

HIGHLIGHTS OF THE YEAR

CENTRE OF ENTREPRENEURSHIP

THE RELENTLESS PURSUIT OF
IMPACT ENTREPRENEURSHIP™



CENTRE OF ENTREPRENEURSHIP

THE CENTENNIAL ADVANTAGE

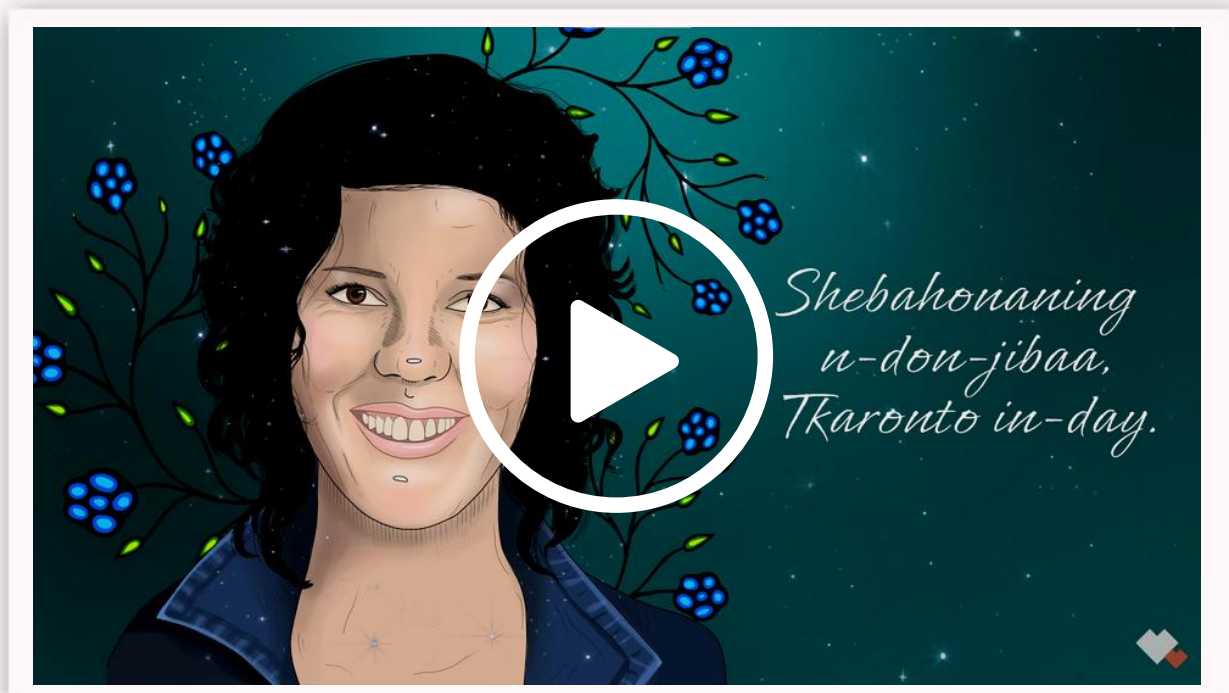
FALL WINTER

2021-2022



SIMPLE GESTURES WITH DEEP ROOTS: UNCOVERING AN ORAL HISTORY OF TKARONTO

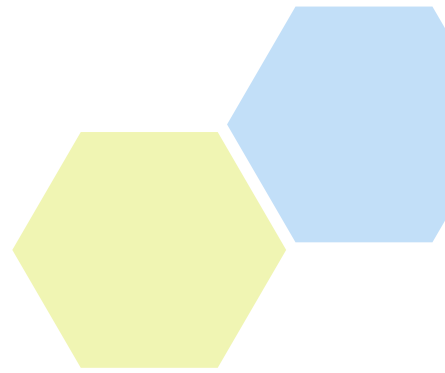
We invite you to listen to a beautiful, deep and heartfelt acknowledgement by Sara Roque and Selena Mills who share their reflections on this land.



We acknowledge that the GTA has been home to Indigenous peoples for millennia. At the Centre of Entrepreneurship, we strive to learn, respect and integrate the teachings of the original inhabitants of this rich and beautiful land.



TABLE OF CONTENTS



01	Message from the VP Academic and CLO & the Dean of ARIES	25	Global Goals Jam Themes & Topics
03	Aligned with our Academic Plan; Renewed and Updated Model & Approach	27	Our Keynote Speakers
07	Reinvented & Transformed Entrepreneurship Programming for Skills Development	29	Our Panel of Judges
11	A Look at our Workshops	31	Our Galaxy of Mentors
13	Fall/Winter 2021-2022 Dashboard	33	Our Winning Teams
15	Expert Coaches & Presenters with Rich and Diverse Backgrounds & Our Faculty Leaders	37	The 2022 OCIN Pitch Competition
17	About the Sustainability Institute	39	Some of our Change-Leader Students & Alumni
19	SDG Innovation Lab	41	Quotes from some of our Leaders in our Community of Support
21	Module 1: SDG Training	43	Quotes from some of our Centennial Students & Researchers
23	Module 2: SDG Challenges - The Global Goals Jam	45	Our Dedicated & Passionate COE-ARIES Team



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Click on any of the headings to go directly to the page.



The Centre of Entrepreneurship is committed to providing communication that is accessible to the widest possible audience, regardless of ability. We are actively working to increase the accessibility and usability of our communications materials and to comply with Level AA of the Web Content Accessibility Guidelines (WCAG) 2.0.

Some accessibility features in this report:

- Closed Captioning options are available for all videos.
- Zooming is available to increase text size
- Report compatible with Text-to-Speech softwares
- To access report outside interface, [PDF](#) is available.

A MESSAGE FROM THE VP ACADEMIC AND CLO



This week I'm highlighting some of the exciting opportunities and trailblazing work by colleagues and students in Centennial's Centre of Entrepreneurship (COE - ACCEL), part of the Applied Research, Innovation and Entrepreneurship Services (ARIES) division.



This past year, the Centre of Entrepreneurship (COE - ACCEL) offered 80 sessions with a focus on helping students develop an entrepreneurial mindset, encompassing social development as well as economic objectives to innovate and build impactful solutions for challenging problems we face, locally and globally. The sessions have included workshops, Sustainable Development Goals (SDG) Training, Global Goals Jam, and an incubation experience program. This work aligns with our Academic Plan 2021-2025 commitment to providing students with the New Essential Skills they need in today's (and tomorrow's) workplace, and our Wildly Important Goal of "Encouraging students' creativity and inquiry through innovation, entrepreneurship and changemaking."

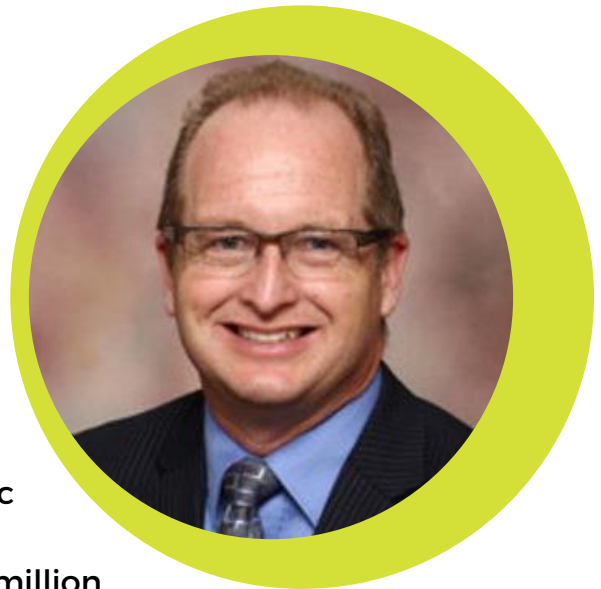
Since 2020 Centennial student changemakers have developed social impact venture ideas to ameliorate climate change, find innovative solutions to clean water and sanitation, promote health and well-being, advance equity and inclusion, support sustainable cities, and inform responsible production and consumption (to name a few). COE-ACCEL also supports students through themed workshops specific to their area of study, such as culinary ("Foodpreneur"), art and design ("Artpreneur"), social enterprise ("Changepreneur"), and STEM ("Techpreneur"). Learning to critically analyse and apply entrepreneurship and changemaking concepts and methodologies equips our students to be leaders in creating a more just and equitable world.

Marilyn Herie
Vice President Academic and Chief Learning Officer,
Centennial College

Excerpted from her Friday Message on April 8th, 2022 to Academic Leadership



A MESSAGE FROM OUR DEAN



Calling all Leaders and Changemakers!

COVID-19 has shifted our world at an unprecedented pace. The start of the pandemic necessitated the move to online meetings and forums as evidenced by the fact that over 200 million people joined Microsoft Teams meetings in a single day! I imagine that when we all look back on this period in history, we will see this rapid transformation as an extraordinary response to a virus that threatened our economy, our social networks, and support systems.

Today's learners are acquiring skills at a time when the pace is accelerating at an exponential rate. How then should they approach this changing nature of work?

A changing, rapidly evolving world can only be effectively addressed by individuals who have developed the skills to address complex problems effectively. I am thrilled that our Centre of Entrepreneurship has so effectively pivoted our activities for students and the community during the past year – providing more relevant and practical streams of engagement to develop the mindset and key skills to future-proof careers and develop change-leaders, including social entrepreneurs and those who wish to start a 'for profit' business venture.

At the core, entrepreneurship refers to an individual's ability to spot opportunities and turn ideas into action. It requires creativity, innovation, the ability to develop the required resources and assess risk, as well as the ability to take the initiative, plan and manage projects to achieve the desired objectives. Learners can engage in all stages of entrepreneurial skills development through the programs offered at Centennial by the Centre of Entrepreneurship. By engaging in these programs, they gain the ability to think iteratively, and develop solutions to problems based on a 'continuous improvement' mindset.

Centennial College provides many opportunities for students and community for co-curricular and extra-curricular engagement. We encourage you to check out all that we have to offer at the Centre of Entrepreneurship, and we welcome your ideas and feedback on our programs.

Jonathan Hack
Dean, Applied Research, Innovation and Entrepreneurship
Services (ARIES), Centennial College



ALIGNED WITH OUR ACA TO DEVELOP FUTURE CHANGE-LEADERS

In the college's [Academic Plan 2021-2025](#) it is noted that we need to transform teaching and learning in a disrupted world, and embrace challenges as transformational opportunities. Embedded in this plan are actions designed to equip our students with the skills needed to succeed in their careers. As a part of this effort, we have intentionally placed an increased focus on the acquisition of sustainable entrepreneurial skills through experiential programming.

The Centre of Entrepreneurship (COE) - ARIES has been offering a suite of programming since Fall 2021, aligned with the Wildly Important Goals of the Plan. This exceptional array of 'beyond the classroom' programming engages students and the community by embracing online and technology-enabled learning like never before, and continuing to deliver outstanding hands-on learning.



The European Commission defines entrepreneurship as “the capacity to act upon opportunities and ideas, and transform them into value for others”. In the [European Commission Entrepreneurship Competence Framework \(EntreComp\)](#), the result of over 10 years of international development to increase the competence of the European Union, the Commission distilled the results into a comprehensive system of over 400 learning outcomes organized around three areas: ideas and opportunities, resources and into action. The skills acquired in learning how to find solutions to challenges and develop an entrepreneurial venture to create financial, cultural or social value equips students with an entrepreneurial mindset as well as a diverse range of skills, all of which are deemed to be future essential skills by the World Economic Forum. (Source: [The Future of Jobs Report - WEF, 2020](#)).

ACADEMIC PLAN

Centennial College supports students to become leaders and changemakers. We want to particularly highlight some of the Wildly Important Goals (WIGs) and the accompanying Priority Actions in our Academic Plan aiming at fostering these new ways of learning, working and living:

1. Embrace New Essential Skills for students' career success
2. Encourage students' creativity and inquiry through innovation, entrepreneurship and change making
3. Give every student a Work Integrated Learning experience to pave the way to employment and career success
4. Create technology-rich learning environment to reflect the changing world of work
5. Meet the needs of industry and employers by creating new programs focused on the future of work
6. Move away from lecture to foster "deep learning" for students
7. Facilitate applied and active learning through group work, educational and industry-specific technologies, storytelling, and inquiry-based and increased experiential/hands-on learning to empower students to become critical thinkers deeply engaged with applied learning in their chosen field

Centennial student changemakers have developed social impact venture ideas to provide positive net impacts on climate change, clean water and sanitation, good health and well-being, gender equity, reduced inequalities, sustainable cities, and responsible production and consumption to name a few. Familiarity with the concepts, strategies and application of leading-edge methodologies for solutions to global challenges through innovation and entrepreneurship equips Centennial students with the lifelong skills and actionable roadmap to continue to be changemakers long after their graduation.



RENEWED AND UPDATED MODEL & APPROACH

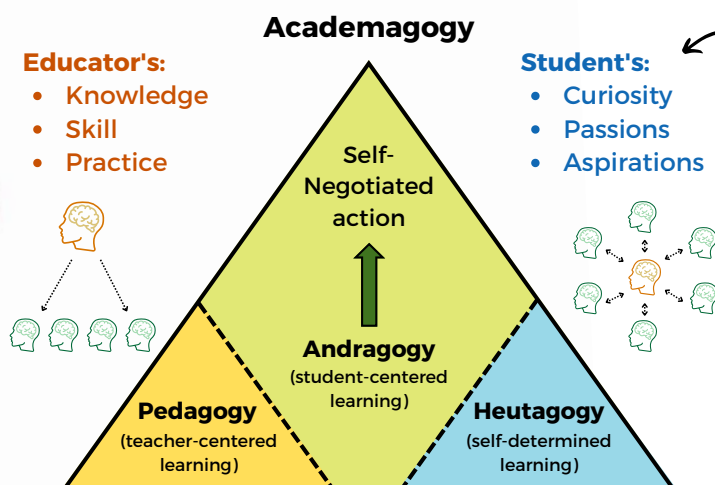
Last year, the Centre of Entrepreneurship received a mandate to renew and update the model and programming, as well as develop and demonstrate a renewed innovation capacity. We **completely transformed** these from the ground up to ensure a **capital-efficient sustainable future**, using **leading-edge innovative methodologies** to develop future skills. We looked at entrepreneurship education (EE) and skills development, including the models of teaching and learning.

For example, **Boyer's model** of Scholarship of Teaching (1990) gave the term 'scholarship' a broader meaning. It defines four separate but overlapping areas of scholarship, namely **Discovery, Integration, Application and Teaching**.

The Domains of Scholarship	
Discovery <ul style="list-style-type: none"> societal problems to useful knowledge 	Integration <ul style="list-style-type: none"> collaborate across disciplines
Application <ul style="list-style-type: none"> put knowledge to work in the world 	Teaching <ul style="list-style-type: none"> good theory and best practices to teach

Pursuing this teaching aspect of EE, **Neck and Corbett (2018)** found that teaching entrepreneurship is often associated with pedagogy. They define EE as developing the mindset, skillset, and practice necessary for starting new ventures, emphasizing that outcomes of such education support the life skills necessary to live productive lives, **even if one does not start a business**. Their findings support moving away from pedagogy and traditional pedagogical approaches, and **encourage a transition to teaching approaches based on adult learning** instead, namely **andragogy and heutagogy**.

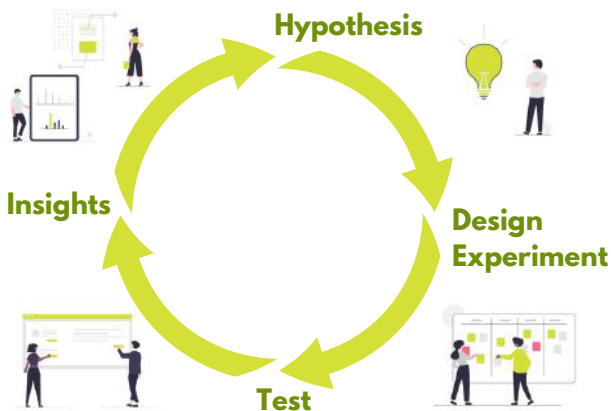
Heutagogy advocates (**Blaschke, 2012, Hase & Kenyon, 2000, 2013**) further suggest that students who have the capability to **learn "how to learn"** exhibit self-efficacy, communication, teamwork skills, and creativity in order to adapt to unfamiliar environments, and be **well-prepared for the complexities of the workplace**; all of these are very relevant for entrepreneurship education.



Therefore, we use the amalgamated **learning theories of pedagogy, andragogy and heutagogy**; that is **teacher-centered, student-centered and self-determined learning** based on the **principles of Academagogy** as enunciated by **McAuliffe et al. (2008)** for our beyond the classroom programming rolled out so far.

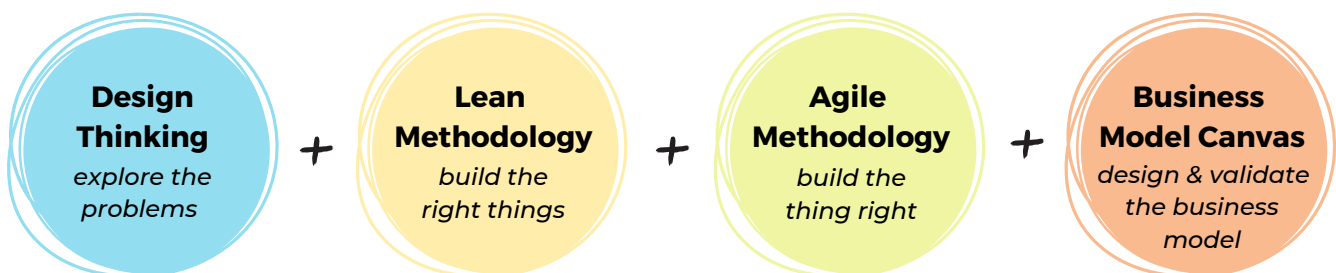
FOCUSED ON ENTREPRENEURIAL MINDSET & SKILLS DEVELOPMENT

We have several programs that are highly experiential, inquiry-based, iterative and creative learning processes. They use **Design Thinking** and **Lean LaunchPad®**, which is Steve Blank's Customer Development process comprising of **discovery, hypothesis, experimentation, iteration, insights and validation**. This process is taught in over **300 universities worldwide** and is the core standard for the **U.S. National Science Foundation Innovation Corps program**, for **commercializing science across the U.S.**



These **facilitated and expertly mentored** programs offer **experiential and agile** learning in a flipped classroom, focused on creating an immediate action in an intense environment. Participants conduct user research and inquire, empowering them to understand and develop insights. They work in a **team environment** where the participants are both **learners** and contribute to **peer learning** with the goal to design and validate a business model.

In order to get the best of Design Thinking and Customer Development, we have **integrated design thinking** to explore the problem and solution, **lean methodology** to test the hypotheses to learn the right outcomes, **agile** to adapt to changing conditions, and **business model canvas** to design and develop a repeatable and scalable business model.



◆ Steve Blank's Customer Development (Lean LaunchPad®) ◆

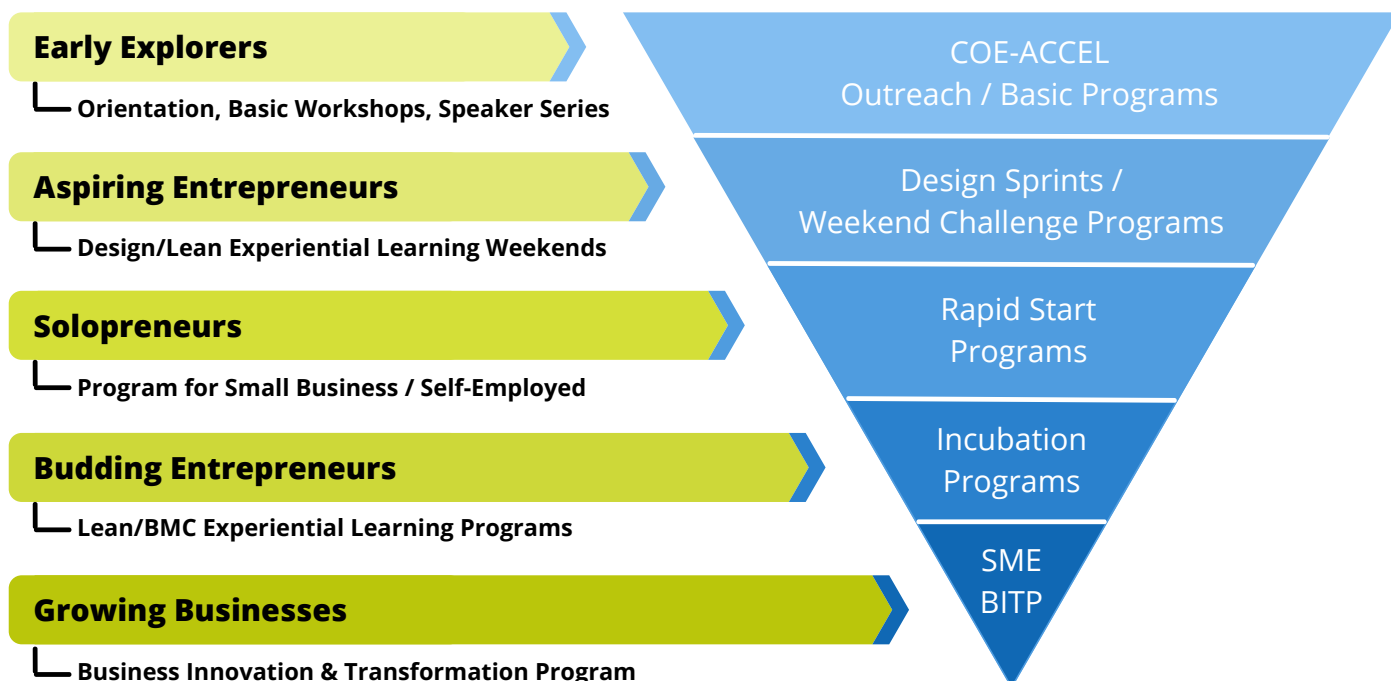
We are using **EntreComp** referenced earlier as our framework that not only **leads our work for the classroom**, but is **foundational for our existing beyond-the-classroom programs**. To benchmark the desirable future skills, we researched the **"Future of Jobs Report"** by the World Economic Forum, which aggregates a combination of quantitative and qualitative intelligence, including the views of business leaders. **Most of the WEF "Top 10 Skills of 2025" are developed through our programming**, including **analytical thinking and innovation, creativity, originality and initiative, critical thinking and analysis, complex problem solving, reasoning and ideation**. All of these lead to **building resilience and flexibility** alongside **leadership skills and qualities**, in addition to many more important skills.

REINVENTED & TRANSFORMED PROGRAMMING FOR SKILL

THE RELENTLESS PURSUIT OF INNOVATION AND ENTR

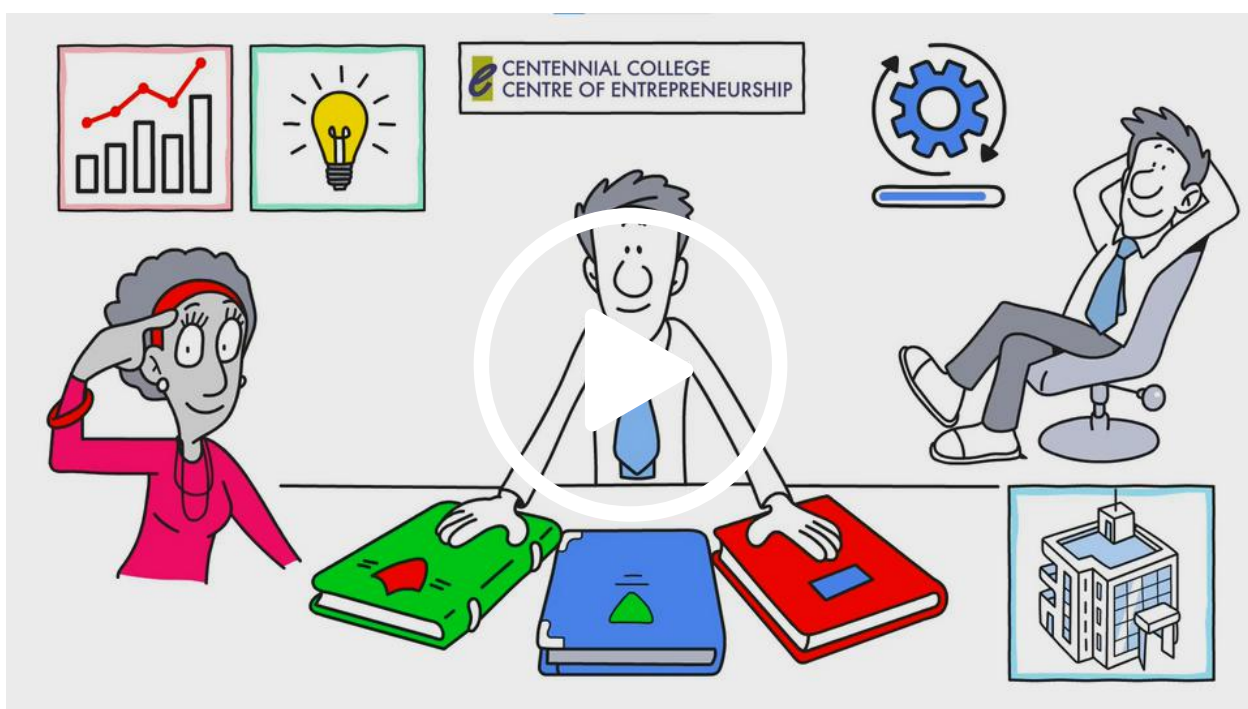
COE-ARIES reinvented and completely transformed the programming built on the SDG-based social innovation and impact entrepreneurship earlier introduced at the College by **SDG Innovation Lab**. This redesigned programming was implemented in the Fall 2021 semester offering **entrepreneurship of all types for all levels** including opportunities for work-integrated learning and was further expanded in **Winter 2022**.

LEADING-EDGE ENTREPRENEURSHIP OPTIONS FOR ALL LEVELS



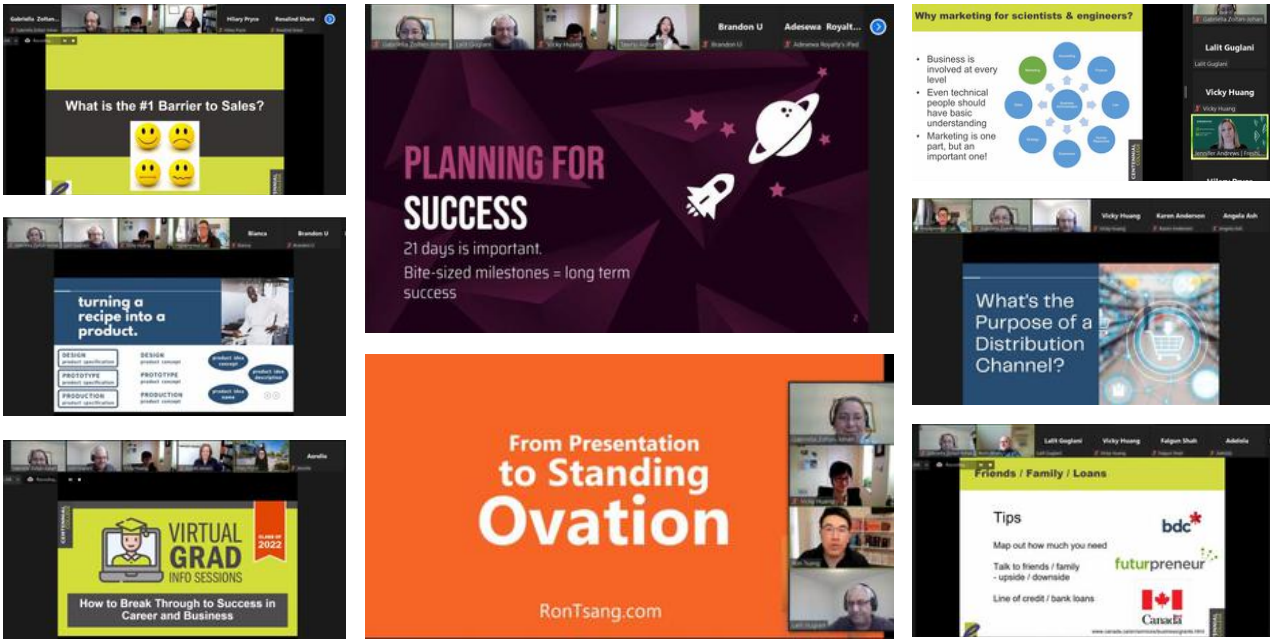
ARMED ENTREPRENEURSHIP LS DEVELOPMENT

EPRENEURSHIP FOR A BETTER WORLD



The Centre of Entrepreneurship (COE) – ARIES supports the **transformation of lives and communities by its relentless focus on innovation to make the world better** through agile, experiential and sustainable entrepreneurship, developing the mindset and key essential skills to **future-proof careers and develop change-leaders.**

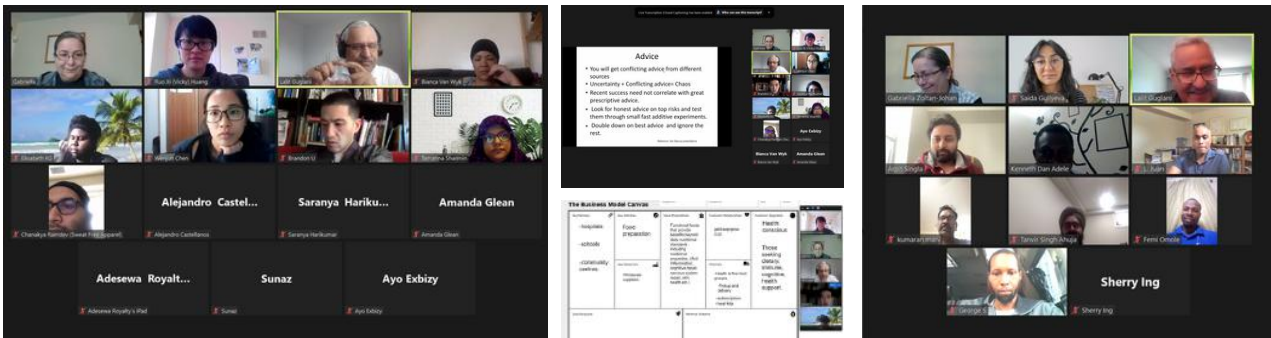




PROGRAMS FOR EARLY EXPLORERS:

Workshops and Speaker Series

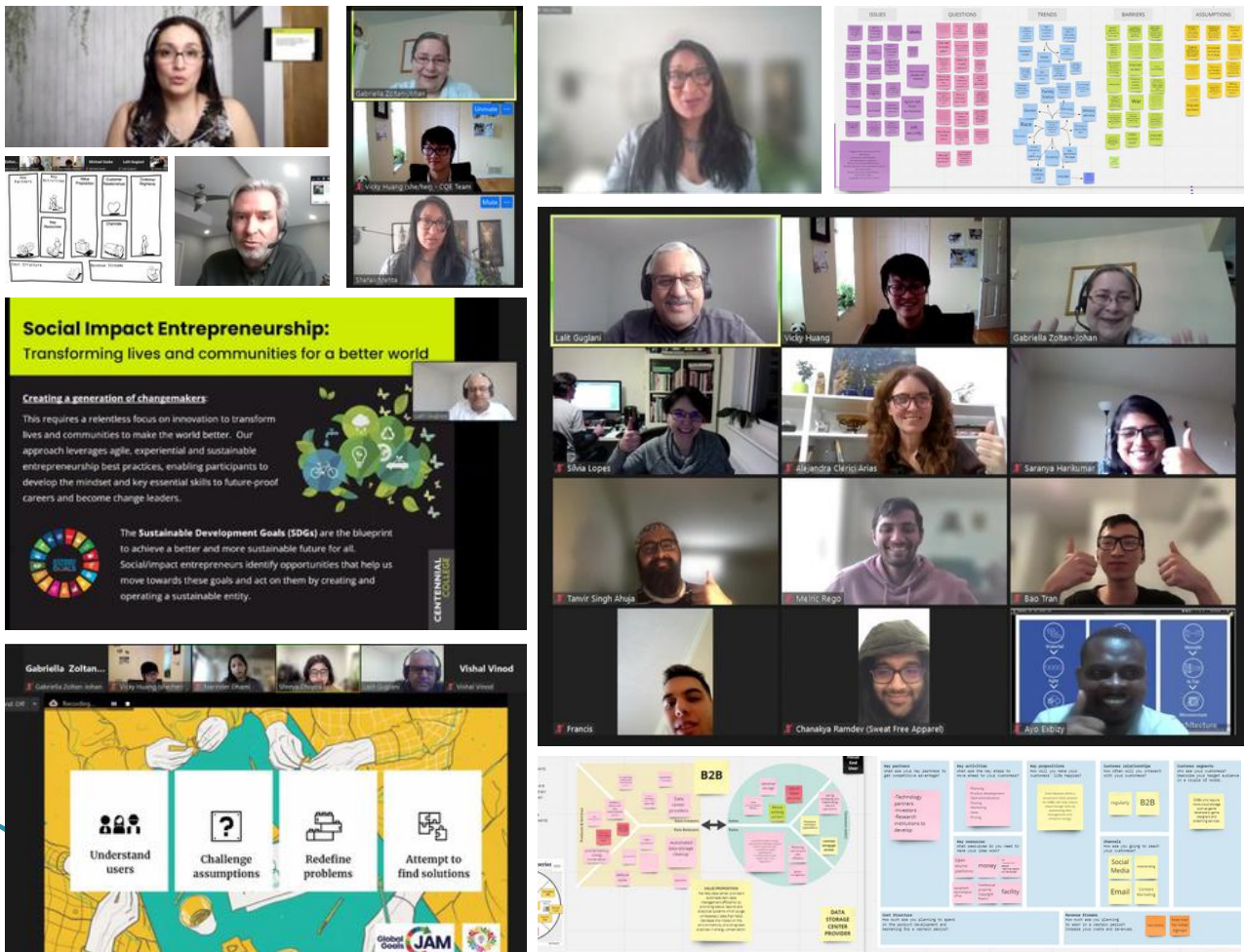
80 sessions were organized in Fall and Winter covering a full range of topics. Selected combinations of many workshops are grouped for Solopreneurs, Changepreneurs, Techpreneurs, Foodpreneurs and Artpreneurs, amongst others.



PROGRAMS FOR BUDDING ENTREPRENEURS:

Incubation Experience Program

A 10-week program providing real-world, hands-on, experiential learning to evolve an enterprise idea, scope out target impact and beneficiaries, design and execute an idea validation process, and map a prototype deployment plan. Participants use curated open-source resources, leading-edge methodologies including the Customer Development framework and receive extensive mentoring, learning how to develop and present a sustainable model. Our bi-annual Incubation Experience program is modeled on Steve Blank's Customer Development process and Agile engineering, offered with support either one-on-one or in-cohort as required.



PROGRAMS FOR ASPIRING ENTREPRENEURS:

Design Sprints and Weekend Challenges

Intense, hands-on, team-oriented and thoughtfully mentored weekend programs. The Global Goals Jam is held biannually with Canadian Partners and support from UNDP and Digital Society School Amsterdam. Participants work to identify root problems and explore solutions in teams using human-centered design as well as Lean methodology to design, build and pitch strategies for collaboratively-hatched ideas addressing the SDGs and the diverse challenges of the world.

A LOOK AT OUR WORKSHOPS



What to Say in Your Pitch

Learn how to create an effective pitch and go from presentation to standing ovation



Social Enterprise & Your Startup Journey

Empower yourself to become a changemaker and activist and make an impact



How to Build an Entrepreneurial Mindset

Get insight into developing and applying an entrepreneurial mindset for personal and business success

What's the Purpose of a Distribution Channel?



The Sales/Marketing Funnel



Start Your Impact Journey



Harness Your Passion and Skills for Impact

Tap into your skills, competencies, and abilities to achieve results



Empower Yourself with Unstoppable Values

Learn how to stop the endless cycle of carrot and stick motivation, empty goals, and being stuck in the rat race



Fully Leverage Your Personality and Strengths

Use your personality and identities to make change with grace and flow

Driving Innovation

- Biofuels & Sustainable Aviation Fuels
- Agri-ventures
- Precision agriculture
- Breeding and Biotechnology for higher temperatures and less water
- Microbial food waste conversion



Planning for Success

21 days is important.
Mile-sized milestones - long term success



Personal Branding for Scientists & Engineers

Transform complex subject matter into compelling messaging to grab your audience's attention & persuade them to buy



Navigating Burnout: The Mental & Emotional Demands of the Hustle Culture

Is burnout preventable in a Hustle Culture? If you're struggling with stress, learn how to quickly turn it around

Rapid Start Entrepreneurship Basics



Demystifying Business Planning

Learn key components of writing a meaningful business plan, and essential knowledge and skills to grow and succeed



Insight in Action - Market Research

Learn to do a proper market analysis and prevent costly expenses



Art of Sales and Marketing

Learn to execute a marketing campaign, position as a "thought leader", and approach each step from customer attraction to the sale



Mastering Basics in Operations and Financials

Understand the accounting and financial basics, and how to be more economical and strategic in your business



Hack your Focus

Learn the strategies from mindfulness, neuroscience, and behavioral psychology for improved productivity and well-being



How to Start Freelancing

Learn to find clients, build your client list, find your niche and tools for marketing



Bring Out Your Best - The Strong Entrepreneur

Discover your greatest strengths to handle stress and work-life challenges



How to Hu\$tle/Startup Toolkit

Find out about cost-effective tools for sales and marketing, business processes and procedures, and payment solutions



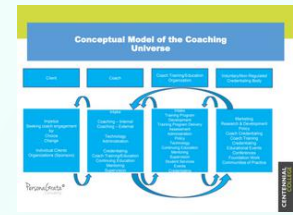
Designing for Inclusion

Support a culture of inclusion in business, challenge the status quo in yourself and business practices.



Getting Ready for Funding

Join the workshop to learn how to raise capital for your social enterprise



SDG Innovation Lab Module 1



SDG Training

Learn about the Sustainable Development Goals, and where / how you can intervene, innovate and make an impact

Foodpreneur Series



Find your Secret Sauce

Learn how to find the potential in a recipe and identify what recipes might translate into a great retail product



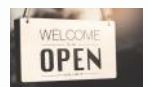
From Recipe to Retail

Turn a Recipe into a Product and learn how the process is different for production



Retail and Beyond

Learn where to find a market for your product and the many ways to sell it



21 Days to Launch

Discover the tools and tips for launching a product or service



What to Say in Your Pitch

Learn how to create an effective pitch and go from presentation to standing ovation



Incubation Experience

A 10-week program of real-world, hands-on learning on turning a great idea into a great company



How to Present with Confidence

Discover the blueprint to connect with the audience and make a great impression



Marketing Masterclass for Creative Professions

Learn how to market your business in a cost-effective way that achieves real results



Marketing Masterclass for Scientists & Engineers

Learn how to market your business in a cost-effective way that achieves real results

SDG Innovation Lab Module 2



Global Goals Jam Weekend Challenge

Design innovative solutions to challenges to achieve the Global Goals 2030



Moving your Business Online

Learn how to pivot to an online operation in a pandemic



How to Break Through to Success in Career and Business

Learn how to break through to the level of success you desire



How to Handle Objections with Confidence and Ease

Learn how to stay emotionless and ahead of any objection, from anyone, any time

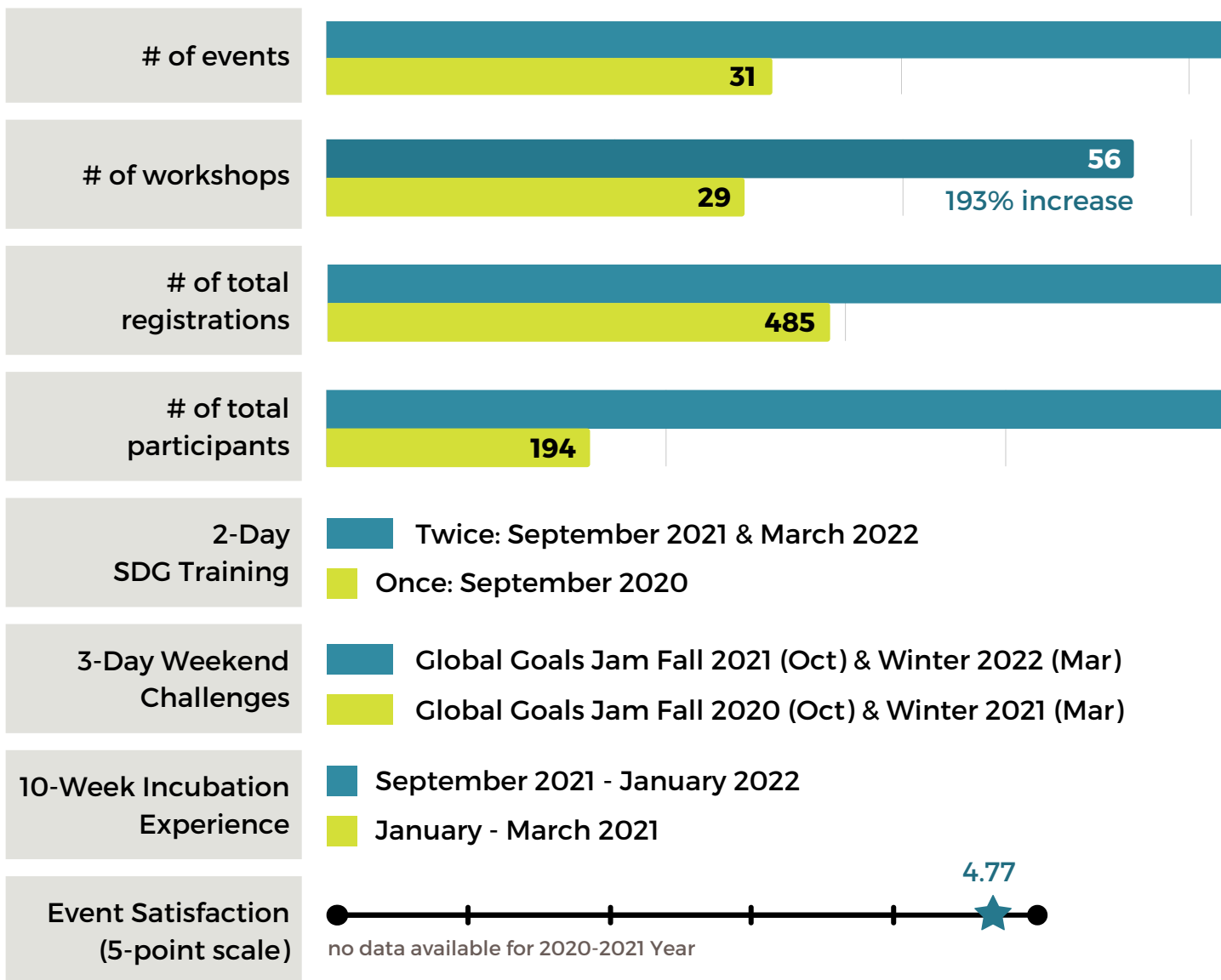




FALL/WINTER 2021-2022 DASHBOARD

■ Consolidated data for 2021-2022 (Fall & Winter Semesters)

■ Consolidated data for 2020-2021 (Fall, Winter & Summer Semesters)



RD

This year, we have exponentially increased our programming, reach, participation and engagement. We are pleased to offer our expanded range of programs based on leading-edge methodologies including: flipped classroom, experiential, and team-based learning; iterative experimentation using Design Thinking, Lean and Agile approach based on sustainability; and programming supported by in-house experts, external presenters, mentors and leaders, all leveraging curated open resources.

80

258% increase

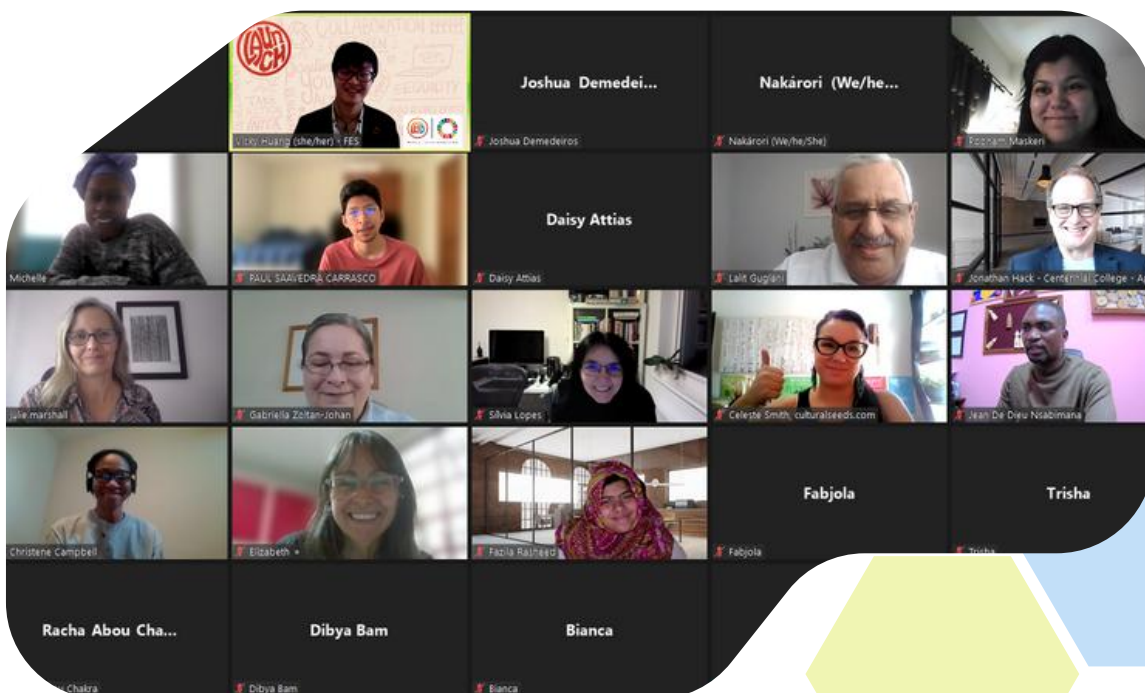


2403

495% increase

1064

548% increase



EXPERT COACHES & PRESENTERS WITH RICH AND DIVERSE BACKGROUNDS



Ron Tsang



Deborah Miller



Janice Bartley



Duncan So



Jennifer Andrews



David Cohen



Tawny Autumn



Nicole Jansen



Sunny Verma



Eloïse Ashworth



Kevin Boon



Marisol Fornoni

We have an array of expert coaches and presenters with a variety of backgrounds and deep expertise to support our programming from personal, professional and entrepreneurial mindset development and startup expertise to marketing and sales, financial and pitching, as well as various verticals from the food industry to STEM, and impact and social enterprise.

Throughout the year, we have had a large number of faculty leaders who have supported our programming by being our mentors, presenters, judges and collaborators. We are grateful to all of them for their unwavering support of our programs.

The following faculty leaders contributed as presenters:

- Michael Bertuzzi, SHTCA
- Dorothy Ward, SHTCA
- Ron Tsang, TBS



Patrick Kelly



Judy Hermann



Dr. Chris Jackman



Veronique Henry



Miro Glisch



Byron Tobar

The following faculty leaders contributed as Judges:

- Damian Goulbourne, Dean, SHTCA
- Veronique Henry, Dean, SCHS
- Patrick Kelly, Dean, SETAS



Rachel Larabee



Michael Bertuzzi



Damian Goulbourne



Ron Tsang



Dorothy Ward



Jennifer Woodill

The following faculty leaders contributed as Mentors:

- Michael Bertuzzi, SHTCA
- Dorothy Ward, SHTCA
- Jennifer Woodill, Chair, SCHS
- Rachel Larabee, SCHS
- Judy Hermann, SCHS
- Ron Tsang, TBS
- Byron Tobar, TBS
- Dr. Chris Jackman, Chair, SCMAD
- Miro Glisch, SCMAD

OUR FACULTY LEADERS

about

THE SUSTAINABILITY

SUSTAINABLE IMPACT ENTREPRENEURS AND CHANGE LEADERSHIP

LEADERSHIP & GOVERNANCE

- Forums, roundtables and retreats
- Strategy and direction
- Engagement with industry and organizational policymakers

POLICY & ADVOCACY

- Forums and roundtables
- Engagement with government and external policymakers

SDG-ALIGNED SOCIAL INNOVATION & IMPACT ENTREPRENEURSHIP: SDG INNOVATION LAB

- SDG Training
- Global Goals Jam - Weekend Challenge
- Tech for SDGs
- Incubation Experience
- Investment Readiness



SUSTAINABILITY INSTITUTE

LEADERSHIP, INNOVATION



The Sustainability Institute, built on six pillars, is a **thought leader and champion** to engage our students, community and society in **sustainable learning, thinking and actions.**

KNOWLEDGE EXCHANGE & COLLABORATION

- Conferences & retreats
- Collaboration on joint projects with ecosystem experts, businesses and organizations
- Interdisciplinary partnerships to generate sustainable solutions to global challenges



EDUCATION & RESEARCH

- Workshops, programs and curated resources on various topics of interest
- Research projects and collaborations with experts/organizations on emerging trends and topics of interest



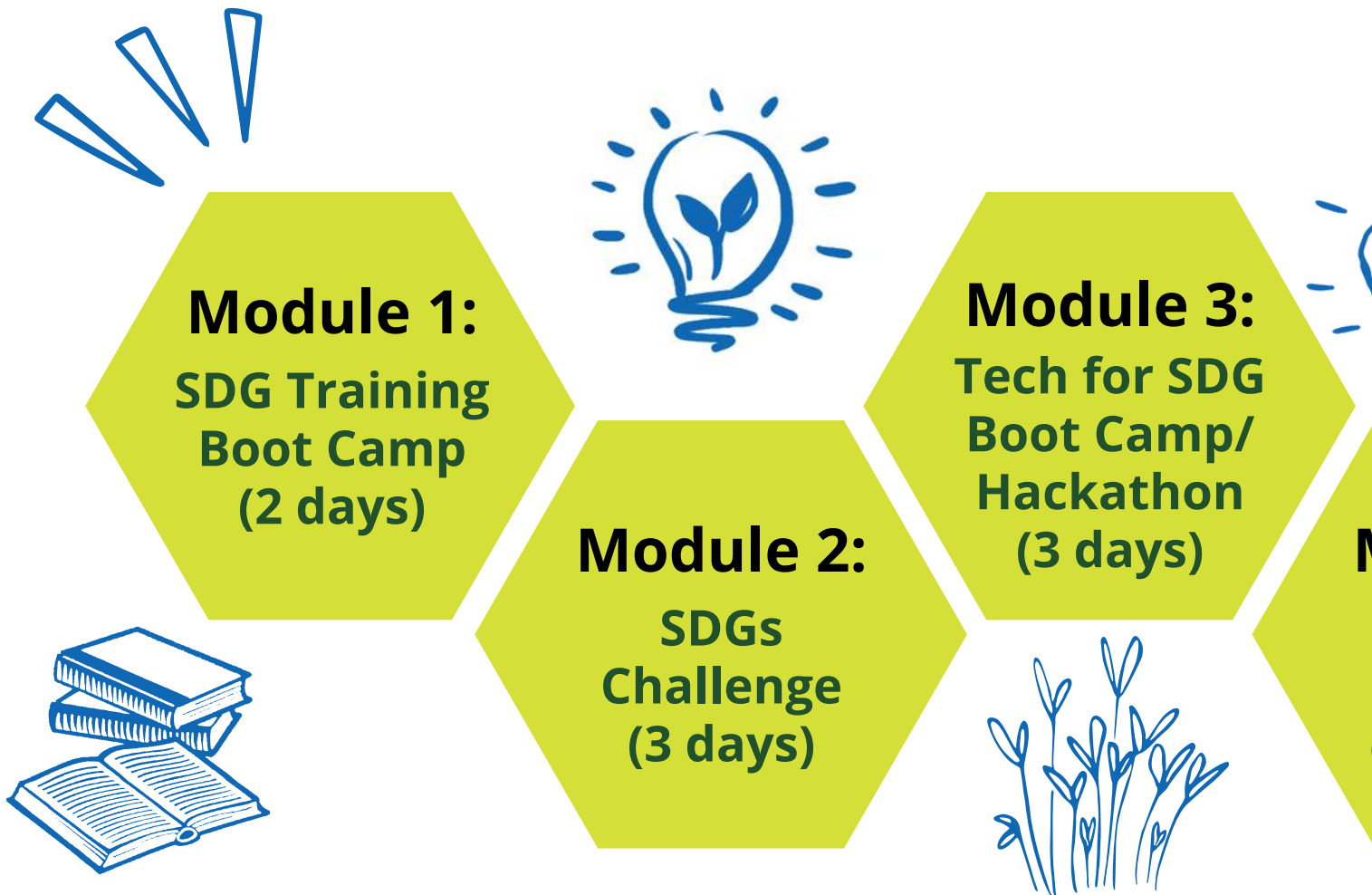
STUDENT AND COMMUNITY ENGAGEMENT

- Sustainability Student Club
- Engagement of ecosystem experts
- Engagement of ecosystem organizations



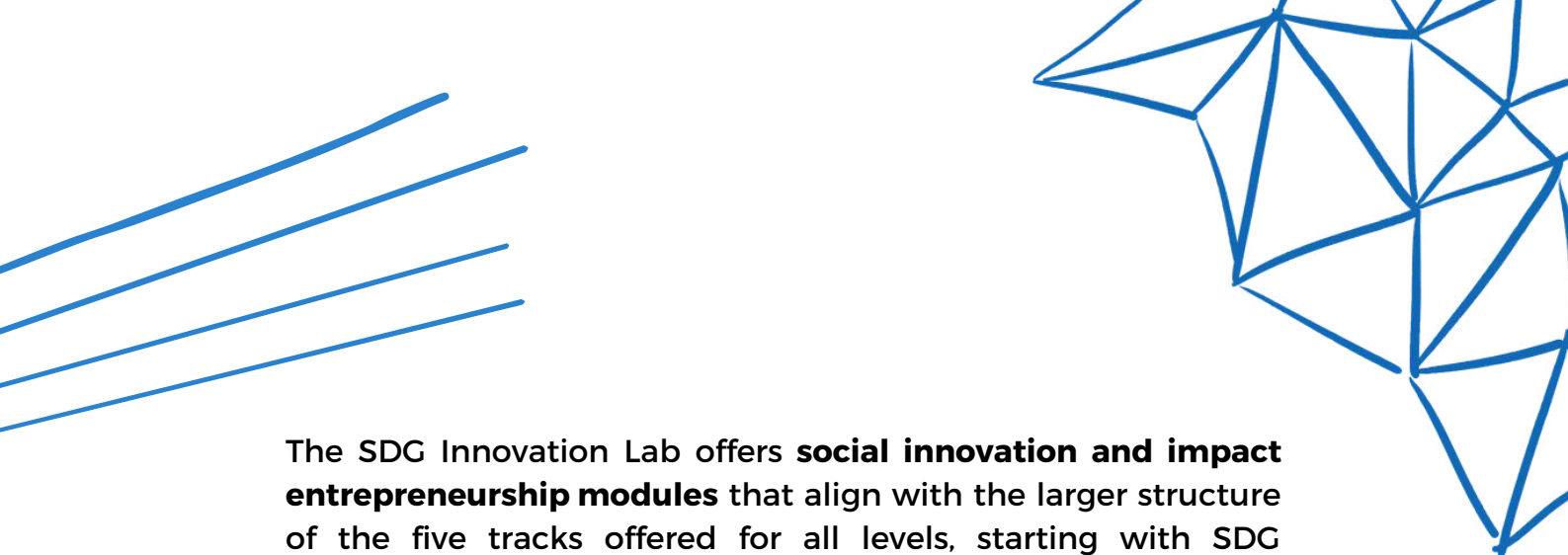
SDG

INNOVATION LAB



SOCIAL INNOVATION & IMPACT ENTREPRENEURSHIP SUPPORTING CHANGEMAKERS ALIGNED WITH UN SDGS: THE SDG INNOVATION LAB — THE SUSTAINABILITY INSTITUTE

The COE engages students, staff, faculty and community to learn about the United Nations Sustainable Development Goals and empowers them with skills to build solutions for social and environmental challenges that make the world better through the **SDG Innovation Lab** and its programming.

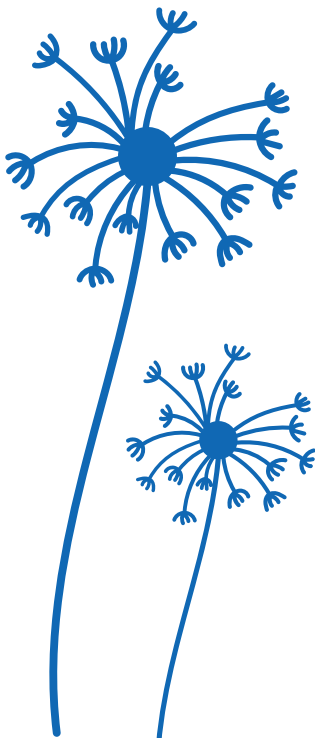


The SDG Innovation Lab offers **social innovation and impact entrepreneurship modules** that align with the larger structure of the five tracks offered for all levels, starting with SDG Training and followed by the Global Goals Jam weekend challenge, the Tech Challenge and the Incubation Experience and Investment Readiness components.



Module 5: Make Your Venture Investment- Ready

Module 4: Build Your Venture (10 weeks)



The SDG Innovation Lab equips individuals with the **knowledge, skills and motivation to act on SDG solutions through social entrepreneurship**. It is an initiative to engage community members and youth as **agents of change**. The modules engage students in a highly agile, experiential, and entrepreneurial process.

MODULE 1:

SDG TRAINING



We begin our SDG Innovation Lab programming with SDG Training, a fundamental module to immerse our participants into the worldview of the Sustainable Development Goals.

In this first module, they learn about:

- What the SDGs stand for and their purpose
- The history of the SDGs
- The structure of the SDG framework with its goals, targets, and indicators
- Concrete and real-life examples of how the work towards each SDG looks like, as well as examples of organizations and groups who are spearheading such work
- The principles that transverse the whole Agenda 2030, such as "Leave No One Behind"



The Centre of Entrepreneurship organized SDG Training sessions in each of the Fall and Winter semesters, with a total of 247 registrations. Both training sessions were delivered over the course of two afternoons and brought a wealth of knowledge by experts on the Global Goals and the United Nations to a total of 100 students, faculty, staff and community members. Led by the **Foundation for Environmental Stewardship (FES)**, participants gained both knowledge on the history of, as well as training on the implementation of the Sustainable Development Goals. The keynote speakers were **Steve Lee**, a young climate change activist, policy advocate to the United Nations and former Executive Director of FES, alongside **Julie Marshall**, Canadian Spokesperson for the United Nations World Food Programme since 2006.



Day 2 featured Localization sessions where participants learned about actionable ways to implement the SDGs in their local contexts, alongside an interactive Action Plan Workshop that engaged them in problem identification and the design thinking process while working in teams. Participants also earned Certificates of Completion from FES.

MODULE 2:

SDG CHALLENGES

THE GLOBAL GOALS JAM

After participants receive in-depth knowledge and understanding of the Sustainable Development Goals (SDGs) in our first module, the second module gives them an opportunity to learn and apply additional tools to act upon the Global Goals, empowering them to create a project that furthers the SDGs and become an agent of change. This year, we held two SDG Challenges in the form of Global Goals Jams.

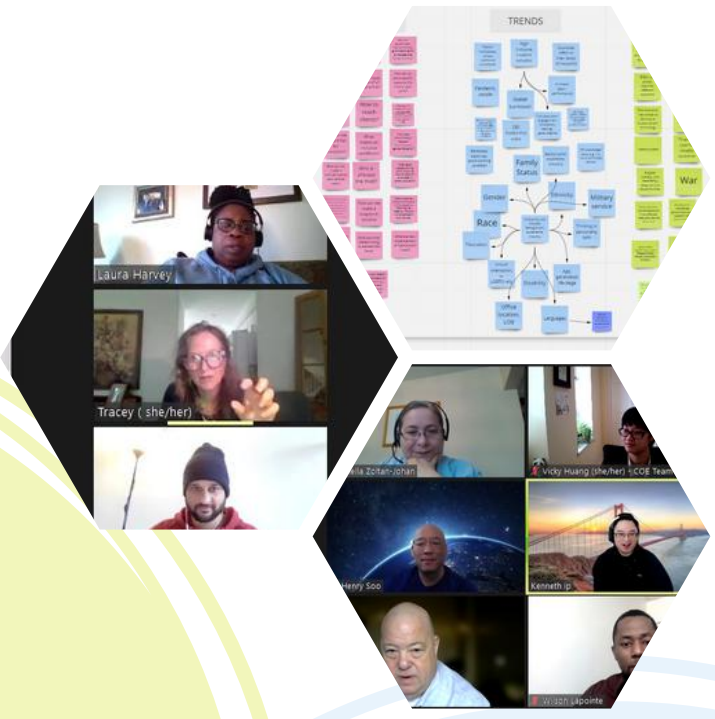


Global Goals Jams are multi-day events to "engage makers and designers to contribute to the Sustainable Development Goals by creating short-term interventions with long-term impact." These events are part of a global activity occurring in more than 80 cities around the world.

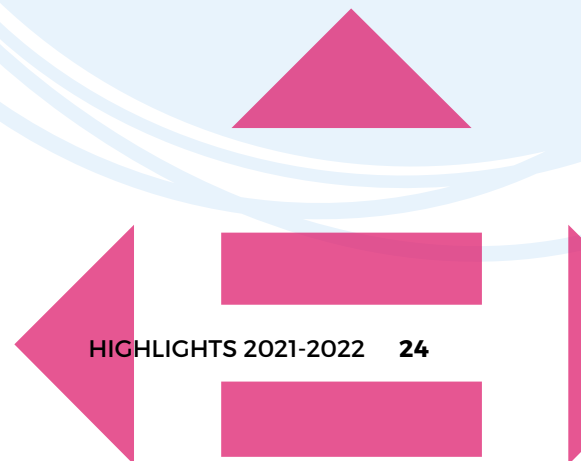
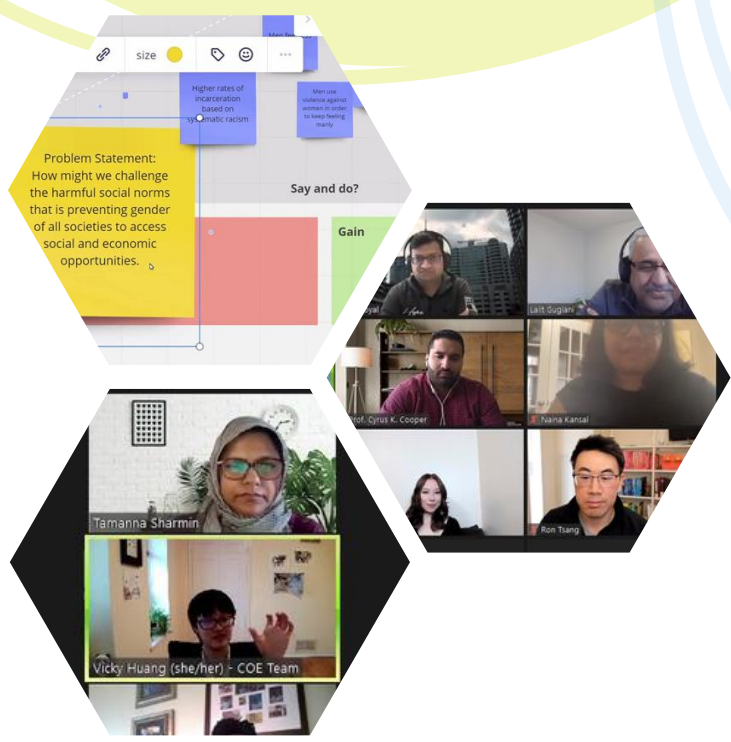




The Jams are intense, hands-on, team-oriented and thoughtfully-mentored weekend programs during which participants work together to identify the root problem based on proposed themes and topics, and explore solutions in teams using human-centered design and Lean methodology. **The goal is to inculcate a sustainable entrepreneurial mindset and to develop a valuable lifelong skillset.** This is achieved through designing, building and pitching strategies focused on challenging problems of the world addressing multiple SDGs.



In October 2021 and March 2022, the Lab planned and organized two Global Goals Jams with the United Nations Development Programme (UNDP) and Digital Society School Amsterdam, our core collaborators. Participants worked on topics ranging from Sustainable Local Ecology, Clean Water and Sanitation, to Climate Change, Human Trafficking and Leave No One Behind, addressing Equity, Diversity and Inclusion.



GLOBAL GOALS JAM

THEMES & TOPICS



Global Goals Jam Toronto 2021

The **Global Goals Jam Toronto Fall 2021** was the third such Jam held at Centennial College. From October 15-17th, 2021, participants worked on topics addressing three timely themes:

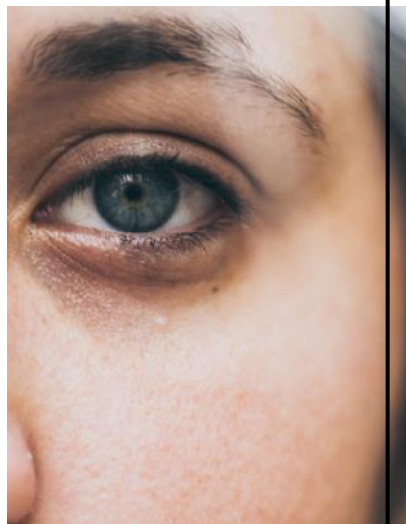
SUSTAINABLE LOCAL ECOLOGY



Solutions for the Challenges of the Grand River Watershed:

- Cleaning up the polluted Grand River
- Connecting people to the environment through outdoor experiences
- Protecting life and property from flooding damage

- Solutions for human trafficking issues:
 - Raising awareness of the issue
 - Protecting victims and holding offenders accountable
 - Supporting survivors



HUMAN TRAFFICKING

CLIMATE CHANGE



- Solutions for climate change issues:
 - Manage waste, reduce, reuse, recycle and recover
 - Reduce Carbon Footprint/ Greenhouse gas emission
 - Mitigate and Adapt to Flooding and Forest Fires.

The **Global Goals Jam Canada Winter 2022** was the fourth and latest Jam, held from March 18th-20th, 2022. The three themes for this Jam were:



Global Goals Jam Canada Winter 2022

CLEAN WATER & SANITATION

Solutions to address rising inequalities and discrimination (EDI)

- Increasing financial inclusion
- Reducing gender disparity
- Making the workplace more inclusive



LEAVE NO ONE BEHIND

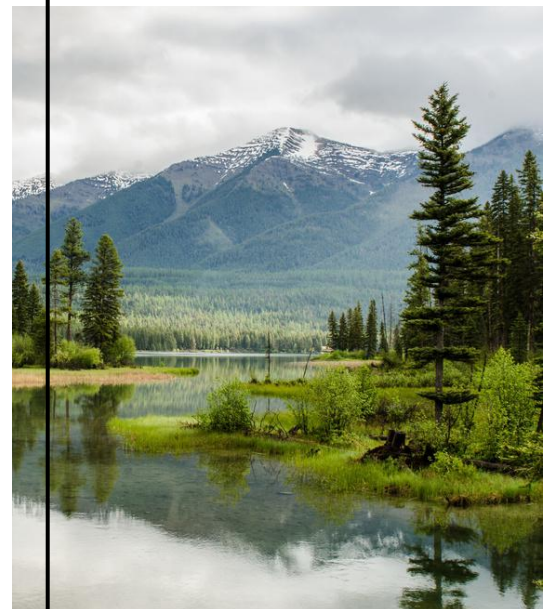


Solutions for sustainable management of water resources:

- Cleaning up the Grand River and/or Great Lakes.
- Water conservation and pollution of groundwater resources.
- Agricultural water conservation and increasing water efficiency

Solutions for climate change issues:

- Manage waste, reduce, reuse, recycle and recover
- Reduce Carbon Footprint/ Greenhouse gas emission
- Mitigate and Adapt to Flooding and Forest Fires.



CLIMATE CHANGE

OUR KEYNOTE SPEAKERS

Global Goals Jam Toronto Fall 2021

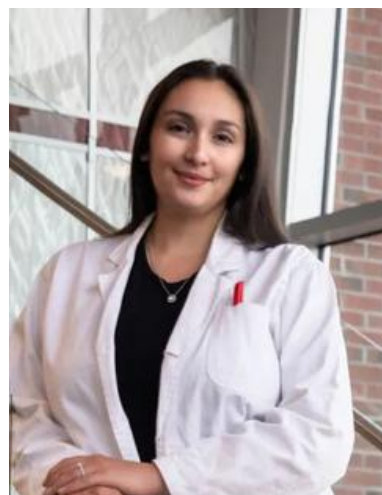
We invited six acclaimed speakers for the plenary session of our creative weekend. Opening and setting the Jam's stage was **Jonathan Hack**, our Dean at the Applied Research, Innovation and Entrepreneurship Services (ARIES) and a champion of activities in social innovation research as well as social entrepreneurship. Next, **Alex Gill** shared his experience and wisdom as the co-founder of the Social Ventures Zone at Ryerson University, one of Canada's leading social enterprise incubators. Relevant to our theme of Human Trafficking, we had **Leah Penttila** speak next. She is an anti-human trafficking advocate, having worked with survivors in a wide range of capacities for almost a decade. We then learned about sustainable development in relation to freshwater monitoring and management in Ontario from **Dr. Elane Ho-Tassone**, a Postdoctoral Fellow and Part-Time Faculty at Algoma University, Project Coordinator for Lake Huron North and member of the Sault Ste. Marie's Canada Water Agency Task Force. Finally, we learned about sustainable local tourism from **Dorothy Ward** and **Michael Bertuzzi**, both experts in the hospitality and tourism industry and current professors and coordinators at the School of Hospitality, Tourism and Culinary Arts at Centennial College.





Global Goals Jam Canada Winter 2022

This March signified another successful Jam. Our distinguished Keynote Presenter **Dr. Shefali V. Mehta**, Deputy Under Secretary of Research, Education, and Economics and Acting Chief Scientist at the U.S. The Department of Agriculture (USDA) provided detailed context for our themes on sustainability and social entrepreneurship as well as inspiration for our participants before they embarked on their journey of discovery and innovation. She was followed by expert presentations from **Bruce Taylor**, Founder and President of Enviro-Stewards who challenged status-quo designs and operations with innovation and creativity, while spearheading social impact. Finally, **Dr. Elaine Ho-Tassone**, Postdoctoral Fellow and Faculty at Algoma University, came back to share her expertise on freshwater management and the Grand River watershed, highlighting the importance of water management, one of the key themes of the Jam.





In addition to strong student response that also included participation from other local colleges, the Jam also featured faculty leadership and expertise from Centennial (School of Engineering Technology and Applied Science, The Business School, School of Community and Health Studies, and School of Hospitality, Tourism and Culinary Arts). Over 40 executive mentors from post-secondary institutes, government, corporations and community groups (including Ryerson University, Algoma University, George Brown College, Business Development Bank of Canada and Environment and Climate Change Canada and Native Child and Family Services) came and provided guidance and mentorship to the teams on themes, business ideas, pitches, developing virtual prototypes, as well as advice and feedback throughout the design journey. At the end of each design jam, three teams were awarded prizes totalling \$4,500 based on evaluation by a panel of executive Judges.

We would like to recognize and thank our Judges for both Global Goals Jams:

OUR PANEL OF JUDGES





Valerie Fox

Co-founder, Ryerson University DMZ |
Founder, The Pivotal Point

Jonathan Hack

Dean, Centennial College Applied
Research, Innovation and
Entrepreneurship Services (ARIES)

John MacRitchie

Assistant Vice-President, Ryerson
University Zone Learning and Strategic
Initiatives | Founding Director, I-INC

Alex Gill

Founder, Mendicant Group | Co-
founder, Ryerson University Social
Ventures Zone

Véronique Henry

Dean, Centennial College School of
Community and Health Studies (SCHS)

Sandro Perruzza

CEO, Ontario Society of Professional
Engineers

Damian Goulbourne

Dean, Centennial College School of
Hospitality, Tourism and Culinary
Arts (SHTCA)

Patrick Kelly

Dean, Centennial College School of
Engineering Technology & Applied
Science (SETAS)

Abigail Slater

Vice Chair, Centennial College
Board of Governors

Vikram Khurana

Chair, Toronto Business
Development Centre

Dr. Alexandra T. Greenhill

CEO & Chief Medical Officer, Careteam
Technologies

Suresh Madan

President and CEO, MyHealth Centre







KEY OF

MENTORS



OUR WINNING TEAMS

AT THE GLOBAL GOALS JAM TORONTO FALL 2021

OVERALL WINNER: CONSERVATORY

Our student in the Winning Team:

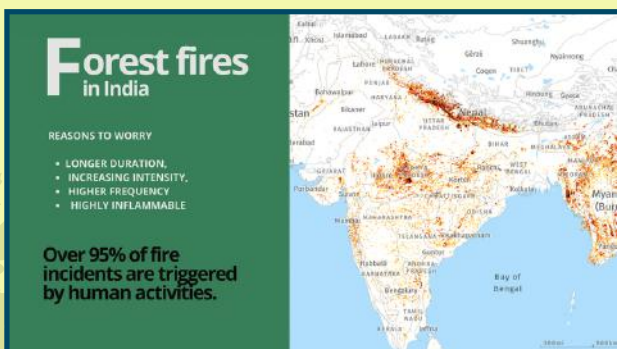
Tamanna Sharmin,
Community Development
Work

Conservatory:

Conserv-a-story
a laboratory that works towards conservation

The Conservatory (Conserv-a-story) is a laboratory working towards conservation with an initial focus on forest fires in Northern India. There are thousands of forest fires each year in India, with a high concentration in the Northern regions. They have increased in duration and intensity in recent years and are predominantly (95%) caused by human activity.

Conservatory helps forest communities in India to better mitigate forest fire outbreaks through collaboration, education and advocacy, by bringing forward tools to facilitate quicker regeneration of burnt forest ecosystems and bringing a better quality of life. As one of the first steps, Conservatory envisions an eco-festival that offers awareness and education, prevention and restoration activities while also creating visible marks of progress to motivate communities. To sustain activities, Conservatory identified government and corporate, as well as ticketing sources for funding.





2nd Place - Visit Grand River

The Visit Grand River team has looked at how to engage Guelph Lake area park visitors to reduce garbage dumping into the lake. The proposed concept aims at reaching beyond the local community by envisioning a series of clean-up events that will increase environmental awareness, maintain the cleanliness of Guelph Lake through the season (May - September) and engage visitors to step up and be part of the solution, as well as providing more garbage disposal locations for convenience.

Positive impacts include water quality and park esthetics improvement, as well as more favourable perception of visitors by local community members. Long-term vision includes increase in volunteer numbers, water testing and expansion by adding more parks to the program. To sustain activities, the team identified government and conservation authorities, schools, local businesses and organizations, and individual sponsorship as main sources of funding.



Celina Rosario Poco
Community Development Work



Jasmit Kaur & Sapphire Supersad
Hospitality and Tourism

3rd Place - E-Warriors

The E-Warriors has looked at the increasing global problem of dealing with e-waste and envisions an AI-supported e-waste management platform where users are trained to source end-of-life electronics and post them onto the platform for auction to E-Waste Raw Material Processors. The AI integrated system verifies materials and market values. E-Waste Warriors "Scan, bid, and ship!"

In addition to the positive environmental impact, local communities can benefit through employment opportunities as "warriors" as well as increased income through e-waste sale, while businesses benefit by accessing an additional source for raw material. Potential sources to sustain operations include fees as well as government and environmental funds.



Among the winning team members were Centennial College students: Tamanna Sharmin (1st place team member), Celina Rosario Poco, Jasmit Kaur and Sapphire Supersad (all 2nd place team members).



OUR WINNING TEAMS

AT THE GLOBAL GOALS JAM CANADA WINTER 2022

OVERALL WINNER: INICIO MUTATIO

INICIO MUTATIO

Dark Data Destroyers

Our student in the Winning Team:

Saranya Hari Kumar,
Interactive Media
Management Student

Melric | Saranya | Silvia | Tanvir

Dark data constitutes 80% of all data in the world; data that is unnecessarily stored yet aggressively consuming energy. Inicio Mutatio aims to optimize data storage and help data centers be more efficient to lessen their environmental impact.

They achieve this by helping data center providers automate dark data management efficiently, providing status reports and analytical systems that purge unnecessary data. By providing the best practices in energy conservation with regards to dark data, Inicio Mutatio aims to lead this new, innovative field to decrease data centers' carbon footprint.

Inicio Mutatio means "initiating change" in Portugese!

Did you know?

Data center industry uses over 90 billion kilowatt-hours of electricity annually. This is the equivalent output of roughly 34 coal-powered power plants.

5.8 million tonnes of CO2 will be pumped into the atmosphere this year as a result of storing unnecessary 'dark data' which constitutes 80% of the entire data in the world!



Source: <https://www.digitalreality.com/data-center-power>

What we achieve?



Deduplication
10-20% better storage utilization



Cost Efficiency
By increasing more cloud storage



Energy Efficiency
Saving approximately 20-billion kilowatt of electricity



Responsible Consumption and Production

Why Us

1. We are like minded people passionate about saving the environment.
1. We have diverse backgrounds and experiences.

Our Offering

1. Providing cost effective and ecological solutions compared to current contractors and solutions.
1. Most suppliers are only offering one part of the solution for example energy monitoring or solar panels vs we are plan to offer educational and incentive based system

Our Future

1. Increasing our customer base from rental building to condominium and office buildings.
2. Gaining support from Government agencies and spreading awareness to next generation i.e students in school.
3. Leveraging AI to automate energy source switching



Bianca Van Wyk,
Community Development Work



Royalty Adelola,
Community Development Work

2nd Place - Building Healer

Building Healer aims at reducing GHG by 25-30% by retrofitting and educating building residents in order to reduce heating & electricity usage. They help building owners reduce utility costs by providing space heating and other energy monitoring and efficiency solutions while using an educational and incentive-based system. The goal is to save energy in daily life for ourselves, in order to reduce rent or condo fees and at the same time, help the environment. Compared to current contractors and solutions who are only offering one part of the solution (i.e. energy monitoring or solar panels), Building Healer offers a complete packaged plan tailored to each specific building they work with.

Among the winning team members were Centennial College students: Saranya Hari Kumar (1st place team member), Bianca Van Wyk and Royalty Adelola (both 2nd place team members) and Francis Paul (3rd place team member).

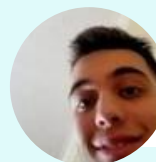
3rd Place - Great Lakes Avengers

Can you imagine beet juice replacing our road salts during the winter? Great Lakes Avengers aims at designing new eco-friendly systems to deice roads and sidewalks for municipalities in North America in order to decrease salinity in water bodies, reduce infrastructure damage, and protect the paws of pets.

The goal is to offer a regenerative product using food waste, such as coffee grinds, beet juice, vegetable brines and other vegetable waste products as an alternative to traditional salt deicers in order to mitigate the salt pollution that are increasing the salinity of the Great Lakes and water ecosystems. The Great Lakes Avengers aim to target eco-conscious consumers, property management companies as well as snow removal companies, and scale to target all North American municipalities.



Coffee Grain + Beet Juice + Sand + Gravel + Brine



Francis Paul,
Journalism Student



THE 2022 ONTARIO COLLEGES INCUBATOR NETWORK (OCIN) PITCH COMPETITION

In March 2022, the Ontario Colleges Incubator Network (OCIN) comprising of 14 colleges launched their inaugural PITCH Competition, designed to provide support to aspiring entrepreneurs in developing and pitching their business/social innovation ideas. Participants had an opportunity to win a portion of a \$6,500 cash prize pot alongside a Shopify Pro account worth over \$4,500.

The Centre of Entrepreneurship entered two teams to represent Centennial College at the competition:

- **Saranya Hari Kumar** built on her Global Goals Jam Canada Winter 2022 team project and evolved it into **Dcrease**.
- **Bao Tran** and **Sherry Ing**, also teammates from the Global Goals Jam Canada Winter 2022, came together and created a new social enterprise concept: **Food Rescue Rangers**.



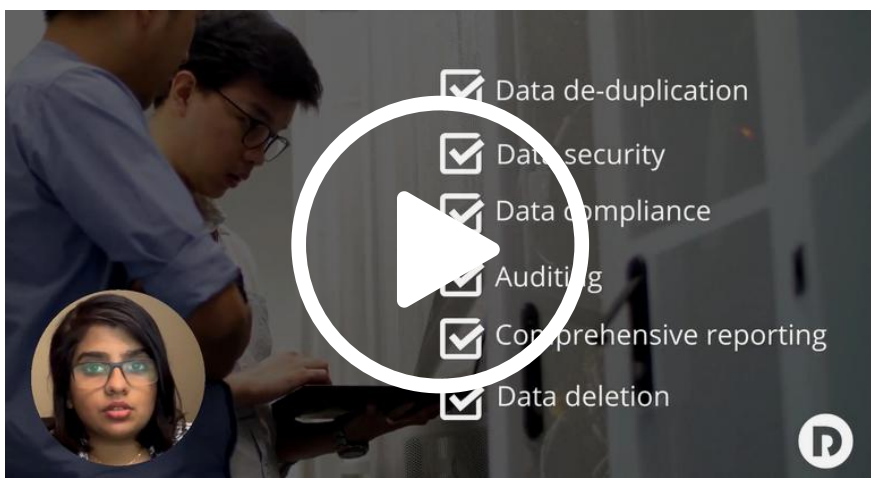
redundant data

machine data



Dcrease

Dcrease offers a convenient **SAAS solution** that reduces cloud storage costs for businesses by **automating data management** and helps **conserve energy**



Hello, I'm Saranya Hari Kumar. I'm an Interactive Media Management student at Centennial College. I enjoy solving problems using design thinking and exploring new ideas.



FOOD RESCUE RANGERS



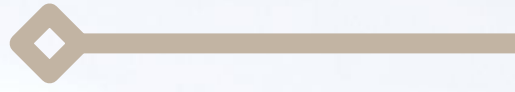
Food Rescue Rangers supplies **high-quality and affordable** food directly from the farm to your doorstep through **strategic sourcing** with local farmers while **reducing food waste** and **empowering food sustainability**.

Hi! I'm Sherry Ing, an alumni of the Massage Therapy Program and the Fitness and Health Promotion Program at Centennial College. I love the SDGs and learning about them!

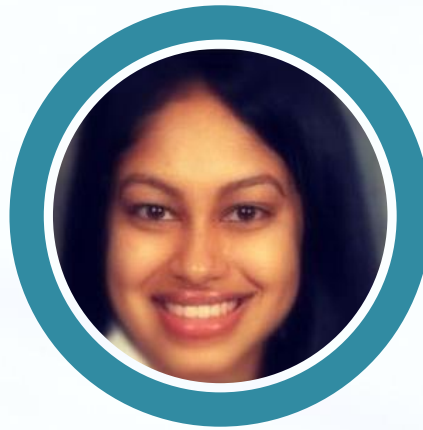
Hi, I'm Bao. I'm a Supply Chain and Operations Management student at Centennial College. I enjoy jogging and meeting new people from different backgrounds.



some of
CHANGE
students



Erika Villarreal Munoz
Office Administration
Executive



Kimberly Naipaul
Journalism



Sherry Ing
Health and Wellness



A. Royalty Adelola
Community
Development Work



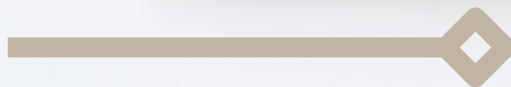
Omid Mokhtari
Researcher,
ARIES



Tamanna
Comm
Developm



of our -LEADER & alumni



Shannon Cullen
Community
Development Work



Bao Tran
Supply Chain and
Operation Management



Bianca Van Wyk
Community
Development Work



Sharmin
Community
Development Work



Dona Shaji
Community
Development Work



Saranya Hari Kumar
Interactive Media
Management



QUOTES FROM SOME OF OUR IN OUR COMMUNITY OF SUPPORTERS



Congratulations to all winners, all participants and of course to the organizers, mentors, and many others. Special thanks to Lalit, once again such a great event! As co-founder of the Global Goals Jam movement, each and every local edition makes me super proud. Let's design 2030 now!

- Marco van Hout, Digital Society School Amsterdam and Global Goals Jam Co-founder

Thank you so much for this opportunity Lalit! I love seeing the next generation of learners and doers!

-Abigail Slater, Vice Chair, Centennial College Board of Governors



Thanks for inviting me. I always enjoy meeting wonderful people and seeing awesome ideas. Really wonderful. Thanks to all!

- Valerie Fox, Chief Innovation Consultant, The Pivotal Point and Founder, Ryerson University Digital Media Zone (DMZ)



Well done to all the participants that worked on your solutions over the weekend. It is tough to pull something together in a short time. Use this as your starting point and keep going! Thank you!!

- John MacRitchie, Assistant Vice-President, Ryerson University Zone Learning and Strategic Initiatives



OUR LEADERS PORT

Thanks to everyone who put the time into developing these ideas - we need more entrepreneurs like you.

- Alex Gill, Co-Founder, Ryerson University
Social Ventures Zone



Outstanding job to you and the ARIES team on Sunday. ARIES has created an excellent set of initiatives that will aid our students. Looking forward to participating in more initiatives in the future.

- Damian Goulbourne, Dean, School of Hospitality, Tourism and Culinary Arts, Centennial College

It's a great privilege and honour to assist students with their pitches, competitions, and projects. I really support the vision of COE and ARIES, and the sustainability and innovation that is being driven at Centennial College. I believe that COE and ARIES is really making sure that Centennial College students will be future-proof.

- Ron Tsang, Professor of Business Communication,
The Business School, Centennial College



I truly appreciated you inviting me to participate in Global Jams. It was a very unique and innovative experience and to be interactive with the students makes it even better. I look forward to 2022 and being a part of this again.

- Dorothy Ward, Professor and Program Coordinator, School of Hospitality, Tourism and Culinary Arts, Centennial College



QUOTES FROM SOME OF OUR CENTENNIAL STUDENTS & RESEARCH

“One of the most valuable things I've gained from my field placement experience is new found knowledge [which] has definitely helped grow and further develop my business knowledge and skills.

I'm leaving this field placement experience with new connections, the opportunity to test out my career field of interest, [and] a portfolio that I've built and put together.”



Kimberly Naipaul,
Field Placement Student

“The Incubation Experience Program at Centennial College has opened important doors for Noxware. Their program engaged us with various approaches in business model development. Through the 10-weeks program we became exposed to the key tenets of customer development. It also helped us to have a clearer image of the product-market-fit. I would recommend this program to any early-stage startup, and in particular, those at ideation stage.”

Omid Mokhtari,
Incubation Experience Participant



“The Global Goals Jam is the perfect space to gather professionals and students from different disciplines to work together towards finding sustainable solutions to global problems. I am surprised how in such a short time, we were able to develop clear and creative ideas to solve real problems. That means change is possible and with the proper support, mentorship, and motivation, great ideas can become a reality.”

Erika Villarreal Munoz
Global Goals Jam Toronto Fall 2021 Participant



CHERS

“The Global Goals Jam at Centennial College is a much-anticipated event of the year. It's jam-packed with activities (in relation to design thinking and lean methodology), mentors and renowned speakers. This event stood out to me as the best in networking opportunities, United Nations Sustainable Development Goals affiliation, and in having an extensive mentorship roster from knowledgeable experts in the STEM, communications, business and education field. Additionally, I met and teamed up with new people from various academic and professional backgrounds in solving one of the global challenges in the world.

Moreover, Centennial College's Centre of Entrepreneurship is one of the best in Canada, led by an inspiring leadership team with strong backgrounds in business, STEM, and education. This is an enriching and unforgettable experience in my professional life, from which I have applied almost everything I gained. I hope to one day give back and lead the next future generation of Change-Leaders.”



Sherry Ing,
Global Goals Jam Canada Winter 2022 Participant



OUR DEDICATED & COE-ARI



Lalit Guglani

BTech, MBA, LLP Educator
Manager, Business Innovation &
Entrepreneurship

- Transformational change-leader - former CEO
- Innovator, Entrepreneurship educator, sustainability enthusiast, mentor & coach
- Founder of SDG Innovation Lab
- 45+ years of technical, business and societal growth leadership



Gabriella Zoltan-Johan

BEcon, MBA, APEC CBC
Manager, Startup
Programs & Services

- 30+ years of international professional experience
- 20+ years of entrepreneurial support
- Strengths in business and strategic planning, business start-up, research and project management

PASSIONATE ES TEAM



Ruo Xi (Vicky) Huang

BSc (Hons), MSDG
Entrepreneurship Coordinator

- Leading and empowering institutional & community sustainability for over a decade
- Passion for values-based education and creative communication for social & environmental change



Saranya Hari Kumar

BArch, IMMT (in progress)
Student Ambassador

- Interactive Media Management student at Centennial College
- Passionate about creating meaningful experiences through design by using behavioral science and future technology

“

Entrepreneurship is a **mindset**.
It's not only about starting a
company or a business, but how
we engage in finding solutions of
a problem, by looking into the
core constraints.

”

Dr. Shefali Mehta

Deputy Under Secretary of Research,
Education and Economics and
Acting Chief Scientist, USDA



**CENTENNIAL
COLLEGE**

