

# Canada Science and Technology Museum

The revitalized museum’s technology solutions support an engaging guest experience.

## A Better Museum Experience

The Canada Science and Technology Museum in Ottawa reflects 150 years of the country’s growth and transformation through science, technology, and innovation. To provide a more engaging experience for its visitors and make Canada’s contributions more tangible, the corporation that oversees the museum embarked on a comprehensive renovation.

In September 2014, Ingenium – which manages three of the nation’s major museums -- began a three-year renovation that would replace the aging museum with one that lets visitors interact with its collection so that they have a hands-on experience.

Project integrator AVI-SPL would focus on delivering AV and collaborative technology solutions that support the museum’s goal of an immersive guest experience and improved collaboration among its staff and partners.

The goal would have to be achieved by a firm deadline.

“We had to be ready to roll on opening night,” says Michael D’Eon, director of IT for Ingenium.

## Delivering Solutions on Time

Delivering the museum’s solutions in time and on budget for the official re-opening required a coordinated effort.

“Our main goal was working closely with the architect, the general contractor, and the client,” says Mark Campaigne, AVI-SPL senior account manager. “What impressed me most about the museum was their willingness to work together and ask us our advice on what they need for now and what they need to future-proof.”

That openness was reciprocated from the AVI-SPL side, as they listened to Ingenium’s suggestions and needs in order to tailor their solutions.

“AVI-SPL did a great job seamlessly integrating the multimedia technology.”



“There were always open lines of communication,” says D’Eon.

A massive, brightly lit LED canopy and outdoor projection system for the museum’s evening shows are among the integration highlights. The latter is powered by four reliable, low-maintenance Barco laser projectors, each of which are edge blended and cover about 120 feet of the exterior wall, making the images easily visible from the road and serving as a beacon for visitors.

“There were numerous nights we were working late to ensure that the Barco projectors were projecting accurately onto the façade of the museum,” says Campaigne. “We had to wait for the sun to go down to get the true effect of the projectors.”

To get the direct-lit LED outdoor canopy just right, AVI-SPL measured the dimensions with a laser for a precision fit. The Christie Pandoras Box media server aligns its content with the unique shape of the LED canopy, resulting in a digital canvas that tells stories.

“Christie’s Pandoras Box has a lot of flexibility in being able to work with the content and make sure it fits into the shape of the LED,” says Campaigne. “It’s a really good system for aligning images.”

Likewise, AVI-SPL precisely mapped the images from Barco projectors onto the exterior façade of the building, which also features challenging angles. Those projectors not only deliver the content, they’ve also proved to be hardy enough to survive the cold Ottawa winters, whose temperature went down to minus-30 degrees Celsius during the renovation.

Other integrated systems include AV and collaboration-based solutions like wireless microphones, and theatrical lighting in classrooms and corporate boardrooms. In areas like a large conference hall and a 250-seat auditorium, staff and guests can rely on Epson laser projectors and Da-Lite screens.

Throughout these spaces, including the classrooms, where safety can be a concern when children are running around, Chief

mounts secure the video displays.

“Once you’ve locked them down, they don’t move,” says Campaigne.

Over the course of the project, all of these elements and solutions came together in a way that supports the museum’s mission of entertaining and educating its visitors.

“AVI-SPL did a great job seamlessly integrating the multimedia technology,” says D’Eon.

### Engaging Employees and Guests

Since the museum reopened in November 2017, 50 years to the day of its original opening, guests are treated to a hands-on experience throughout its six galleries and 11 exhibits. Campaigne attributes the success of the project to working as a team with each of the stakeholders, and points to wide-eyed visitor reactions as validation of their effort.

“You heard the word ‘wow’ a lot,” says Campaigne.

In many of the exhibits and classrooms, the integrated solutions foster an interactive guest experience. Children can work with whatever materials an instructor might have in order to learn about science. Those solutions include LG 4K displays, NEC projectors, and Polycom video conferencing that brings in kids who can’t make it to the museum but want to participate. Here and in other spaces, Shure wireless microphones enable presenters to walk freely as they address the audience.

One of the first opportunities for a major presentation in the auditorium occurred in late November 2017. That’s when the museum hosted a live taping of the venerable Canadian science radio show, “Quirks & Quarks.” Within that auditorium is a technical booth where staff control the outdoor projection, including the outdoor LED canopy that welcomes guests with the museum’s story.

“The projection façade and the LED canopy

“The projection façade and the LED canopy are the calling cards for the museum.”

are the calling cards for the museum,” says D'Eon. “It is seen at night from the road and peaks people’s interest.”

The corporate boardroom is heavily used throughout the week for board meetings, staff meetings, and collaborating with other institutions. Through its table connectivity to the 4K displays, staff can give presentations.

“They wanted to have 4K technology in there so that any of the content they would have would show up best,” says Campaigne. “And future content will look great.”

The room’s hands-free audio conferencing empowers attendees to meet with teams from around the world, while Crestron control panels manage the multimedia and make it easy to access all aspects of the media network.

“The technology is for the visitors and staff – making for an engaging experience for the former, and an easier day-to-day work for the latter,” says D'Eon.

## At A Glance

### Organization

Canada Science and Technology Museum

### Location

Ottawa, Canada

### Market

Sports & Entertainment

### Solutions

Barco

Chief

Christie

LG

### Services

Integration

### About AVI-SPL

AVI-SPL designs, builds, integrates and supports solutions for AV and video communication, digital media, advanced visualization, and control systems for all types of organizations around the world. We also provide a wide range of support services, including cloud-based video conferencing, onsite staffing, call launching for video conferencing, and remote monitoring of AV and video systems to ensure optimal performance. Our Customer Care program delivers manufacturer-certified tech support and maintenance through our 24/7/365 help desk. Since 2006, we have been ranked the number one systems integrator in North America by *Systems Contractor News*.

### Featured Partners





Fig 1.1



Fig 1.2



Fig 1.3



Fig 1.4



Fig 1.5

**Images**

Fig 1.1  
Integrated systems in the boardroom include AV and collaboration-based solutions like wireless microphones.

Fig 1.4  
AVI-SPL precisely mapped the images from Barco projectors onto the exterior façade of the building.

Fig 1.2  
In many of the exhibits and classrooms, the integrated solutions foster an interactive guest experience.

Fig 1.5  
AVI-SPL worked closely with Ingenium in order to tailor solutions for the museum.

Fig 1.3  
The corporate boardroom is heavily used throughout the week for board meetings, staff meetings, and collaborating with other institutions.