It is with great honour that I extend my heartfelt congratulations to Polytechnique Montreal as it marks its 150th anniversary this year. For a century and a half, this institution has been at the forefront of cutting-edge research while providing some of the best education in the world.

I would know. The years I spent there were some of the most informative and inspirational ones of my life. Even in the most difficult, unpredictable moments, Polytechnique Montreal has stood strong. The face of resilience; an inspiration for all.

Today, as immense global challenges spread far and wide, education is key to our success, tackling and overcoming them. To the entire team behind this wonderful institution, I wish you continued success and continued impact. We need it and we will all be better for it.

With my warmest regard and very best wishes for the next 150 years.

Justin Trudeau
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SOCIETAL IMPACT: THE MEASURE OF A GREAT UNIVERSITY

"We need to create a more sustainable, innovative, and inclusive society, says Prime Minister Justin Trudeau.

"We also need to help all Canadians benefit from technological advancements, which can be a game-changer."

At the Foundation of Polytechnique Montreal, the motto is to "Serve a virtuous cycle," Mr. Trudeau explains. "It starts with students who are well-trained. They join us one day as an ambassador. Then as researchers, and then as leaders of exceptional students who are motivated to reach our goals and to develop sustainable solutions.

"In 1950, the foundation has produced more than 57,000 graduates who have made profound impacts in Quebec, Canada and around the world. This Polytechnique community is unique and strongly mobilized, in part thanks to our world-renowned faculty and alumni," he says.

"Together, we can face major breakthroughs in the development of new products and technologies of the future, which can be the key to our teaching and research activities."

We owe it all to Polytechnique Montreal.

Polytechnique Montreal has a long history of promoting collaboration with industry, such as an extensive engineering training in its ME4502 course.

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The engineer of the future

The summer camp has been helping young minds explore science since 1991.

FOLI Technology, AT A GLANCE

POLYTECHNIQUE MONTREAL

The engineer of the future

The non-profit organization doesn’t aim to commercialize the project to fulﬁll its mission in Quebec, it is the responsibility of the Quebec government to ensure that the project is as accessible as possible to school children in the province. Foli-tech offers different programs for different age groups, including the following:

- “What does science do for me?”
- “What matters the most for science?”
- “What challenges do we face?”
- “What solutions can we propose?”

This approach targets different age groups and aims to engage students in a way that is both fun and educational. The project is designed to help students develop critical thinking skills and a better understanding of scientific concepts.

THE CAMPUS

Polytechnique Montreal is located on the campus of the University of Montreal, the largest French-language university in North America. For social and academic reasons, the city of Montreal is often ranked one of the most livable cities in the world, and the University of Montreal is often cited as one of the top universities in Canada.

In terms of academic life, the University of Montreal offers a wide range of programs in various fields of study, including engineering, mathematics, science, and technology. The campus is known for its strong research programs and its focus on interdisciplinary collaboration.

In addition to the University of Montreal, Montreal is home to several other major institutions, including the McGill University, the Université du Québec à Montréal, and the Université de Sherbrooke. These institutions offer a wide range of programs and are known for their research excellence and academic reputation.

In terms of entrepreneurship, Montreal is also home to a vibrant startup ecosystem, with a focus on technology, software, and health care. The city is known for its strong startup culture and its ability to attract top talent from around the world.

In conclusion, Montreal is a city with a rich history, vibrant culture, and strong academic and startup ecosystem. The University of Montreal is a key player in driving innovation and research in the city of Montreal and the province of Quebec, and is a key contributor to the overall success and vibrancy of the city and region.
We need more and more resources to tackle climate change, including critical minerals and rare earth metals, and extracting them from the Earth brings its own challenges. Why not look for sources in space, for example, asteroids in space, for example, asteroids in space.

Dr. Pooneh Maghoul
Associate Professor, Department of Civil, Geological and Mining Engineering
Polytechnique Montréal

Polytechnique Montréal's expertise in exploration tools for mining asteroids is second to none. The University offers a comprehensive approach to this new frontier of exploration, combining experts from various fields including mathematics and engineering.

FROM THE JENNY LOOMIS.

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Research is not a straight line. You start with a fundamental idea, but it’s a blank page. Then you learn, and you go deeper. Polytechnique Montréal made that possible.

Dr. Sylvain Martel
Professor of computer engineering at Polytechnique Montréal

ROSEANNE RUTTE
PRESIDENT AND CEO, CANADA FOUNDATION FOR INNOVATION

Pioneering research by a professor of computer engineering at Polytechnique Montréal has produced a chemotherapy drug that can target cancer cells that use certain bacteria and require them to survive. The research has involved thousands of tests throughout the volume of a forest, stemming from more than 20 years of study by Dr. Sylvain Martel and his team of the university’s nanoscience Laboratory. The work has been further developed by a Montreal company, Starbio Biopharma Inc., into a technology to treat cancer, with plans to start clinical human trials of the new application.

“None of this would have happened without Polytechnique MONTRÉAL. The research is not a straight line. You start with a fundamental idea, but it’s a blank page. Then you learn, and you go deeper. Polytechnique Montreal made that possible.”

Dr. Sylvain Martel
Professor of computer engineering at Polytechnique Montréal

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PRESIDENT AND CEO, CANADA FOUNDATION FOR INNOVATION

We are proud to collaborate with a vital partner in the healthcare industry, to develop cutting-edge technologies and support the future generations of innovators.
KATHY BAIG
PRESIDENT, ENGINEERS CANADA
VICE-PRESIDENT, BUSINESS DEVELOPMENT, STANTEC

On behalf of Canada’s 12 provincial and territorial engineering regulators and the more than 360,000 members of engineering profession in Canada, I am glad to speak at this forum. As a professional woman in engineering, I believe it is my role to lead change and to bring attention to the challenges faced by the engineering profession. I have had the privilege to work in the field for over 30 years and have seen firsthand the impact of engineering on society. It is my hope that by sharing my experiences, we can inspire others to take action and lead change in their own fields.

Changing attitudes, providing accessibility

It means making changes to the built environment, policies, and systems in order to make it more compelling for people to use public transit systems.

Jérôme Laviolette
President, Engineers Canada

As a graduate of Polytechnique Montréal myself, I witnessed first-hand its commitment to training future engineers. The students I have come to know have gained an invaluable set of skills in my professional journey and have helped shape me into the engineer I am today. I am honoured to have the opportunity to speak about Polytechnique Montréal and its unwavering commitment to excellence in engineering education and research.

This anniversary is not just a special event for Polytechnique Montréal; it is an opportunity for us to reflect on the importance of our work and to acknowledge the achievements of all our students, staff, and alumni. Polytechnique Montréal's first 150 years have been a testament to its innovative spirit and progress that is sure to continue for the next 150 years.

MEASURING A MEAL’S CARBON FOOTPRINT

Measuring a meal’s carbon footprint can help us understand the environmental impact of our food choices. By tracking how much carbon dioxide is released into the atmosphere during the production, processing, transportation, preparation, and disposal of a meal, we can make informed decisions about what we eat.

For example, a study by the University of California Berkeley found that the carbon footprint of a meal can vary significantly depending on factors such as the location of the farm, the type of meat or produce used, and the distance traveled for transportation. By considering these factors, we can make more environmentally conscious choices when making our food choices.

ADVANCING THE FUTURE OF SUSTAINABLE ENERGY

Canada's energy systems are critical. Highly complex and involve numerous stakeholders, including government, industry, and the public. Glisan Elinor, an associate professor at Concordia University's School of Architecture, Geography and the Environment, discusses the importance of advancing sustainable energy solutions for the future of society.

Glisan Elinor is a Polytechnique Montréal graduate and research associate at the IRCAC. Her research focuses on sustainable energy systems and policies.

Il y a longtemps que le monde a besoin de solutions innovantes pour répondre aux défis sociaux et environnementaux. Le seuil d'attente du monde pour les solutions de l'avenir est élevé et coûteux. Le monde de demain doit être plus inclusif, plus équitable et plus durable. C'est pourquoi Glisan Elinor s'intéresse à la question des systèmes d'énergie et de la façon de les concevoir et de les déployer de manière plus durable et équitable.

According to Elinor, the current energy system is complex and involves many stakeholders, including governments, industries, and the public. It is crucial to develop sustainable energy solutions for society in the future.

Elinor's research focuses on sustainable energy systems and policies, including the role of technology in advancing sustainable solutions.

Elinor's research has contributed to the development of innovative solutions for the future of society and energy systems. She emphasizes the importance of collaboration and innovation to achieve sustainable energy solutions.

Despite the challenges faced by the current energy system, there is hope for the future. Elinor's research has shown that sustainable energy solutions are possible and can be implemented with collaboration and innovation.

In conclusion, it is clear that the current energy system is complex and involves many stakeholders. However, there is hope for the future. Elinor's research has shown that sustainable energy solutions are possible and can be implemented with collaboration and innovation.
Improving water security

The complexity of today's water issues is vast—ranging from ensuring access to clean drinking water to mitigating the effects of climate change on water cycles and water availability. Yet, meaningful progress can be made.

Polytechnique Montreal has pushed the frontiers of the field of water security with talented, productive researchers who are working on problems ranging from the provision of water to the communities of the Amazon to desalination of seawater in the Gulf of Mexico. This National Water Research Institute (NWRI) focuses on the development and adaptation of desalination technologies to Canada's water problems.

As the first French-speaking engineering university in North America, Polytechnique Montreal has a long history of educating engineers and scientists in the natural sciences and engineering. This tradition is enriched by its close collaboration with renowned researchers in various fields such as environmental engineering, water resource management, and climate change.

Polytechnique Montreal is home to several centres of excellence, including the Engineering Research Chair in Sustainable Water Management. The centre is dedicated to the development of innovative solutions to the complex challenges faced by the water sector, with a focus on sustainability and resilience.

Dr. Michelle Pelletier, Industrial Chair in Drinking Water, is one of the many accomplished professors at Polytechnique Montreal who have made significant contributions to the field of water security. Her research group focuses on the development of advanced purification technologies and materials for water treatment applications. They are working on projects that range from desalination to water disinfection and treatment of contaminants such as microplastics and endocrine disruptors.

The centre is an example of the type of research that is being conducted at Polytechnique Montreal to address the many challenges facing water security in Canada and beyond. The research is driven by a multidisciplinary approach that involves collaboration with many different stakeholders, including government agencies, industries, and communities.

Through these collaborative efforts, Polytechnique Montreal is working to develop innovative solutions that can help to improve water security in Canada and around the world. The centre is an example of the type of investment that is necessary to support water research and development in Canada and beyond.

PATRONS AND PARTNERING VALUE FOR SOCIETY

Two examples of scientific collaborations at Polytechnique Montreal are on the Theme Network (left) and with CMCI (centre).
POLY MTL

150 YEARS

ALL THE MORE REASON TO DREAM
ALL THE MORE REASON TO CELEBRATE
ALL THE MORE REASON TO INNOVATE
ALL THE MORE REASON TO CONTRIBUTE

POLYTECHNIQUE MONTRÉAL

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