum's vision statement.

The Museum will also consider moving its artifact and archival collections onsite from their current location across the city at the Canada Science and Technology Museum, although this will require additional funding. Such a move would allow curatorial staff to readily service the needs of a growing portion of the visiting public wishing to undertake amateur or scholarly research. Increased funding also would allow the acquisition of the artifacts and archival materials needed to build a broadly representative collection of Canada's agricultural past.

With the building of a Visitor Centre, the Museum would be able to meet the needs of its visiting public by offering a dependable and quality food service, an expanded boutique, additional washrooms and an indoor lunch area for groups.

Over the next few years, the Museum's Master Plan will be reviewed, updated and integrated within the CEF NHS Management Plan. The revised Master Plan will address operations, programming, exhibitions and collection needs. Priorities will be set and a schedule developed. These changes will enable the Museum to fulfill its potential as a national museum, while also offering year-round exhibitions and programs.

## NATIONAL OUTREACH

As a national institution, the Corporation plays an important role in fulfilling the federal government's objectives of strengthening the bonds of shared citizenship and creating an environment which allows for a greater understanding of the Canadian context. The Corporation endeavours to foster, among all Canadians, an understanding of their scientific and technological heritage and a sense of pride in Canada. Through its museums' exhibitions, innovative programming, Web sites and publications, the Corporation strives to increase Canadians' accessibility to, and awareness of, this knowledge base.

The Corporation has been working towards an overall National Outreach Strategy which will clearly set out objectives, priorities, and target audiences for outreach in order to maximize exposure in a cost-effective manner. Once the strategy is finalized, new programs, resources and organizational structures can be implemented. The strategy will identify policies for the Corporation as a whole, and will specify strategic plans for each museum.

In the short term, the Corporation intends to concentrate on the development of its Web sites as its primary platform for carrying out outreach objectives. Activities aimed at increasing accessibility to the national collection and programs for all Canadians include the following.

**Internet** — Dramatic growth in public use of the Internet offers the Corporation an exciting opportunity to facilitate access to its products. Over the past two years, the Corporation and its three museums have noted that virtual visits now outnumber onsite visitors. It is anticipated that the number of visitors to the Corporation's Web sites will continue to increase, lending impetus to efforts aimed at capitalizing on



## Web Site Visitors

Web Site	2001–2002		2002–2003	
	User Sessions	Average Time	User Sessions	Average Time
Canada Agriculture Museum	78,236	9.4	141,710	10.45
CN Collection	53,761	9.7	90,759	11.11
Canada Aviation Museum	381,311	10.33	472,265	9.72
Canada Science and Technology Museum	784,539	8.92	975,803	10.66
<b>TOTAL</b>	<b>1,297,847</b>	<b>9.4</b>	<b>1,680,537</b>	<b>10.4</b>

clear public interest in the Corporation's offerings. The Corporation will also look at the many ways in which it can marry this new strategic opportunity with federal initiatives aimed at connecting all Canadians to their heritage online. Electronic products offer unparalleled access to the Museums' collections and resources for a much wider segment of Canada's population. Increased emphasis will be placed on the development and enhancement of products for the Corporation's Web sites.

**Reaching a More Diverse Audience** — In the past, the Corporation's museums largely treated science and technology as culturally neutral endeavours. With the adoption of a Collection Development Strategy in 1994, the *Transformation of Canada* theme committed the museums to exploring the relationship between science, technology and society as a continually evolving reality. The Canada Science and Technology Museum Corporation is committed to informing the public of the integral role that science and technology play in an increasingly diverse Canadian cultural community. Corporate staff at all levels have become increasingly engaged in the discussion of cultural diversity and social inclusion. Participation at the Minister's Forum on Diversity and Culture in 2003 underscored the need to work in partnership with cultural communities in the development of research, programs and exhibitions. Complementary to the CSTMC's membership in the Canadian Heritage Portfolio's Cultural Diversity Alliance, the Corporation has established an internal Diversity Committee. Its working group has been tasked to review current approaches to the interface of science, technology and culture, to consider new perspectives on the representation of culture at the CSTMC, and to review international approaches to social inclusion and cultural diversity in the museum context. Such studies will contribute to the development of policies and guidelines on diversity and inclusion, which will be central to all future planning and operations. These long-term initiatives are supplemented by more immediate ones, such as the establishment of professional links with the Canadian Aboriginal Science and Technology Society at their 2003 conference in Saskatoon, and participation at the Canadian Heritage conference "Destinations" at Whistler, also in 2003. Over the planning period, the Corporation will continue to refine its traditional perceptions of, and approaches to, the interpretation of science and technology and culture.

**Collaboration and Partnership** — The Corporation has initiated a number of collaborative initiatives and partnerships in the recent past with organizations within the Canadian Heritage Portfolio, as well as with similar subject-based institutions, and anticipates these developing into effective working relationships on behalf of the public and the partners.

- **National Museums** — The Corporation is collaborating with the other national museums on a number of initiatives.
  - i) **National Capital Region Visitor Survey Consortium** — In light of the federal government's strategic directions, it behooves local museums to see themselves in a national context. Instead of competing for a diminishing share of the local family market, they need to turn their focus to the larger market of national and international cultural tourism which will characterize the coming decades. New museum buildings may provide the infrastructure, but it will be the exhibitions,

programs and services that make Canada's capital a world-class destination. Developing these offerings for a changing world is the major challenge facing museums today.

As the National Capital's cultural opportunities grow and diversify, the potential for inter-agency cooperation also increases. Information-sharing, thoughtfully implemented, can be one such form of cooperation. Performance measures gathered by individual museums provide them with a glimpse into potential issues for improvement and excellence. However intriguing such data seems at first glance, real knowledge and insight about the visitor experience come about only when such facts are put into context. What sort of experience does a Canadian or foreign traveller have when visiting a range of cultural institutions in Canada's capital? How can the institutions ensure that minimum visitor standards are met, at a reasonable cost?

Recognizing this need, representatives from the marketing, evaluation, audit and visitor research functions of the Canada Science and Technology Museum Corporation, the Canadian Museum of Civilization, the National Gallery of Canada, the Canadian Museum of Nature, the National Capital Commission, the Library of Parliament, Rideau Hall, and the Royal Canadian Mint, met to discuss a framework for cooperation in information-sharing. Visitor satisfaction and market audience characteristics are of interest to all museums, so this need was tackled first. Key concerns included standards for demographic variables and satisfaction questionnaires, confidentiality, reporting, and cost-effectiveness. It was envisioned that consortium partners would be able to compare their own individual survey results to the aggregate data from all partners, enabling them to better judge their own performance against the market average. As the three largest national museums use the same computerized survey system, this would provide the nucleus for data-gathering. Smaller institutions would be invited to participate and, over the years, a more complete picture of the cultural tourism market of the National Capital would emerge.

Based on these discussions, the CSTMC determined that such a partnership was feasible, and began working towards its achievement. Summer surveys at all three of its museum sites were carried out using standardized, computerized survey kiosks and survey questions, to reduce bias. This data was combined with that from comparable summer surveys carried out by our partners, the Canadian Museum of Civilization and Rideau Hall. The five institutions were able to compare their individual results to the global average on over two dozen key measures such as demography, satisfaction, museum visiting and advertising. The total cost of this project was less than what would have been incurred if all partners had carried out individual telephone surveys, by a factor of at least ten.

- ii) ***Programs and Exhibitions*** — The Corporation will continue to participate with the other national museums in the celebration of International Museums Day. Several exhibition proposals will be pursued with the other national museums, and artifact loans will also continue whenever possible.
- iii) ***Sharing Expertise*** — Expertise will continue to be shared in areas such as major building projects, curatorial advice, communications and marketing, and human resources. An agreement initiated in February 2000 between the federal cultural institutions to share expertise, facilities and equipment during an emergency, will continue to apply. Participation in the policy cluster groups created by the Department of Canadian Heritage, to provide an integrated Portfolio approach to policy issues, is expected to continue. To date, the Corporation has been involved in the History/Heritage and Outreach clusters.
- ***Other Government Departments/Agencies*** — A Memoranda of Understanding (MOU) with the National Research Council of Canada was finalized last year and a similar MOU with the Canadian Space Agency should be completed this year. It is expected that an MOU with the Canadian Conservation Institute will be finalized by next fiscal year. These agreements will result in further preservation of artifacts associated with each of the agencies, programming benefits for the public, and a greater

focus on the great scientific and technological contributions being made by Canadians and Canada. Exhibition projects are being discussed with the RCMP, the Canadian Institute of Health Research, Transport Canada, Natural Resources Canada, Environment Canada, Agriculture and Agri-Food Canada and National Defence.

**CSTMC Museums** — The Corporation’s museums continue to be a primary means of making its collection and programs accessible to Canadians. Some 675,000 visits are recorded annually, with 50% of these visits made by people living outside the metropolitan Ottawa-Gatineau region.

**Affiliate Museums** — As a means of extending its outreach program, the Corporation is piloting an innovative program which would see the Corporation partner with other museums across the country. By establishing mutually beneficial affiliations with museums and cultural institutions across Canada, the Corporation will be able to further address its national mandate and more broadly share its national collection, exhibitions, demonstrations, educational programs and expertise. Through the “Partnership Program”, as it is being referred to, the Corporation is able to collaborate with museums and cultural institutions, both large and small, in a way which allows hundreds of thousands of individuals, who might never have the chance to visit Canada’s Capital Region, an opportunity to experience exciting and educational components of the Canada Agriculture Museum, the Canada Aviation Museum and the Canada Science and Technology Museum.

**National Registry** — The Corporation is working on the development of a National Registry of Significant Artifacts in Science and Technology, in conjunction with its collection development process. Collection assessment work in all of the major subject areas will result in a description of the ideal artifact collection to represent and illustrate each of the Corporation’s major subject areas. Building upon this essential work, the Canada Science and Technology Museum will lead a national initiative designed to establish a criteria and selection committee which will help identify and recognize artifacts of national significance for inclusion in this registry, no matter who holds them. This important undertaking will be accomplished through extensive negotiations and cooperation with public institutions across Canada. Portfolio partners in this effort include: the Canadian Conservation Institute, the National Archives and National Library, and the other national museums. The registry will serve to increase the recognition and profile of Canada’s scientific and technological heritage, while greatly enhancing and facilitating its preservation, interpretation and access.

**Artifact Loans** — The richness of the Corporation’s collection is one of its significant strengths. In order to increase access to its artifacts, the Corporation will maintain an active loan program of artifacts to institutions throughout Canada, the United States and abroad, so that Canadians can experience firsthand what has been preserved on their behalf. Last year, the Corporation loaned 79 artifacts to 10 different institutions in the provinces of Quebec, Ontario and British Columbia. A further 398 existing loans were renewed to outside institutions in England, the United States and Canada. Canadian institutions included organizations in 8 of the 10 provinces, as well as in the Northwest Territories and the Yukon, and ranged from national museums to smaller single-focus regional museums. The Corporation also borrowed a total of 108 artifacts from 38 institutions and individuals to enhance exhibitions at its three museum sites.

**Travelling Exhibitions** — Traditionally, the Corporation’s travelling exhibitions program has been a main component of its outreach activities, with as many as a dozen exhibitions presented by museums across Canada. However, many of these exhibitions are at the end of their lifecycle and have been retired from circulation. Taking into account the high demand across the country for small travelling exhibitions with interactive components, new small-scale exhibitions are being designed as travellers. These exhibitions are first presented at the Corporation’s museums to test them, and to offer new products to our local visitors; they are subsequently sent across Canada to provide Canadians with an opportunity to experience our museum products. Opportunities for partnerships are also explored as an additional means of producing travelling exhibitions in a cost-effective manner.

## STRENGTHENING OUR FINANCIAL POSITION

The Corporation faces the challenge of fulfilling its legislated mandate — as well as responding to new government objectives and the increasing demands of a changing social and technological environment — with a resourcing level which has been historically the lowest of the four national museums. The Corporation's parliamentary allocation has never recovered from the 25% reduction imposed during the Government's mid-1990s expenditure reduction program, and more recently it has made a contribution equal to 1% of its annual budget during the 2003 budget reallocation exercise. In fact, with the exception of a one-time injection of funds to compensate for inflation, no relief from inflation in the non-salary budget has been received for the past ten years.

The Corporation faces pressures which have not been experienced by sister institutions which have had an opportunity to centralize and obtain new accommodations, thus relieving some stress on their operating funds. In this respect, the Corporation must also absorb the uneconomical costs involved in operating three distinct public facilities for which duplicate services must be provided. One of these museums is, in fact, operating without the benefit of any appropriated dollars of its own, unlike the two other museums managed by the Corporation. The resolution of a stable funding base for the Canada Agriculture Museum at the Central Experimental Farm, which has become a hugely popular public destination in its short 20-year life, has now become critical.

The Corporation has been responsible, since 1994–1995, for managing the Crown buildings it occupies, as well as a number of leased properties used for collection storage and staff accommodation. The fixed costs of facilities management, which include rent, utilities, property taxes, repairs and maintenance, have been escalating and, in 2002–2003, accounted for 41% of the total CSTMC budget. The trend towards increased costs is likely to continue with the current deregulation of utilities, the provincial tax reform program, and repairs and upkeep for aging buildings: especially the Canada Science and Technology Museum, for which maintenance costs increase by approximately \$100,000 per year. The current funding mechanism available to the Corporation for accommodation requirements is not indexed, and has resulted in the loss of half a million dollars for non-facilities uses since custody transfer, which the Corporation has had to absorb. Adjusting the funding process to the one more commonly used throughout the federal government for government-owned properties would better address the Corporation's current and long-term needs. Similar anomalies exist with respect to salary envelopes and adjustments resulting from collective bargaining.

Efforts by the Corporation to look internally for efficiencies and more effective ways to meet its responsibilities and objectives will continue in its ongoing attempts to deal with resource pressures. Collaborative partnerships and sponsorship/fundraising will be a key component in the development of projects and activities. Revenue generating programs are currently contributing \$4 million in gross revenue versus \$1 million in 1990. As impressive as this growth has been — and even with the determined pursuit of internal economies and external funding as noted above — funds available after assessing costs required to generate revenue are still not expected to provide the Corporation with sufficient funds to reach its full potential.

Innovation and science and technology remain high on the federal government's agenda, and the Corporation is well-placed to play a significant role in pursuit of that aspect of public policy. However, in order to do so effectively, the Corporation must have the capacity to respond to advances in these areas from both a heritage preservation and knowledge dissemination perspective. In order to obtain sufficient resources to help respond to new opportunities, while continuing to fulfill its mandated activities, the Corporation will pursue its efforts with the Department of Canadian Heritage and central agencies to increase its operational funding.



# ONGOING OBJECTIVES

The Canada Science and Technology Museum Corporation is in the business of preserving Canada's scientific and technological heritage and sharing knowledge of that heritage. Three groups of primary activities are carried out in support of the Corporation's mandate: heritage preservation, sharing knowledge, and support services.

During the upcoming planning period, the Corporation, taking into account its existing financial situation, will be guided by several principles which apply to its primary activities. These include:

- efforts dedicated to the development and care of the collection will not be reduced;
- the general nature of activities will not change, although the volume may be affected;
- a sequence of change will be maintained in order to "keep it fresh" in the museums, using a balance between programs and exhibitry;
- all things being equal, exhibitions that allow us to partner with one or more organizations will be given priority;
- because of its capacity to reach a broad audience in an economical and effective manner, use of electronic media for outreach purposes will have priority;
- brand images will be maintained and respected, but delivery mechanisms to accomplish this more efficiently will be reviewed; and
- exhibitions and programs projecting an image of engagement with First Nations and cultural diversity will be given priority.

## HERITAGE PRESERVATION

### Research

Research comprises those activities which contribute to the building of a knowledge base about the scientific and technological heritage of Canada. The Corporation has identified seven major subject areas on which it will focus its research activities. These are: aviation, communications, manufacturing, natural resources, renewable resources including agriculture, scientific instrumentation, and transportation.

Research activities are carried out in support of the following objective:

*To identify concepts and ideas key to the understanding and appreciation of the scientific and technological heritage of Canada.*

### Strategic Approach

Central to the research program is the identification and analysis of important concepts, ideas, objects and issues key to the historical development of each main subject area. The Corporation has adopted a conceptual theme, the *Transformation of Canada*, to provide a framework for its research program.

*The transformation of Canada, from the period of early exploration and settlement to the present, has been marked by achievements in science and technology. There is an ongoing relationship between science, technology and Canadian society which has changed Canada, influenced its people and will continue to do so.*

This main theme embodies the following sub-themes:

**Canadian Context:** Canadian achievements reflect the challenges overcome, and the choices made, in developing the country.

**Finding New Ways:** The search for new knowledge and new ways of doing things is basic to human nature. Science and technology play key roles in efforts to find new ways of living, learning and working.

**People, Science and Technology:** Work and domestic lives are shaped and influenced by scientific and technological change. At the same time, individually and collectively, people shape the evolution of science and technology through their decisions and actions.

As a result of the CSTM visioning exercise, the Corporation's strategic approach, including the thematic framework, is undergoing a thorough review.

Primary research, subjected to review by peers, generates the subject knowledge required to make informed decisions regarding the thematic direction of collection content. Such research is exemplified in historical assessments, journal articles, published conference papers and academic publications. The Corporation also undertakes other forms of research not subject to peer review, to meet the information needs of a broader audience. These are often presented in Web essays, popular publications such as *Collection Profiles*, and exhibition text.

#### *Five-Year Perspective*

The Corporation has implemented a systematic program of both historical and collection-based research in order to guide collection development and provide accurate information for exhibitions, interpretative programming and Web and print publications (see Table 3). The impact of major corporate facilities projects has led to significant delays in the achievement of established research performance indicators. The review of curatorial subject areas at the CSTM in 2003–2004 and ongoing review of the Corporate Collection Development Strategy will require a corresponding revision of the Historical Research Plan, reflecting changes and trends in the history and philosophy of science and technology, and new directions such as the historical development and use of science and technology in First Peoples communities across Canada, and their contribution to Canadian society. To that end, a comprehensive review of research undertaken as part of the Strategy since 1989 will ensure a renewed and revitalized research plan, designed to meet the challenges and opportunities of future developments and growth.

#### *Performance Indicator*

Completion of research as per annual plan.

### Collection

A major challenge for any museum is to determine what items it will collect, how the collection will be organized, and how to preserve these items for future generations. The Corporation, as the only comprehensive science- and technology-collecting institution in Canada, has a special responsibility for the development of a Canadian national collection. In view of the breadth of the potential subject matter to be covered, critical choices must be made in determining collection content and priorities.

Collection development activities assist the Corporation in making informed decisions on collection content, while collection management activities encompass the activities required to manage the objects accessioned into the collection. These activities are carried out in support of the following objective:

*To develop and manage a national collection of objects representative of science and technology in Canada.*

**Table 3**  
**Historical Research Plan**  
**2004–2009**

Major Subject	Year	Purpose	Research Project
Agriculture	2004–2005	Exhibition	Food for Health
	2005–2006	Collection Profile	Field Drainage Technology
	2006–2007	Collection Profile	Maple Sap Harvesting Technology
	2007–2008	Historical Assessment Update	Agriculture
	2008–2009	Collection Profile	Haying Equipment
Aviation	2004–2005	Web Essay	Bush Flying in Canada
		Web Essay	Canadian Vickers in the 1920s
	2005–2006	Web Essay	RCAF Rearmament in the 1930s
		Web Essay	Interwar Homebuilding in Canada
	2006–2007	Web Essay	The Power to Fly (engines)
		Web Essay	Trans-Canada Air Pageant
2007–2008	Web Essay	Atlantic Bridge: The Early Years of Trans-Atlantic Flight	
2008–2009	Exhibition/Web Essay	The Canadian Centennial of the First Powered and Controlled Flight	
Communications	2005–2006	H.A. Update	Sound Recording
	2006–2007	H.A. Update	Bookbinding
	2007–2008	H.A. Update	Photography
		H.A. Update	Film
	2008–2009	H.A. Update	Telephony
Manufacturing	2006–2007	H.A. (Initiate)	Textiles II
		Historical Assessment	Electrochemical
	2007–2008	H.A. (Complete)	Textiles II
	2008–2009	Historical Assessment	Electronics
Natural Resources	2008–2009	H.A. Update	Mining
Scientific Instrumentation	2004–2005	H.A. Update	Astronomy
		Historical Assessment	Medical II
	2005–2006	H.A. Update	Scientific Instruments
		Historical Assessment	Information Technology
2006–2007	H.A. Update	Space	
Transportation	2004–2005	H.A. (Initiate)	Highways and Society
		H.A. (Initiate)	Ocean Sciences
	2005–2006	H.A. (Complete)	Highways and Society
		H.A. (Complete)	Ocean Sciences
	2006–2007	H.A. Update	Bicycles
	2007–2008	H.A. (Initiate)	Fire Technology
		H.A. (Initiate)	Automotive Engineering
	2008–2009	H.A. (Complete)	Fire Technology
H.A. Update		Navigational Aids	
Multi-disciplinary	2004–2005	CSTM Comprehensive Research Review	
	2004–2005	Web	CSTM/CN Photo Coll.
	2003–2008	Exhibition & Web	Hall of Fame

## Collection Development

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The primary purpose of the collection is to help people understand how life in Canada has been transformed by science and technology. The principal criterion for evaluating an item for inclusion in the collection is the story that the item tells and, thus, its ability to foster understanding. A focused collection will be achieved by identifying and acquiring the objects and supporting documentation that best reflect a historical framework, and by deaccessioning materials that are not consistent with this framework. It is also essential that all documentation be managed in a professional manner that permits retrieval and adaptation to a variety of dissemination media. Adherence to strict environmental standards and professional conservation activities are also required to ensure long-term preservation of the collection.

### *Strategic Approach*

Collection development activities utilize historical research to assist the Corporation in making informed decisions on collection content. Following completion of the historical assessment, a collection assessment can then be prepared which is comprised of three sections: the ideal collection, a profile of the existing collection, and the collection needs, which will be obtained by comparing the ideal collection to the collection profile. This process identifies artifacts, or classes of artifacts, to be acquired, and artifacts to be deaccessioned. All decisions to remove objects from the collection must follow a rigorous procedure, and any proceeds received as a consequence must be re-invested in the collection.

### *Five-Year Perspective*

The Corporation will maintain a schedule for the production of collection assessments in all major subject areas (see Table 4). However, the introduction of new initiatives such as the CSTM Visioning Study for a new museum, partnership exhibitions, and the new storage hangar at the Canada Aviation Museum, have seriously affected the projected rate of completion. Some projects will be carried over.

Profiles of the ideal collection, which conclude each collection assessment, will provide a research-based direction for the enrichment of each aspect of the CSTMC collection. These ideal collections, in addition to rationalizing the various subject collections, will allow the Corporation to work in partnership with other Canadian museums and publicly-owned collections to develop a National Registry of Significant Artifacts in Science and Technology. Such cooperative initiatives will enable the Corporation to continue the efficient development of its collection, while providing leadership in the identification and celebration of Canada's technological achievements in collections across the country.

### *Performance Indicator*

Completion of collection assessments as per annual plan.

## Collection Management

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Collection management encompasses the activities required to manage the objects accessioned into the collection. They fall into two categories: recordkeeping and conservation.

### *Strategic Approach*

**Recordkeeping** — The Corporation maintains proper records for each item from three perspectives: location and current museum use, history of the item, and condition.

The Corporation maintains a rigid inventory control of all collection items, to ensure that each one can be located at all times. A computerized inventory control system is updated regularly and tracks whether an item is on loan, on display in an exhibition, or in storage. A second aspect of recordkeeping is the history of the item. As part of its documentation and cataloguing activities, the Corporation maintains a separate record on each item in the collection.

The documentation held for each item includes all original records pertaining to the identity, provenance, and legal title of the item. The item is accurately identified, and information regarding significance,



**Table 4**  
**Collection Assessment Table**  
**2004–2009**

Major Subject	Year	Topic
Agriculture	2004–2005	Mowers
	2005–2006	Threshing Machines
	2006–2007	Milking Equipment
	2007–2008	Orchard/Vineyard Equipment
	2008–2009	Domestic Poultry Equipment
Aviation	2006–2007	Engines
	2007–2008	Propellers
Communications	2004–2005	Telegraphy
	2005–2006	Film
	2006–2007	Radio
	2007–2008	Printing II
	2008–2009	Electronic Music
Manufacturing	2007–2008	Tool & Die
Natural Resources	2004–2005	Forest Harvesting
	2005–2006	Kitchen Appliances
	2006–2007	Lighting (non-electric)
	2007–2008	Gas Appliances
	2008–2009	Meters
Scientific Instrumentation	2004–2005	Metrology
	2005–2006	Exploration & Survey
	2006–2007	Medical
	2007–2008	Mathematics
	2008–2009	Information Technology
Transportation	2004–2005	Navigational Aids
	2005–2006	Ocean Sciences
	2006–2007	Rail
	2007–2008	Horse Drawn Vehicles
	2008–2009	Fire Technology

function, capacity to operate safely, history of owners, and use is prepared by staff to complete the process. Cataloguing involves the summarizing of key documentation information in a standard format suited to computerized storage and retrieval.

The objective of increasing accessibility for all Canadians to their scientific and technological heritage will be greatly advanced with the inception of a new computerized collection management system. The new software package, with its linkages to the corporate Web site will make the collection database and the related storehouse of some 110,000 digital images of objects in the collection 100% accessible online, to Canadians and the world.

**Conservation** — The physical condition of artifacts is evaluated and documented in conservation reports. The information from these reports is used to define the actions required to provide long-term care for the artifacts. This reporting provides a benchmark of the condition of an object when it was initially evaluated, and following each subsequent use — either in an exhibition, a program or for loan purposes. The Corporation intends, over time, to complete conservation reports for all artifacts in the collection.

Priority is given to preventative conservation (i.e., the safeguarding of collection items for the future), over conservation treatment (i.e., any action taken that directly alters the appearance and/or condition of an artifact). The Corporation has adopted the following conservation goals: to retard deterioration and prevent damage through the provision of proper storage, use and handling of collection items; to chemically and physically stabilize collection items; and to clean, repair and provide restoration as deemed appropriate. Conservation activities conform to international conservation standards and ethics.

The Corporation has introduced environmental standards for collection storage, which are used to determine how the collection should be housed. Standards for lighting, heat, humidity, security and maintenance have been defined for collection storage areas and collection display areas. These standards are used to assist in the allocation of objects to an appropriate storage area, based on composition; e.g., metal, wood, fabric, paper.

### *Five-Year Perspective*

With regard to cataloguing, the Corporation will continue to place a priority on documenting and cataloguing all current acquisitions within a reasonable period, and on upgrading older cataloguing documentation. Testing of the new computerized collection management system has been completed, and various applications of the system will be explored. Another facet of the software's internal capabilities will be enabled to make the collection information available to a wider audience, with a first step via the Corporation's Intranet. This will serve to make collection information and images accessible throughout the entire Corporation. The result will be that staff, such as those in Public Programming, will be able to access collection information directly from the Intranet. This will also mean that anyone on staff will be able to access collection information and images, whether it is a work-related need or simply a desire to see what treasures the corporate collection holds. Once this step is completed, the next phase will follow the same procedures as used in "publishing" the collection to the Intranet, and add the links to the corporate Web site so that the collection becomes accessible to the world via the Internet. Once these applications have been tested and are functioning, a full review of the software package will be conducted, assessing its strengths and weaknesses in preparation for a second round of product refinement designed to maximize its use and effectiveness, and cure any problems encountered along the way.

The Corporation remains committed to providing resources for basic conservation of the collection. A number of the Corporation's display and storage buildings meet only minimal environmental standards, particularly with reference to temperature and relative humidity control. Due to the capital investment needed to upgrade these buildings, given their current age and condition, the Corporation has decided to seek funding for new facilities. The environmental standards for collection storage introduced in 1995 will be reviewed in order to define the appropriate storage conditions necessary to ensure the long-term preservation of the artifact collection. The scope of these standards will also be broadened to take into account elements such as accessibility and proper space allocation which affect the overall "health" of the collection.

Although a priority will be placed on continued completion of artifact conservation reports, existing resources are such that overall progress to reduce the backlog will continue to be slow. If the Canada Science and Technology Museum is successful in obtaining funding for a new museum building, including storage space for the collection, Conservation Services will use this opportunity to complete reports on a majority of the collection during the move to its new facilities.

When the new storage hangar at the Canada Aviation Museum is completed, the aircraft currently in open storage at the Museum will be moved into the new building. The space freed up by this move will be used for new exhibitions, and the expansion of many current displays. Over the next few years, it is anticipated that as many as 40 aircraft may need to be prepared by conservation staff for these displays.

### *Performance Indicator*

Percentage of artifacts catalogued to CSTMC standards.

Percentage of artifacts with a conservation report completed.

Percentage of artifacts stored in accordance with CSTMC standards.

## SHARING KNOWLEDGE

The Corporation seeks to engage Canadians in discovering, considering, and questioning past and present developments in science and technology, and their impact on society and individuals. The Corporation fosters a sense of identity and belonging for all Canadians, as well as pride in Canada's scientific and technological history and achievements. It also encourages active and informed participation by Canadians in the future development of our technological society.

The primary reason for interpreting Canada's scientific and technological heritage is to provide Canadians with meaningful information about themselves and Canada. Just as the *Transformation of Canada* theme directs research and collection activities, it likewise guides the Corporation in its knowledge dissemination activities. These typically depict the historical development of science and technology, provide information on the objects in the collection, and review the relationships between science, technology and Canadian society.

The Corporation disseminates knowledge to its audiences in three primary ways: through its public facilities, its Web sites and its publications.

### **Museums**

The Corporation manages three museums for the visiting public. A museum visit has the ultimate purpose of providing a learning experience, and the Corporation will build upon the unique characteristics of museums to shape this experience. Museums are places of informal, self-directed learning where the experience is of a voluntary nature; they exist to impart knowledge and encourage curiosity, and have the capacity to contribute to learning at every stage of life. Museums provide meeting grounds where enriching experiences are offered both through human interaction and interaction with objects and ideas.

Activities at each of the three museums are carried out in support of the following objective:

*To provide an enriching museum experience to a broad public audience.*

### *Strategic Approach*

Museums traditionally use exhibitions, complemented by interpretation activities, as products to offer their visitors. In selecting exhibition and program ideas, preference is given to those that will afford an opportunity to utilize curatorial expertise and display artifacts from the collection, while appealing to existing and/or potential visitors. Exhibitions and programs are normally initiated and developed following market studies and comprehensive visitor studies; exhibitions and major programs are assessed through front-end, formative and summative evaluations.

Exhibition topics are selected for the range of experiences they afford: they must be thought-provoking, invite discovery, and allow for the acquisition of the widest possible range of knowledge. The comprehension level of text, the ability to touch, hear and see exhibition elements, the relevance of the thematic approach or subject matter, and the level of interactivity, are all aspects of a successful exhibition. In light of its significant investment in exhibitions, the Corporation has adopted an exhibition development process which provides a systematic, disciplined approach for each exhibition project. The Corporation's museums maintain exhibition master plans for a five-year planning period for all exhibition development, including travelling exhibitions. These plans provide for a regular cycle of exhibition replacement and update.

A broad range of interpretative programming is offered to complement exhibitions and broaden and enhance the visitor experience. These include school programs, demonstrations, workshops, tours, theatrical presentations and special events aimed at increasing the public's understanding of its scientific and technological heritage, while also illustrating the theories and principles of science and technology.

The primary target audience for the Corporation's museums has been defined as family groups; i.e., adults with children. Attracting children to its museums is seen as an important aspect of fulfilling the Corporation's mandate and supporting the federal government's objectives for youth and children, and special attention is given to the development of programs aimed at school groups. These programs will be delivered by trained educators in order to maintain a high level of quality and relevance, and to remain responsive to teachers' needs. Adults visiting without children make up a significant portion of visitors, especially at the Canada Aviation Museum. The Corporation will therefore develop strategies to further attract this particular segment, without sacrificing its emphasis on the family audience.

For marketing purposes, an important market segmentation is that of local versus non-local visitors. The National Capital Region is a major tourist destination, and visitors to the Capital are a significant audience that the Corporation must continue to attract. This poses a particular challenge, as the Corporation's three museums are located outside the downtown core, and therefore beyond the main tourism circuit. As part of its strategy to attract tourists, the Corporation will work closely with various regional and private agencies and businesses whose focus is on visitors to the National Capital Region.

With respect to the local market, the Corporation will place an emphasis on the promotion of changes to exhibitions and programming so that its museums are perceived as always offering something new.

In order to make informed decisions, the Corporation maintains a program of market surveys and comprehensive visitor studies. It also monitors satisfaction levels on a regular basis. The level of satisfaction is dependent on many factors, including the exhibitions themselves, as well as visitor amenities and the opportunity for social interaction. The latter is important, as most visitors come in groups of family and/or friends. This creates a social dimension to the visit which we take into account in program design and methods of presentation. The Corporation believes that the optimal visitor experience includes both learning and pleasure, in an environment emphasizing human presence, active participation, accessibility, creativity, credibility, comfort and fun. The quality of the cultural experience will be enhanced by the highest quality of visitor services, ensuring a safe and comfortable visit, commensurate with our role as hosts and theirs as our guests.

### *Five-Year Perspective*

#### Canada Agriculture Museum

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Within a few short years, the Canada Agriculture Museum (CAgM) has become a successful museum in the National Capital Region. On a limited budget, built through a reallocation of internal corporate funding and revenue generation, it has developed into a museum visited and appreciated by area residents and visiting tourists with the same regularity as several other long-established national museums. Having built a solid foundation, the CAgM now needs financial resources equivalent to those enjoyed by other national museums in order to build upon its local success and to start fulfilling its national mandate. The CAgM teaches and demonstrates the essential importance of agriculture in visitors' everyday lives. Agriculture touches Canadians almost continuously each day, whether through the fibres they wear or the foods they eat. If the CAgM is to become a *national* museum in the fullest sense of the word, and is to carry its messages to a pan-Canadian audience, then it requires increased funding to establish a national presence. Funding will further allow travelling exhibitions to take museum artifacts and research about Canada's rich and diverse agricultural heritage to all corners of Canada.

Partnerships are important in meeting mutually beneficial objectives. In 2003, the CAgM secured over half a million dollars to develop a travelling exhibition on food for health. **Food For Health** will look at food preservation and food safety practices, starting with Canada's First Peoples and including traditions brought to this country by immigrant groups. The exhibition is scheduled to open at the Museum in March 2006, and will start its Canadian tour in November 2006. In addition, in order to better meet its strategic objective of reaching more Canadians, the Museum will cancel two onsite annual events and redirect these funds to outreach activities such as the Web site, and an outreach program for high school students which focusses on the need to inform them of the dangers and consequences of targeting animals as objects of fun in their year-end celebrations. The impact of more outreach activities might be to lower attendance to the Museum site itself.

To disseminate information on the agricultural collection to all Canadians, the Museum's Web site now features a *Collection Profile* on threshing machines and a *Curator's Choice* on tractors. Each year, additional research material will be made available to the public. In 2004, a *Collection Profile* on Dairying will be added.

Currently, the CAgM has a representative selection of Ontario agricultural artifacts with which to interpret some areas of the province's agriculture history prior to 1960. Unfortunately, the collection is quite weak in terms of agricultural equipment introduced since that time. The collection also has very few artifacts from the rest of Canada. Recently, the Museum was allocated a portion of the Canada Science and Technology Museum's acquisition budget. Although having dedicated funds available for the development of the agriculture collection will enable the Museum to acquire some of the more significant pieces currently missing, it will require a significantly larger acquisition budget if the Museum is to compete with private collectors from Canada and the United States. If the Museum is to fulfill its mandate of having a national collection that is truly representative of agriculture in all regions of Canada, there needs to be a corresponding increase in the operations budget, so that curatorial staff have sufficient financial resources to travel outside of Ontario to at least view and evaluate potential acquisitions, let alone purchase them.

The long-term priorities for the CAgM are to continue sustained growth and to build upon its excellent public support, in order to become fully operational year-round. This will be done by improving the quality of the visitor experience through the replacement and update of exhibitions, the delivery of high-quality interpretative and school programs, and the development of better visitor amenities such as food services, a boutique and washrooms. A long-term exhibition plan had been developed to guide the replacement of the exhibitions, but it had to be modified due to budget reductions. The Museum is now developing a different approach to exhibition renewal, changing from mounting exhibitions produced in-house to presenting travelling exhibitions, themed exhibitions of artifacts from the Museum's collection, and exhibitions developed in partnership with other institutions. The travelling exhibition **One Hundred Years of Science in Agriculture** from the Musée François-Pilote in Québec will open in March 2004. A selection of Museum artifacts representing agriculture from different regions of Canada is scheduled for 2005. An exhibition on food safety and health is currently in development with, to date, four partner organizations providing funding. The current exhibition space, an unheated heritage barn, is not suitable for visitors during the winter months, nor can it be used for the display of certain types of artifacts at any time of the year. Hence, the feasibility of using part of another existing building as a future location for year-round exhibitions continues to be pursued with Agriculture and Agri-Food Canada, the owner of the building.

The Museum will continue to build upon innovative and varied programming which is aimed at fostering an understanding and appreciation of Canada's agricultural heritage. Hands-on programming with animals, plants and food will be featured. These programs will be developed to further focus on Canada's diverse cultural mosaic, including First Peoples. School programs, developed in line with the new Ontario curricula for primary and secondary levels, have an emphasis on science and technology subjects. Links to the new Quebec and pan-Canadian science curricula are being explored. These programs will be increased, leading to a longer-term objective of making students 20–25% of total attendance. Better serving the educational market is a priority for the Museum. This can be achieved by having exhibitions that are not closed 40% of the school year, as they are now. Acquiring year-round indoor exhibition halls, and spaces for visitor services and programming, is required to meet this goal.

The CAgM firmly believes that young Canadians should consider a career in the agricultural sciences and technology. To this end, the Museum offers a two-week Junior Farmer program which initiates teenagers into the world of agriculture. Other programs with the 4-H Club are being assessed, as is the possibility of involving researchers from Agriculture and Agri-Food Canada in more Museum activities. An opportunity exists to further expand the Museum through permanent exhibitions and more programs, and by making it into a year-round operation; however, additional resources are required.

The Museum continues to proactively seek and develop partnerships with various agricultural institutions and museums in Canada and internationally. In particular, it continues to play a key role on the Presidium of the International Association of Agricultural Museums and on the board of the Association for Living

History, Farms and Agriculture Museums. A draft MOU between the CAgM and Rare Breeds Canada is being reviewed. This mutually beneficial association would enable the Museum to display more Canadian historical breeds to the public, while also promoting the need for genetic diversity in farm animals.

#### *Performance Indicators*

Number of exhibitions completed on schedule and within budget.

Number of visits per year.

Degree of visitor satisfaction.

Number of visits resulting from school groups.

Degree of teacher satisfaction.

### Canada Aviation Museum

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Completion of the Museum's new storage facility will provide it with a much-needed additional 8,000 square metres in which to house aircraft currently held outdoors, as well as most of those currently in storage at the Museum. However, public access to the facility will be limited, the new space will not provide for the protection of expected additional significant aircraft joining the collection, and the Museum's conservation and restoration facilities will remain too small to allow major work to be undertaken on important — and in some cases, unique — aircraft such as the Canadair North Star. The Museum will therefore continue to play an active part in the Corporation's efforts to obtain the resources necessary to complete the site development project which has been approved by the National Capital Commission.

Even before completion, the new storage wing has already had a significant but predictable impact on the Museum's exhibition plan. Over the course of the next five years, a major challenge for the Museum will be to develop and implement a long-term master plan, taking into account the greatly expanded area that will become available for exhibitions and programming. Development of the master plan has already started. Implementing it will be a challenging, complicated and time-consuming undertaking, to a large extent dependent upon the level of resources that can be devoted to the project. The current interpretative structure of the Museum involves the use of thematic islands arranged more or less chronologically. Since 1988, when the Museum opened, visitors have followed a "walkway of time" to explore the evolution of aviation in Canada, from its earliest beginnings to the jet age. The Museum believes that this basic structure has served visitors well. Nevertheless, the Museum has always had numerous other aircraft it would like to show, and continues to acquire other "must-sees" which really ought to be displayed. It is likely that more new and important acquisitions are on the way.

The difficulty lies in the domino effect which results from moving even one aircraft on or off an island. Unfortunately, this part of the process cannot be undertaken in a piecemeal fashion, so the tangible benefit of finally getting enough space to facilitate this "shuffle" should immediately manifest itself in more dynamic exhibitions, particularly as plans call for the addition of many more human stories to each island. All kinds of interpretative techniques and technologies, new and old, will be explored and utilized to appeal to the entire range of visitors to the Museum.

While these challenges are being faced, the exhibitions program will nonetheless keep addressing the needs of current visitors through ongoing achievable, affordable change in order to encourage repeat visitation. At the same time, the intent will be to maximize the effect of the Museum's own temporary exhibitions by making them suitable for travel, and to expand inter-museum contacts by bringing in more exhibitions from outside institutions, while also by exploring the creation of new joint exhibitions, thereby allowing resources to be more effectively utilized.

Another major challenge during the planning period will involve preparations for the February 2009 centennial celebration of Canada's first powered flight. The Museum looks forward to being an important part of a national effort to recognize the importance of this anniversary. The establishment of partnerships with other organizations, museums and industries will be an essential element in the creation of programs, exhibitions and Web content designed to bring the centennial to the attention of the greatest possible number of Canadians.

In order to consistently position the Canada Aviation Museum as an internationally significant institution, its strategic communications plans strive to create a balance of media relations, public relations and promotional activities. An important focus of communications efforts in upcoming years will be the development and execution of a communications plan for the new collection storage wing, and reconfiguration of the existing Museum to ensure maximum exposure and information to the Museum's supporters, stakeholders and all Canadians. This will entail active participation in the Corporation's efforts to build support for completion of the remaining phases of development for the Museum's site and facilities.

The Museum will continue to strive for innovative, informative, hands-on museum programming which effectively reaches all ages and levels of understanding. The Museum is exploring outreach opportunities to better serve a broad range of target audiences reflecting Canada's diversity. Engaging outreach programming is currently being developed for museum volunteers to deliver to seniors in residences and other centres who may not be able to visit the Museum themselves.

The Museum offers quality school programs weaving Canada's aeronautical heritage into provincial curricula across the country in the areas of science and technology, Canadian history and geography and social studies. The Museum will also continue to develop and distribute educational materials which reinforce the Museum's place as the principal aviation resource centre for schools in Canada.

Opportunities will be sought to partner with other museums, cultural institutions, aviation associations, Aboriginal organizations, multicultural groups, embassies and government agencies to enhance the Museum's programs and events. Increased collaboration with groups such as the Air Cadet League of Canada, the EAA "Young Eagles", the Rockcliffe Flying Club, the Canadian Aeronautics and Space Institute (CASI), the Canadian Aviation Maintenance Council, technical schools and universities is expected to provide greater opportunities for outreach. Sharing resources with federal departments such as Transport Canada, Environment Canada, Natural Resources Canada and the Department of National Defence will continue to be one of the Museum's main objectives.

Facility rentals at the Museum are expected to continue to increase significantly over the next few years, particularly with the building of the new storage wing. This will give the Museum the flexibility to hold programming and facility rentals simultaneously. The Museum will continue to offer a prestigious event venue to the aerospace and high technology industries, universities and colleges, federal departments, foreign embassies and cultural institutions, among other clients. Filming for documentary and commercial purposes is ongoing at the Museum, with clients ranging from film production companies to Microsoft and the War Amps of Canada. In addition to the revenues they generate, facility rentals introduce new audiences to the Museum and increase awareness of those individuals and associations who may have the means to support Museum projects.

#### *Performance Indicators*

Number of exhibitions completed on schedule and within budget.

Number of visits per year.

Degree of visitor satisfaction.

Number of visits resulting from school groups.

Degree of teacher satisfaction.

### Canada Science and Technology Museum

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Based upon a long history of seeking out creative programming opportunities, and guided by the results of its recent Visioning and Feasibility Studies, the CSTM is reiterating its commitment to cooperative exhibition and program development.

Building relationships is essential in meeting this commitment. Since its inception, the CSTM has shared its expertise and its collections with museums across Canada, and has relied upon them, in turn, to help the Museum achieve its exhibition goals. These relationships will be expanded to embrace a trend towards co-operative program development, and the Museum will include science centres as colleagues in these

initiatives. The CSTM will continue to work with the best Canadian research facilities — public, private, and corporate — in order to gain access to exceptional minds, material, stories, and histories, and to maintain a direct line to current tools and processes relating to science and technology issues affecting Canadians.

Recognizing that renewal is essential if the Museum is to stay fresh and relevant, the CSTM will continue to take a responsible approach to exhibition renewal and program development. Current offerings will be carefully monitored and evaluated prior to any investment in their update or replacement. Investments will be made in innovation: professional development will be a priority; funding will be set aside for pilot projects designed to expand the CSTM visitor base and meet key corporate objectives; and a proactive team will be established to ensure that CSTM programming addresses current events and maintains a steady, acceptable sequence of change.

Investing in professional development includes encouraging CSTM staff from many divisions to attend conferences and symposia. CSTM representation at gatherings across Canada will feed outreach objectives and establish the institution as a leader in research and in science interpretation. The Museum will also continue to provide students with opportunities to gain valuable experience at its facilities through co-op programs and volunteer work.

The Museum will also pursue pilot projects which include the development of new summer camps and the refinement of offsite summer camps. The Museum also plans to increase the number of special events it offers, and to establish a program of repeating events, providing visitors with greater flexibility in planning their leisure time, and more opportunities to explore the Museum's offerings.

Over the past two years, the CSTM has proven that it can represent current events while effecting change to its public spaces, through small exhibitions and simple programming shifts; this trend will continue over the next five years. These smaller exhibitions are generating a substantial amount of interest, and some have outreach potential as possible travelling exhibitions. The Museum will also continue to be open to hosting exhibitions from other institutions and, to that end, will ensure that temporary exhibition galleries are refitted for this purpose. The refit will also contribute to the CSTM's facilities rental program, as the galleries may be rented when not housing exhibitions.

The Museum's approach to its public facilities over the upcoming planning period demands flexibility and diligence. Existing plans could be modified since priority will be given to partnership initiatives. The key will be to balance the need to seize opportunities with the need to plan effectively, while also ensuring that work environment and corporate processes are not unduly compromised. Ongoing evaluation will remain an important part of program planning, development and delivery. The CSTM is committed to retaining the strengths and expertise which it has developed over the years, to ensure that these continue to contribute to cooperative initiatives while also factoring into succession planning. To make the best use of its strengths and expertise, the Museum will implement an integrated approach wherever possible, in which exhibition, programming, collection and research activities complement each other and share resources.

The Museum will continue to use a variety of communications and advertising strategies to reach its target audiences. Outreach to non-local markets will continue to be a priority, achieved, in part, through memberships with the Ottawa Tourism and Convention Authority and l'Association Touristique de l'Outaouais, as well as through seasonal campaigns which invite local residents to bring their friends and families to the Museum. The Museum will continue to reach Canadians through its membership on the Federal Taskforce on Cooperative Programming and Marketing (chaired by the National Capital Commission), the Communications Network Committee, and the Communications Network and Outreach Cluster Working Group (both chaired by Canadian Heritage) and the Cultural Attractions Committee (chaired by the Canada Science and Technology Museum).

#### *Performance Indicators*

Number of exhibitions completed on schedule and within budget.

Number of visits per year.

Degree of visitor satisfaction.

Number of visits resulting from school groups.

Degree of teacher satisfaction.



## Web Sites

Electronic information technology in general, and the World Wide Web in particular, have evolved as major dissemination tools for museums. They provide opportunities for museums to reach a far broader audience than could ever be welcomed to the exhibition floor — with a much greater range of products and services — and provide a means of facilitating public access to knowledge.

The Corporation's use of the World Wide Web will be carried out in support of the following objective:

*To make the Corporation's intellectual assets available to a national and international audience.*

## Strategic Approach

The Corporation develops its Web presence to serve three principal goals:

- providing the public with direct access to the collection and research results;
- offering new products which take advantage of the unique properties of the Internet as a communications medium; and
- promoting the Corporation's museums and services to a wider and more clearly defined audience.

The Corporation employs the Web as a key mechanism in achieving its outreach objectives, taking advantage of the nature of the Internet itself to reach a broad national and international audience. It also uses the Web's interactivity to enable visitors to share ideas and opinions, and to provide feedback to the Corporation. The Web's inherent ability to connect with individuals will be used as a means of responding to users' needs and of providing detailed or general information as required.

The Government of Canada has made a commitment to ensuring the delivery of key government services electronically to all Canadians by 2004. Several initiatives are underway to increase the online availability of cultural content. The Corporation looks forward to contributing to these initiatives and making its intellectual assets available to all Canadians, as well as to international audiences, provided that sufficient resources can be made available.

## Five-Year Perspective

The Corporation will continue its efforts to provide access to its rich collection and the knowledge it contains. Access to the Corporation's collection will improve dramatically through the addition of a Web-enabled version of the collection and library databases. This will include images of artifacts, and the results of artifact-related research, as well as basic collection data. In addition, development of a search facility which will link related data about artifacts, library materials, trade literature, technical drawings and photographs will be completed during the planning period.

The Corporation's three museums will continue to create and manage innovative content for the Web. Staff at the Canada Aviation Museum are integrating the Web into the content development process, re-purposing text and even museum programs. Whether creating an exhibition or producing a brochure, content creators will increasingly consider the many ways in which their content can be further used and marketed on the Web.

The Corporation has made considerable progress over the past several years in digitizing artifact images and materials. Over the planning period, priority will be given to the digitization of related research material, photographs, drawings, and video and audio records in support of the artifact base. The extent to which the number of available images can be increased in the CN Gallery is dependent on funding; however, it is expected that at least 8,000 images will be mounted by the end of the planning period, and that additional images from the archival aviation collection will also be added. The CSTM will make further additions to this Web gallery by exploring different themes based on the CN photographic collection.

Publications related to the collection, including *Collection Profiles*, *Curator's Choice*, and *A Closer Look*, will continue to be extended to new subject areas, and will be further developed to include audio, video and animated material. Increased access will be provided to longer research documents and

publications. Consideration will also be given to the electronic distribution of other publications, such as the *Material History Review*.

The use of photo essays will be expanded, providing richer context for the Corporation's vast image collections. For the CN Images of Canada site, six new photo essays are planned, as is the development of new subject areas from the CN collection.

The Canada Aviation Museum will also continue to develop Web essays on a variety of topics, such as Museum Aircraft Histories. These essays have proven very popular with online visitors, and statistics indicate that downloading of the essays is increasing. The Museum's Web site will also showcase the Aeronautic Collection monographs, and will feature papers on this collection as well.

The Web will play an expanding role in the Canada Agriculture Museum's outreach activities. The site recognizes key partnerships: its Web site has been linked to Tourism Ottawa's portal, and additional complementary links are planned. The Museum is exploring the possibility of setting up an association of Canadian agriculture museums, and would use the Web as a mechanism or forum that members could use. Resources such as a newsletter, member contacts, offers, and requests for artifacts and travelling exhibitions are being considered. The Museum also plans to highlight agriculture-related publications of the Corporation, such as *Curator's Choice* and *Collection Profiles*, on its Web site. These are currently available on the CSTM Web site, accessed via a link on the Agriculture Museum site.

The use of interactive facilities is already an important aspect of the Corporation's Web sites. The Corporation plans to expand the scope of its e-commerce offerings, with enhancements to the ordering and licensing of image holdings. Providing online registration for programs such as school activities, summer day camps and special events is also planned within the five-year planning horizon, making it more convenient and less expensive for CSTMC customers to do business with the Corporation. The use of online surveys about the sites and the Museums will continue. The Corporation is a partner in the government's Service Canada initiative, and the sites will be accessible from the Canada Place Web site and physical kiosk facilities across Canada.

The Corporation will continue to explore the *Transformation of Canada* theme, featuring applications which demonstrate how all aspects of science and technology have changed Canada. This theme will be further developed over the planning period, and outside sources of funding and partnerships will be explored for this purpose. For example, the new Canada Aviation Museum site includes an "explore" section that will be used to develop the *Transformation of Canada* theme, while also exploring aviation technology, science and individuals. The Museum is looking for outside funding to develop this section more fully.

New technologies will continue to play an important role, as the Corporation explores new ways to connect Web content with content on the museum floor. For example, the Canada Aviation Museum is making use of wireless technology with the opening of its Wright Brothers exhibition, which celebrates the 100th anniversary of powered flight, thus connecting the physical museum and the Web.

Delivery of online services requires a substantial, continuing commitment of financial and human resources. The Corporation has already made a substantial investment in hardware and software. It is also evident that successful online services will create new demands on curatorial and program staff, particularly in the areas of content development and publishing. These services are being provided in addition to traditional museum services, and cannot be developed much further without additional resources. While sponsorship, partnerships and government initiatives such as Government Online and the Canadian Cultural Online Program may provide some start-up resources, ongoing resources are needed in order to maintain and support these new services.

#### *Performance Indicator*

Number of Web site visitors.

## Publications

The accumulated knowledge resulting from research, collection and preservation activities must be shared with the world at large in order to promote understanding of Canada's scientific and technological heritage. This knowledge is of value to other museums, other researchers and interested members of the public across Canada and internationally. Publications are an effective means of sharing this information.

Publication activities are carried out in support of the following objective:

*To make the Corporation's knowledge base available to a national and international audience.*

### *Strategic Approach*

Several approaches have been devised in order to help the Corporation meet its publication goals. Specialized material is published in a variety of formats suited for use by the general public, other museums and other researchers. CSTMC market research has identified a continued interest in, and demand for, print publications. A selection of the most interesting historical assessment documents is published in the CSTM *Transformation Series*. Special topic articles, research reports and reviews on varied themes in Canada's material culture, contributed by external and staff specialists, appear in the serial *Material History Review (MHR)*. In-depth analysis of individual artifacts or related groupings is provided in the occasional Web publication *A Closer Look*. A more popular audience is reached in the *Collection Profiles* series and through *Curator's Choice*, which provides additional curatorial insight to enhance all major exhibitions. In addition, occasional monographs are produced for specialized audiences.

### *Five-Year Perspective*

The Corporation will develop an action plan in response to evaluative studies of its current publication offerings. The degree to which the publication program will become dependent on partnerships and/or alternative publishing strategies will be defined; however, it will also continue to ensure that clients derive maximum benefit from the Corporation's rich collection and research resources. The planning, research, writing and eventual publication of peer-reviewed monographs and articles require dedicated resources to ensure their completion.

The Corporation will emphasize the Web-based presentation of new monographs, and will continue to monitor demand for scholarly publications, as well as those of more general interest, in order to determine the extent to which electronic distribution may be more effective than print production. Surveys will be undertaken to determine more accurately what types of information the national and international Web audience may require. During the planning period, the Corporation will continue production of occasional monographs, as well as the existing basic publication series. It further intends to investigate opportunities for partnerships and external funding to facilitate increased production of titles in the *Transformation Series* as well as the *Material History Review*.

In August 2005, a new book celebrating the Canada Aviation Museum will be published in cooperation with Douglas & McIntyre of Vancouver. The book will be a heavily illustrated history of Canadian aviation, as told through the Museum's collection of aircraft, period photographs, illustrations, art, artifacts and memorabilia. The primary focus will be on the aircraft, and will touch on themes of flying, training, manufacturing, technological innovation, leading personalities, and women. The manuscript is currently being developed for delivery to the publisher in Spring 2004.

### *Performance Indicator*

Number of publications completed as per annual plan.

## SUPPORT ACTIVITIES

### Revenue Generation

Revenue generation provides a means by which the Corporation may supplement its parliamentary appropriation, and thereby contributes to the fulfillment of the Corporation's mandate. The success of revenue generating initiatives depends upon a sound knowledge of markets and the development of attractive and saleable products.

Revenue generating activities can also help the Corporation to establish links with its supporters and various communities. The Corporation and its museums can benefit from strengthening these alliances, whether to individuals, through activities such as its membership program, or to the corporate sector through sponsorship initiatives.

Revenue generating activities are carried out in support of the following objective:

*To increase the financial resources available to the Corporation for the fulfillment of its mandate.*

### Strategic Approach

The Corporation will undertake a range of revenue generating initiatives. Any such activities will be within the parameters and spirit of the mandate. For each activity, a review will be undertaken to ensure that there will be an acceptable return on investment before proceeding.

Revenue generating activities have been grouped into three categories:

- **Cost Recoveries** are fees charged to offset a portion of the cost involved in providing services which support the Corporation's mandate. Activities will be assessed using market analysis to ensure that user fees are appropriate to the services provided, and that the fees do not serve as a deterrent to their use.
- **Commercial Operations** involves activities carried out for the twofold purposes of generating net profits and contributing to the visitor experience. Profits will be used to support museological programs. The various initiatives will be run using profit/loss financial statements to monitor their profitability. In choosing opportunities, preference will be given to those which complement the Museums' programs and collections.
- **Corporate Development** includes activities designed to offer members of the public and the private sector opportunities to associate themselves with CSTMC activities. The Corporation has adopted a three-part approach to corporate development. The first cluster of activities deals with commercial sponsorship of the Corporation's properties, focussing on exhibitions, programs and events, as well as initiatives associated with the Web sites. As part of the selection process for exhibitions or programs, their sponsorship potential will be assessed during early stages in the development process. The second cluster is based upon a broad membership program which encourages a close relationship between local audiences and the Corporation's museums. The membership package will continue to offer a range of benefits designed to attract new members and maintain renewal rates. The third cluster relates to fundraising activities which include annual giving campaigns, major gift programs, planned giving, and soliciting support from foundations. The focus here will be on identifying and targeting specific segments of the public which would be most likely to support the Corporation and its constituent museums as cultural institutions.

### Five-Year Perspective

The Corporation will continue to pursue revenue generating activities. Current revenue projections assume stable attendance during the planning period. However, the success of certain activities, such as memberships, admissions and gift shops, is very much linked to programs, events and exhibition offerings at the three museums, and the attendance that these activities can attract. Similarly, sponsorship is affected by the nature of the Corporation's public programming initiatives, while philanthropic fundraising activities are dependent upon national awareness of the Corporation's three museums.

New exhibitions will be evaluated and developed based upon their ability to address the Corporation's key objectives, as well as upon their ability to attract investment from potential sponsors. In order to further support overall sponsorship, communications and attendance objectives, the Corporation will integrate its media sponsorship activity into the operations of its overall sponsorship program, in order to capitalize more cost-effectively on the unique investment opportunities which it has to offer to the media industry. Outreach objectives, along with awareness-building objectives for the three museums, will be further integrated with fundraising initiatives in order to enhance the development of a major gifts program. The Corporation's one-year piloted Partnership Program was successful and will be considered as one of several methods which could effectively support the Corporation's outreach, awareness and collaboration objectives, if funding levels permit its further development.

In considering revenue potential, it should be noted that none of the Corporation's museums was equipped with amenities which lend themselves to revenue generating activities. The institutions thus have a limited ability to generate revenues through outlets such as an IMAX cinema or facility rentals, which are often substantial sources of revenue for museums. However, the Corporation intends to increase the range of goods and services it offers for sale through its Web sites. During the planning period, it is likely that facilities to allow customers to pay online for these products and for public program reservations will be added to the sites. Partnerships will also be sought to capitalize on the wealth of the archival materials held by the Corporation, making these unique items available to the public. Private partners with the ability to market, reproduce and distribute such materials will expand the activity and increase revenues. The Corporation will continue to review other opportunities in which it has developed revenue generating expertise.

The revenue plan over the next five years is set out in Table 5. The assumptions and strategies underpinning the plan are highlighted below.

**Cost Recoveries** — Based upon market research and evaluation, the Corporation has determined that renewal and change in the products and exhibitions offered to visitors, coupled with effective promotion and marketing, are critical to attendance levels and admission revenues. The Corporation will continue to review prices at regular intervals, in relation to market conditions. Other cost recoveries for services such as guided tours, workshops, and travelling exhibitions are expected to continue as planned. The Corporation will continue to look at new ways for visitors to order and pay for these programs using online technology.

**Commercial Operations** — No increases have been projected for the Corporation's boutiques and food services, as it is anticipated that maintaining current attendance levels over the planning period will be a struggle. However, through better control of costs it is anticipated that a small increase in profits can

**Table 5**  
**Revenue Plan**  
(in thousands of dollars)

Revenues	2004–2005	2005–2006	2006–2007	2007–2008	2008–2009
Admissions					
Science and Technology	895	890	895	895	895
Aviation	490	490	490	490	490
Agriculture	310	300	300	300	300
Other	540	525	525	530	530
Commercial Operations	1,100	1,070	1,070	1,070	1,070
Corporate Development	600	500	500	500	500
Interest	180	135	135	135	135
<b>Total Revenue</b>	<b>4,115</b>	<b>3,910</b>	<b>3,915</b>	<b>3,920</b>	<b>3,920</b>

be realized. The Corporation will continue to look for opportunities to expand its boutique revenues through online sales by extending the catalogue of current products, and by developing new signature products for sale online.

**Corporate Development** — Although there is significant competition for sponsorship support, there continues to be favourable reaction to the sponsorship opportunities offered by the Corporation — particularly when its product offerings are developed in collaboration with the private sector from the outset. The **Nortel Networks Connexions** exhibition, which opened this past year, demonstrated the Corporation's ability to attract increased levels of investment dollars from corporate sponsors through an exhibition development process which incorporates the Corporation's and the sponsor's objectives in a mutually beneficial manner. A similar approach is currently underway involving the Canada Agriculture Museum and the Canada Aviation Museum. Throughout the planning period, the Corporation will continue to maximize sponsorship revenues from its many activities including exhibitions, programs and special events, and will continue to capitalize upon its ability to develop product offerings which consider the objectives of the Corporation and its potential sponsors. As the Corporation's use of its Web sites and associated initiatives continues to evolve, sponsorship opportunities in this area will be further investigated. Recent sponsorship of the Corporation's Internet-related activities by la Fédération des Caisses populaires Desjardins, may well serve as an early indicator of the sponsorship potential in this area.

The Corporation has implemented a tiered strategy for diversifying its fundraising activities. In particular, the annual giving campaigns, which will continue to generate revenue, will also identify targeted stakeholders who could become the foundation for major and planned giving initiatives. This reflects the traditional donor pyramid as universally used in development work. The fundraising area, like the sponsorship and membership areas before it, will continue to implement proactive donor servicing strategies aimed at donor retention, increasing the frequency and average amount of individual annual gifts, while also moving donors up the donor pyramid. Donor nurturing and servicing will continue, as this is critical to the success of any planned giving program.

The Corporation will continue to build upon its membership base, in relation to both the number of participants and to revenues. The membership program provides the Corporation's members with a high level of service and benefits, in a fiscally responsible manner, while encouraging members to increase their attendance and consumption of the various products offered by the three museums. The program will continue to develop external promotional activities which accentuate the value and privileges of being a member of the Canada Science and Technology Museum Corporation.

#### *Performance Indicator*

Percentage of revenue targets reached.

## Facilities

Facilities are an integral part of museum operations. They do more than house staff; they also provide a venue for the public, and housing for the collection.

Facilities have a profound effect on museum visitation. Appropriate museum architecture attracts visitors, contributes to the atmosphere, and becomes a symbol of the institution's mandate. A large portion of comments by visitors allude to their satisfaction or dissatisfaction with the quality of the facilities and their related services. Providing services for museum visitors requires special efforts not usually associated with office space.

Similarly, the provision of appropriate collection storage space is essential for the long-term safeguarding of the collection. This requires control over all environmental factors which could be agents of deterioration. The size of some of the artifacts in the collection also raises specific needs in terms of access and the ability to move these artifacts when required.

Facility activities are carried out in support of the following objective:

*To provide quality venues for public programming activities and protection of the collection, and to promote operational effectiveness.*

### *Strategic Approach*

The Corporation will maintain a long-term accommodation plan, ensuring the effective use of facilities as the Corporation tries to meet its public programming and collection storage needs. Because the Corporation occupies a number of leased buildings, efforts will be made to take advantage of prevailing market conditions, and to reduce costs whenever possible.

With respect to public programming activities, site development plans have been prepared for each display facility. Although funding does not exist to fully implement these designs, all incremental decisions relating to the sites will be taken within the context of these plans.

Appropriate collection storage space is essential to meet the long-term preservation needs of the collection. To properly house artifacts, storage facilities in most instances require environmental controls to regulate temperature and humidity levels, air quality and lighting. These requirements will be taken into consideration when reviewing storage space and assigning artifacts to warehouses. It must be noted, however, that there is insufficient space available in which to safely house the national collection. This can only be addressed with the addition of new facilities, as is currently taking place at the Canada Aviation Museum.

For all of its facilities, the Corporation will maintain a regular program of building inspections to provide for timely maintenance, and to avoid potential costly repairs to correct undetected problems. Compliance with applicable building and safety codes will also be monitored on a regular basis.

### *Five-Year Perspective*

Major improvements and repairs to the Corporation's buildings and sites will be carried out on a priority basis. Health and safety concerns, and efficiency of operations, will be considered as key elements in assigning priority. Given that the leases on some of the buildings occupied by the Corporation will expire during the planning period, it will be necessary to undertake a review of these leases as details of the new facility project become known.

The **Canada Science and Technology Museum** building has exceeded its useful life. The structure is close to 40 years old, and substantial investments in its electrical and mechanical systems will be required to keep the facility in service over the next few years. Efforts will be made to minimize these investments and extend the life of current assets as the Corporation completes its study and plans for a new building. Lack of funding has delayed resurfacing of the parking lots and walkways, along with an assessment of the condition of infrastructure services such as water supply and storm sewers. These issues will need to be addressed in order to avoid liability in the public areas of the institution.

With the completion of warehouse consolidation for collection storage, the Corporation will continue its efforts to improve compliance with corporate standards for lighting, temperature variation, cleaning and artifact access in all collection storage areas. The general warehouse grade of the collection storage areas makes it particularly difficult to meet standards for conditions such as humidity level. Efforts will continue to enhance the storage environment through the monitoring capabilities of the DDC system. Deployment of Relative Humidity Control modules will be reviewed and implemented where feasible.

At the **Canada Aviation Museum**, construction of the new hangar will provide appropriate space for collection storage and will also free up 40% of the current public building. Planning for the updated exhibition and programming areas will take place in the upcoming year, with the refit expected to begin in 2004–2005 as space becomes available. Funding for refit of the public space has not yet been provided.

A Memorandum of Understanding with the Rockcliffe Flying Club is in place to provide for the operation of an airfield on the site. Following a recent revision to the site's boundaries, it was decided that the Club could remain in its present location. The land transfer is currently undergoing its final review from a legal perspective, and should be completed this fiscal year. The newly acquired lands will require management and investment on the Corporation's part. Increased airport security measures have been put in place, and increased monitoring will continue, based upon needs established between the Corporation and the Flying Club.

The Corporation's plans for the **Canada Agriculture Museum** include occupying the remainder of Building 94 for office space and a new exhibition area, which could be used for year-round exhibitions. The Corporation also intends to expand its agreement with Agriculture and Agri-Food Canada by adding more pasture land and hay storage facilities on the site, in accordance with its site plan. Additional resources for facility services will be required to meet needs arising from increases in the Museum's level of activity.

Occupancy cost per square metre will be monitored and costs controlled to meet established targets for facility management. The occupancy cost target has been revised to reflect expected increases in utility and labour costs.

#### *Performance Indicator*

Total occupancy cost per square metre.

#### **Informatics**

Informatics activities include the management and support of computer and information technology, and related services such as monitoring technology trends, advising the Corporation on new technologies, and technology assessment, evaluation and selection.

Informatics activities are carried out in support of the following objective:

*To ensure the availability, integrity and appropriate confidentiality of the Corporation's electronic information and communication resources.*

#### *Strategic Approach*

Information technology is a key factor in enabling other corporate objectives and functions. The Corporation will rely increasingly upon new technologies for internal operations and for meeting its outreach objectives.

The Informatics Division guides the Corporation in the application of new technologies. The effective management of electronic information and digital media resources is a collaborative endeavour, and Informatics engages other corporate functions in achieving this end.

The Corporation applies a multi-faceted information security strategy, employing "defence in depth". Information security measures are reviewed on an ongoing basis.

#### *Five-Year Perspective*

Recent investments in information technology infrastructure provide a foundation upon which the Corporation can enhance its use of new digital media for content delivery, whether on the museum floor or in reaching out to Canadians via the Internet. This foundation also makes future efficiencies possible, including "voice over IP" and the secure application of wireless technologies, as resources become available.

This upgraded infrastructure increases opportunities to work with Corporate partners and sponsors. Infrastructure improvements will continue: key priorities over the next two years include upgrades to operating software for the Corporation's network, modernized storage management, and an integrated approach to server upgrades, in accordance with the Corporation's server management strategy.



The Informatics Division has actively deployed a new workstation operating system within the Corporation; however, some older desktop operating systems still remain. Informatics will continue to set aggressive targets in upgrading and retiring these systems, as they present both productivity and information security issues. The Corporation also plans to upgrade its office productivity suite, once resources have been identified.

Accommodation projects such as a new server room at the Canada Aviation Museum will enable the Corporation to establish a disaster recovery site in the future. It will also offer greater flexibility in the operation of the Corporation's data network, with respect to new facilities, as progress is made on key accommodation objectives.

Refinements will be made to the management of Web content, improving the Corporation's ability to deliver rich content to the public. Existing heritage information resources will be leveraged, making them directly available to both internal and external audiences.

Management of the Corporation's business information resources will be enhanced, focussing on upgrades to strategic information systems, document and records management, system integration, and an enhanced internal Web portal (Intranet) for internal communications and collaboration. Management of electronic records in particular is a government-wide priority, requiring significant investment.

Information technology initiatives are vital if the Corporation is to successfully fulfill its mandate; however, these require significant ongoing investments.

#### *Performance Indicators*

Percentage of workstations that meet the Corporation's hardware standard.

Percentage of workstations that meet the Corporation's software standard.

### **Administration**

The Corporation's administrative activities include the provision of advice, support services and control of resources. The Corporation endeavours to optimize its investment in administrative activities by striking a balance between the quality of a service and its cost.

Administration activities are carried out in support of the following objective:

*To provide effective and efficient services within a framework of appropriate management control.*

#### *Strategic Approach*

As a federal Crown Corporation, the CSTMC is subject to numerous pieces of legislation and many regulations and government policies. The Corporation's strategy may be summarized as good corporate citizenship; that is, the Corporation strives to ensure that it operates effectively, efficiently and economically, in accordance with legislative requirements, sound business practices and ethical management standards.

The Corporation recognizes the importance of its workforce and its contribution to the accomplishment of its mandate and objectives.

#### *Five-Year Perspective*

Improvements in human resources management will continue to be given priority during the planning period, in order to ensure the availability of staff for key positions, with the competencies and experience required. As part of the succession planning process, competency profiles will be developed for each position, along with a new performance evaluation program. Greater emphasis will be placed on training and development, to better meet upcoming challenges to the Corporation. A new classification system and a comprehensive succession planning process should be completed and implemented during the upcoming fiscal year.

In the present environment, the emphasis will continue to be on effective management of operational overhead. A new information technology strategy and plan will provide for the development of more “intranet” services, and the further integration of administrative systems, to reduce the time spent capturing repeat data, and to improve reporting.

*Performance Indicator*

Percentage of resources allocated to overhead.



# FINANCIAL SUMMARY 2004–2009

The following table includes the balance sheet, statement of income and retained earnings, and statement of changes in financial position for the preceding and current financial years and the planning period. Revenues reported are gross revenue before expenses.

**Note:** Revenues from corporate development activities fluctuate from year to year, depending on the availability of properties for sponsorship and opportunities for fundraising. Budgets are adjusted yearly within a five-year average, and firm targets are established for the first year of the plan. It should be noted that in-kind contributions are not included in the corporate development budget totals.

## Financial Summary for the preceding year, current year and planning period (in thousands of dollars)

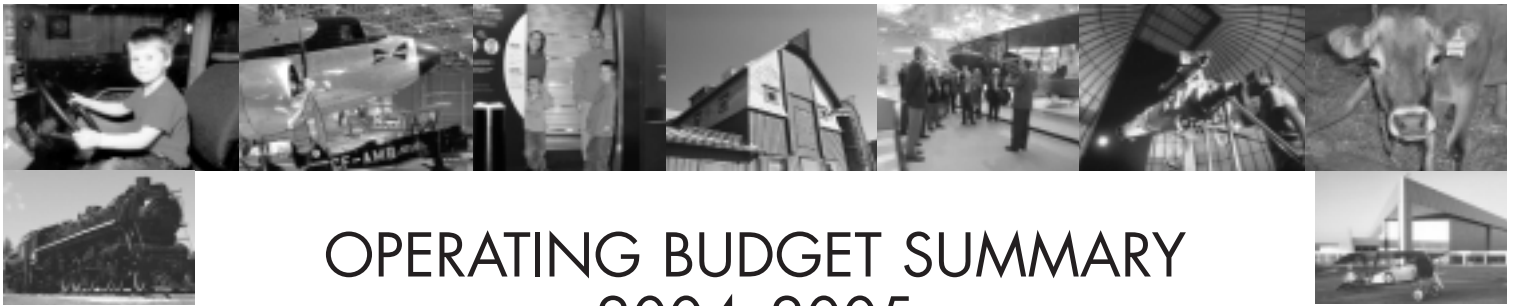
	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007	2007–2008	2008–2009
<b>BALANCE SHEET</b>							
<b>ASSETS</b>							
Current							
Cash and short-term investments	\$ 6,494	\$ 2,612	\$ 1,110	\$ 1,398	\$ 1,586	\$ 1,779	\$ 1,972
Accounts receivable							
— Government departments	1,404	450	450	450	450	450	450
— Other	364	250	250	250	250	250	250
Inventories	442	400	400	400	400	400	400
Prepaid expenses	398	100	100	100	100	100	100
	9,102	3,812	2,310	2,598	2,786	2,979	3,172
Restricted cash and investments	209	195	200	210	210	210	210
Collection	1	1	1	1	1	1	1
Capital assets	10,473	26,829	33,403	31,089	28,635	26,040	23,305
	<b>\$19,785</b>	<b>\$30,837</b>	<b>\$35,914</b>	<b>\$33,898</b>	<b>\$31,632</b>	<b>\$29,230</b>	<b>\$26,688</b>
<b>LIABILITIES AND EQUITY OF CANADA</b>							
Current							
Accounts payable and accrued liabilities							
— Government departments	276	200	200	200	200	200	200
— Other	2,949	3,000	1,800	1,600	1,600	1,600	1,600
Current portion of accrued employee severance benefits	245	245	245	245	245	245	245
Deferred revenues	539	50	50	50	50	50	50
	4,009	3,495	2,295	2,095	2,095	2,095	2,095
Accrued employee termination benefits	1,470	1,320	1,340	1,360	1,380	1,400	1,420
Other deferred revenues	209	195	200	210	210	210	210
Deferred capital funding	14,046	26,262	32,836	30,522	28,068	25,473	22,738
Equity of Canada	51	(435)	(757)	(289)	(121)	52	225
	<b>\$19,785</b>	<b>\$30,837</b>	<b>\$35,914</b>	<b>\$33,898</b>	<b>\$31,632</b>	<b>\$29,230</b>	<b>\$26,688</b>

**Financial Summary for the preceding year, current year and planning period**  
(in thousands of dollars)

	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
<b>STATEMENT OF OPERATIONS</b>							
<b>REVENUES</b>							
Admissions							
Science and Technology	\$ 920	\$ 895	\$ 895	\$ 890	\$ 895	\$ 895	\$ 895
Aviation	459	495	490	490	490	490	490
Agriculture	293	325	310	300	300	300	300
Other	666	490	540	525	525	530	530
Commercial Operations	1,135	1,025	1,100	1,070	1,070	1,070	1,070
Corporate Development	719	500	600	500	500	500	500
Interest	167	270	180	135	135	135	135
<b>Total revenue</b>	<b>\$ 4,359</b>	<b>\$ 4,000</b>	<b>\$ 4,115</b>	<b>\$ 3,910</b>	<b>\$ 3,915</b>	<b>\$ 3,920</b>	<b>\$ 3,920</b>
<b>EXPENSES</b>							
Public Facilities							
Science and Technology	9,891	9,400	9,200	9,200	9,300	9,300	9,300
Aviation	5,302	5,250	5,040	4,700	4,750	4,750	4,750
Agriculture	2,580	2,600	2,625	2,400	2,550	2,550	2,550
Collection Management	5,106	4,700	4,500	4,500	4,500	4,500	4,500
Management Support							
Directorate and Board	1,132	875	900	945	950	950	950
Corporate Development	550	620	595	600	600	600	600
Accommodation	286	350	350	350	350	350	350
Protection	328	300	290	320	320	320	320
Administration	4,077	3,250	3,210	3,200	3,200	3,200	3,200
Amortization	1,206	1,200	1,206	4,069	4,209	4,350	4,490
<b>Total Expenses</b>	<b>\$30,458</b>	<b>\$28,545</b>	<b>\$27,916</b>	<b>\$30,284</b>	<b>\$30,729</b>	<b>\$30,870</b>	<b>\$31,010</b>
Net results of operations before government funding	(26,099)	(24,545)	(23,801)	(26,374)	(26,814)	(26,950)	(27,090)
Parliamentary Appropriation	26,196	24,059	23,479	26,842	26,982	27,123	27,263
<b>Net (Loss) Income</b>	<b>\$ 97</b>	<b>\$ (486)</b>	<b>\$ (322)</b>	<b>\$ 468</b>	<b>\$ 168</b>	<b>\$ 173</b>	<b>\$ 173</b>
Equity of Canada at the start of the year	(46)	51	(435)	(757)	(289)	(121)	52
<b>Equity of Canada at the end of the year</b>	<b>\$ 51</b>	<b>\$ (435)</b>	<b>\$ (757)</b>	<b>\$ (289)</b>	<b>\$ (121)</b>	<b>\$ 52</b>	<b>\$ 225</b>

**Financial Summary for the preceding year, current year and planning period**  
(in thousands of dollars)

	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007	2007–2008	2008–2009
<b>STATEMENT OF CASH FLOWS</b>							
<b>Cash Flow from Operations</b>							
Cash received (Clients)	\$ 4,353	\$ 4,229	\$ 3,855	\$ 3,675	\$ 3,680	\$ 3,685	\$ 3,685
Parliament Appropriations received	23,697	18,719	22,273	22,773	22,773	22,773	22,773
Cash paid (employees & suppliers)	(28,081)	(27,180)	(27,890)	(26,395)	(26,500)	(26,500)	(26,500)
Interest received	167	270	180	135	135	135	135
Total cash flows provided by operating activities	136	(3,962)	(1,582)	188	88	93	93
<b>Cash Flow from Investing Activities</b>							
Acquisition of capital assets (net)	(1,723)	(17,556)	(7,780)	(1,755)	(1,755)	(1,755)	(1,755)
(Increase)/Decrease in restricted cash and investments	135	14	(5)	(10)	0	0	0
Total cash flow used in investing activities	(1,588)	(17,542)	(7,785)	(1,765)	(1,755)	(1,755)	(1,755)
<b>Cash Flow from Financing Activities</b>							
Funding for Capital Assets	4,173	17,556	7,780	1,755	1,755	1,755	1,755
Restricted contributions and related Investment income	197	66	85	110	100	100	100
Total cash flow provided by financing activities	4,370	17,622	7,865	1,865	1,855	1,855	1,855
<b>Increase (Decrease) in cash</b>	2,918	(3,882)	(1,502)	288	188	193	193
Balance at the beginning of the period	3,576	6,494	2,612	1,110	1,398	1,586	1,779
<b>Balance at the end of the period</b>	<b>\$ 6,494</b>	<b>\$ 2,612</b>	<b>\$ 1,110</b>	<b>\$ 1,398</b>	<b>\$ 1,586</b>	<b>\$ 1,779</b>	<b>\$ 1,972</b>



# OPERATING BUDGET SUMMARY 2004–2005

The Canada Science and Technology Museum Corporation's Operating Budget for 2004–2005 is \$27,916,000. This Budget is presented on the accrual basis of accounting.

## Operating Budget Summary (in thousands of dollars)

	2004–2005 Budget	2003–2004 Budget
<b>REVENUE</b>		
Operations		
Admissions		
Science and Technology	\$ 895	\$ 895
Aviation	490	555
Agriculture	310	305
Other	540	540
	2,235	2,295
Development	600	500
Commercial Operations	1,100	1,090
Interest	180	160
Revenue from Operations	4,115	4,045
Appropriations		
Main Estimates	29,653	35,343
Salary cost adjustments	400	—
Purchase of capital assets	(7,780)	(14,210)
Amortization of deferred capital funding	1,206	2,078
Total from Appropriations	23,479	23,611
Total revenue	\$27,404	\$27,656
<b>EXPENSES</b>		
Collection Management	\$ 4,500	\$ 4,515
Management of museum sites and programs		
Science and Technology	9,200	8,270
Aviation	5,040	4,890
Agriculture	2,625	2,415
	16,865	15,575
Common Support Activities		
Directorate and Board	900	995
Corporate Development	595	670
Accommodation	350	465
Protection	290	290
Administration	3,210	2,860
	5,345	5,280
Other Expenses		
Reserves	—	—
Amortization	1,206	2,078
	1,206	2,078
Total Expenses	\$27,916	\$27,448
Surplus (Deficit)	\$ (322)	\$ 208

## Assumptions

The operating budget for 2004–2005 is based on the following assumptions:

### *Admissions*

The estimated revenue from admission fees for 2004–2005 is based on the assumption that attendance will decline resulting from a reduction in open hours and from program cuts.

### *Other*

The Corporation provides a variety of services on a cost-recovery basis to museum visitors and other clients. These services include travelling exhibitions, facility rentals, and farm operations. Revenue from these services will decrease in the next few years.

### *Commercial Operations*

Revenues from the gift shops and cafeterias at the Canada Science and Technology Museum (CSTM), the Canada Aviation Museum (CAvM) and the Canada Agriculture Museum (CAgM) depend directly upon a stable and consistent number of visitors to the museums. The decline in attendance will have an adverse effect on sales in this area. A small profit is expected from catalogue sales. Results will continue to be reviewed and projections adjusted in future plans. Sales from the Web sites are providing a new source of income which is showing a slow growth with moderate promotion. Other items in retail include revenue from ATMs and a Coin Press.

The Corporation also operates a simulator experience at the CSTM. The technology and films for this attraction are becoming dated, which will result in lower revenues. The equipment is also reaching the end of its useful life. Any major repairs will most likely mean the end of this venture.

### *Interest*

This item consists primarily of interest revenue and compensation for the collection of provincial taxes.

### *Corporate Development*

Development activities include sponsorship, fundraising and a membership program.

### *Appropriation*

The appropriation amounts included in the five-year plan and the operating budget for 2004–2005 are the reference levels approved by the Treasury Board following their review of the annual financial plan.

### *Expenses*

The expenses in the Operating Budget have been allocated in accordance with the priorities of the Corporation as outlined in the Corporate Plan.

### *Significant Commitments*

The Corporation has entered into various agreements mainly for accommodation. The minimum payments under these agreements for 2004–2005 are \$2,702,000.



# CAPITAL BUDGET SUMMARY 2004–2005

The Canada Science and Technology Museum Corporation's Capital Budget for 2004–2005 is \$7,780,000. This budget is presented on the accrual basis of accounting.

## Capital Budget Summary (in thousands of dollars)

	2004–2005 Budget	2003–2004 Budget
<b>EXPENDITURES</b>		
Collection Management	\$ 50	\$ 130
Management of Museum Sites		
Science and Technology	375	300
Aviation	6,725	14,470
Agriculture	275	150
	<u>7,375</u>	<u>17,920</u>
Common Support Activities		
Protection	25	150
Administration	330	150
	<u>355</u>	<u>300</u>
Reserve	—	—
<b>Total expenditures</b>	<b>\$7,780</b>	<b>\$18,350</b>

### Assumptions

The Capital Budget for 2004–2005 is based on the following assumptions:

#### *Sources of Funds*

The budget is based on reference levels approved by the Treasury Board following its review of the annual financial plan.

#### *Expenses*

The expenses in the Capital Budget have been allocated in accordance with the priorities of the Corporation as outlined in the Corporate Plan. A large portion of the capital in fiscal year 2004–2005 will be attributed to the completion of the construction of a new collection storage hangar, archives and library at the Canada Aviation Museum.