

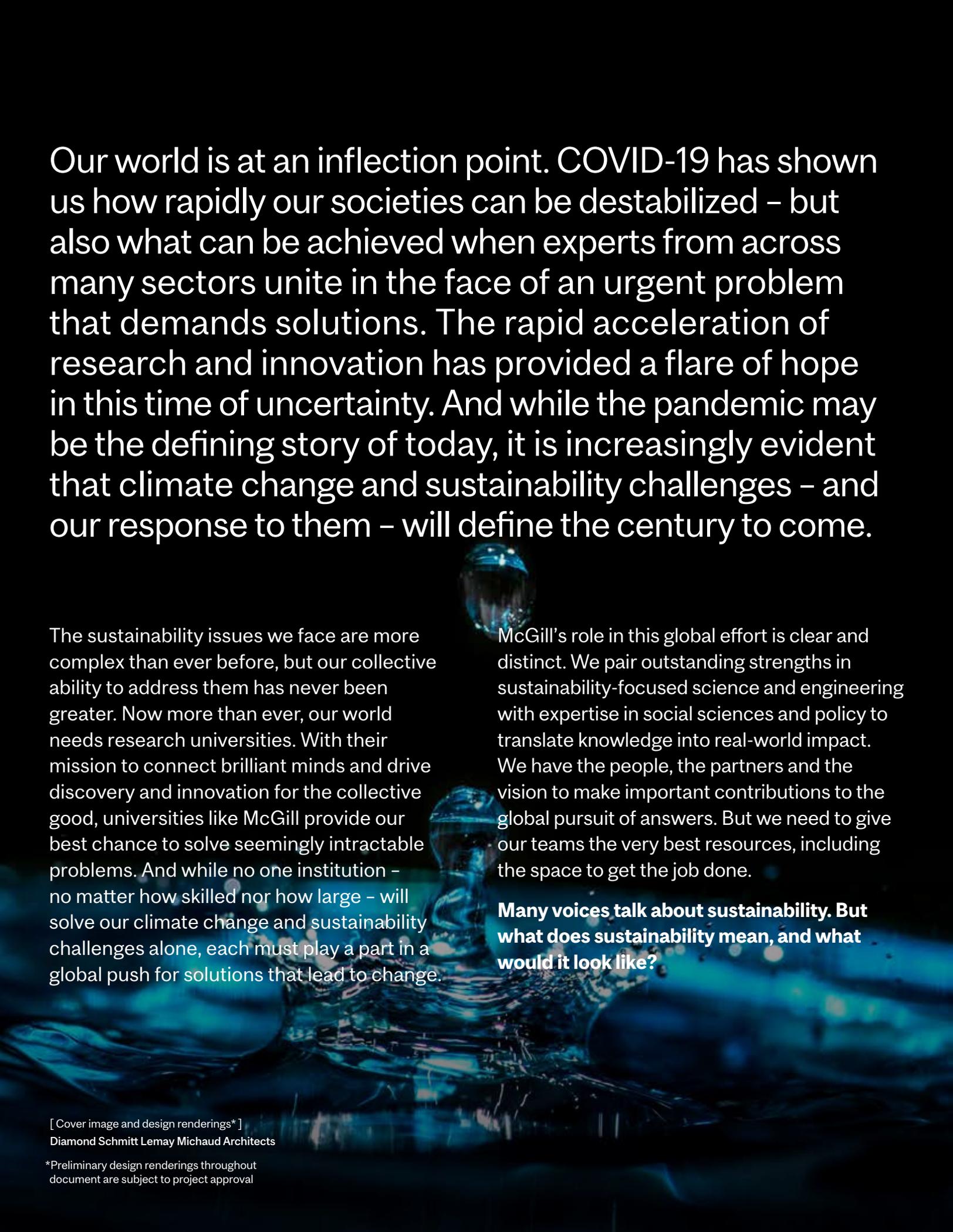


McGill

The New Vic Project

A sustainable future

MADE
by McGill



Our world is at an inflection point. COVID-19 has shown us how rapidly our societies can be destabilized – but also what can be achieved when experts from across many sectors unite in the face of an urgent problem that demands solutions. The rapid acceleration of research and innovation has provided a flare of hope in this time of uncertainty. And while the pandemic may be the defining story of today, it is increasingly evident that climate change and sustainability challenges – and our response to them – will define the century to come.

The sustainability issues we face are more complex than ever before, but our collective ability to address them has never been greater. Now more than ever, our world needs research universities. With their mission to connect brilliant minds and drive discovery and innovation for the collective good, universities like McGill provide our best chance to solve seemingly intractable problems. And while no one institution – no matter how skilled nor how large – will solve our climate change and sustainability challenges alone, each must play a part in a global push for solutions that lead to change.

McGill's role in this global effort is clear and distinct. We pair outstanding strengths in sustainability-focused science and engineering with expertise in social sciences and policy to translate knowledge into real-world impact. We have the people, the partners and the vision to make important contributions to the global pursuit of answers. But we need to give our teams the very best resources, including the space to get the job done.

Many voices talk about sustainability. But what does sustainability mean, and what would it look like?

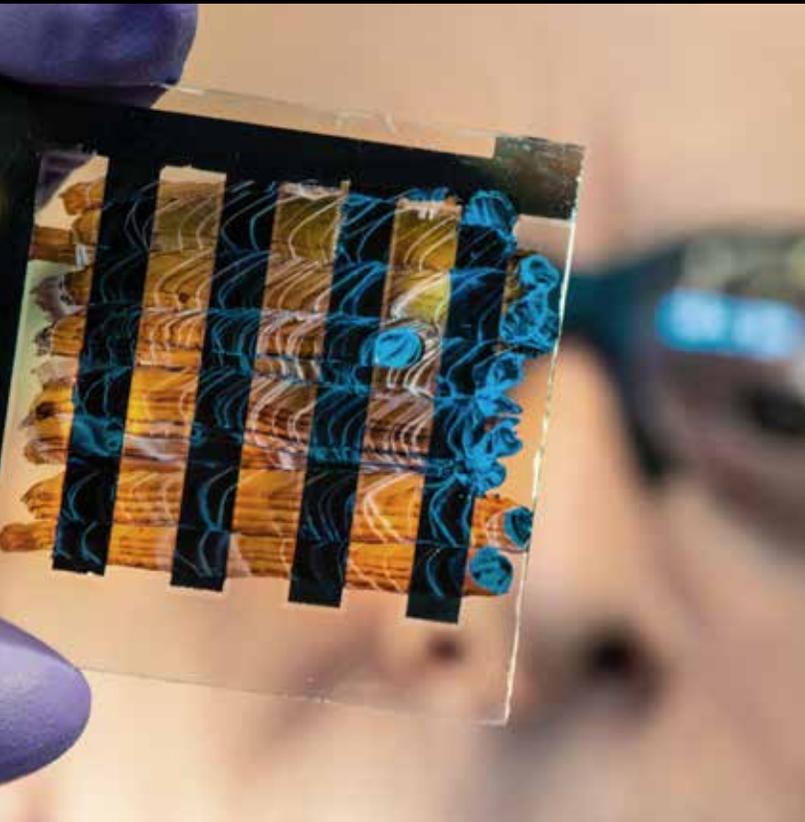
[Cover image and design renderings*]
Diamond Schmitt Lemay Michaud Architects

*Preliminary design renderings throughout document are subject to project approval

Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their own needs.



No university can lead globally in the 21st century without **putting sustainability at the centre** of its operations, research and teaching.

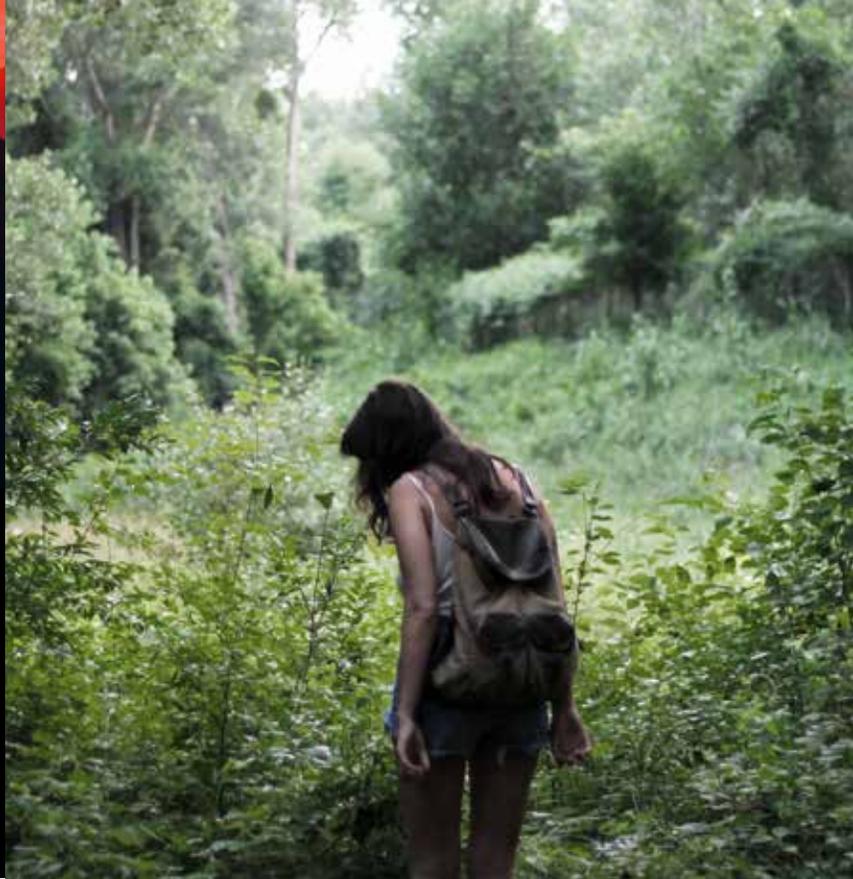


Confronting **climate change** will not be enough.

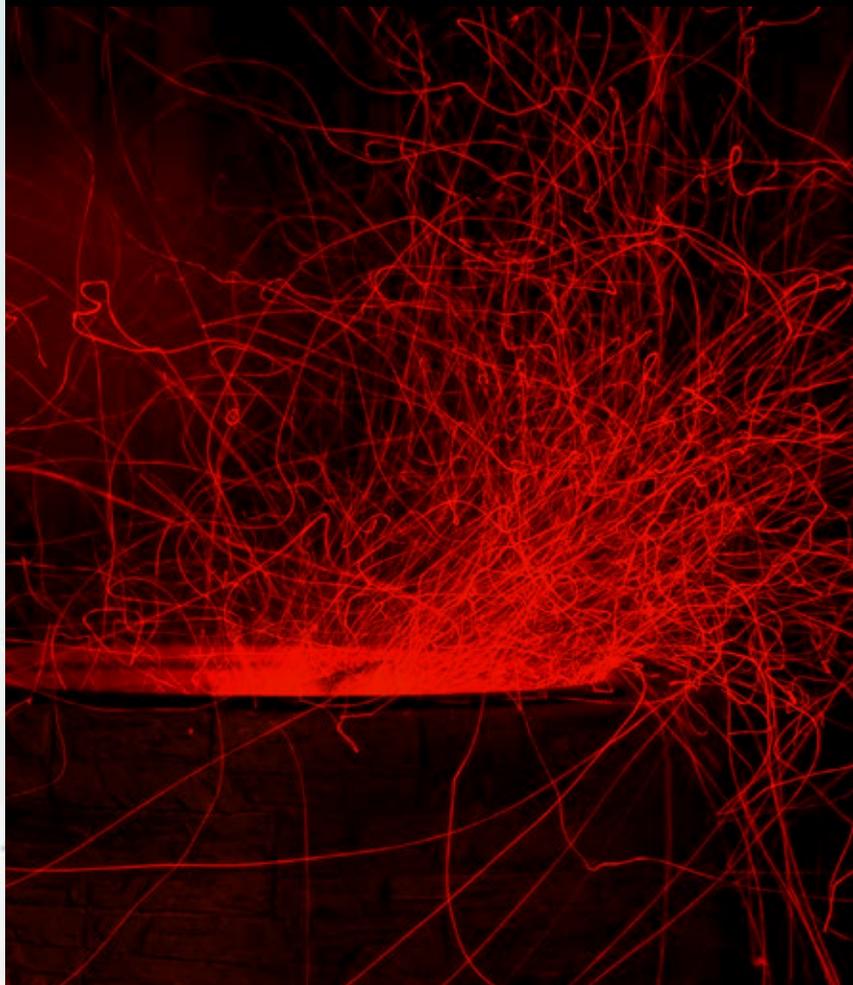




A sustainable future depends on our ability to address **environmental challenges** in tandem with their **economic and social impacts**.



We must combine our strengths in order to **multiply their impact**.





Why McGill?

We have a track record of doing things differently, and the drive to go further.

The culture of ingenuity that created the first artificial blood cell and drafted the Universal Declaration of Human Rights is now developing safer chemicals and responsible land management policy, and winning international accolades for its sustainable campuses. As our Strategic Academic Plan states, any 21st-century university that aims to lead on a global scale must put sustainability at the centre of its actions.

A winning combination: STEAM research + policy translation

As a comprehensive university, our deep strengths in the natural sciences and engineering are matched by capacity in the social sciences, humanities, and law. The result: we can pull together teams from across the fields and disciplines of STEAM (science, technology, engineering, arts, and mathematics), creating local bases of strength that attract partners on a global scale.

McGill's ability to advance technological and scientific knowledge would be impressive on its own – but it is our capacity to translate our findings into solutions that differentiates our contribution to the sustainability landscape. Through innovation-focused partnerships and public policy, we can produce well-developed solutions informed by an array of viewpoints. We can move laboratory discoveries into the real world where they will be used, from commercializing energy-efficient clean technologies to advising policy that promotes a green economy. We can foresee potential downsides to solutions that may seem like panaceas, anticipating and thus avoiding the



dreaded phenomenon of “regrettable substitution.” And we can train a new generation of sustainability leaders to think beyond traditional disciplines and engage in collaborative discovery.

Unmatched breadth of expertise

From the natural sciences to law, ethics, sociology, urban planning and more, McGill researchers engage with sustainability questions across economic, social, and scientific dimensions. Eight research centres, institutes and networks associated with themes such as Advanced Materials, Green Chemistry, and Biodiversity have their homes at McGill. More than 180 professors from seven Faculties and 22 departments, together with 950 graduate students and postdoctoral fellows, work on aspects of sustainability across a range of fields – and together they secured \$250M in external research funding between 2013 and 2018.



Partnering with Parks Canada, Department of Chemistry professor **Audrey Moores** is turning shells of invasive crustaceans into bioplastic that is biodegradable in the ocean - fighting ecosystem breakdown and pollution from wasteful materials in one fell swoop.



Robust partnership networks

McGill's strong networks target issues that matter. From inter-Faculty collaboration to engagement with industry partners, community organizations, other universities across Canada and around the world, and all levels of government, our longstanding and growing connections focus on translating discovery into impact for our communities.

Sustainability in campus culture

McGill walks the talk far beyond our teaching and research. Working together with our students, faculty and staff through McGill's Office of Sustainability, and guided by our climate and sustainability strategy, we have received international recognition for campus sustainability.

Highlights include:

- › Commitment to being carbon neutral by 2040
- › Working to achieve the Association for the Advancement of Sustainability in Higher Education's (AASHE) highest sustainability rating for a university, STARS Platinum, by 2030
- › Investment of more than \$26M in energy management projects since 2002, reducing related GHG emissions by 40%
- › The flagship Sustainability Projects Fund – a joint venture between students and the University – has provided over \$10M in funding for sustainability projects since 2010, and now distributes \$1M each year, and has helped students, faculty and staff launch 250+ innovative projects on campus

Brilliant students committed to change

Young people have the ideas and motivation to change the world, and the best and brightest are here at McGill. Engaged, aware, and driven to learn by doing, today's students seek to make a difference, particularly on sustainability challenges. They have their eyes on the impact they can make, such as rapid transitioning to low or zero carbon economies, and addressing climate change and its outcomes. McGill fuels this drive, offering sustainability-focused courses and hands-on learning at all levels, including at the Faculties of Agricultural and Environmental Sciences, Arts, Engineering, Management, and Science.

Sustainability honours that count



2020

McGill's *Vision 2020* action plan wins **International Sustainable Campus Network Award**

2019

Named the **Sustainability Institution of the Year** by the UN Environment-endorsed International Green Gown Award for its "ambitious yet realistic" *Vision 2020 Sustainability Strategy*

Association for the Advancement of Sustainability in Higher Education's **Campus Sustainability Achievement Award** honours sustainability engagement programs for faculty and staff

2018-20

Designated among **Canada's Greenest Employers** by Mediacorp

Why now?

An extraordinary opportunity is within our grasp.

The former site of the Royal Victoria Hospital offers us the chance to create a state-of-the-art sustainability research, teaching and policy hub.

To tackle global challenges, we need to bring researchers together on the basis of the problems they are working on, and not solely the disciplines they specialize in.

Across its campuses, McGill has many of the necessary ingredients to take on sustainability challenges.

What has been missing is the means to put this talent and infrastructure together in one place – to give a physical home to the community of learning and practice McGill has developed around sustainability. **This is exactly what the Royal Victoria Hospital in its transformed state will do.**

With the backing of multiple levels of government and the partnerships to make it happen, we have the chance to intensify our sustainability efforts like never before, by building space for teams of researchers to connect across sectors via shared themes and problems.

In other words, McGill has the opportunity to bring every possible strength to bear in solving complex sustainability problems. We have the talent. We have the partnerships. We have the vision for new ways of working together. What we need – more than anything – is the space to catalyze our potential.

This is what the New Vic project will do. Together with donors and investors as bold as our vision, we will create an unprecedented environment for innovation, right here at McGill.

The project to build a world-leading teaching and research centre devoted to the most important issue of our time offers **a once-in-a-century opportunity** that will benefit Montreal, Quebec, Canada, and the world.





Photo: Valeria Lau



Photo: Valeria Lau

Our vision: The New Vic

Open, connected, and purposeful.
Powered by an environment built to solve the greatest
problems of our time.



For more than a century, the historic Royal Victoria Hospital was part of the circle of life for generations of Montrealers. It was a place for healing, helping, and leading the way in new types of medical treatment.

Historical images

p. 13: Staff of the Operating Room of The Royal Victoria Hospital (1897); McGill University Archives, R023584.

p. 12 (top left): Royal Victoria Hospital School of Nursing, Class of 1918 (1918); McGill University Archives, PR023817.

Now, reinvented as the **New Vic**, it will bring together hundreds of renowned researchers and talented students from Science, Engineering, the Humanities and Social Sciences covering the full spectrum of research and teaching, from fundamental investigations to applied and policy-ready science. They will focus on two key axes: **Sustainability Systems** and **Public Policy**.

As McGill's keystone sustainability project, the New Vic will power the University's interdisciplinary research engine.

The New Vic will enable:

- › **Global leadership on crucial subjects:** Accelerating Montreal's, Quebec's and Canada's positions as leaders in sustainable and inclusive growth; the sustainable use of resources; the transition to a low carbon economy; climate science and climate change mitigation; and policy informed by evidence and analysis.
- › **Collaborative, dynamic innovation:** Stimulating innovation by creating a crossroads where academic, private sector and government partners, NGOs and communities - including Indigenous communities - can intersect to develop and apply new knowledge, with the agility to evolve in step with local, national and global needs.
- › **Reimagined pedagogy:** Better preparing our students to become leaders and innovators through multidisciplinary teaching, research and experiential learning that includes partnerships with government and industry.
- › **Sustainable design and infrastructure:** Creating a model of sustainability by repurposing a landmark site of historical and cultural importance, following advanced principles of sustainable infrastructure and design, as well as state-of-the-art restoration of heritage buildings.

The project will open new pathways to Mount Royal for Montrealers - while also setting a path for McGill's third century.

Our plan will add strength to strength

As we develop extraordinary contributions to our collective future.

The New Vic is the heart of our vision to become a global leader in sustainability research, teaching, innovation and action. The reinvention of the Royal Victoria Hospital heritage site will catalyze transformation across our campuses and research sectors, in our community and beyond.

The project

The former Royal Victoria Hospital occupies a 35-acre site on the southern side of Mount Royal. In partnership with the Government of Quebec's *Société québécoise des infrastructures* (SQI), McGill will combine a significant proportion of the existing heritage buildings with new structures, creating a living laboratory dedicated to sustainability systems and public policy.

The result? An accelerator driving rapid knowledge translation and innovative partnerships, and establishing a new model for how universities operate in the 21st century. A magnet and a meeting place for top scholars, researchers, students, investors, visionaries and entrepreneurs from the local, national, and global spheres.

The pillars

Building on the strengths McGill has already developed, the New Vic will centre on two academic pillars:

- › **Sustainability Systems** will build on the strengths that McGill has spent decades developing, providing an environment where new ideas grow and new partnerships flourish. The New Vic will house three research clusters that are essential to sustainability: Molecular/Materials Systems, Earth Systems, and Urban Systems, including wet, dry, and computational lab spaces.
- › **Public Policy**, centred at the Max Bell School, will bring policy expertise into direct conversation with sustainability science. This will ensure that new discoveries and technologies are communicated to those who are ultimately responsible for their implementation. At the same time, scientists will learn from policy experts, so their discoveries can be informed by the realities of the governments, communities and citizens who will adopt them.



Historical image

Above: The Royal Victoria Hospital (1920ca); McGill University Archives, PL006606.



An engine for sustainability innovation across McGill

Even as we work towards the creation of the New Vic, we are focused on uniting and strengthening sustainability research, teaching and engagement outside its doors. The New Vic project will add energy and focus to this wide-ranging sustainability work already taking place at McGill. It will model novel approaches to working, collaborating, teaching and learning, and will welcome researchers and students from across our campuses.

Diverse spaces for game-changing collisions

The New Vic is designed to propel our research and teaching forward. The state-of-the-art facility will be equipped with the latest technologies and a constellation of spaces designed to encourage collaboration and innovation, alongside learning environments that bring people and ideas together in new ways.

The facility will be open for use by groups from across McGill's campuses. A magnet for research talent, the New Vic will see different types of scientists sharing equipment and computational resources, facilitating opportunities for serendipitous meetings that can lead to unconventional research collaborations and innovative approaches to research questions. Teams from McGill's areas of strength will have the ability to come together in spaces designed with principles of transparency, openness and connection.

These spaces will include:

- > **Discovery Hubs** housing advanced instrumentation and workspaces, as well as personnel skilled in their use
- > **Dedicated Research Clusters** supporting Sustainability Systems and Public Policy
- > **Institutes and Centres**, many of which will serve as academic bridges between the sustainability systems and public policy groups
- > **Shared and common spaces**, including study spaces, active learning classrooms, and informal venues such as cafés and lounges where people can meet, interact and create
- > **Dedicated teaching and learning facilities** including lecture spaces and active learning classrooms

Capacity for complex collaboration



The project will generate

51,500 gross square metres
(25,100 net square metres) of space.

We anticipate that
approximately

150 professors, **200** staff,

800 graduate students and
postdoctoral researchers,

350 undergraduate researchers,

1,000 students in active learning
classrooms – close to **4,000** daily users,
including visitors – will use the site on
an ongoing basis.

A neighbourhood for teaching and learning

In addition to research spaces, the New Vic will contain lecture and active learning classroom spaces that accommodate 1,100 students at a time, along with food services and informal spaces for students to interact, study and create together. The New Vic will be a dynamic neighbourhood for students from all disciplines, giving them an exciting, immersive learning environment that eclipses the traditional lecture hall.

A catalyst for innovation

The New Vic is designed to open McGill up to a wide range of partnerships, including with policymakers, community organizations, and cleantech entrepreneurs. McGill's plan focuses on the core buildings on the southeast sector of the site, while the Women's, Ross, and Hersey Pavilions have been retained by the SQI. The SQI will plan for this part of the site, inviting organizations whose activities and interests align with McGill's to co-locate with us.

A sustainable approach to heritage conservation

Led by the award-winning architect consortium Diamond Schmitt/Lemay Michaud, the New Vic design will balance nature and heritage with functionality and sustainability. The design will facilitate efficient ways of working and living, using bioclimatic strategies and integrated building technologies. Greenspace will be integrated into the New Vic itself through rooftop gardens and green terraces, and views of the surrounding mountain landscape. Our Indigenous partners will collaborate with us in creating a space that respects the heritage of the mountain, while incorporating design features informed by Indigenous knowledge.

A gateway to the mountain

The project will return a significant quantity of greenspace to the mountain, creating public gateways to Mount Royal and extending the mountain's presence into the city through the reintegration of natural features. A model of urban integration, the completed site will honour the famed landscape architect Frederick Law Olmsted and his vision for the mountain as being the "green lungs of the city." A welcoming site and portal for citizens, it will prioritize public and active transit.

A historic contribution to Montreal and Montrealers

The Royal Victoria Hospital is a Montreal icon: an extraordinary building on one of the most precious sites in the city. Since its closure in 2015 and the move of the RVH to the MUHC Glen site, the land and its heritage buildings have waited for a new vocation. As a steward of some of the most important real estate in downtown Montreal, McGill is ideally placed to partner with the government to restore and transform the RVH site.

This task is a privilege, but it is also a responsibility. Remediation of the land and buildings alone will cost more than \$200M. But we are up to the task. Committed to careful preservation and respectful of the mountain's tradition as a place of healing and connection, McGill is ready to write the next chapter in the story of this special place, creating a new Montreal icon for generations to come.



In the Department of Mechanical Engineering, PhD student **Keena Trowell** leads a project through Professor **Jeff Bergthorson's** Alternative Fuels Lab to design ways to use metals as substitutes for fossil fuels – technology that could bring clean electricity to remote communities.

Connected to our campus communities of research and practice

An ecosystem of sustainability research, teaching and engagement, rooted in Canada's finest academic environment.

Canada's top research-intensive university

Great discoveries come from great universities, and McGill's academic strength and international reputation speak for themselves. Ranked #1 in Canada for 16 consecutive years by *Maclean's* among medical-doctoral universities, boasting students with the highest entering grades in Canada, with 199 active Fellows of the Royal Society of Canada, 147 Canada Research Chairs, and having graduated 145 Rhodes Scholars, we have the horsepower to make positive change.

An integrated approach to sustainability problems: The McGill Sustainability Systems Initiative

The **McGill Sustainability Systems Initiative (MSSI)** is a boundary-breaking research engine that connects sustainability researchers in the natural sciences, engineering, social sciences, and humanities in research partnerships that identify and tackle grand challenges in sustainability by theme, not discipline.

Today, the MSSI boasts over 160 professors and more than 950 graduate students and postdoctoral fellows working in multidisciplinary teams on research themes that include:

- > **Sustainable Landscapes**
- > **Sustainable Materials**
- > **Sustainable Urban Environments**
- > **Sustainability Transitions**
- > **Cleantech for Climate Change**

Working with partners across industry, government and civil society, the MSSI teams tackle large-scale sustainability challenges. Together, they train the next generation of researchers and workers to solve complex problems, while engaging with industry and legislators to find real-world solutions.





As a Professor of Economics and Director of the Max Bell School of Public Policy, monetary policy researcher **Chris Ragan** leads McGill's drive to equip future policy leaders with the tools and mindset to advance sustainability, including through policy that stimulates green economic growth.

The Max Bell School of Public Policy

The Max Bell School of Public Policy (MBSPP) is committed to the research, teaching, public outreach, and practical advocacy of sound public policy. Combining interdisciplinary research, active engagement and effective communications, the MBSPP is a one-of-a-kind centre for policy expertise.

Its strengths include:

- › **World-class academic faculty paired with practitioner-led teaching**, with 16 experienced professionals from the fields of public policy, media, government, and business as course instructors in 2020
- › **Faculty and leadership** with prominent roles in environment-oriented policy think-tanks, including Professor Chris Ragan, Director of the School, **former Chair of Canada's Ecofiscal Commission and current Board Member of the Canadian Institute for Climate Choices**
- › A full-time, intensive **Master of Public Policy (MPP) degree**, attracting close to 500 applications for fewer than 70 spots over its first two years, with graduates moving to local, national, and global positions, spanning NGOs and the public sector
- › Immersive front-line experience through the innovative **Policy Lab**, connecting students with clients from government, international organizations, and business to solve real-world policy issues

With sustainability as one of its core themes, the MBSPP is ideally placed to serve as a hub for researchers across McGill's campuses engaged with policy work, convening experts from the University and beyond to address challenges to sustainable growth – and develop practical solutions for policymakers around the world.

Leveraging resources for maximum impact

McGill's reputation allows us to bring diverse stakeholders and funders together to create and scale initiatives from the pilot stage to sustainable growth.

Initiatives like the Trottier Institute for Sustainability in Engineering and Design, the Trottier Institute for Science and Public Policy, and the Max Bell School of Public Policy were established thanks to visionary philanthropy and have thrived thanks to competitive grants. McGill was the birthplace of Canada's Ecofiscal Commission and Sustainable Canada Dialogues; these two enterprises brought together multi-sector partners to develop real-world sustainability solutions and have since spurred national-scale climate initiatives. And McGill itself has invested millions in strengthening its sustainability enterprise, including \$10M to kickstart what is now the McGill Sustainability Systems Initiative.

Open to future-focused Montreal

A national nexus of sustainability brainpower.

McGill's location in Montreal is one of its key offerings, attracting talent from all over the globe. As our city's profile in sustainability continues to grow, McGill's role as a thought leader and connector among research, industry and government sectors in Montreal will amplify our efforts in new and exciting ways.



Professor **Salwa Karboune** of the Department of Food Science and Agricultural Chemistry works to identify sustainable alternatives to artificial ingredients – all while leading a Quebec-wide consortium pairing researchers with food producers to build a healthier and more profitable food system.

A global leader in urban sustainability

Montreal has earned accolades for its environmental policy, sustainable transport, and urban greenspace. The city is powered by ethical economic growth, innovation and infrastructure, and stimulates growth in emerging fields as solutions and technologies of the past prove unsustainable or approach obsolescence.

Number one in Green Finance

Ranked number one in North America for the depth of its sustainable finance offerings in the 2019 Global Green Finance Index, Montreal is at the fore among global financial centres leading inquiry into environmental, social, and governance principles.

An unrivalled intellectual landscape

Montreal is a hotbed of talent in innovative fields that directly benefit sustainability, including AI and other digital technologies, as well as materials engineering, life science technologies, and environment, supported by a network of outstanding universities.

A hub for global organizations

Montreal has a strong presence of global leaders including the UN Convention on Biological Diversity, the Quebec Centre for Biodiversity Science, and GEO BON, the international monitoring program for biodiversity and ecosystems embedded within the global Group on Earth Observations.

Montreal has the third-largest concentration of international organizations in the Americas and many international organizations devoted to sustainability, like the Centre for International Sustainable Development Law, Future Earth, and the Global Sustainable Electricity Partnership.

A driver of cleantech

Quebec is a global clean technology nexus, home to around 350 companies and generating 9,000 jobs. The sector generates total annual revenue of more than \$1 billion, and annual investments in Quebec's cleantech R&D total nearly \$300M. The New Vic will propel McGill to the forefront of this growing industry.



A chance like this comes once in a century



In 1839, the first bricks were laid for what is now the iconic McCall MacBain Arts Building, cementing McGill University at the heart of Montreal.

In 1905, construction began for Macdonald College, spurred by a vision to grow our footprint and our contribution to agricultural science and human health.

Now, on the threshold of our third century, we have the opportunity to take another momentous step forward – and build for a better future.

Our ambition is bold. Our potential is limitless. But we cannot do it alone.

The New Vic project will require a total of \$700M, including contributions from the Government of Quebec, the Government of Canada and McGill. We invite visionary philanthropic leaders to join McGill and its government partners in making this plan a reality.

We are seeking a total of \$150M in philanthropy to bring our sustainability vision to life.

- > **\$100M** will allow us to build the New Vic to the highest modern standards
- > **\$50M** will support sustainability expertise, programs and projects across McGill, including the McGill Sustainability Systems Initiative

**A sustainable future is
within our reach.**

**But there is no time
to waste.**

Join us.

Made by McGill: THE CAMPAIGN FOR OUR THIRD CENTURY.



McGill

University
Advancement