Ingenium Foundation
Fondation

FALL-WINTER 2023 SUPPORTER UPDATE

Science for All in Action: Fueling Curiosity Across Ingenium

This past year has been busy for Ingenium and its three museums. With more people and their families eager for 'in-person' experiences, Ingenium's museums welcomed 569,238 visitors. When you include those who engaged with Ingenium virtually, this number of STEAM enthusiasts increased to over 1.07 million.

As part of the Ingenium family, this is what brings me and my fellow Ingenium Foundation volunteers energy. What really excites me about the foundation is our ability to help increase access to museum programming – for both youth and adults.

Through the foundation's **Youth Funds**, we have been able to provide over 1,700 subsidized in-person visits to Ingenium's museums - including transportation support if needed. Also, through foundation funded programs like **Go STEAM** and **AgVenture**, Ingenium has been able to bring the museum's workshops to young innovators right in their communities.

For older groups, the **Science for All Fund** has been able to provide free access to Ingenium museums for a number of organizations who support our community's most vulnerable. Organizations include adult literacy programs, supportive living homes, mental health programs, addiction treatment centres, women's shelters and more.

And, of course, having exciting exhibitions and engaging programming is a key part of Ingenium's success. The foundation is honoured to be able to fund the development of new exhibitions like the **Cold War** as well as ensuring that all Canadians are represented in our exhibitions, collections and programming through a number of research fellowships.

On behalf of the Ingenium Foundation - THANK YOU - to all our supporters who make this work possible.

Sincerely,

Gilles LeVasseur
Chair, Ingenium Foundation

Photo (Header & Left): Children exploring **ZOOOM** at the Canada Science and Technology Museum | Photo credit: Ingenium

Why STEAM?

You've probably heard about the study of Science, Technology, Engineering, and Math (STEM), but may be less familiar with the concept of STEAM. We believe adding the 'Art' in STEAM is important to unleashing curiosity and innovation through fostering creativity and experimentation.

STEAM also recognizes that throughout history the success (and failure) of various STEM can be influenced by their design and aesthetics. A quick look through Ingenium's artifacts and you can likely pick out which aspects are related to the function and which are form.

Most importantly, adding the 'A' in STEAM is an important way to engage those individuals who may not see themselves in science. By demonstrating the links and the similarities between the Arts and STEM, we can encourage more people to see the beauty in science and the science in our everyday lives.

Interested in making a donation online? Scan this QR code with your phone to visit our online donation page.

North Star Restoration Takes Off

After a three-year pause, the Canada Aviation and Space Museum is excited to welcome back volunteers from the Project North Star Association of Canada, as they work toward restoring the museum's Canadair North Star to a display level standard.

During the 1950s and 1960s, the North Star provided reliable long-range transport services for the Royal Canadian Air Force. Being the only surviving example of the military Canadair C54-GM, this aircraft is a critical piece of Canadian aviation history.

This North Star and others like it, contributed to research, training, humanitarian relief operations, as well as delivering supplies and personnel during the Korean War.

With the addition of several new volunteers over the summer, the crew recently removed engine #1 in order to begin work on the surrounding nacelle.

Photos (Above): Volunteers from the Project North Star Association of Canada are hard at work discussing, inspecting, and restoring the North Star | Photo credit: Chris McGuffin, PNS

Panelists share stories of innovations in flight with ASL interpretation | Photo credit: Beth Dimsdale

Going Boldly: Flight on Earth, Mars, Venus & Titan

The **Kenneth Molson Lecture Series** at the Canada Aviation and Space Museum provides a forum for aviation enthusiasts of all backgrounds to dive deeper into the rich history and exciting future of aviation in Canada and beyond.

For almost a decade, the **Kenneth Molson Lecture Series** has provided thousands of people the opportunity to directly engage with leading scientists and experts, providing a unique and enriching experience for all.

This past February, the highly anticipated lecture series returned bringing together a panel of world-renowned engineering and planetary experts. Moderated by museum Science Advisor Dr. Cassandra Marion, this year's event focused on how innovations in flight have enabled exciting scientific discoveries on four very different planetary bodies – Earth, Mars, Venus and Saturn's moon, Titan.

Joining Dr. Marion on stage were four of North America's leading scientists and engineers:

- Dr. Paul Byrne, Associate Professor of Earth and Planetary Sciences at Washington University in St. Louis;
- Dr. Catherine Neish, Associate Professor of Earth Sciences at University of Western Ontario;
- Mr. Kris Ellis, Senior Research Officer at National Research Council;
- Dr. Raymond Francis, Science Operations Engineer at NASA Jet Propulsion Laboratories.

With additional support provided by the foundation's **Science for All Fund**, the event was also able to welcome members of the deaf and hard of hearing community with American Sign Language (ASL) interpretation.

Throughout the evening guests learned about exciting new flight technologies adapted to the cold-thin atmosphere on Mars, the hot-thick-corrosive atmosphere on Venus, and the remote sensing techniques needed to navigate Titan's unique atmosphere. And, as the ASL interpreters moved quickly to interpret concepts, guests both in-person and online, learned about the Ingenuity helicopter on Mars – the first-ever successful powered flight to take to the skies of another planet. Guests were also fascinated by the Dragonfly project designed to use Titan's dense atmosphere to enable exploration on the celestial body.

The evening provided a very special opportunity for guests to engage with these leading experts and to gather with community members who have similar interests. The Ingenium Foundation and museum are grateful for the continued support of the Kenneth M. Molson Foundation for this insightful look into the important work being done to advance space and aviation technology today and in the future.

Travelling Exhibitions: Reaching Remote Locations

Creating a sense of belonging, encouraging new ways of thinking, and offering educational and entertaining experiences are goals Ingenium strives to offer from coast to coast to coast. This is why the Ingenium Foundation is excited to support a new 3-year pilot program focused on bringing Ingenium's engaging STEAM experiences to remote communities.

Launched in 2023, the **Travelling Exhibitions Bursary** program will provide financial support to a wide range of geographically remote communities and cultural institutions, enabling them to bring one of Ingenium's amazing travelling exhibitions directly into their community. Bursaries help cover not only the costs of renting the exhibition, but also the shipping costs which can be a major barrier for remote communities, especially those inaccessible by road.

To date, the donor-funded bursary has been able to help bring **Ace Academy: Flight Experience** to Peace River, Alberta. It will also be contributing to the costs of bringing that same exhibition to Fort Nelson, British Columbia in 2024. Conversations are ongoing with remote community institutions throughout the country and the Travelling Exhibitions team is very excited!

There are 14 exhibitions available to host at any given time from Ingenium's three museums, including;

- **Cipher | Decipher**, which contains an authentic Enigma cipher machine and interactive experiences related to cryptology and cyber security;
- **Ace Academy: Flight Experience**, where guests can attempt to fly a plane by activating sensors using only their arms and tilting their bodies; and
- **Aquaculture: Farming the Waters**, which invites visitors to dive into aquaculture…and discover how seafood (and more!) is produced across the country.

With the bursary launching in 2023, the team is off to a great start increasing access to STEAM experiences for Canadians in their communities.

A child tries their hand at flying in **Ace Academy: Flight Experience** | Photo credit: Ingenium

About Ingenium's Travelling Exhibitions:

- Exhibitions can be displayed by a wide range of host venues, including museums, universities, community centres, libraries, festivals or fairs.
- Exhibitions cover a wide variety of topics from all three of Ingenium's museums, from climate change to air traffic management to food preservation.
- Moving Ingenium's Travelling Exhibitions takes work; one empty shipping crate can weigh up to 200 pounds!
- The Travelling Exhibitions team is extremely proud to offer carbon neutral shipping for all its travelling exhibitions.
- Ingenium is coming up with creative ways to reduce the ecological impact of its travelling exhibitions. Its latest exhibition, **Aquaculture: Farming the Waters**, includes the shipping crate as part of the exhibition's furniture in order to reduce the amount of materials needed and the overall weight of the exhibition while shipping.
- Some exhibitions, such as **Ace Academy,** have travelled over 51,000 km to date.

Photo (Left): Guests visit the newest Travelling Exhibition, **Aquaculture: Farming the Waters** | Photo credit: Ingenium

A movement is building across the country. Over 3 million Canadians have left a gift in their will to charity. We're not talking about celebrities or wealthy philanthropists, these are ordinary people who are using the power of their wills to make a big difference.

With so much change in the world highlighting new and growing needs, people are looking for effective ways to make a big impact.

We wanted to let you know about this trend, because it really is an all-around win. Here's why;

- You can make a major contribution to the Ingenium Foundation in support of the museum of your choice,
- You won't use any of the money you need now,
- You'll still support your loved ones and inheritors in the future!

As you may know, we've partnered with **Will Power**, a national campaign that educates Canadians about the power of leaving a charitable gift in their will. They have a great tool to show you how big an impact you can make.

The **Will Power Legacy Calculator** lets you see for yourself what even 1% of your estate can do. Try the legacy calculator to see your potential impact by visiting: www.willpower.ca/charities/ingenium-foundation/. The calculator is located at the bottom of the page.

We all want to help where we can, and make our mark in the world. This movement is about finding a way to do that, while still protecting your finances and family's future.

If you are interested in learning more about including the Ingenium Foundation or the museums in your will, please contact us at foundation@ingeniumcanada.org or 1-800-288-0471.

Photo (Top of page): Multi-generations exploring the Canada Aviation and Space Museum | Photo credit: Ingenium

AgVenture Brings the Adventure to You!

On the road since 2019, **AgVenture** is on track to deliver another great season of educational programming. Thanks to foundation support, young people across the National Capital Region can experience a little piece of the farm in their classroom, local library, or community centre.

As a mobile program, **AgVenture** provides educational games, hands-on activities and interactions for children of all ages. Children learn about food skills development, nutrition, respect for life systems and environmental awareness. With special guests like Henrietta Hen and Buddy Rabbit, children are taught about the animals' needs, where they live, and how they fit into the larger barnyard ecosystem.

For many, a trip to the Canada Agriculture and Food Museum is the first chance to experience a working farm in action. Unfortunately, community and individual barriers exist that can limit access to others. That's why programs like these are so important – they provide real-life connections to farming and agriculture.

This year, **AgVenture** has expanded its reach to include educational booths at various fairs and cultural festivals such as the Winter Celebration at Rideau Hall this past February. There, museum staff shared with hundreds of visitors how animals adapt to the cold and how Canadian farmers care for their livestock during the winter months. For other events throughout the year, topics can range from worms and bees, to grain grinding, to mystery objects. In addition to the Winter Celebration, **AgVenture** was honoured to be able to support the Summer Solstice Indigenous Festival in June by providing daily activities.

To date, **AgVenture** has reached almost 20,000 participants and is made possible through generous donations to the Ingenium Foundation. Over the coming years, the museum team is excited to continue to grow **AgVenture** and provide this unique experience to even more children where it is needed the most.

Photo (Above): Children engage with a hen at the Canada Agriculture and Food Museum| Photo credit: Ingenium

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Ingenium Foundation
Ingeniumfoundation.ca
P.O. Box 9724, Station T | Ottawa | Ontario | Canada | K1G 5A3
1-800-288 -0471 | foundation@IngeniumCanada.org
CRA Charitable Registration #: 821123619 RR 0001