UNIVERSITY OF TORONTO | Entrepreneurship

University of Toronto Entrepreneurship

2021-22 Annual Report

DEFY GRAVITY

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Looking Forward: The Future of Entrepreneurship

"It has been another incredible year for the City of Toronto and U of T startups, with record funding for our companies and a renewed spotlight on our city as "North America's quietly booming tech town", according to The New York Times."

Jon French

Director,
University of Toronto Entrepreneurship

A Message from the Director

For many innovators in our ecosystem, it has been a year of contrasts: continued pandemic-related challenges and wide-ranging concerns regarding the state of the economy, juxtaposed with new opportunities and a sense of optimism, as our campuses, and indeed the world, are open for business in a way they have not been since early 2020. It has also been another incredible year for University of Toronto startups, with record funding for our companies and a renewed spotlight on the city of Toronto, which The New York Times recently described as "North America's quietly booming tech town."

The level of engagement in entrepreneurial activity at U of T continues to grow, with nearly 500 entrepreneurial teams (a record) supported by passionate individuals across three campuses and more than 10 campus accelerators and hubs. When we reference acceleration, we are talking about more than just the venture creation most often attributed to a startup accelerator; but, also the new ideas, technologies, social impact, personal development, and talent that must be cultivated concurrently.

As this ecosystem matures, our alumni are having an outsized impact on the world. In the past year, they have been finalists for the global XPRIZE, have spoken at the World Economic Forum in Davos and made up almost half of the cohort for "48 Hours in the Valley" – a program for promising Canadian tech startups delivered by the C100 in Silicon Valley.

> **"Thanks to years of investment from local universities, government agencies and business leaders and Canada's liberal immigration policies, Toronto is now the third-largest tech hub in North America.** It is home to more tech workers than Chicago, Los Angeles, Seattle and Washington, D.C., trailing only New York and Silicon Valley."
>
> *- The New York Times*

It was truly a banner year, with U of T startups achieving significant revenue and funding milestones. Among those deserving congratulations are the visionary people behind Deep Genomics, Kepler, Xanadu, Waabi, Cohere, BenchSci, Ergeon, e-Zinc, and Validiere who made headlines in 2021-22 for their innovative solutions to global challenges. Success breeds more success, and it is not surprising to see increasing numbers of investors from around the world looking to put money into U of T startups. In fact, PitchBook, named U of T the "fastest-rising university on the planet" in their annual global ranking of top universities and colleges for founders.

With top deep-tech companies so often leveraging their intellectual property, it is reassuring for investors to know that so many U of T founders are equipped with sound plans to protect their IP through accelerators for research-based startups such as UTEST and initiatives like U of T's publicly available IP Education Program, which was recently recognized by the Ontario government as a milestone under their IP Action Plan.

This past March, our 6th annual Entrepreneurship Week was delivered once again (and hopefully for the last time) as a "business as virtual" event. Over 2,000 attendees participated in 15+ events including the UTE Startup Prize pitch competition, the digital True Blue Startup Expo with 60 digital booths and an inspirational keynote delivered by Canadian Olympic sprinting legend and business leader, Donovan Bailey.

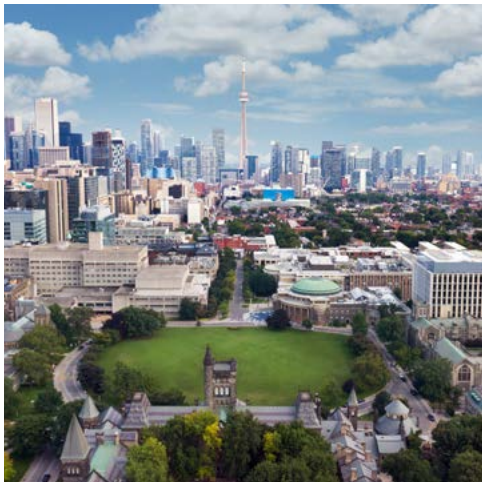
Mr. Bailey spoke about overcoming barriers and celebrating Black excellence; both important messages to deliver as we launched the Black Founders Network (BFN) following six months of consultation with internal and external stakeholders from the Black community. Supporting our Black founders from idea stage to scale-up, BFN is one of a number of initiatives focused on creating a more welcoming, inclusive, and diverse community. Other examples of this priority in action include the annual Pitch with a Twist competitions led by ICUBE at UTM to celebrate both International Women's Day and PRIDE month, the inaugural UTE Community EDI survey, FemSTEM to celebrate and support Women in entrepreneurship and tech from H2i in the Temerty Faculty of Medicine, and the RedBird Indigenous Entrepreneurship program supported by ICUBE and The BRIDGE at UTSC. Facilitating equity, diversity and inclusion within our ecosystem will continue to be an important area of focus in the year ahead.

U of T Entrepreneurship's ability to tell that story and educate a wide range of stakeholders became easier this year with the launch of a new website that improved navigation, introduced a robust tagging system, an investor landing page, a startup directory, and an enhanced events calendar. By taking a multi-site approach, other U of T accelerators, including H2i and UTEST, were able to build their own independent sites that also allowed for seamless content sharing across all sites. We are also proud to host the largest startup university job board in North America, publicly highlighting open positions at all U of T startup companies.

Finally, we look towards Fall 2023 and our new home in the Schwartz Reisman Innovation Campus, which will undoubtedly become one of the largest hubs for entrepreneurial activity in the city. We are hopeful that by the time you receive next year's annual report, we will be in our transformative new home at the intersection of University and College. We can't wait to welcome you to our new space. U of T Entrepreneurship may be part of a "quietly booming tech town," but our team and hundreds of entrepreneurs are looking forward to making some real noise in the year ahead. Please join us.

Warm regards,

Jon French
Director, University of Toronto Entrepreneurship



An Innovation and Entrepreneurship Powerhouse

U of T is a community that believes talent and great ideas can rise above any challenge and change the calculus of what's possible. It's a place that defies gravity.

As Canada shifts to an innovation-based economy, U of T is the ideal place to launch a venture and transform ideas and research into products that promote prosperity, well-being and vitality around the world. It's one of the university's most important missions: to accelerate the next generation of innovators with access to the best teaching and resources.

The University of Toronto's Rankings and Impact

600
venture capital-backed startup companies created by U of T entrepreneurs over the past decade

9,000
jobs created by U of T startups

$2 billion
investment raised by U of T startups over the past decade

11
campus-linked accelerator hubs supporting U of T startups

#1
rank in research-based startups among Canadian universities

(THE, U.S. News, and QS World Report)

#2
among North American public universities

(Times Higher Education World University Rankings 2022)

+6
positions U of T has moved up over the past year in PitchBook's annual rankings of global universities for startup founders

15,000
square-footage of ONRamp, U of T's co-working and event space for startups

200
entrepreneurship-related courses offered at U of T

#2
among North American universities for number of startups (between MIT (#1) and Stanford University (#3))

(AUTM 2020, limited to universities reported as single campuses)

Top 10
in university-managed incubators globally

Divisional Vice-President, Research & Innovation

Advancing Toronto's Innovation Ecosystem

Waterfront Innovation Centre

This summer, MaRS and University of Toronto unveiled MaRS Waterfront: 55,000 square feet of work, meeting, and event space purpose-built for the innovation and creative industries. Situated in Toronto's newest smart-city district, the Waterfront Innovation Centre (WIC) is where startups will grow into scale-ups.

The cutting-edge WIC development will expand U of T's programming to Toronto's Waterfront District.

The Nucleus

Flexible workspace in the WIC powered by MaRS and University of Toronto Entrepreneurship.

First Adopters Network

U of T and MaRS have joined forces to address the Canadian startup commercialization challenge. Together, they are bringing together Canada's leading corporations with some of the nation's most innovative early-stage ventures to create new economic opportunities and business growth.

INNOVATE Toronto

U of T is proud to be featured in INNOVATE Toronto™ - a tech-enabled, 280+ page coffee-table book which details the passion, drive and determination displayed by individuals and businesses alike and showcases the success stories in Toronto.

Read the digital copy >>

Awards of Excellence 2021 Recipients

Jon French
Director
U of T Entrepreneurship

Recognized in the category of **Innovation and Entrepreneurship** for his leadership during the pandemic and for his role in the development of a new IP Education Program accessible across U of T and the greater public.

Efosa Obano
Program Manager
Black Founders Network (BFN)

Recognized in the category of **Rising Star** for his conrtributions toward building and launching the Black Founders Network at U of T.

Accelerating Startups and Community Impact

The University of Toronto Entrepreneurship (UTE) community accelerates ideas, people, social impact, and technologies, all while striving to create an environment that is inclusive and representative of the diverse and talented innovators we serve.

UTE is a central voice for entrepreneurship across U of T's three campuses and represents a powerful network of 10+ accelerators. We are here to support, develop and celebrate our best and brightest founders and their startups through a broad range of resources, network access and entrepreneurship activities.

Engines of Innovation

U of T's 10+ accelerator hubs across the tri-campus help students, alumni, researchers and faculty bring their big ideas to life and scale existing businesses. Our entrepreneurial initiatives leverage the many strengths of a globally recognized university to provide an incredible range of unique offerings to current and aspiring entrepreneurs.

400+
teams supported in 2021 by the U of T entrepreneurship community

Over 400
events hosted by U of T accelerators over the last year

7,000+
attendees reached through event programming

Black Founders Network (BFN)

- *U of T Entrepreneurship (Tri-campus)*

This program provides Black-led startups with access to an unparalleled network of peers, mentors, resources, education, and venture funding.

The BRIDGE

- *U of T Scarborough*

With a focus on student formation and pathways for industry and community partnerships, the BRIDGE connects the best academic theory with creative applications and aspiring minds.

Centre for Entrepreneurship

- *Faculty of Arts and Science*

The Centre for Entrepreneurship is home to entrepreneurship education, co-curricular programs, venture incubation, and acceleration in the Faculty of Arts & Science.

Creative Destruction Lab (CDL)

- *Rotman School of Management*

Created to merge science-based projects with business expertise to launch massively scalable ventures, Creative Destruction Lab is a non-profit organization that delivers an objectives-based program out of Rotman School of Management.

The Hatchery

- *Faculty of Applied Science and Engineering*

The Hatchery, within the Faculty of Applied Science and Engineering, provides comprehensive programs and services to help students form teams, develop new competencies, and launch new startups.

Health Innovation Hub (H2i)

- *Temerty Faculty of Medicine*

With a focus on advancing health innovation ventures, the Health Innovation Hub (H2i) connects early-stage entrepreneurs with a vast mentoring network, facilities, programs, and funding.

The Hub

- *U of T Scarborough*

The Hub is an early-stage innovation and entrepreneurship incubator that assists U of T students and recent alumni across all disciplines in creating and launching new companies.

ICUBE

- *U of T Mississauga*

ICUBE is the place for social entrepreneurship at University of Toronto. We offer co-working space, resources, programs, workshops and events for people who are changing the world. If you want to make a difference, ICUBE is here to help you make it.

InnovED

- *Ontario Institute for Studies in Education (OISE)*

InnovED – an education innovation learning community at the Ontario Institute for Studies in Education (OISE) — is working to create meaningful improvements that support the educational ecosystem.

Start@UTIAS

- *Faculty of Applied Science and Engineering*

Start@UTIAS offers invaluable startup resources to Aerospace graduate students, including legal and accounting workshops, networking opportunities, capital funding, and mentorship.

Celebrating double digits

Three U of T accelerators are celebrating their 10-year anniversary in 2022: Creative Destruction Lab, The Hatchery and UTEST.

10 years

University of Toronto Early-Stage Technology (UTEST)

- *Office of VP Research and Innovation*

U of T Early-Stage Technology (UTEST) helps research-based companies go from lab to market with intensive entrepreneurial education, advisory support, capital funding, and incubation space.

University of Toronto Libraries

- *Tri-campus*

University of Toronto Libraries supports campus entrepreneurs who are enrolled in courses and programs, commercializing research, and launching startups on their own or via a campus accelerator.

Back to business in ONRamp

During the pandemic, the ONRamp co-working and event space, which serves as headquarters to many burgeoning startups and founders, has been largely dormant. As the spring-term ended, we were able to host our first large scale in-person event at ONRamp in two and half years, introducing the inaugural cohort of the BFN – Accelerate, a stream focused on startups with early traction and functional minimum viable products.

This was followed by innovation ecosystem tours for international visitors during the Collision tech conference, one of North America's largest tech conferences.

Home to the U of T Entrepreneurship team and dozens of U of T startups, the ONRamp officially reopened in March 2022. After a two-year temporary closure, the co-working and event space has seen a positive uptick in meetings, events and workstation usage this spring.

ONRamp Highlights:

- 75 members (and counting)
- 5 events hosted since reopening
- Dedicated desk space for CDL companies from streams including quantum and blockchain

In Fall 2023, ONRamp is moving next door to the **Schwartz Reisman Innovation Campus**' west tower, with access to all the building's boardrooms, meeting space, conference centre and state-of-the-art Winter Garden event space.

Historic Banting Institute

Once the epicentre of academic medical research at the University of Toronto, Banting is the current HQ for UTE and ONRamp and the future site for the Schwartz Reisman Innovation Campus – East Building. Approaching full occupancy for the first time since 2020, the building is currently filled with companies as well as mission-aligned organizations dedicated to the process of commercialization.

This is the place to support entrepreneurs turning research discoveries into innovative products and companies that create skilled jobs for students and the province.

Our Startup Tenants

AirMatrix builds the world's most precise drone road systems with its multi-layered grid system to help high-density cities keep their skies safe and controlled.

Arma Biosciences enables on-demand, personalized health monitoring at the molecular level.

Bluekey AI is a smart guidance platform created for all higher education students.

Comfable is a dynamic and innovative engineering consultant dedicated to promoting health, comfort, and sustainability.

Deep Genomics is using artificial intelligence to build a new universe of life-saving genetic therapies.

EBT Medical is commercializing a new class of electrical neuromodulation therapies aimed at treating overactive bladder.

Inteligex is developing proprietary stem cell-based therapeutics to restore function in patients with spinal cord injury and for other diseases of the central nervous system.

Neurescence has created and commercialized a miniature microscope for functional imaging of neuronal circuits.

Phenotips is the most user-friendly and electronic medical records-integrated software solution for medical genetics.

Quantum Bridge Technologies is building the quantum Internet from both conventional and quantum technologies and tackling cutting-edge engineering and theoretical problems related to the generation and manipulation of quantum entanglement.

Steadiware has created a glove that is designed to intelligently stabilize the wrist joint in patients with Essential Tremor and Parkinson's disease, improving independence and quality of life.

Structura Biotechnologies builds high-throughput automated scientific software, cryoSPARC, for cryo-electron microscopy (cryo-EM) image analysis, a Nobel-Prize winning technology that is being used to study biological systems in unprecedented detail.

Showcasing the Entrepreneurial Ecosystem

It was business as virtual again for the annual showcase of U of T's diverse and extensive entrepreneurial and startup ecosystem.

The 6th annual Entrepreneurship Week was hosted from March 7-10, and featured 15+ events – startup showcases, pitch competitions, keynote speakers, workshops, panel discussions and more – delivered through an easily accessible online platform.

6th Annual Entrepreneurship Week

11
startups vying for the UTE Startup Prize at the annual pitch competition

17
events hosted by U of T's entrepreneurial hubs

58
speakers including panellists, startup founders, industry experts, and keynote presenters

60
startups, accelerators and partners participating in the True Blue Expo

1,450
total registrants

70,000
prize money, in dollars, awarded at pitch competitions

Olympic icon takes the main stage

Canadian Olympic icon and business leader, Donovan Bailey discussed the parallels between competing in sports and business in a fireside chat with Rita Trichur of the Globe and Mail and Q&A session with Black students and entrepreneurs.

Next in Health Investor Showcase

Presented by UTE in partnership with UTEST, H2i and Creative Destruction Lab, this private investor showcase featured nine investment-ready health startups presenting their innovations to a group of venture capitalists.

Innovations in Music Performance and Research

An all-alumni panel from the Faculty of Music, including Adrian Berry, Hayley Janes, Adam Fainman and Renee Fajardo, discussed topics such as collaboration and reciprocity in creative cities, beatboxing research and technology, and opera for a 21st-century audience.

Spotlight on Diverse Founders

Several events on this year's Entrepreneurship Week schedule prioritized the need for equity, diversity and inclusion in entrepreneurship.

- **Two-Eyed Seeing in Entrepreneurship** presented by ICUBE and The BRIDGE in partnership with RedBird Circle Inc. focused on how Indigenous Knowledge applies to the fields of entrepreneurship and business education.
- Celebrating International Women's Day, **Pitch with a Twist** showcased woman-identifying entrepreneurs pitching their ideas to a panel of judges.
- Returning to Entrepreneurship Week, the highly attended conversation series, **Fireside at FemSTEM** hosted by H2i, invited special guest speaker Sandy Skotnicki to share experience as a distinguished entrepreneur in the health-care space.

>> Watch the 2022 Ent Week Highlight Reel

UTE Startup Prize 2022 Winners

Awarding over $60K in prizes, the UTE Startup Prize is an annual business pitch competition to recognize, reward, and accelerate the University of Toronto's most innovative startups. The competition took place virtually as one of U of T Entrepreneurship Week's marquee events.

SPARKED

Stephanie Buryk-Iggers, Founder
1st Place - Early-Stage Startup

Offers a hand-held device that screens for the risk of cardiovascular disease using only a saliva sample.

SnapWrite AI

Athiya Rastogi, Co-founder
2nd Place - Early-Stage Startup

A web-based app that enables eCommerce businesses to generate product descriptions in seconds.

Arterial Solutions

Muzammil Syed, Co-founder
Lo Family Social Venture Fund Impact Award

Seeks to introduce the first-ever blood test for peripheral arterial disease (PAD), enabling a timely diagnosis.

HDAX Therapeutics

Nabanita Nawar, Co-founder
1st Place - Later-Stage Startup

Develops targeted therapeutics to tackle unmet healthcare needs in brain cancers and central nervous system disorders.

TransCrypts

Ali Zaheer and Zain Zaidi, Co-founders
2nd Place - Later-Stage Startup

Automates and simplifies the issuance and verification of official documents/data for organizations.

HOPE Pet Food

Kasey Dunn and Sofia Bonilla, co-founders
Dongjun-Wang Family True Blue Prize

Makes sustainable pet food with alternative proteins so that all living things can live in harmony with the needs of our planet.

University of Toronto at Collision

All eyes were on Toronto's tech scene this year as the city hosted Collision, North America's fastest-growing tech conference. More than 35,000 attendees, including startup founders, business leaders, investors, scientists, journalists, and celebrities participated in the in-person conference. That's up 40% from the last time the event was held on-site in Toronto.

800+
U of T students, staff, faculty, and alumni attended Collision

Over 20
U of T startups participated as speakers, exhibitors and attendees

20+
U of T groups staffed the Defy Gravity booth throughout the three-day event

1,700+
in-app connections made by U of T

Top 10
U of T's ranking for partner connections

"Our innovation ecosystem continues to enjoy incredible growth, and Collision is an excellent opportunity to shine a light on this momentum and the impact our entrepreneurial ecosystem is having globally."

- Jon French, Director, U of T Entrepreneurship

>> **In June 2023,** University of Toronto will return again to Collision, in Toronto, as an event partner.

Elevating IP Education

Since launching in 2020, U of T has iterated and expanded its Intellectual Property (IP) Education Program, complementing educational content with case study videos and interactive questions, and making Level 1 and portions of Level 2 accessible province-wide. Plus, new student / instructor modules have also be created to support curricular and co-curricular academic activity.

To help bridge gaps in IP literacy across the province, U of T engaged with the Ministry of Colleges and Universities to make IP Education (Level 1) widely available publicly to learners outside the U of T community via an IP microsite.

PROGRAM

Level 1

IP Foundations

Consists of two modules covering the definition of IP – its value and different forms including patents, trademarks and copyright – and one module on the basics of how to file a patent.

Level 2

IP Strategy & Application

A series of special topics, ranging from patent strategy and commercialization to IP best practices for inventors and entrepreneurs.

>> Following a peer review, the **Ontario Ministry of Colleges and Universities (MCU)** recognized U of T's IP Education Program as a valuable resource and included the IP Microsite in its Intellectual Property Action Plan.

EVENTS

With the new IP Matters series, UTE and Innovations and Partnerships Office (IPO) have a new platform to educate the university's best and brightest students and faculty on complex issues related to IP.

Delivered in partnership with U of T's Centre for Research and Innovation Support (CRIS), the speaker series covers topics such as AI, biotech, and cleantech bringing together subject matter experts, industry leaders, and entrepreneurs to discuss emerging trends and share real-world application of concepts introduced in the IP Education Program curriculum.

Over 2,000
members of U of T community have registered for U of T's IP Education Program

2x
registrations in the program's second year since launching

Equity, Diversity & Inclusion in Entrepreneurship

The UTE community is committed to equity, inclusion, and diversity where participants, partners, and collaborators of all backgrounds, lived experiences, identities, and walks of life feel welcome, supported, and respected.

We are committed to nurturing a sense of community where a difference of opinion and perspective that embodies mutual respect, collaboration, and professionalism is encouraged. We are unwavering in our commitment to maintaining an environment for all members of the UTE family to participate fully and thrive.

Annual EDI in Entrepreneurship Survey

This year, we introduced our first-annual U of T Entrepreneurship Community EDI in Entrepreneurship Survey. This optional, self-identification survey will become a valuable tool to help us measure the participation in our programming from all communities and provide actionable data for improvement. Below are the results of the 2021-22 survey of the UTE community:

41% **Women**

60% **Racialized/visible minorities**

25% **Sexual minorities**

11% **Self-identified as a person with a disability**

<5% **Indigenous or Aboriginal persons from Turtle Island/North America**

Community Leadership EDI Training Session

This session provided tools and support for staff and mentors in the UTE Community to "walk the talk" when it comes to creating a welcoming environment for all our entrepreneurs. The session covered topics such as unconscious bias and sensitivity training for leaders from across the tri-campus. The community has embraced the need for this training to be offered annually and to be strongly encouraged for anyone who works with or volunteers with U of T startups and founders.

Indigenous Entrepreneurship Program

Created by Redbird Circle Inc. in partnership with ICUBE, the Indigenous Entrepreneurship Program integrates Indigenous entrepreneurial practices to form new outlooks on what mainstream business looks like and how it is taught.

The community-led program is rooted in Indigenous knowledge and grounded in relevant Western learning pedagogies. In 2022, the program returned for a second year and expanded with a delivery partnership between ICUBE at U of T Mississauga, The BRIDGE at U of T Scarborough and RedBird Circle Inc.

The latest iteration of the RedBird Circle Indigenous Entrepreneurship Program will expand to include programming and support from both ICUBE at U of T Mississauga and The BRIDGE at U of T Scarborough Campus and will add a focus on Indigenous and sustainable farming practices.

U of T PRIDE Pitch

In celebration of Pride Month, ICUBE hosted its third annual U of T PRIDE Pitch in-person at the U of T Mississauga campus in June 2022. Students, staff, and faculty across the tri-campus gathered in support of the finalists selected to showcase their business ideas via a five-minute pitch to a panel of judges.

Since 2020, the U of T PRIDE pitch has been offering up to $5,000 in cash prizes every year to empower U of T's 2SLGBTQ+ entrepreneurs by ensuring their efforts are recognized, rewarded, and promoted in an entrepreneurial space.

2022 Winners

CulturExpo

Diana Virgovicova, Co-founder
1st Place

Connects handicraft and artisan designers from all corners of the world to share unique, authentic, and handmade products together with their unique stories.

Liohan

Krystal Wong Kruger, Founder
2nd Place

Empowers families to bond, explore, and create together through engagement with our EduTainmenTech.

Ramuri

Laura Valeria Rosales Vazquez, Co-founder
People's Choice

Offers browser extension that helps you shop online by assessing the ethics of brands whose products you're considering buying, and by providing alternative products from ethical brands.

PITCH with a Twist

PITCH showcases innovation and entrepreneurship from University of Toronto, Sheridan College, and our greater community. Focusing on early-stage ventures, the competition brings together women-identifying innovators from a variety of sectors to pitch their businesses for cash prizes and in-kind support.

2022 Winners

HDAX Therapeutics

Nabanita Nawar, Co-founder
1st Place - Early-Stage Startup

SPARKED

Stephanie Buryk-Iggers, Founder
2nd Place - Early-Stage Startup

Arbre

Stephanie Tien and Kristina Knox
People's Choice - Early-Stage

HOPE Pet Food

Kasey Dunn and Sofia Bonilla, co-founders
1st Place & People's Choice - Later-Stage Startup

Liohan

Krystal Wong Kruger, Founder
2nd Place - Later- Stage Startup

FemSTEM

A multi-event series by H2i, the FemSTEM program looks to inspire, engage and celebrate women entrepreneurs.

H2i's goal is to grow the infrastructure, practice, and local culture to translate discoveries and ideas into problem-solving designs, services and products. They do this through building connections, linking people with mentors, resources, researchers, key opinion leaders, and professionals to help them translate, defuse, and scale discoveries.

With this simple but extraordinarily effective model, they have been able to support a record number of ventures commercializing their health innovations.

FemSTEM is H2i's dedicated program focused on fostering an increasingly diverse and inclusive community. They are committed to supporting women and building valuable, diverse connections, uplifting women in STEM who are looking to create their own business.

2022 Pitch Competition Winners

SciVance
Rebecca Allan, Co-founder
Grand Prize Winner

Aims to address the lack of research for treatment advances through the development of small molecule therapeutics for untreated rare diseases.

HDAX Therapeutics
Nabanita Nawar, Co-founder
1st Runner-up

Develops targeted therapeutics to tackle unmet healthcare needs in brain cancers and central nervous system disorders.

Glusyn
Jennifer Doucet, Co-founder
2nd Runner-up

Gene circuit-based detection of pathogens using an off-the-shelf glucose meter, with a focus on animal health.

Cassels generously supports University of Toronto's Cassels Women in Entrepreneurship Fund programming, including Pitch with a Twist and Fireside at FemSTEM. Cassels also provides $5,000 in in-kind legal support to winners of the UTE Startup Prize, PITCH with a Twist, and FemSTEM.

UTE is proud to partner with the **Canadian Women's Network** (CWN) to provide U of T Startups and ONRamp members with free CWN memberships, allowing them to unlock access to the network's influential community of mentors, investors, and world-class advisors who can guide them on the growth of their business.

To launch their partnership and kick off the new year, UTE and CWN co-hosted "Building an Inclusive Community from Startup to Scaleup" featuring a panel of industry experts in the equity, diversity and inclusion space.

Black Founders Network

Following nine months of consultations with more than 100 Black entrepreneurs and 50 Black-focused organizations, the Black Founders Network (BFN) officially launched in October 2021. The launch event, with the theme of "Creating Successful Black Founders," was attended by over 300 community members.

One of the most successful Black founder-turned-investors, Michael Siebel, Managing Director of Y Combinator, presented an authentic and motivating keynote. Roundtable conversations followed, focused on founders' perspectives, investors' perspectives and community's perspectives.

The BFN's mission is to create an inclusive community of Black entrepreneurs at all stages of their journey, and provide them with the networks, resources, and inspiration to launch, fund, and scale impactful startups.

Over 2,000
expressions of interest to join the BFN community

30+
events hosted and supported

50+
mentors and advisors engaged

Over 20
corporate/ organizational community supporters

1,800
newsletter subscribers

Looking ahead

A key focus of the BFN in the year to come is building on our momentum to grow and better engage our community by launching a community platform. We also plan to add resources and programming for the other two pillars of the BFN: Core and Scale.

Follow @BFNcommunity on social >>

BFN Accelerate 2022 Cohort

BFN Accelerate is a Black Founders Network program stream focused on startups with early traction and functional minimum viable products.

In Spring 2022, the cohort-based program received applications from more than 70 Black-led startups in the U of T community. Through a series of reviews and in-person judging, 11 top ventures were selected to participate in the inaugural program year.

AfterData AI
Anu Oladele, Co-founder

AfterData evolves data discovery and exploration with a rich visual interface. The underlying technology of knowledge graphs position helps leverage meta data collected through usage of the platform to enrich and support AI and ML solutions for the companies that use the platform.

Aworie Health
Rae Massop, Founder

Aworie is a group private practice offering mental health services to marginalized Canadians. Through feasible sliding-scale rates, Aworie aims to provide affordable, convenient, and accessible mental health services for its target population.

Blair + Jack
Dr. Bimpe Ayeni, Founder

Blair + Jack provides clean, cruelty-free, physician-formulated skincare products for men to treat common skincare problems and unlock their power of putting their best faces forward and improving confidence.

Elev
Kevin Mpunga, Founder

Elev creates innovative alternatives of matching students to homes. By understanding the students' needs and wants, the Elev algorithm searches the best home available that fits their needs and has the highest likelihood of being their next home.

Fyyne
Jeffrey Fasegha, Co-founder

Fyyne is a platform for beauty professionals to provide and market their service while also receiving payment from their existing and new customers. Its predictive technology and unique ratings and review system will help consumers make their decisions, book appointments and pay for their services.

HDAX Therapeutics
Tobi Oaoye, Co-founder

HDAX is a drug discovery startup focusing on developing therapeutics of small molecule inhibitors targeting HDAC6 in brain cancers and neurodegenerative disorders. Aims to tackle the unmet healthcare needs in brain cancers and CNS disorders.

Nobel-Hub
Melisa Ellis, Founder

Nobel-Hub is an online ecosystem of Black-owned companies and freelancers. A business directory that offers essential services for entrepreneurs and start-ups. Services include legal, accounting, marketing, technology development, business planning, consulting and professional development.

NORM (Natural Organic Matters)
Chevon Riley, Founder

NORM solves the problem of a need for access to natural cosmetic products by providing proven natural formulas to help our customers live a healthier life with a focus on skin care. NORM offers a variety of products while emphasizing over health, sustainability, and general kindness towards our planet and those that inhabit it.

Reeddi
Olugbenga Olubanjo, Founder

Reeddi innovatively provides clean and reliable energy at a price point that every African can afford. Reeddi's proprietary energy generation and distribution technology system integrates smart data harvesting and analytics technology.

Woo Your Boo
La Vance & Colleen Dotson, Co-founders

Woo Your Boo is an app that bridges the communication gap between couples through the use of love languages that are linked with novel dates and experiences. Resulting in couples feeling more connected and satisfied in their relationships.

Yuko AI
Uwabeza Jean Marie Vianney, Founder

Yuko AI offers an AI-powered, accurate and efficient software to help clinics communicate with patients, triage and manage skin health issues online. With the Yuko AI software, dermatologists will serve more patients in the same amount of time and increase their revenue.

RBC Scholarships for Diversity and Innovation in Technology

In June 2022, University of Toronto and RBC launched a scholarship fund to support students from equity-deserving groups including women, Black, and Indigenous students interested in a career at the intersection of technology and financial services. Part of a three-year gift from RBC, the RBC Scholarships for Diversity and Innovation in Technology will support up to six $15,000 scholarships annually.

This scholarship is the latest addition to a growing collection of resources available to under-represented or racialized U of T students, along with the Black Research Network, Indigenous Research Network, and the recently launched Black Founders Network.

RBC and U of T have a long-standing relationship, which started in 2016 with the launch of ONRamp, a collaborative workspace for students, entrepreneurs, and startups to support them in developing commercial ideas. In addition to seeding ONRamp, the initial $3 million contribution from RBC created fellowships, prizes, and a speaker series to enhance the University's entrepreneurship ecosystem.

"RBC was an early champion of the innovation ecosystem at the University of Toronto and these awards are another example of how industry and academia can work together to create a culture of inclusive excellence."

Leah Cowen, Vice President, Research and Innovation, and Strategic Initiatives, University of Toronto.

6 years
how long RBC has supported the U of T Entrepreneurship community

$15,000
amount awarded to each scholarship recipient

Up to 6
scholarships annually over three years

Global Entrepreneurship Partnerships & Initiatives

Mastercard Foundation: Accelerating Health Entrepreneurship in Africa

With the support of Mastercard Foundation, U of T partnered with six universities across Africa to launch a Health Entrepreneurship collaborative.

Led by three U of T accelerators: H2i, The BRIDGE and ICUBE, the partnership will leverage the African Impact Challenge, a program initially brought to life by UTSC, for program delivery through the introduction of a new Health Entrepreneurship Challenge stream.

Over the next 10 years, entrepreneurs will apply their transformative ideas to create companies that will strengthen local health sectors. Top performing startups will have the opportunity to visit Toronto and learn first hand from the U of T Entrepreneurship's innovation ecosystem.

Projected 10-year impact:

1,000
ventures launched and incubated in Africa

Up to 8
African incubators mentored to support socially impactful, health startups

5,000
online learners accessing virtual entrepreneurship modules

10,000+
meaningful, dignified jobs created

Indo-Canadian Entrepreneurship Exchange (ICEE) Program

ICEE is a joint initiative of the Society for Innovation and Entrepreneurship, IIT Bombay and U of T. The program introduces students and early-stage startup founders to opportunities across Indian and Canadian entrepreneurship and innovation ecosystems.

Its aim is to support budding entrepreneurs, improve research collaboration, and establish a strong, two-way innovation talent pipeline with the eventual goal to deliver in-person exchanges in Toronto and Mumbai. In the interim, ICEE delivers a series of virtual workshops and thought leadership events.

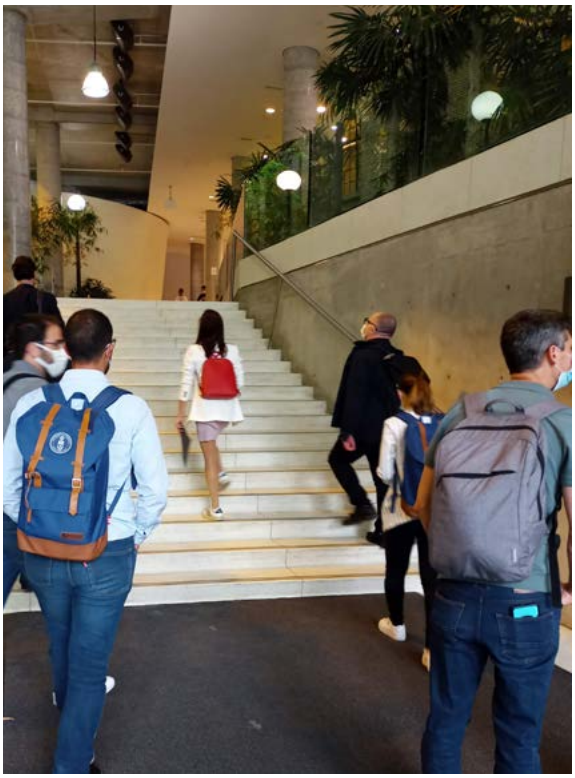
To date, there have been three virtual ICEE events that introduced opportunities, founders and leaders in the Indo-Canadian innovation corridor, each attracting nearly 300 registrants.

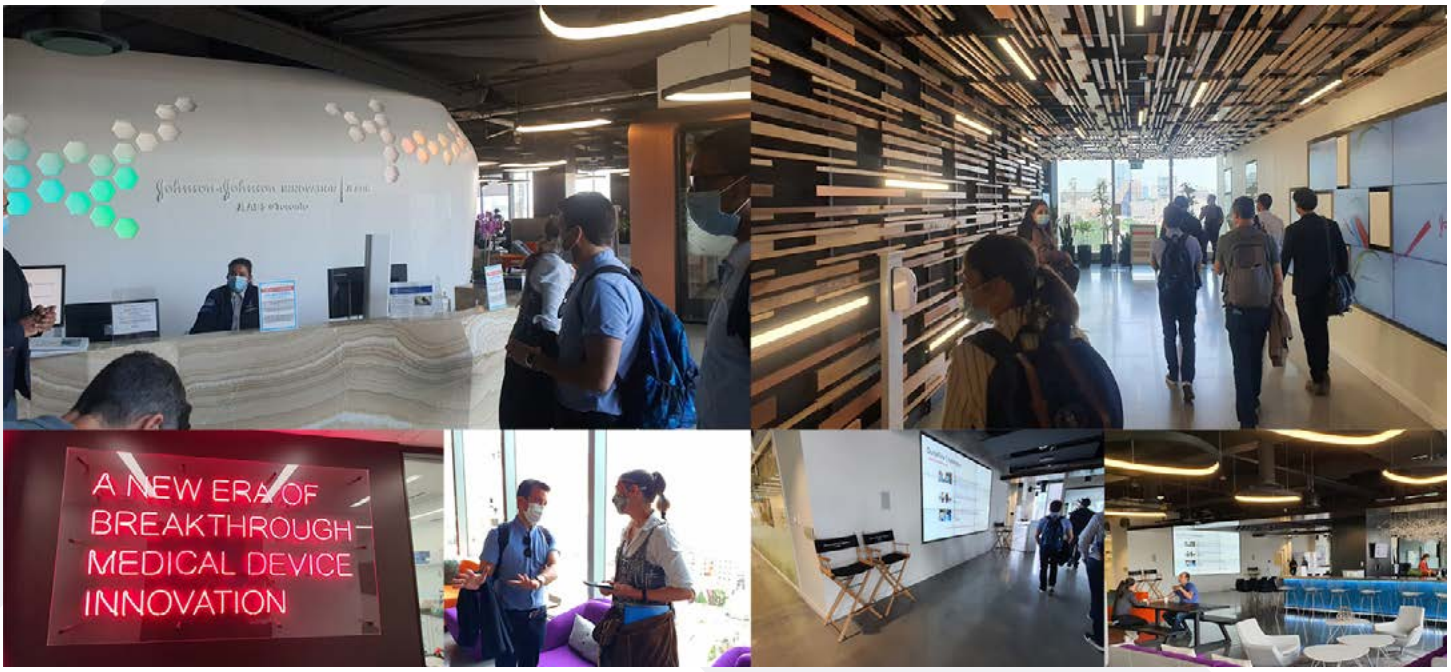
Hebrew University of Jerusalem visits U of T

In June 2022, UTEST hosted a delegation of eight visitors from the Hebrew University of Jerusalem (HUJI) — six research-based entrepreneurs and two program directors—as part of a partnership between HUJI and the University of Toronto.

During their week-long stay in Toronto, they learned about U of T's innovation ecosystem as well as the wider Toronto and Ontario innovation systems.

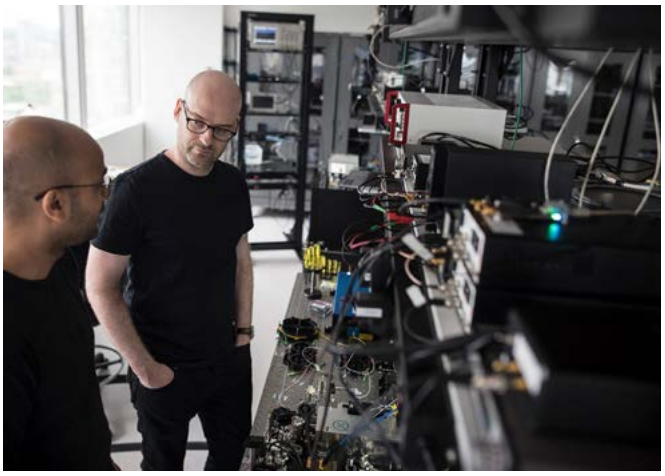
This fall, select startup teams from U of T with a view to scaling globally will be given the opportunity to follow a similar program hosted by HUJI. Moreover, we hope to continue the exchange of ideas with respect to entrepreneurship education and accelerator programming.





Startups in the Headlines

Anchored by U of T's strengths in critical fields such as health sciences, AI, and information technology, U of T startups are making headlines across the globe. Here are a few of the top stories from this year.



Alumni-founded ventures >>

Cohere
● *Creative Destruction Lab (CDL)*

Co-founder: Aiden Gomez
U of T affiliation: Alumnus
Industry: Artificial intelligence (AI)
Story headline: AI language processing startup Cohere raises US $125 million: The Globe and Mail

DNAStack
● *U of T Entrepreneurship*

Co-founder: Marc Fiume
U of T affiliation: Alumnus and Adjunct Professor, Department of Molecular Genetics
Industry: Software, IT, health tech
Headline: DNAStack awarded as Technology Pioneer by World Economic Forum

Reeddi
● *Black Founders Network* ● *Centre for Entrepreneurship*

Founder: Olubenga Olubanjo
U of T affiliation: Alumnus
Industry: Clean tech, energy
Story headline: U of T startup Reeddi among finalists selected for inaugural Earthshot Prize

Xanadu
● *CDL*

Founder: Christian Weedbrook
U of T affiliation: Former post-doctoral researcher
Industry: Quantum computing
Story headline: Toronto startup Xanadu achieves quantum computing feat: The Globe and Mail

BenchSci
● *H2i* ● *CDL* ● *Hatchery*

Co-founder: Liran Belenzon
U of T affiliation: Alumnus
Industry: Health, AI
Story headline: U of T drug discovery startup BenchSci raises $63 million in funding: The Globe and Mail, BetaKit

Faculty-founded companies >>

Signal 1

Founders: Tomi Poutanen (U of T alumnus & co-founder of Vector Institute) and Mara Lederman (Professor, Rotman School of Management & Academic Lead, CDL Partners Program)
Industry: AI, health
Story headline: Health startup Signal 1 AI uses machine learning to save lives

Waabi

Founder: Raquel Urtasun
U of T affiliation: Professor, Department of Computer Science
Industry: Autonomous vehicles, AI
Story headline: The road ahead: Raquel Urtasun's startup to 'unleash full power of AI' on self-driving cars

Deep Genomics
● *UTEST* ● *CDL*

Founder: Brendan Frey
U of T affiliation: Professor, Faculty of Applied Science & Engineering
Industry: AI, health tech, genomics
Story headline: U of T prof's AI startup, Deep Genomics, raises US $180 million: The Globe and Mail

Top of the List

The founders of Cohere and Waabi were included in **Forbes' The AI 50 list of 2022**

Reeddi's energy capsule included in **TIME Magazine's Best Inventions of 2021**

Raquel Urtasun and Brendan Frey included in **Toronto Life's list of Most Influential Torontonians**

Turning CO^2 into shampoo and lawn furniture? U of T startup doing what 'no one has done before'

By Tina Adamopoulos, U of T News

When Christine Gabardo joined CERT Systems in 2019, she found herself in the midst of a five-year global competition to address rising greenhouse gas with breakthrough technologies.

The team had reached the semi-finals of the NRG COSIA Carbon XPRIZE thanks to a process that fuses chemistry, materials science and mechanical engineering to transform CO2 into ethylene – used to make an assortment of everyday items, from shampoo to fabricated plastics and mattresses.

Gabardo took a lead role in helping CERT – which grew out of research in the University of Toronto's Faculty of Applied Science & Engineering – advance all the way to the finals by scaling up their reactor, originally the size of a Rubik's cube cell, by more than 10,000 times to process 100 kilograms of CO2 per day.

"I found it really interesting that electrochemistry could be used to tackle one of our world's biggest challenges, which is climate change," says Gabardo, the co-founder and director of technology at CERT and a former U of T post-doctoral researcher.

"It's exciting to get to work with cutting-edge technology, especially on something no one has done before."

At present, fossil fuels are used to produce an estimated 158,000,000 tons of ethylene per year.

CERT, by contrast, uses water and electricity to turn waste CO2 into ethylene and other carbon-based fuels using an electrocatalyst operating at room temperature and atmospheric pressure. The catalyst is able to break and reform CO2 into larger, valuable molecules with electricity and protons from water. The process allows CERT to make a chemically identical ethylene otherwise produced from fossil fuels.

> "I've always been interested in starting a company. I just didn't know when in my career that would happen."
>
> - Christine Gabardo
> *Co-founder, CERT Systems*

"If we can decarbonize ethylene production, then we can decarbonize all of the materials that are downstream from it," says Gabardo, who is also a research associate in the Sinton Group.

"That will help tackle CO2 emissions from the chemical industry all the way down to consumer goods."

Co-founded by Gabardo and Alex Ip, CERT is backed by research from two engineering lab groups; the Sinton Group, led by David Sinton, a professor in the department of mechanical and industrial engineering, and the Sargent Group's Ted Sargent, who was then based in the Edward S. Rogers Sr. department of electrical and computer engineering.

CERT is also supported by Breakthrough Energy Solutions Canada, which brings some of the nation's top clean energy leaders and investors together to accelerate companies offering new solutions to reduce greenhouse gas emissions.

For Gabardo, balancing the worlds of science, technology and entrepreneurship has always been in the cards. She says she's been fascinated with the idea of inventing things since childhood.

"I've always been interested in starting a company," says Gabardo. "I just didn't know when in my career that would happen."

"I thought, 'I just want to join a startup,'" Gabardo says.

Like fellow co-founder Ip, Gabardo came from a technical background. She studied electrical and biomedical engineering at McMaster University, where she developed electrochemical devices for point-of-care diagnostics for infectious diseases. While her technical skills were transferable to scaling CERT's CO2 conversion technology during the XPRIZE competition, the company also needed support to grow the business beyond academia and into commercialization.

So, CERT leaned on U of T's entrepreneurship community – in particular, the University of Toronto Early Stage Technology Program (UTEST). The program supports U of T entrepreneurs who are building research-based companies and offers a range of services, including investment capital, business strategy and mentoring. That includes providing startups with educational and networking support through MaRS, an intensive entrepreneurial education program that connects entrepreneurs with a range of local professionals and investors.

"It's not obvious how you even start a company," Gabardo says. "We were able to tap into the startup community at U of T and ask valuable questions. Just being honest about what you need help with and asking for resources will accelerate how you can get started."

With a lab currently under construction on U of T's downtown campus, CERT will soon be able to continue their work where their journey first began. The pilot unit will allow CERT to continue to refine their process in order to improve their efficiency and produce ethylene and other products (such as ethanol) at a meaningful scale.

For Sinton, the move couldn't come at a better time, particularly with the university's plan to achieve a climate positive St. George campus by 2050.

"U of T has been hugely supportive of the project," Sinton says. "They've embraced us and looked at this pilot plant as a U of T facility – and one that is now coming home.

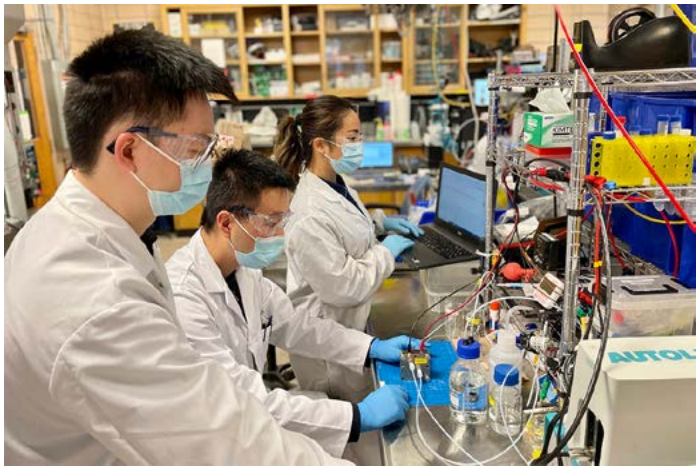
"CERT and the team are in an exciting place. They're really mature for a startup company and have the opportunity to grow quickly because of all the work they've done with their technology."

Gabardo says CERT is currently focused on growing its team, exploring raising seed funding, as well as forging more strategic partnerships. In the next five years, Gabardo hopes to increase the capacity of CO2 that CERT's pilot reactor can process per day, scale into a commercial unit and work with industrial partners to produce valuable products.

She makes it a priority to mentor and support other women in the lab and co-op students who work for CERT, saying it is important to ensure women see themselves in leadership roles.

"It's hard to enter a field where it's typically male-dominated and there aren't that many people you can relate to," Gabardo says. "Trying to be that example for other people is something that I think is important.

"If you're interested in something and have the passion to pursue it, don't let people's opinions stop you. Continue working on it no matter what."



Shijie Liu, Yi (Sheldon) Xu and Celine Xiao are members of Team E-quester, which earned a $250,000 XPRIZE Carbon Removal Student Award. They are advised by Professor David Sinton and University Professor Ted Sargent, research associate Christine Gabardo, and alumnus Alex Ip, who also serves as the Sargent Group's director of research and partnerships. (photo by Yong Zhao)

Looking Forward: The Future of Entrepreneurship

A new academic year brings with it a renewed sense of optimism and excitement. But this year it hits different.

The joy of making IRL connections with classmates, colleagues and the community is reverberating around campus. UTE is keeping up the momentum for the year ahead: introducing a new visual identity**,** launching EDI initiatives for entrepreneurs, and preparing for a move into the Schwartz Reisman Innovation Campus.

In with the New

Introducing the new University of Toronto Entrepreneurship visual identity.

UNIVERSITY OF TORONTO | Entrepreneurship

What does it symbolize?

- No wrong door philosophy – entrepreneurs can find support and engage with UTE at any stage
- An inclusive community that believes diversity drives innovation
- The entrepreneur's journey is non-linear, it winds and bends through time
- Continuous and virtuous cycle of the entrepreneurship community. As startups graduate and leave the university ecosystem, they remain part of the UTE community as mentors, advisors, donors, judges, speakers and investors.

University of Toronto Entrepreneurship

Why now?

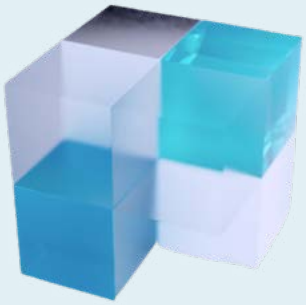
- Fresh sense of optimism, resiliency and rebirth coming out of pandemic
- Building on the incredible momentum of U of T startups and entrepreneurship ecosystem
- Physical manifestation of innovation with the Schwartz Reisman Innovation Campus slated to open in Fall 2023

University of Toronto Entrepreneurship

Startup Marketing Toolkit

U of T Startups can add some True Blue to their marketing collateral with the startup marketing toolkit, including wordmarks, logos, messaging and the newest addition: a video bumper.

The U of T Startup video bumper symbolizes the entrepreneurship community's collective inputs to accelerate start-up ventures.



>> Click here to check out the complete toolkit.

The New Home for Innovation

Slated to open in Fall 2023, the Schwartz Reisman Innovation Campus West Building will:

- Be the new home of UTE, ONRamp, and several U of T accelerators including the Centre for Entrepreneurship and UTEST
- Connect local and global industry partners, investors, and government with researchers, student entrepreneurs, alumni, business leaders, and other mentors
- Anchor one of Ontario's leading AI clusters, including headquarters for the Vector Institute
- Expand opportunities for student entrepreneurs generating innovative ideas designed to solve society's challenges
- Be home to the Schwartz Reisman Institute for Technology & Society, asking the tough questions about how we use technology for better and worse

Phase 2: The innovation campus' East Building will anchor Canada's leading life science, and biomedical/ bioengineering research and innovation cluster.

Moving the dial on EDI

The year ahead will build on the momentum we have created with our initiatives to support all equity-deserving groups and create the most welcoming entrepreneurship community in Canada.

Some of our many goals for the year ahead include:

1. Execute on our first full year of BFN programming and attract corporate and government partners.
2. Support the RedBird Indigenous Entrepreneurship Program and build a tri-campus Indigenous Entrepreneurship Strategy.
3. Expand the number of EDI in Entrepreneurship "train the trainer" workshops.
4. Graduate our first cohort of BFN Accelerate entrepreneurs and showcase these Black-led businesses to our whole ecosystem.
5. Deliver the second iteration of our annual EDI in Entrepreneurship Survey and increase the completion rate to gather more actionable data
6. Establish the BFN Leadership Council to help guide the BFN as it grows.
7. Support Women in Entrepreneurship and in STEM through existing and new programming.

Perks for U of T Startups

From cloud credits to free e-commerce stores to discounted global shipping, the UTE Startup Perks program offers entrepreneurs in the U of T community access to community partner offerings.

Cloud computing

aws

Google for Startups

Funding

pocketed

Hockeystick

E-commerce

shopify

Networking

CWN SILICON VALLEY

Printing

TPH

Shipping

DHL

Productivity

FELLOW

HubSpot

ownr

Professional services

carta

DealPrep

DELL

Who is eligible?

To be eligible for startup perks, you must be:

- A U of T student or startup who is affiliated with a U of T accelerator, **OR**
- An active member of the ONRamp co-working space

Get access

U of T Startups can unlock access to these exclusive discounts on essential tools, services and resources to support their business by contacting entrepreneurs.utoronto.ca to confirm eligibility.

Click here to learn more online.

Want more from University of Toronto Entrepreneurship?

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DEFY GRAVITY