



# Toronto Metropolitan University and the United Nations' Sustainable Development Goals (SDGs)

**Toronto  
Metropolitan  
University**

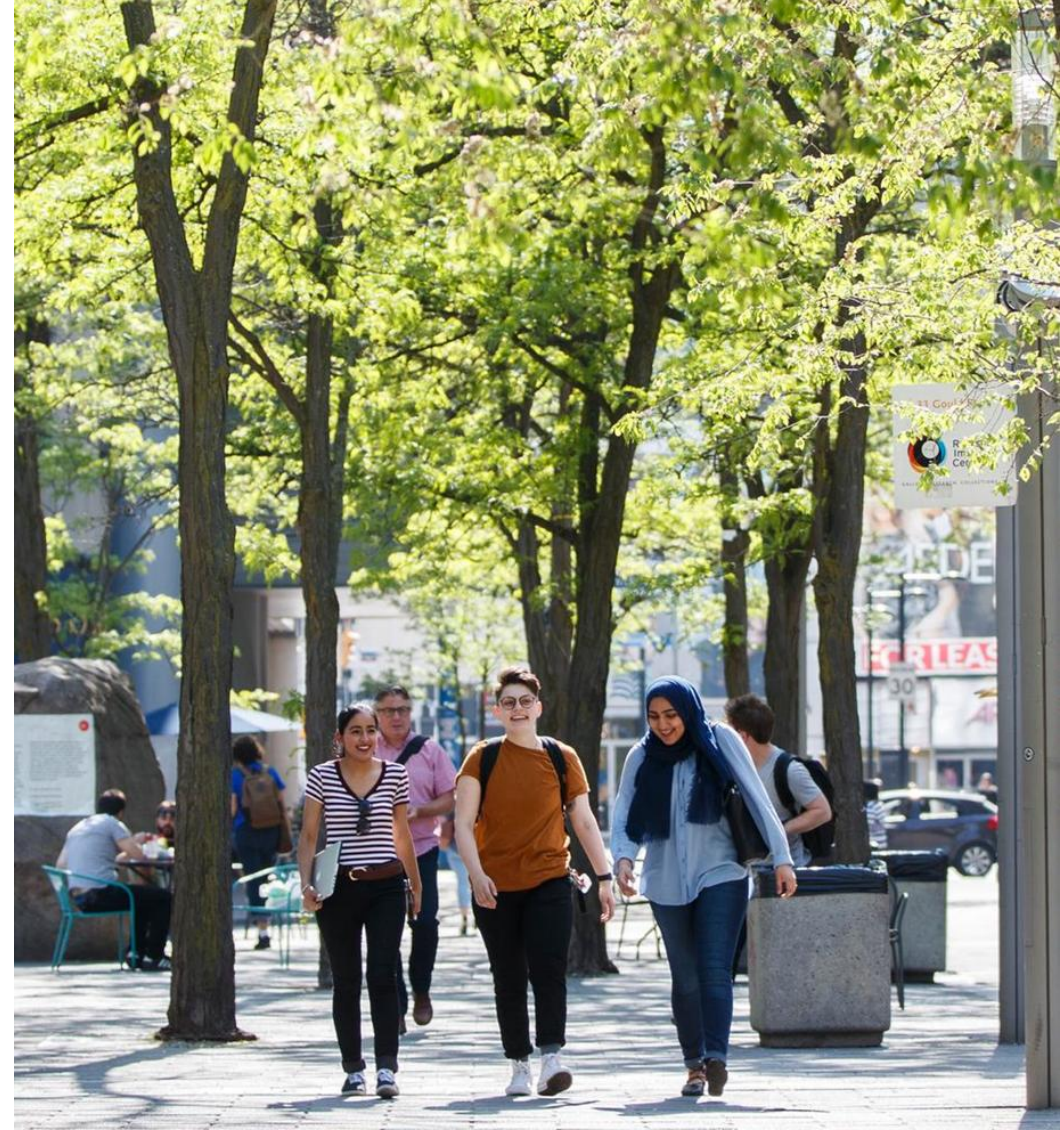
## 2024 Highlights



# About the United Nations' Sustainable Development Goals

The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030.

This report provides a summary of highlights of Toronto Metropolitan University's (TMU's) work to advance progress on the SDGs in 2024.





# SUSTAINABLE DEVELOPMENT GOALS



There are a total of **17 SDGs**.

The following slides highlight examples of TMU programs and initiatives that relate to each SDG.

# SDG 1: No Poverty



## Student access and financial assistance

- Financial aid to support students in accessing postsecondary education:
  - [Student Access Guarantee](#) bursary assists with educational costs (e.g. tuition, books, supplies)
  - [Bursaries](#) to support first-generation students, Indigenous students, students with disabilities, and youth in extended society care
  - Other need-based and merit-based [financial assistance, scholarships and bursaries](#) are available to support TMU students

# SDG 1: No Poverty (cont'd)



## Impact in our community

- The [Newcomer Entrepreneurship Hub](#) run by the Diversity Institute provides entrepreneurship, settlement and wrap-around services that prepare participants who are new to the country to run a business in Canada.
- The G. Raymond Chang School of Continuing Education, in partnership with The City of Brampton, is presenting an online [seminar series](#) to support the development and growth of the non-profit and charitable sectors in Brampton.



# SDG 2: Zero Hunger



## Urban Farm

- [Urban Farm](#): Rooftop farm that harvests over 3,000 kg of fresh produce and sells them at affordable rates to students.

## Sustainable and affordable food on campus

- [Ted's Kitchen](#) and [The Met Dining Room](#) are both Feast On certified, meaning they use over 65 per cent locally produced food items. Both restaurants provide top-quality ingredients at a low cost.
- TMU Eats partners with senior leadership teams, student societies and unions across the university to offer students [free food](#) for the final exam periods in April and December.
- The [Friendly Fiver](#) is a budget-friendly daily special available at the Hub Café for just \$4.99.

# SDG 3: Good Health and Well-Being



## Supporting future healthcare workers

- Through the [Future of Healthcare](#) pathways program launched in 2024, students in the Peel District School Board gain exposure to careers in medicine, nursing, midwifery, dietetics, occupational and public health, social work and more.

## Campus health services

- TMU's [Medical Centre](#) offers health services to students, staff and faculty, such as physicals, mental health assessments, assessments for common medical problems, immunizations and medical certificates.
- [Mental health services](#) on campus include the [Centre for Student Development and Counselling](#) and the [Wellbeing at Work](#) initiative that offers resources to TMU employees.

# SDG 3: Good Health and Well-Being (cont'd)



## Research

- Chemical engineering professor Dae Kun (Rilla) Hwang and his team developed a [microfluidics device](#) that reduces the wait time for the prostate-specific antigens (PSA) biomarker test for prostate cancer to just 15 minutes. The device uses a small blood sample and can be operated by non-specialized technicians. Future developments aim to reduce wait time further and expand detection capabilities.
- TMU Biomedical Physics doctoral candidate Kalysta Makimoto is developing new methods of [predicting and diagnosing cases of Chronic Obstructive Pulmonary Disease](#) based on computed tomography imaging.
- The [Biomedical Zone](#) is a startup incubator that accelerates medical device innovation through a partnership between TMU and Unity Health Toronto.



# SDG 3: Good Health and Well-Being (cont'd)



## Collaborations with health institutions

- TMU nursing professors Margareth Zanchetta and Kateryna Metersky collaborated with Academics Without Borders, the University of Brasilia and the Federal University of Pernambuco to [launch a capacity-building project](#) in Brazil to support a movement to create a national health policy for immigrants, refugees and stateless individuals.
- The programming of Finding Our Power Together, a national Indigenous-led nonprofit aiming to empower youth, is informed by the [research of TMU professor Nicole Ineese-Nash](#). She founded the nonprofit to offer culturally based, in-person and virtual therapeutic programs and services across Canada. Finding Our Power Together's programming ranges from one-on-one mentorship, to group youth events, to an online psychoeducation program.
- TMU signed a [partnership agreement](#) with the Indigenous Primary Health Care Council (IPHCC) to work together to eliminate inequities and disparities that negatively impact Indigenous people within the medical system. TMU is thrilled to be the IPHCC's first educational partner.

# SDG 4: Quality Education



**First-generation students: 47.8%**

## Community outreach

- The Faculty of Engineering and Architectural Science offers camps and pre-university programs to empower kids of all ages to explore, follow their curiosity and ask questions. Programs include [Go CODE Girl](#), [Global Changemakers Engineering Competition](#) and [Eureka! summer camp](#).
- P2E x TMU Community Tutoring is a collaboration between the Pathways to Education program at Regent Park Community Health Centre and the Student Life and Learning Support unit at TMU. The [program](#) offers high school students a variety of support services aimed at fostering academic success and personal growth.

# SDG 4: Quality Education (cont'd)



## Supporting lifelong learning

- The [Chang School of Continuing Education](#) offers more than 70 certificate programs and over 1,000 courses to more than 30,000 active learners. This includes programs designed specifically for [people aged 50+](#).
- TMU provides access to [open educational resources](#) (OER) that can be used freely for educational purposes. These resources include images and media files that can be used in teaching to presentations, lecture notes, assignments and free textbooks.
- In 2024, TMU [welcomed the first cohort of Guyanese students](#) to the Full Stack Developer program offered by the Chang School. As part of the Guyanese government's 'One Guyana Digital' initiative, 2,000 students will complete the online certificate program over two years, to gain the technical skills and practical experience needed for web and software developers.



# SDG 5: Gender Equality



**Proportion of female graduates: 57.9%**

**Graduation rates: Female students - 81%; Male students - 73%**

**Applicants (2023): Female - 23,675 (51.0%); Male - 21,166 (45.6%)**

**Proportion of applicants registering (2023): Female - 17.8%; Male - 18.0%**

## **Preventing discrimination, supporting our community and raising awareness**

- TMU's [Discrimination and Harassment Prevention Policy](#) prohibits discrimination on the basis of sex, gender identity or marital/family status.
- [Consent Comes First](#) provides free, confidential, trauma-informed, healing-centred support to TMU students affected by sexual violence and other forms of gender-based violence.
- In November, advocacy and educational events celebrated, honoured and raised the visibility of the trans community during [Trans Awareness Month](#).

# SDG 5: Gender Equality (cont'd)



## Promoting success through community

- The [Women's Entrepreneurship Hub](#) provides future skills and entrepreneurship training through a bootcamp style program. Counselling, settlement services and childcare are among the wrap-around supports offered to encourage participation from women experiencing complex barriers to employment.
- The [Launchpad for Women Entrepreneurs](#), delivered by the DMZ at TMU, is a dynamic program designed exclusively for women entrepreneurs of diverse backgrounds and industries. Participants gain the knowledge, skills, and resources to kickstart entrepreneurial journeys, and build connections to mentors and a community that will help propel their businesses.

# SDG 6: Clean Water and Sanitation



## Responsible water usage

- The Sheldon and Tracy Levy Student Learning Centre (SLC) and the Daphne Cockwell Health Sciences Complex (DCC) use grey water collection systems that collect, treat, and use water from showers, taps and rain to flush toilets.
- Facilities Management and Development completes annual testing of all campus backflow preventers to ensure potable water is not contaminated. TMU has 39 premise isolation devices that fall under the City of Toronto Backflow Prevention Program; results of annual testing are submitted to the City.

**Water consumption per person: 8.09 m3**



# SDG 6: Clean Water and Sanitation (cont'd)



## Teaching and research

- Chemistry professor Stefania Impellizzeri is developing new ways to [enhance the sustainability of ice rink operations](#), focusing on optimizing ice preparation and conditions for different activities, producing more eco-friendly yet high-performance ice paint, and efficiently recovering meltwater.
- Urban Water TMU is [building bridges with Indigenous communities](#) and developing relationships in which traditional and western knowledge is shared and researchers collaborate with communities to find solutions to community-identified needs.
- The [Urban Water TMU Analytical Lab](#) is dedicated primarily to investigating freshwater issues, such as salinization due to road salting, plastic-associated contaminants in natural and human-impacted waters, nutrient pollution in agricultural areas, and climate change impacts on Indigenous lands and waters.

# SDG 7: Affordable and Clean Energy



## Sustainability Action Plan

- The university's [Sustainability Action Plan](#) released in 2024 and related guidelines for campus activities demonstrate TMU's commitment to take tangible steps towards a sustainable future.
- The plan includes three long-term goals identified based on their alignment with institutional values, community input, benchmarking opportunities, institutional peers and best practices, government targets and global perspectives.
  1. Platinum STARS sustainability rating by 2035
  2. Zero-waste by 2035
  3. Net-zero Scope 1 & 2 emissions by 2045

# SDG 7: Affordable and Clean Energy (cont'd)



## Campus energy efficiency

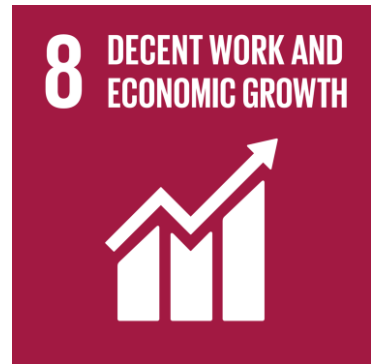
- The [Sustainable Building Guidelines](#) for new buildings and major renovations include robust energy and greenhouse gas emissions targets, waste reduction and diversion goals that promote sustainable building design.
- TMU's [Energy Conservation and Demand Management Plan](#) reports on the university's energy consumption and identifies the short and long-term energy conservation strategy for the campus.
- The university publishes [data on campus energy use](#) on its website.

## Working with industry

- The [Clean Energy Zone](#) is an incubator focused on clean, sustainable energy innovations including electric vehicles, renewable energy, energy storage and distribution, microgrids and net-zero city building. The Centre for Urban Energy [works with governments and industry](#) to develop clean energy technology.



# SDG 8: Decent Work and Economic Growth



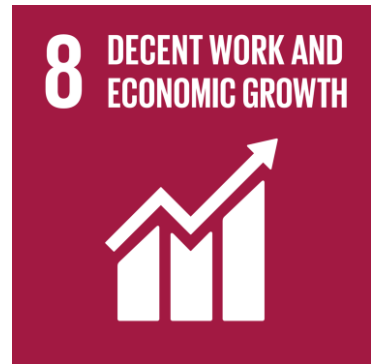
## Good employment practices

- [Access TMU](#) is a university-wide initiative with a goal of removing barriers to the full participation of all community members with disabilities.
- TMU has [collective agreements](#) with six unions that represent faculty and staff.
- TMU offers [workplace wellbeing services](#) to support employees in their personal and professional lives.
- TMU's [Career Boost and student employment programs](#) offer campus job opportunities to students to support their professional growth.

**Students enrolled in work placements: 2,866**

# SDG 8: Decent Work and Economic Growth

## *cont'd*



### Building for the future

- The [Future Skills Centre](#) is dedicated to helping Canadians gain the skills they need to thrive in a changing labour market. Together with its partners, the Centre informs and support local approaches to skills development and employment training. The Centre was founded by a consortium of partners, including TMU, the Conference Board of Canada and Blueprint.

### Beyond campus

- The [Fair Farm Work project](#) is an initiative focused on improving living and working conditions for farm workers, examining agri-food systems, migrant labour and exploitation around the world. A recent [policy brief](#) lists several recommendations to strengthen protections and improve working conditions for migrant farm workers.

# SDG 9: Industry, Innovation and Infrastructure



Research income from industry and commerce: \$8,693,154

## Supporting entrepreneurs

- [Zone Learning](#) provides support and resources for those who want to get practical experience in what it takes to build an initiative/venture from the ground-up.
  - There are [10 zones](#) that act as incubators for innovation – each with a focus on a different industry – that provide opportunities to shape initiatives from the ground up and gain real world experience.
- The [Newcomer Entrepreneur Hub](#) run by TRSM's Diversity Institute offers mentorship and guidance to newcomers in Canada who are seeking to launch a new business.

## Number of active spin-offs: 11



# SDG 10: Reduced Inequalities



## Supporting underrepresented groups

- [Gdoo-maawnjidimi Mompil Indigenous Student Services](#) offers culturally supportive programs and initiatives to First Nations, Inuit and Métis students at TMU, ensuring access to specialized services that strike a balance between academic excellence and traditional teachings and culture.
- The [Tri-Mentoring Program](#) offers spaces for students who identify as part of an equity-deserving group to connect and share their experiences.
- [Academic Accommodation Support](#) (AAS) helps to reduce barriers and promote accessibility. By providing education, programming and services to students and faculty at TMU, AAS helps develop academic accommodations and build skills. [SHIFT](#) is a two-part orientation program designed specifically for students with disabilities.

**Proportion of students / employees with disabilities: 14.4% / 9.5%**

# SDG 11: Sustainable Cities and Communities



## Cultural heritage, public performances and local arts

- TMU hosts an annual [Pwaaganigaawin \(Pow Wow\)](#). The 2024 event's theme was "Honouring all our relations", reminding attendees of the interconnectedness of all beings, to be respectful and mindful of our relationship with ourselves and with others, and to consider the impact of our actions on generations to come.
- The [Act II Studio](#) and [Chrysalis](#) at The Creative School host performances open to the public throughout the year.
- [The Image Centre](#) is Canada's leading institution for the exhibition, research and collecting of photography, with a collection of nearly 400,000 photographic objects.
- The Creative School partners with the City of Toronto on [Future Makers](#) to drive innovation and growth in the city's creative sector. Future Makers offers creators a week of events to engage in dialogue, learn, and experiment with cutting-edge creative technology. The event also features exhibitions and creative displays from local artists.

# SDG 11: Sustainable Cities and Communities (cont'd)



## Sustainable commuting

- TMU supports sustainable commuting with secure bike parking, a bike repair station, Bike Share stations, and electric vehicle charging on campus. Multiple subway and streetcar stops also border the campus.
- School of Urban and Regional Planning professor Raktim Mitra is one of the lead researchers on the [National Active School Streets Initiative](#). The goal of the project is to help participating communities successfully plan, implement and evaluate car-free zones around schools, which encourage students to walk and bike to school while finding moments of play and independence with their peers along the way.

# SDG 11: Sustainable Cities and Communities (cont'd)



## Energy-efficient building

- In 2024, construction began on the [Smart Campus Integrated Testing Hub \(SCITHub\)](#). The facility will be the world's first 100% digitally enabled building. By integrating different technologies, including HVAC, lighting, security, IT and communications, SCITHub will allow researchers to explore solutions to decarbonize built environments and bring Canada closer to net-zero emissions.
- TMU's [Sustainable Building Guidelines](#) ensure our commitment to carbon emissions reduction and environmental sustainability is reflected in the design and creation of our spaces. The guidelines include robust energy and greenhouse gas emissions performance targets, waste reduction and diversion goals and other requirements for capital projects to promote sustainable building design.

# SDG 12: Responsible Consumption and Production



## Minimizing waste

- TMU marks [Circular Economy Month](#) every October by encouraging the university community to reduce waste, make informed purchases and join reuse and repair initiatives.
- TMU Eats [partnered with Friendlier](#) to provide a zero-waste food container alternative for hot meals served at the Hub Café. Friendlier containers can be reused over 100 times and can be returned at any of the designated bins located across campus.
- [Plastic-Free July](#) empowers the TMU community to take simple, meaningful actions in their everyday lives that reduce plastic waste, protect our environment and advance climate action.

**Electronic waste diverted from landfill in 2023-24: 14,793 lbs.**

***Friendlier* containers reused at the Hub in 2023-24: 6,507**



# SDG 12: Responsible Consumption and Production



## Reducing consumption

- The TMU [Free Store](#) is a pop-up store dedicated to helping TMU students reduce their environmental impact and save money.
  - Choose from a variety of gently-used items like office supplies, electronics, home decor, kitchen supplies, books and more, all for free.
- Students, faculty and staff are invited to bring broken or damaged computers, electronics, clothing, jewelry, books, and other non-hazardous goods to the [Repair Workshop](#) to gain practical, hands-on experience with repairing common items.

**Volume of recycled and composted material: 593 metric tonnes**

# SDG 13: Climate Action



**Proportion of energy from low-carbon sources: 46.5%**

## Sustainability initiatives

- TMU's Sustainability Office offers learning opportunities for students and employees on [actions they can take](#) on campus and beyond to contribute to a more sustainable future.
  - Sustainability Ambassadors lead and inspire students, faculty and staff with initiatives and campaigns to keep sustainability top of mind across the university.
  - The Leadership Lab offers a Climate Leaders training program tailored to new change-makers on climate science, policy, communications and action.

## Research

- Chemical engineering faculty members are working with industry partners to develop environmentally friendly and cost-effective [recycling solutions](#) for precious group metals common in hydrogen technologies, including designing scalable approaches for manufacturing recycled electrodes.

# SDG 13: Climate Action (cont'd)



## Environmental education

- The [Bachelor in Urban and Regional Planning](#) prepares students to on planning decisions related to social, economic, cultural, land-development, transportation, resource development, environmental, heritage and other issues.
- The [BA \(Hons\) in Environment and Urban Sustainability](#) allows students to learn about, envision, and develop innovative responses to challenges facing urban centres and surrounding interconnected resource-based communities locally and globally.
- Graduate (MAsc and PhD) programs in [Environmental Applied Science and Management](#) offer unique opportunities for hands-on research, access to a diverse urban environment for real-world applications, and collaboration with experienced faculty from a full range of environmental disciplines.
- The [Professional Master's Diploma in Energy and Innovation](#) equips participants for leadership and policy roles in the Canadian energy sector.

# SDG 14: Life Below Water



## Water education and research

- The [Geoffrey F. Bruce Graduate and Postdoctoral Fellowships](#) are designed to support the next generation of freshwater leaders, policy researchers and practitioners and increase excellence in public policy to ensure the sustainability of Canada's freshwater resources.
- The [Spatial Ecology Lab](#) conducts research on land-water ecosystems, urban watersheds and human factors in watershed stewardship to better understand the impact of environmental stressors on species and on ecological functions.

# SDG 14: Life Below Water (cont'd)



## Supporting aquatic ecosystems

- [Urban Water TMU](#) has numerous projects to find solutions to pressing issues related to wastewater and environmental pollution. The institute also hosts a [seminar series](#) open to the public.
- New School Foods, a startup incubated in the Science Discovery Zone, has developed patented muscle fibre technology to [launch the world's first plant-based salmon filet](#) – that looks, cooks, tastes and flakes like wild salmon. This product could serve as a sustainable alternative to fish farming.



# SDG 15: Life on Land



## Protecting biodiversity and wildlife

- In October 2024, a Native Plant Pollinator Garden was installed on Nelson Mandela Walk. The garden will serve as a habitat that supports bees, butterflies and other essential pollinators.

## Sustainable agriculture

- TMU professors Habiba Bougherara and Lesley Campbell have developed an [innovative berry-growing system](#) that eliminates the need for pesticides and soil, reduces land and labour requirements, and enables year-round production in any climate, thereby addressing key challenges in modern agriculture while minimizing environmental impacts. The vertical, multi-layered design maximizes space efficiency (growing upward instead of outward) to significantly increase food production.

# SDG 15: Life on Land (cont'd)



## Campus food

- The Pitman Dining Hall is a [3 Star Certified Green Restaurant](#) under the Green Restaurant Association's rigorous standards in categories like water efficiency, waste reduction, sustainable food, and chemical and pollution reduction.
- TMU Eats provides professional training for their chefs under the [Forward Food Program](#) developed by the Friends of Humane Society International. The hands-on training program teaches food service professionals how to incorporate plant-based foods into their menus and place sustainability at the centre of their menu decisions.

# SDG 16: Peace, Justice and Strong Institutions



## University governance

- TMU has a bicameral governance structure consisting of a [Senate](#), which governs all academic matters, and a [Board of Governors](#), which is responsible for the governance of the university; control of its property and revenues; the conduct of its business and affairs, except for matters assigned by the Act to Senate; powers specifically enumerated by the Toronto Metropolitan University Act and the By-Laws of the University. The Board's implied powers include institutional strategic planning, risk management, and financial management of the university.
  - Both bodies have a mix of elected and appointed members.
- The university posts annual financial reports on [TMU's website](#).

# SDG 16: Peace, Justice and Strong Institutions (cont'd)



## Working with government

- Police officers across Ontario will be required to take innovative immersive scenario-based simulation training created to [improve response to mental health crisis situations](#) by Dean of The Creative School Natalie Alvarez and her collaborators.
- Director of TMU's [Cybersecurity Research Lab](#) Atefeh Mashatan served on the Government of Canada's [Quantum Advisory Council](#), which was established to provide impartial advice and monitor the progress of the National Quantum Strategy.
- The Centre for Urban Energy partnered with Toronto Community Housing to reduce energy consumption in its buildings through [metering, aggregation and electrification](#) of buildings.

# SDG 16: Peace, Justice and Strong Institutions (cont'd)



## Civic engagement

- John Beebe, director of the Democratic Engagement Exchange, is leading a team to [develop and evaluate AI tools](#) that can be used to help voters decide which candidate to vote for, and ultimately increase democratic engagement. The research will test the technical feasibility of using AI tools to help voters better understand their choices at the ballot box and develop principles and guidelines for tool development.
- The [TMU Democracy Forum](#) is a year-round talks series that engages political leaders, from across the country, in dialogue about the most pressing issues facing Canadians. Speakers in 2024 included Toronto Mayor Olivia Chow, US Ambassador to Canada David Cohen, and New Democratic Party Leader Jagmeet Singh.
- In November 2024, the Federal Court held a [live court hearing on campus](#). The hearing provided an opportunity for Lincoln Alexander School of Law students to witness the judicial system in action.



# SDG 16: Peace, Justice and Strong Institutions (cont'd)



## Providing expert advice to policymakers and government

- TMU's Together Design Lab, led by School of Urban and Regional Planning professor Shelagh McCartney, supported the Nishnawbe Aski Nation (NAN) Chiefs-in-Assembly in the [development of a new Housing Strategy](#) to address the ongoing shortage and inadequacy of housing across its 49 First Nations communities in northern Ontario. This was followed by the development of two distance learning courses to increase local capacity development and training to support housing construction.
- The Centre for Urban Energy collaborated with Hydro One and other organizations on a project to [forecast and model distributed energy resources](#) to allow energy utilities to best manage their power networks.
- Civil engineering professor Elsayed Elbeshbishy is leading a [research program](#) to monitor, predict and reduce greenhouse gas (GHG) emissions in wastewater treatment plants and sewer systems. Notable partners include the City of Toronto, Metro Vancouver, City of Calgary, and the Municipality of Middlesex Centre.

# SDG 17: Partnerships for the Goals



## Research and collaboration

- [Complex Migration Flows and Multiple Drivers in Comparative Perspective](#) (MEMO) is a [multidisciplinary research partnership](#) between 19 research organizations and community partners, service providers, NGOs and other organizations from around the world that aims to uncover new knowledge and develop a framework for better understanding migration.
- The [International and Canadian Child Rights Partnership](#) seeks to better understand the connection between children's rights to participation and protection. The partnership includes young people with lived experience, 40 researchers and 30 partner organizations from universities, NGOs, major human rights institutions, and governments from Canada and across the world.
- TMU Chemistry professor and principal investigator in TMU's [Emerging Contaminants Lab](#), Roxanna Suehring, was part of an international research team to [explore toxicity in plastic fish lures](#).

# SDG 17: Partnerships for the Goals (*cont'd*)



## Education and outreach for SDGs

- The Faculty of Science's [SciXchange](#) offers innovative outreach programs that reach a wide-ranging audience of youth and adults while actively addressing traditional imbalances in STEM disciplines. Its [Stoodis Science](#) initiative provides spaces for Indigenous and non-Indigenous folks to learn about Indigenous ways of knowing, doing, and being and how they relate to science, technology, engineering, mathematics, and arts (STEAM) concepts
- The [Newcomer Entrepreneur Hub](#) at the Diversity Institute provides mentorship and training on topics such as finance, procurement and social media to help immigrants and refugees looking to start their own businesses.
- The [WUSC Toronto Metropolitan University Local Committee](#) is a group of students that raises awareness about international development issues. The committee also facilitates the Student Refugee Program, which sponsors and supports students with refugee backgrounds to come to Canada to study and become permanent residents.

# SDG 17: Partnerships for the Goals (cont'd)



## Partnerships beyond academia

- TMU faculties, institutes and researchers engage in cross-sectoral dialogue with governments, industry and non-profits to exchange ideas and use our expertise to advance progress. Examples include:
  - The Rogers Cybersecure Catalyst at TMU has launched the [Catalyst Cyber Clinic](#), which offers free cybersecurity services to under-resourced not-for-profit organizations in Canada.
  - The Centre for Free Expression [hosted 16 virtual public panels and conversations](#) in 2023–24, reaching audiences across Canada and the world. Topics included protecting civil liberties and the challenges of AI for human rights and democracy.
  - The Lincoln Alexander School of Law has a strong partnership with [Neighbourhood Legal Services](#). Each term, the clinic recruits two Law students who complete their summer or professional placements by assisting the staff at the legal clinic in its mission to protect and advance the rights of low-income people in Toronto.