



Annual Report

2022

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Engineers of tomorrow, welcome to the rest of your lives.

Letters to a young engineer, 2023

You the Class of 2023 are graduating into a 'post-COVID' world. For many of you, your last years of education were disrupted. As engineers many of your careers will be part of society's response to the long emergency. Hopefully you will build more bridges than walls.

Erica Lee Garcia, Engineers of Tomorrow Founder, shares her personal insights in the publication.

As of this moment, you are no longer students at an institute of higher education, but co-creators of this world. You may have noticed: it's a world full of problems, full of breakdowns, full of inconsistencies and contradictions—systems that do not work the way they were supposed to, people who have been let down, things that need to be better than they are.

That iron ring you're placing on your finger could be many things; a symbol of your victory over academic onslaught or an entrance into an exclusive club of engineering professionals. But we believe it's also a call to action.

You are being called on to build bridges, but not the type that you can build out of concrete and steel. You are being called upon to bridge the gap between the disappointments of the past and the ever-present hope for the future.

You are being called upon to imagine the world that your heart wants to live in, that your sense of right and wrong says there should be, and then to find yourself a way to help change that idea into a reality. You are being called upon to use your skills for good—not just for your own enjoyment or profit but also to benefit and take care of others. You are being called upon to contribute to something you believe in, as a member of this professional community and as thinking, feeling citizen of the world.

How will you choose?

Read more ==> <https://engineering.ontariotechu.ca/about-us/letters-to-a-young-engineer.php>



Our story so far

Our Mission

Engineers of Tomorrow is a nationally incorporated charity.

Established in 2014, our mission is to tell better stories about engineering, to have a positive impact on the future.

From the clean water we drink to the technology in our hands, engineering underpins every aspect of modern life and has a major role to play in solving the global challenges of today and tomorrow.

Science, technology, engineering, and mathematics (STEM) teaching in the Canadian K-12 school system has increasingly become a priority for Canada's federal and provincial governments. Despite this, the literature shows that Canada is lagging the top five innovator countries in STEM innovation. The most common barriers identified by students who want to pursue engineering or engineering-related courses include

- perceptions of misconceptions about engineering,
- socioeconomic status,
- and/or identifying as part of a minority group.

Our Purpose

Our vision is that one day every Canadian – regardless of gender, ethnicity, orientation, religion, ability or thinking style – understands the power of engineering to unlock and shape positive societal change.

Using the latest research as a tool to inform our practices, we empower volunteers to create positive engineering experiences to shape young minds and showcase what the engineering profession is all about. By taking a grassroots approach, we enable systemic change by supporting engineering professionals to create impact.

Positive
engineering
experiences
so far...

545,543

Our 2022 goals

1

Secure sustainable funding

When Engineers of Tomorrow left Engineers Without Borders Canada in 2018 we knew we would be faced with the challenge of rebuilding sustainable sources of funding to support our programs.

In 2022 we continued to strengthen our relationships with our valued sponsors, and we also received charitable status – enabling us to explore new sources of funding!

2

Scale impact nationally

Originating in Ontario, Engineers of Tomorrow has established deep roots there. However, our goals has always been to raise awareness about engineering across Canada!

As of 2022 we are now operating in 10 provinces. We also introduced Regional Chairs – a new volunteer role to support local engineer mentors and educators to ensure everyone has access to the things they need.

3

Strengthen current programs

The Engineer in Residence program – the flagship engineering outreach program for Engineers of Tomorrow – is a bridge between the education system and engineering in Canada.

To ensure this program continues to grow sustainably we are building strong systems and supports.

In 2022 we increased the number of French resources available, and grew the Library of Lessons by 67%!



Joel Scott – Educator, HCDSB

Our 2022 strategy

In 2022, EoT became the only charitable organization in Canada solely focused on raising awareness about engineering to the K-12 audience

We built on our foundational programs and worked to find more sustainable ways to raise awareness about engineering aligned with EoT's values:

- connection over content
- inclusive, and
- research-based.



Rick Howard, P. Eng. - Volunteer, Manitoba

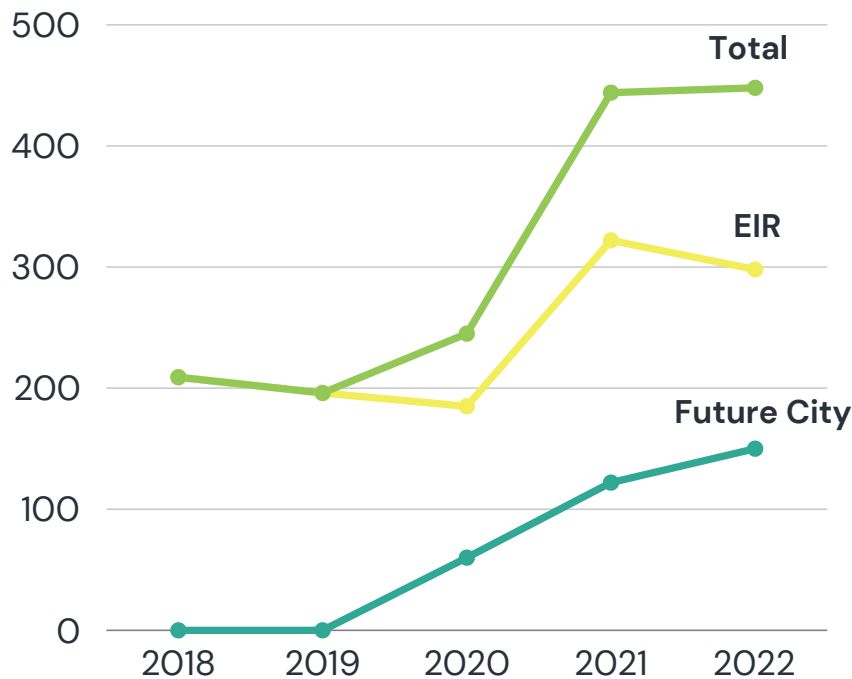
PROJECTS	DETAILS	OUTCOME
Engineer in Residence Program	EoT's flagship engineering outreach program	<ul style="list-style-type: none"> • 10,981 students • 49% female • 32% visible minorities
Future City Experience	Design challenge for students in grades 6-8	<ul style="list-style-type: none"> • 122 classes • 2610 students • 174 engineer mentors
Indigenous Communities Pilot	Engineering outreach in indigenous communities	<ul style="list-style-type: none"> • 3 indigenous schools integrated into the EIR program

Engineers of Tomorrow believes in making positive engineering experiences accessible to everyone. For that reason, we focus on integrating our programs into local classrooms to support educators and help to bring the STEM curriculum to life for the students. Engineers are tasked with "engineering" an engaging experience for the students and training to use a human-first approach to create rich connections that leave a lasting impact.

Classroom Reach



How we're growing each year



41

% of students that could see themselves becoming an engineer after completing the program

100

% of Teachers reporting that the program encouraged students to apply math & science to real world problems

85

% of students had a deeper understanding of engineering after completing the program

What teachers are saying

"Students loved having mentors available to run by their ideas. It really helped them think about all the things that they hadn't thought of."

"Students acquired a lot of foundational knowledge about the outside world, especially in the area of building teamwork skills."

"A very worthwhile, real life STEAM project and experience!"

459

engineer mentors
(volunteers)

13,591 students

directly exposed to engineering by
professional engineers!



We thank you for your ongoing support

Strategic Partners



Enbridge

Regional sponsors



Site sponsors



FACULTY OF
ENGINEERING AND
APPLIED SCIENCE



Event Sponsor

Enbridge

Donors

Engineers Canada
Leacross
Foundation
Trottier Family
Foundation
Woodbridge Cares

Individual Donors:
Bev Takaoka
John Loach
Kristen Simonson
Rose Almond
Tricia Drake

Adopt-a-class
Advocate:

Fujitsu

Thank you to our passionate community of volunteers!

2022 EoT Award Winners

Engineers of Tomorrow recognizes these select few engineer volunteers that are shining examples of exceptional engineering outreach.

David Steeves

Lifetime Achievement Award - for his exceptional commitment to the EIR program and going above and beyond to share his passion with others.

Jillian Lackey

Heart Count Award - for her special attention to diversity and inclusion and creating meaning full experiences.

Ilia Korotkine

Out Of The Box Award - for her excellence in delivery innovative outreach to Kindergarten students.

Trevor Lytwyn

Community-builder Award - for his ability to create special connections for students and educators.

Bob & Catherine Thomas

Creator Award - for their commitment to going above and beyond to share their ideas, creations & program lessons

Leadership Team

Rebecca White
Chief Executive Officer

Program Operations

Avery Goreglad
Program Coordinator

Milan Joaquin
Program Coordinator

Sandy Shoen
Librarian (volunteer)

Ahmed Naeem
High School Co-op

Board of Directors

Erica Lee Garcia
EoT Founder & Chair

Donna Cheung
Customer Experience &
Digital Transformation Lead
Enbridge

Jamie Beyore
Global Director, Engineering
Strategy and Partnerships -
Mobility
Shell

Juliana Dutkay
Senior Manager Strategic
Initiatives
United Way - Greater Toronto

Ramon Yarde
Vice President, Project
Management Office
Equifax

Advisory Board

(Volunteer)

Peter Luo
Board Chair

Bob Thomas
Catherine Thomas

Changiz Sadr
Chris Davidson

Dave Steeves
Don Ball

Ioan Buzdugan
Jennifer Ladenchuk

Marc Pilon
Mohamed Hefney
Murray MacDonald

Robert Foster
Sana Abou-Shaaban
Stanislav Spektor
Thomas Sears

Regional Chairs

(Volunteer)

Don Ball & Sana Abou-Shaaban
Eastern Canada

Eugenio Chiguichon
GTA East

Harsil Jani
GTA North

Akila Dias
Bruce/Grey

Diana Li
GTA West

Prabhsimran Sodhi
Western Ontario

Ramy Yassa
BC & AB

Don Himbeault
MB & SK

Nifemi Bankole
Northern Ontario

Jessica Levy
Central Toronto

Statement of Activities

In FY22, EoT continued to pursue our mission with passion and purpose—and we do this with your support, today and every day.

EoT continues to provide programming free of charge to educators and students to make these experiences accessible and ensure cost is not a barrier.

In 2022 we successfully received charitable status and continue to work with organizations, associations, and employers that are aligned with our vision & mission through corporate sponsorships, donations, and in kind support.

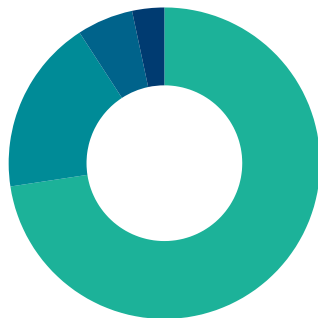
We are also pleased to report that in 2022 we received a substantial donation from the Leacross Foundation to support work on a Collective Impact Model with a focus on advancing K-12 STEM outreach efforts in partnership with Engineers Canada!



Rebecca White, CEO
Engineers of Tomorrow

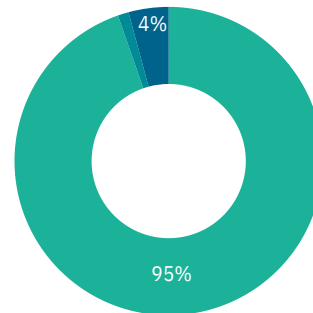
If you have specific questions, you may reach us at engineersoftomorrow.ca/contact

FY22 Operating Revenues



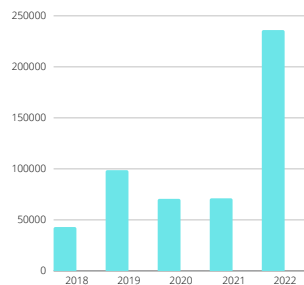
Donations	\$171,397	73%
Sponsorship	\$43,012	18%
Grants	\$13,782	6%
Service Contracts	\$7,869	3%

FY22 Total Expenses

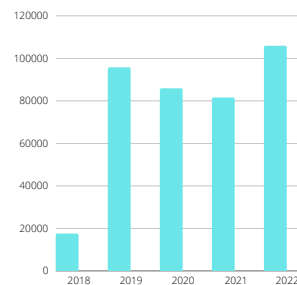


Program Operations	\$95,121	90%
Admin & insurance	\$9,703	9%
Marketing/Promo	\$1,120	1%

Operating Revenue



Program Spending



Impact Story: Leah Chaudhari, P. Eng. (EIR Volunteer)

For the last 5 years I've been part of the Engineer-in-Residence program run by Engineers of Tomorrow. This is an amazing initiative that pairs engineers with schools to facilitate STEM activities and bring awareness to the engineering profession. Often we aim to supplement the regular curriculum with interesting activities and workshops but sometimes we just do things that are fun and stimulate creativity. I've worked with kindergarten to grade 6 classes with the last 3 years working with a Grade 3 teacher in St. Gemma School.

One of the first things I teach is the engineering design process: Ask, Imagine, Plan, Create, Test, Improve. I emphasize that they're going to cycle through this process as many times as it takes, and having something not work is just a step in the process. We always give time for them to test their designs and go back to the drawing board to try again. We use this in every activity that we do throughout the year from spaghetti tower challenges to mint mobile races.



Leah is a Senior Electrical Engineer with BMT Fleet Technology in Ottawa, Canada

What I've seen as the students start to understand this message is less frustration, more willingness to try, more enthusiasm, and more creativity. I've had students start off saying things like "I can't do this, I've never built something before" to doing a happy dance because they built something that worked. I've heard kids become excited because their design failed and they learned something. I've had the whole class run out to recess after our activity chanting "We're engineeeers! We're engineeeers!" (don't tell PEO!). I've had girls start to think about careers in engineering (obviously something near and dear to my heart).

To say this is rewarding for me is an understatement. I know from the smiles on their faces, their cheers when they see me, and the energy in the room that they get something from the experience, but the truth is they give me at least as much. Their enthusiasm is contagious. It re-sparks the joy of making an idea come to life, of pushing boundaries to get new outcomes, of the things that steered me towards engineering in the first place. I go in there to teach them about engineering but I come out learning why I became an engineer

Ways to support

There are many ways to support EoT and inspire the next generation of problem solvers and game changers. To learn more or to make a donation, please contact us at **519.217.2636** or **engineersoftomorrow.ca/support**

Outright Gifts

- One-time donations
- Monthly recurring donations
- Adopt-a-class

more at: engineersoftomorrow.ca/donate/

Workplace Giving

Ask whether your workplace participates in these easy ways to give.

- Sponsorships: sponsor one of our programs or events
- Employee engagement/volunteering
- Custom corporate outreach programs

contact us at: info@engineersoftomorrow.ca

