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# Highlights from the Implementation of the Canadian Conservation Institute Strategic Plan 2015–2020

## Director General’s message

As the Canadian Conservation Institute (CCI) begins to implement its new 2021–2026 strategic plan, we would like to highlight the progress achieved under the previous plan. CCI developed its first strategic plan to respond to a recommendation in the *Evaluation of the Canadian Conservation Institute*, with valuable input from the heritage community. That plan allowed CCI to focus its attention and resources on key areas of research and service delivery that more effectively advance its mandate. In the pages that follow, we revisit the strategic directions that guided us from 2015 to 2020 and outline the progress achieved as a result.

Between 2015 and 2020, CCI undertook an administrative merger with the Canadian Heritage Information Network (CHIN). While CHIN was not involved in implementing the 2015–2020 strategic plan, it did fully participate in developing the [Canadian Conservation Institute and Canadian Heritage Information Network Strategic Plan 2021–2026](#), thereby broadening the new plan’s scope to include collections information management and dissemination.

This summary not only highlights the work completed, but also illustrates the continuity that the plans represent. The 2015–2020 plan served as the basis in building the new plan, and many of the initiatives begun in 2015 will continue to mature as the heritage community’s needs evolve over the coming years.

The [Canadian Conservation Institute Strategic Plan 2015–2020](#) outlined six strategic directions designed to strengthen CCI’s capacity with regard to program focus and innovation, and organizational effectiveness. This report outlines and summarizes the initiatives undertaken as a result. We encourage you to consult the plan for information about its objectives, the environmental scan on which it was based, its strategic directions and the principles that guided its implementation.

## 1. Program focus and innovation

### 1.1 Strategic direction: build CCI expertise in the conservation of modern materials

The care of items containing non-traditional materials, such as synthetic polymers or born-digital components like video, presents an ever-growing challenge. To address related needs, CCI made the following commitments:

Commitment	Progress achieved
<p>“Establish an integrated research and development, treatment and dissemination program for modern materials, such as plastics and electronics.”</p>	<p>Between 2015 and 2020, CCI laid a strong foundation for continuing to build its expertise and capacity to provide guidance in this emerging field. CCI started by surveying Canadian cultural institutions to determine current challenges in preserving contemporary art and modern materials. It also reviewed current and recent research projects on modern materials conservation. CCI published <a href="#">Caring for Plastics and Rubbers</a> as part of its <a href="#">Preventive conservation guidelines for collections</a> online resource. It also developed and twice delivered a four-day advanced professional development workshop entitled “Conservation of Plastics.”</p>
<p>“Enhance understanding of digital works and collections through an integrated research and development, treatment and dissemination program, which will include continuing CCI’s existing work on the conservation of digital carriers, such as compact discs and USBs.”</p>	<p>Drawing on in-house research and expertise, CCI and CHIN worked together to produce an impressive array of new knowledge and resources during this period. These include two CCI Notes (CCI Note 19/2 <a href="#">Error Analysis and File Recovery Software for Digital Storage Media</a> and CCI Note 19/1 <a href="#">Longevity of Recordable CDs, DVDs and Blu-rays</a>); Technical Bulletin 31 <a href="#">The Digitization of VHS Videotapes</a>; various papers (<a href="#">Blu-Ray Media Stability and Suitability for Long-term Storage</a>, <a href="#">Longevity of Optical Disc Media: Accelerated Ageing Predictions and Natural Ageing Data</a> and <a href="#">Suitability of Flash Media for the Long-term Storage of Information</a>); a regional workshop (“Modern Information Carriers and Digital Preservation”); a reference document (<a href="#">National Heritage Digitization Strategy – Digital Preservation File Format Recommendations</a>); and various enhancements to the <a href="#">Digital Preservation Toolkit</a>, including the addition of three case studies.</p>

## 1.2 Strategic direction: strengthen CCI leadership on preventive conservation and the museum environment

Preventive conservation and the museum environment play a crucial role in ensuring the ongoing stability, longevity and physical safety of objects. They are also key factors in assessing the possibility of lending objects, displaying them in non-museum spaces and organizing events in exhibit spaces. To address these needs, CCI made the following commitments:

Commitment	Progress achieved
<p>“Improve knowledge and practices for collections storage, including implementation of the RE-ORG course and tools for decision-making.”</p>	<p>With RE-ORG: Canada, CCI sought to build professional and institutional capacity in storage reorganization. CCI partnered with ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) to develop and publish didactic tools and to deliver training. Over five years, 27 RE-ORG projects were successfully implemented by participating museums across five regions in Canada: Ontario, Quebec, Atlantic, West, and Prairies and North. Over 60 professionals benefited from the training.</p>
<p>“Establish an integrated research and development, services and dissemination program related to the museum environment, including enhanced guidelines of acceptable variability. This work will need to take place in light of the on-going international discussion regarding standards.”</p>	<p>Efforts to advance this initiative led to the decision to replace the <a href="#">Environmental guidelines for museums</a> resource so as to reflect the current approach to controlling ambient relative humidity and temperature in museums. A new tool on climate guidelines is scheduled for release on CCI’s website in 2022. Those efforts also led to creating a complementary video entitled “<a href="#">Monitoring Your Environment</a>,” which explains why heritage institutions should monitor environmental conditions and how to do so. Other outputs include:</p> <ul style="list-style-type: none"> <li>• A webinar entitled “Environmental Guidelines for Museums, Galleries and Archives.”</li> <li>• A new regional workshop on display cases to explore how display and access requirements can be effectively balanced with the need to protect objects from the agents of deterioration such as light and UV, relative humidity, temperature and atmospheric pollutants.</li> </ul>
<p>“Establish integrated research, treatment and dissemination activities to support decision-making around non-traditional events in galleries and non-traditional exhibit spaces, including adapted tools based on risk.”</p>	<p>CCI hosted an advanced professional development workshop entitled “Risk Management and Risk-based Decision Making for Museum, Gallery, Archive and Historic House Collections” at its Ottawa facility. Lectures delivered on the first day were webcast, and <a href="#">selected recordings</a> remain accessible on CCI’s website. With ICCROM, CCI produced two comprehensive publications to support the adoption of risk-based techniques and strategies in preserving</p>

Commitment	Progress achieved
	<p>collections, buildings and sites. Those publications are:</p> <ul style="list-style-type: none"> <li>• <a href="#">The ABC Method: a risk management approach to the preservation of cultural heritage</a></li> <li>• <a href="#">A Guide to Risk Management of Cultural Heritage</a> (PDF format)</li> </ul> <p>CCI also increased its capacity for scientific services and research related to modern materials by hiring a dedicated conservation scientist who specializes in analyzing such materials. In late 2020, CCI hired an external consultant to consult directly with staff and conservation professionals at heritage institutions in Canada and abroad. The aim of the consultations was to better understand current issues relating to modern materials in collections and to identify knowledge and research gaps that could be addressed by CCI.</p>
<p>“Establish integrated research and development, service and dissemination activities to support greening of museum and archive operations, including on-going work on energy efficient lighting.”</p>	<p>Many of the outputs resulting from the research and development guided by this initiative have been gathered on a webpage dedicated to <a href="#">sustainable practice for heritage institutions</a>. These include CCI Note 20/1 <a href="#">The CCI Channel Crate: Making a Lightweight, Reusable Crating System</a>; three Technical Bulletins (TB 33 <a href="#">Silica Gel: Passive Control of Relative Humidity</a>, TB 34 <a href="#">Features of Effective Packaging and Transport for Artwork</a> and TB 36 <a href="#">LED Lighting in Museums and Art Galleries</a>); and three regional workshops (“Display Cases” “Environmental Guidelines” and “Exhibition Lighting”). CCI also delivered a four-day advanced professional development workshop focusing on energy management for museums and other heritage facilities. Other areas of research include acoustic emission damage to wood structures and the museum environment, and a geographic information system database of hazards and risks to Canadian cultural institutions. To better understand the range of energy consumption for different types of facility</p>

Commitment	Progress achieved
	operations, CCI also worked with Natural Resources Canada to conduct a 23-question survey of museums across Canada involving the submission of utilities data. Participating museums received a report of the calculated energy intensity for their building relative to aggregate data.
"Enhance CCI's ability to respond to demand for facilities assessments, including to the Department of Canadian Heritage programs for Indemnification and Movable Cultural Property."	CCI's Preventive Conservation Division, which oversees the production of facility assessments for client institutions, strengthened its capacity by creating a new preventive conservation advisor position.

### 1.3 Strategic direction: contribute to the Government of Canada's history priorities

From the 150th anniversary of Confederation to the rehabilitation of Canada's parliamentary buildings and the fulfillment of Canada's Northern Strategy, CCI strived to advance the Government of Canada's priorities by making the following commitments:

Commitment	Progress achieved
"Support the celebration of the Road to 2017 anniversaries by completing the conservation treatment of selected objects and promoting knowledge about them, including through social media. Support for the Road to 2017 will also include providing expert services to museums that are planning special exhibitions."	<p>CCI treated or analyzed a series of objects that were central to Canada 150 exhibitions. For example:</p> <ul style="list-style-type: none"> <li>• The Confederation Quilt, stitched together from gowns worn to the balls held during the Charlottetown Conference in 1864 and now on display at the Kings County Museum in New Brunswick.</li> <li>• The Maurice "Rocket" Richard hockey jersey from the Canadian Museum of History in Gatineau, Quebec.</li> </ul> <p>More than two dozen historically significant objects were treated as part of this initiative, and their stories were shared through social media. CCI also began working with the Canada Science and Technology Museum to recover, stabilize, examine and conserve a delta wing boosted test rocket associated with the Avro Arrow model recovered from Lake Ontario.</p>

Commitment	Progress achieved
<p>“Enhance the conservation of the Parliamentary Precinct by supporting PWGSC in the preservation of fixtures, finishes and artworks in the precinct during the conservation of the buildings. This work is expected to challenge CCI to innovate in addressing the unique needs of Canada’s symbolic and real seat of power.”</p>	<p>CCI’s Heritage Interiors Conservation Division continued to play a vital consultative role in long-term projects to restore, renew and modernize the Parliamentary Precinct. CCI contributed through:</p> <ul style="list-style-type: none"> <li>• investigations, surveys and technical analyses of original materials in primary heritage interior spaces;</li> <li>• architectural paint and finishes investigations;</li> <li>• risk assessment, packing and transport, including the complexity of monument moves;</li> <li>• project management during major capital construction; and</li> <li>• conservation treatment investigation of significant collections.</li> </ul> <p>In 2020, a new memorandum of understanding was signed, extending CCI’s active involvement in the project until at least 2025.</p>
<p>“Celebrate Canada’s 150th anniversary in 2017 (which is also CCI’s 45th anniversary) with an event, product or project.”</p>	<p>To mark Canada’s 150th anniversary and its own 45th anniversary, CCI launched <a href="#">Preventive conservation guidelines for collections</a>, a new online resource for collections care professionals. The resource contains 18 sections dedicated to topics such as <a href="#">how to care for natural history collections</a>, <a href="#">how to care for outdoor objects</a> and <a href="#">how to handle heritage objects</a>. CCI also celebrated the occasion by welcoming 548 visitors to its facility as part of a special two-day Doors Open Ottawa event. Visitors were treated to a behind-the-scenes look at the work being done by its conservators and scientists. CCI also welcomed heritage professionals to its facility to take part in an advanced professional development workshop and conference entitled “Iron Gall Ink: Decision Making and Treatment Practices.” Over four days, paper and archival conservators broadened their knowledge of</p>

Commitment	Progress achieved
	metallo-gallic inks, improved their ability to make informed treatment decisions and evaluate risks, and practised different methods of treatment and repair.
<p>“Contribute to Canada’s Northern Strategy by providing services to Northern cultural organizations. In particular, CCI will focus archaeological field support in the North.”</p>	<p>Between 2015 and 2020, CCI increased its efforts to build awareness and understanding of its services throughout the North, reaching out to key institutions and potential clients and offering support to complete the application process. More than two dozen treatments involving hundreds of archaeological and other artifacts were completed or started. Several in-person workshops were delivered in the three territories on topics such as exhibition lighting, environmental guidelines, modern information carriers, integrated pest management, digital photodocumentation of museum objects and emergency and disaster preparedness. A number of archaeological objects from the North were also analyzed scientifically during this period, particularly objects recovered from the receding ice patches (stone points, throwing dart).</p>

#### 1.4 Strategic direction: modernize and diversify the opportunities for professional development for heritage professionals

As part of its ongoing efforts to disseminate conservation knowledge and information, CCI extensively reviewed the methods, tools, partnerships and platforms it uses to reach heritage professionals. Specifically, CCI made the following commitments:

Commitment	Progress achieved
<p>“Capitalize on new technologies in order to diversify the range of training opportunities which CCI provides to museum professionals, for example through webinars, YouTube videos and other tools that facilitate distance learning. Create a professional development plan which details this approach.”</p>	<p>CCI produced a thorough professional development plan guided by three strategic considerations, namely:</p> <ul style="list-style-type: none"> <li>• use client needs to refine existing professional development activities,</li> <li>• leverage new ways to share knowledge and</li> </ul>



Commitment	Progress achieved
	<ul style="list-style-type: none"> <li>align professional development activities with CCI's Strategic Plan.</li> </ul> <p>The plan provided a roadmap to better monitor client needs, refine the existing workshop model and incorporate new ways to share knowledge (for example, videos, apps, online modules, webinars and livestreaming events) into its delivery of professional development opportunities.</p>
<p>“Support the training of professional conservators through co-operation with universities and colleges for the provision of curriculum internships and post-graduate paid internships.”</p>	<p>CCI continued to operate the Paid Postgraduate Internship Program, offering one-year appointments, as well as curriculum internships. These internships were delivered in collaboration with post-secondary institutions that have a specialization related to conservation or heritage information management. Working with its partners, CCI also began a review of the internship programs, the results of which will inform their ongoing evolution.</p>
<p>“Investigate options for mid-career enrichment for heritage professionals through association with CCI, for example, to consult on or complete specific projects.”</p>	<p>CCI continued to provide opportunities to mid-career conservators and conservation scientists in Canada to work with its staff on specific projects through its Visiting Professionals Program. Under the program, CCI welcomed an objects conservator from the Canadian Museum of History, a textile conservator from the Royal Ontario Museum and a photograph conservator from Chloe Lucas Conservation. Just as important, its partnership with Parks Canada to establish a Cultural Heritage Science hub is being designed to spark more collaborative projects involving heritage institutions and professionals.</p>
<p>“Re-align CCI's publishing activities in order to accommodate the coming changes to web-diffusion through the transition to the Canada.ca website.”</p>	<p>As part of the Government of Canada's efforts to centralize its web resources, CCI's online content was moved to Canada.ca in 2017. In preparing for migration, the goal was to make the content as discoverable and accessible as possible. Existing content had to be properly adapted to the new site's web standards and structure, and the migration's impact on continuing publication</p>



Commitment	Progress achieved
	activities and processes was considered as part of the initiative that follows.
“Review/adapt publishing activities and priorities to enhance access to up-to-date information on conservation topics and to ensure that CCI is delivering content in the most effective ways.”	CCI initially completed an environmental scan of publishing trends and best practices and an internal review of existing publication formats and associated production processes. It then expanded this internal review’s scope to include its various forms of communications outreach, video development, learning products and library services. As a result, CCI put in place a comprehensive knowledge sharing strategy that streamlines and modernizes its content delivery through a diverse set of complementary products and channels.

## 2. Organizational effectiveness

### 2.1 Strategic direction: renew and develop CCI’s workforce

To address the challenges associated with an anticipated period of generational turnover, including the need to attract and nurture emerging conservation professionals, CCI made the following commitments:

Commitment	Progress achieved
“Create a succession strategy in order to methodically address anticipated retirements from the CCI workforce. The plan will support enhancing expertise in the conservation of contemporary art and modern materials research, and other shifts in expertise to support changes in program focus as outlined above. It will create opportunities for talent management and transitional knowledge transfer.”	Anticipating an increase in retirements among experienced senior staff by the end of the decade, CCI created and successfully implemented a succession plan. It addressed the need for renewal, taking into account the directions established by the strategic plan and evolving business needs.
“Invest in the development of staff, particularly in light of the demographic shift, by creating opportunities for professional development of CCI staff, such as assignments, collaborative work arrangements and conference participation.”	Between 2015 and 2020, CCI had its employees help develop a talent management plan that identified individual career interests, strengths, areas for development, training possibilities and potential goals. It revised its conference

Commitment	Progress achieved
	participation policy and continued to equip staff with customized learning plans.
“Support second language improvement for existing staff to enhance CCI’s ability to deliver services, including training, in both official languages, given the difficulty of recruiting bilingual experts.”	CCI established a variety of second language training activities adapted to different levels of English and French proficiency. The activities were made available to all interested employees. They included weekly group classes, a discussion group that met weekly to talk about recent news stories and second-language book clubs. In exceptional cases, customized lessons were also made available through the Department of Canadian Heritage’s Departmental Fund for Language Training.

## 2.2 Strategic direction: enhance operational efficiencies

CCI gets a portion of its budget by generating revenues, largely through partial cost recovery. This limits its ability to expand business activities, as doing so contributes to higher net expenses. As part of its ongoing efforts to meet the heritage community’s extensive needs, CCI explored the potential to gain operational efficiencies as follows.

Commitment	Progress achieved
“Clarify the focus on the most important services to the heritage community and reflect this in advertised services.”	While CCI’s complete suite of professional services was maintained between 2015 and 2020, CCI ensured that staff renewal addressed existing gaps in its in-house capacity or lack of expertise in disciplines of emerging importance, which increased CCI’s ability to entertain targeted calls (for example, modern / contemporary objects). Social media and distribution lists were used to advertise services and calls.
“Better manage work through more rigorous use of annual calls for treatments, workshops and facilities assessments.”	CCI reviewed associated workflows, adjusted the timing of various calls and created a critical path that clarifies internal interdependencies among its divisions and provides a more efficient and responsive call process for clients.
“Re-examine the fee schedule to ensure that the revenue generation strategy is focused on activities that can be substantively cost-recovered.”	CCI opted to keep client fees at pre-existing levels to maintain accessibility, while continuing to generate most of its revenues through cost-recovery partnerships in support of federal departments and initiatives. In keeping with this approach, CCI’s primary clients, including the

Commitment	Progress achieved
	<p>vast majority of Canadian museums, archives, libraries and historic sites, continue to enjoy access to most services at no charge.</p>
<p>“Expand what CCI can accomplish by collaborating with outside organizations with access to different forms of funding or other complementary resources (for example, access to equipment or technical expertise).”</p>	<p>Between 2015 and 2020, CCI solidified its collaborative relationships with a range of partners, including professional associations, post-secondary institutions, research centres and intergovernmental organizations. Canadian and international partners include the Centre de conservation du Québec, the Canadian Association for Conservation of Cultural Property, the Getty Conservation Institute and ICCROM. Collaborative ties were strengthened with two longstanding federal partners in particular.</p> <p>CCI and CHIN undertook an administrative merger enabling both entities to:</p> <ul style="list-style-type: none"> <li>• leverage each other’s capacity and best practices in marketing, training, publications and website management;</li> <li>• share expertise and collaborate in areas of mutual interest, in particular digitization and digital preservation; and</li> <li>• better coordinate initiatives with museum associations, post-secondary institutions and other partners.</li> </ul> <p>After the administrative merger, CHIN and CCI partnered with Parks Canada to develop a future joint facility as part of the Laboratories Canada initiative. That partnership will lead to the establishment of a Cultural Heritage Science hub that will help advance cultural heritage science, conservation and cooperative information sharing. Each organization will retain its respective mandate and reporting structure, while benefitting from opportunities to work with the other in a new world-class facility. As a result of this initiative, CCI’s current specialized labs and equipment are now part of the <a href="#">Research Facilities Navigator</a>, a publicly accessible online directory of publicly funded research facilities that are opening their</p>

Commitment	Progress achieved
	doors to collaborations with industry, academia and government.
<p>“Investigate ways to broaden CCI’s revenue streams by considering options for licensing or other public-private partnership opportunities as they arise.”</p>	<p>While no new public–private partnership opportunities were identified between 2015 and 2020, CCI developed or renewed various cost-recovery partnerships in support of federal departments and initiatives. For example:</p> <ul style="list-style-type: none"> <li>• The Centre Block Rehabilitation Program</li> <li>• The Supreme Court of Canada Building Rehabilitation Project</li> </ul> <p>Through those partnerships, CCI maintained its ability to provide the Canadian heritage community with expertise in heritage interiors.</p>
<p>“Maximize the impact of CCI’s participation in international and domestic conferences and as officers in professional organizations. Establish a value-based strategy for supporting these activities.”</p>	<p>Recognizing professional conferences as essential to sharing knowledge and providing professional development, CCI and CHIN extensively reviewed their policy on conference participation. The updated internal policy clarifies the process and criteria for identifying and approving opportunities for CCI and CHIN employees to participate in conferences. The policy also establishes a clear link with the Department of Canadian Heritage’s <a href="#">Policy on Scientific Integrity</a>.</p>

The achievements described in this report illustrate the professionalism and dedication of CCI staff, as well as that of colleagues in Canada and around the world who helped realize those achievements. CCI and CHIN will build on the progress achieved as they pursue both the continuing and the new strategic directions outlined in the [Canadian Conservation Institute and Canadian Heritage Information Network Strategic Plan 2021–2026](#).

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