Office of the Vice-Principal Research & Innovation's Annual Report April 2022-March 2023:

Transforming

UTSC's vision is to constructively disrupt the status quo, connect the world, and advance transformative change for the good of all.

UTSC is transforming the campus to improve the health of people and the planet by integrating the UN SDGs into the DNA of our campus.

Five design aspirations are guiding this transformation.

1. Leverage our place
2. Model the way
3. Capitalize on strengths
4. Empower action
5. Catalyze Social Change

We are a global leader in sustainability!

U of T ranked 2nd in the world in first-ever QS sustainability ranking!

We recently celebrated our successes in sustainability at UTSC.

We are enabling additional progress.

One way is to help achieve the transformation is via the "institutes for Resilient and Inclusive Societies and Ecosystems."

iRISE

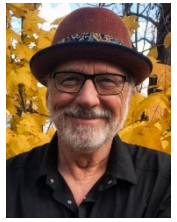
We engaged in a number of conversations with the UTSC community about iRISE and its inaugural institutes.

iRISE

- Institute for Environment, Conservation, & Sustainability

Imre Szeman, Director, Professor, Human Geography

- Institute for Inclusive Health & Well-Being



Charles Trick Interim Director, Professor, Health and Society

- Institute for Inclusive Economies & Sustainable Livelihoods

Caroline Hossein Interim Director, Associate Professor, Global Development Studies

Sergio Montero Munoz Incoming Director Associate Professor, Human Geography

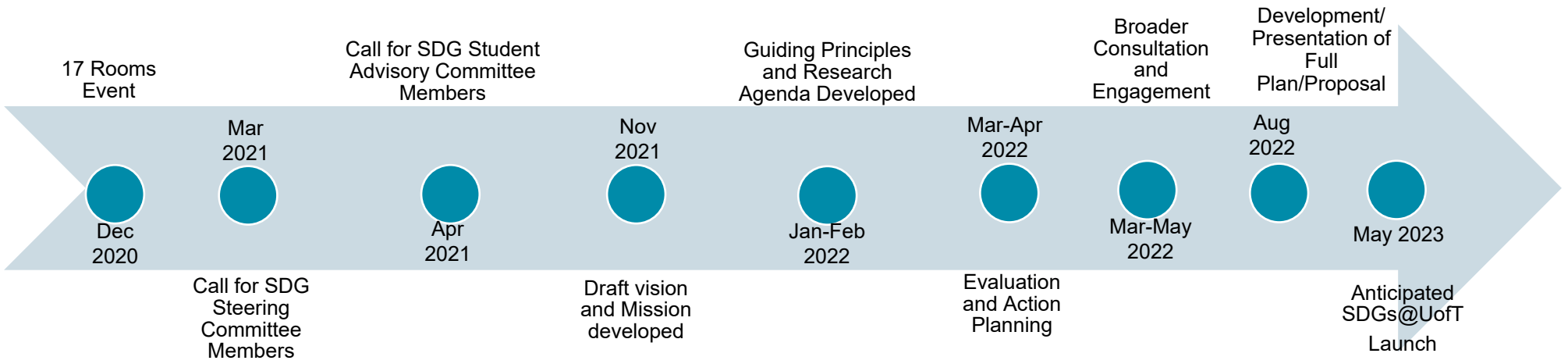
We estimate **almost 2,000** members of the UTSC campus community and the broader U of T community were consulted

We also led an institutional strategic initiative (ISI) on the SDGs.

SDGs @ U of T

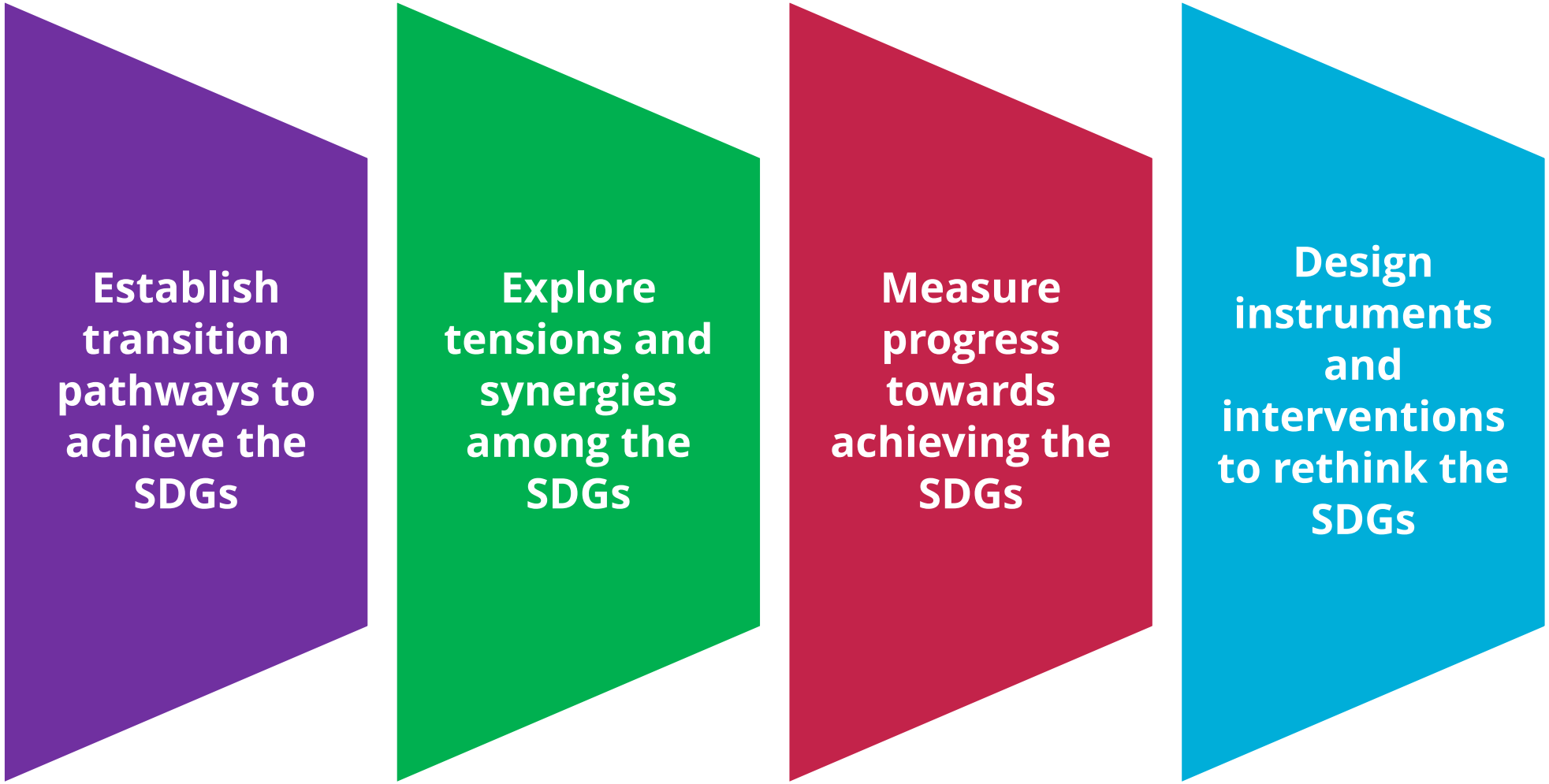
Academic Lead: Erica Di Ruggiero

Associate Professor,
Dalla Lana School of Public Health,
Health and Society



Approved **May 12, 2023**

The SDGs@UofT will focus on four research themes.



SDGs Scholars Academy synthesis and catalyst grants

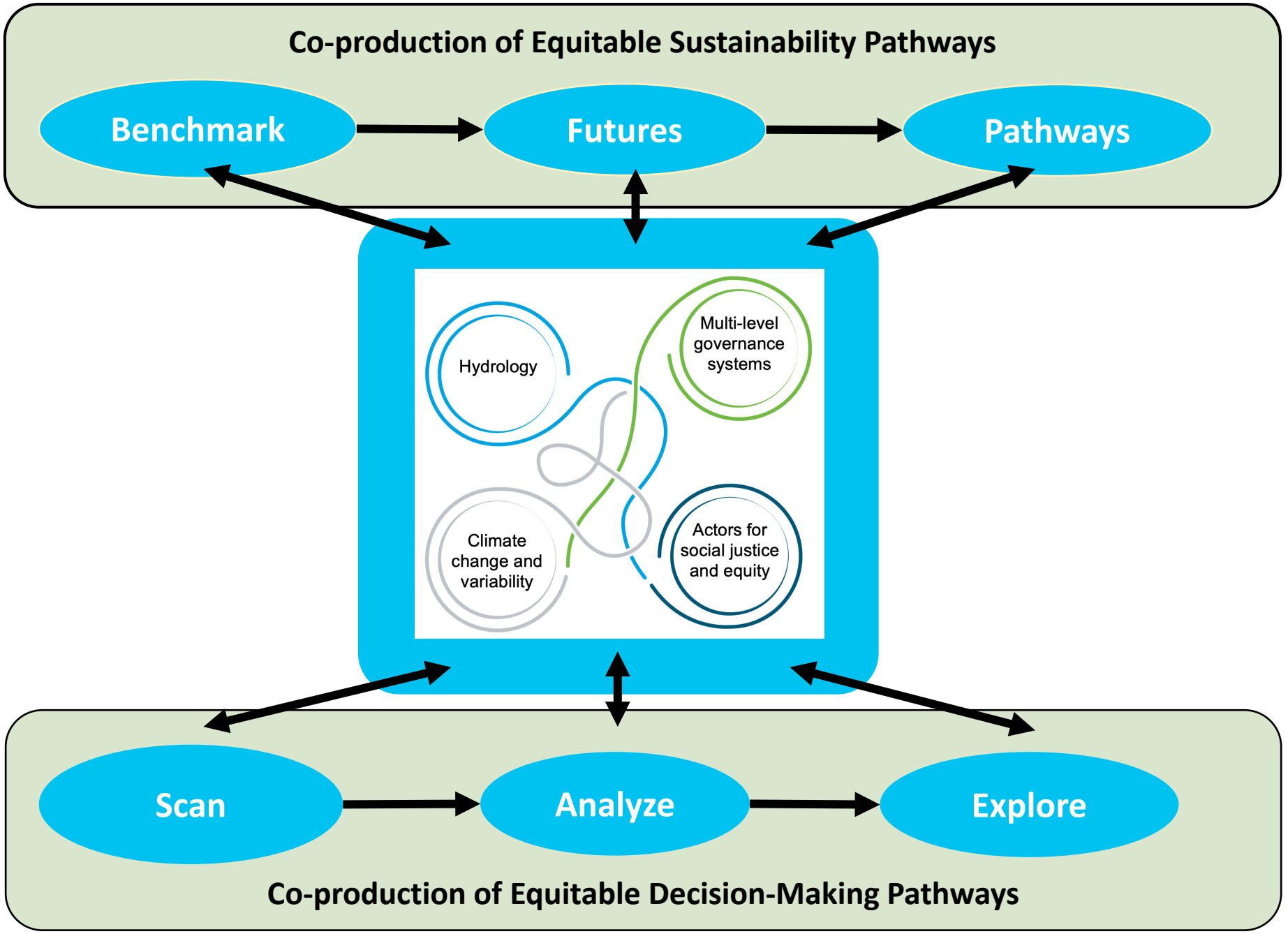
We applied for a CERC in Sustainability Transitions.

Dr. Patricia Romero-Lankao

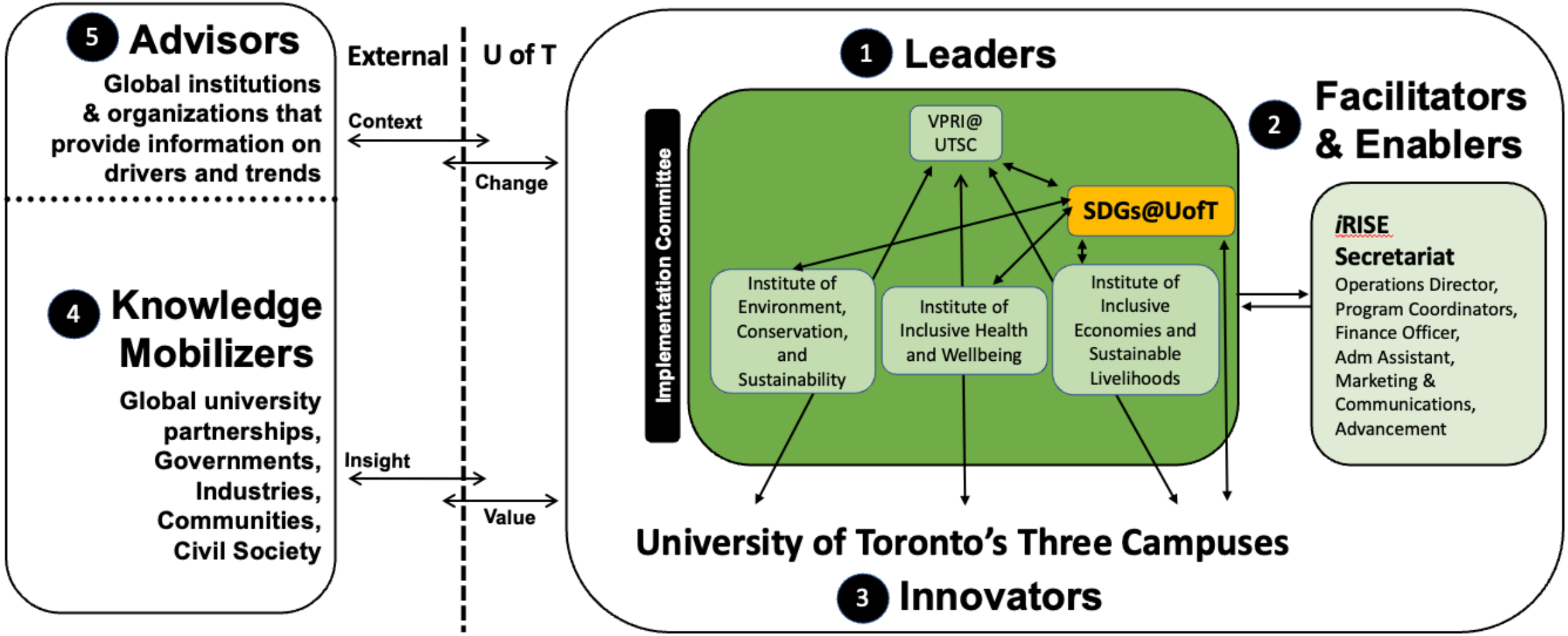
Proposed Research Program:

JUSTICE: Just Urban Sustainability Transitions Centred in Equity

Paty is joining UTSC as of July 1, 2023,
as a Professor in the Department of Sociology


Co-production of Equitable Sustainability Pathways
Benchmark
Futures
Pathways
Hydrology
Multi-level governance systems
Climate change and variability
Actors for social justice and equity
Scan
Analyze
Explore
Co-production of Equitable Decision-Making Pathways

The SDGs@UofT will be part of iRISE.



We've invested in new clusters of scholarly prominence.

2022

Water Pathways
Cluster Leads:
Mathew Wells (Physical & Environmental Sciences)
& Cosima Porteus (Biological Sciences)
Funding: $600,000

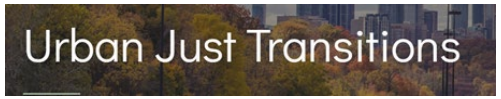
Flourish: The Arts and Social Wellness Cluster
Cluster Lead:
Andrea Charise
(Health & Society)
Funding: $528,440

The Clinical Research and Evaluation Cluster
Cluster Leads:
Michael Best (Psychology) & Zindel Segal (Psychology)
Funding: $600,000

Suburban Mobilities

Suburban Mobilities Cluster
Cluster Lead:
Steven Farber
(Human Geography)
Funding: $600,000

The Centre for Environmental Research in the Anthropocene
Cluster Leads:
Marc Cadotte (Biological Sciences) & Myrna Simpson (Physical & Environmental Sciences)
Funding: $580,000



Urban Just Transitions from Scarborough to the Globe
Cluster Leads:
Matthew Hoffmann (Political Science) &
Laura Tozer (Physical & Environmental Sciences)
Funding: $590,040

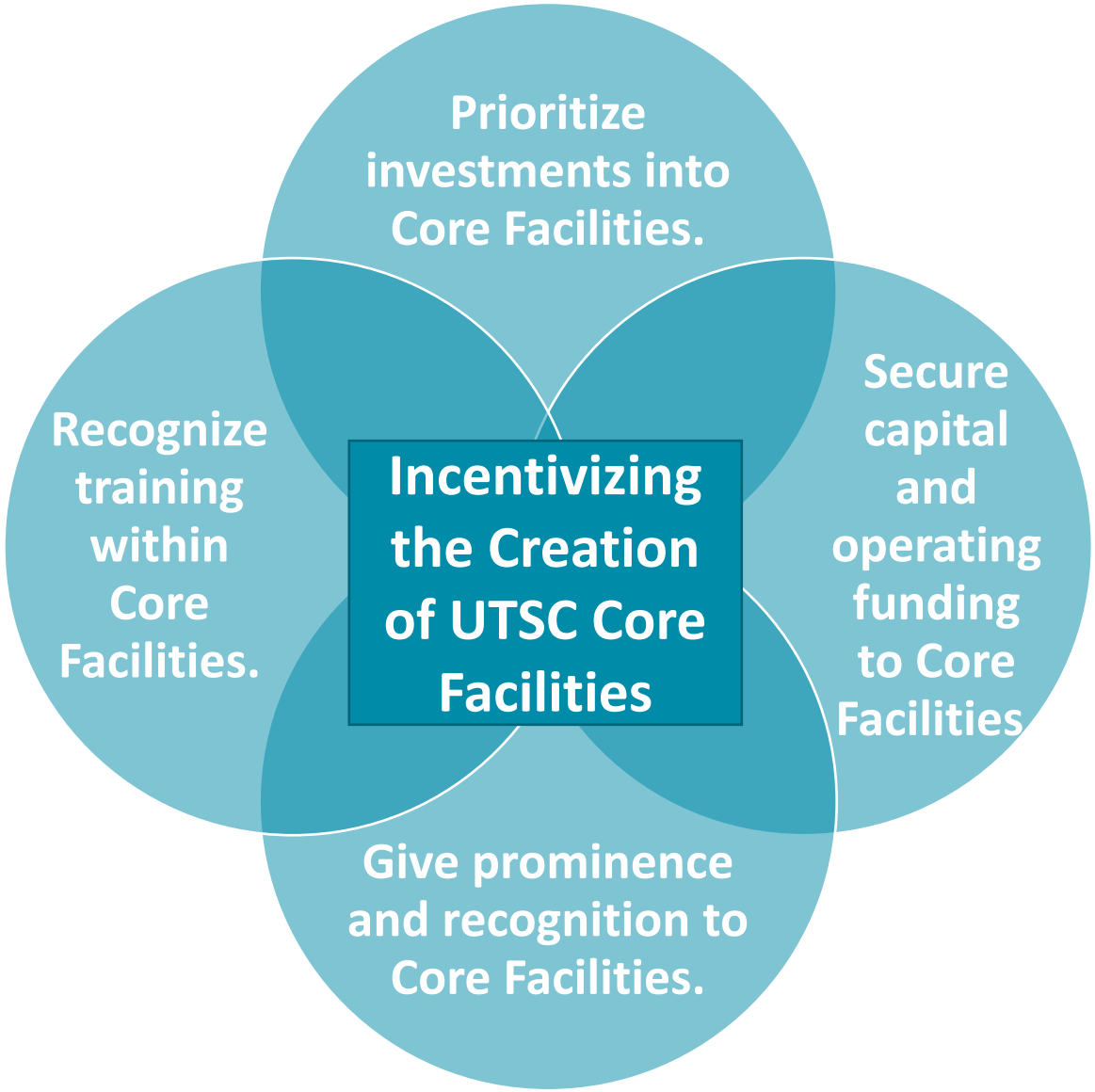
CONNECTING COMMUNITIES TOWARD FOOD SOVEREIGNTY

Sustainable Farming and Food Futures Cluster

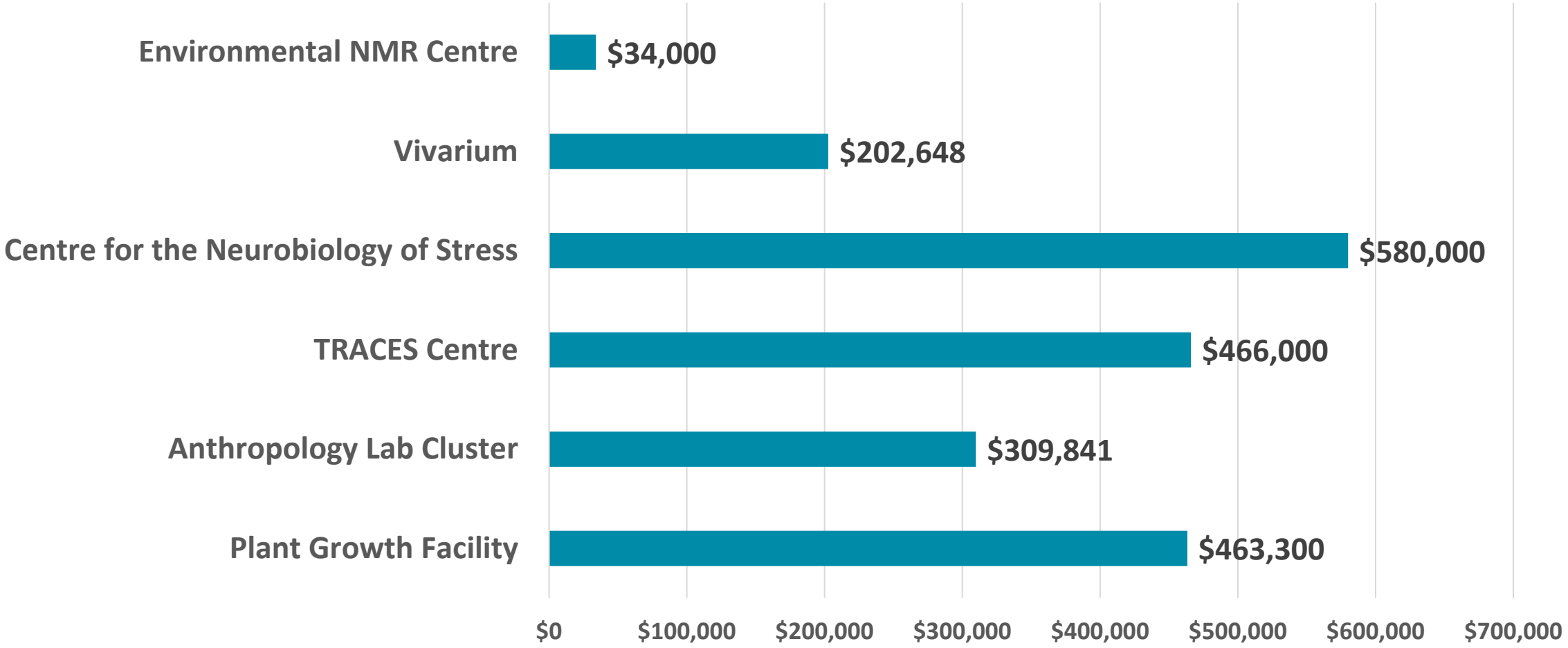
Sustainable Food and Farming Futures Cluster
Cluster Leads:
Jayeeta Sharma (Historical and Cultural Studies) & Marney Isaac (Physical & Environmental Sciences, Global Development Studies)
Funding: $1,200,000

We supported our research community through internal funding mechanisms.

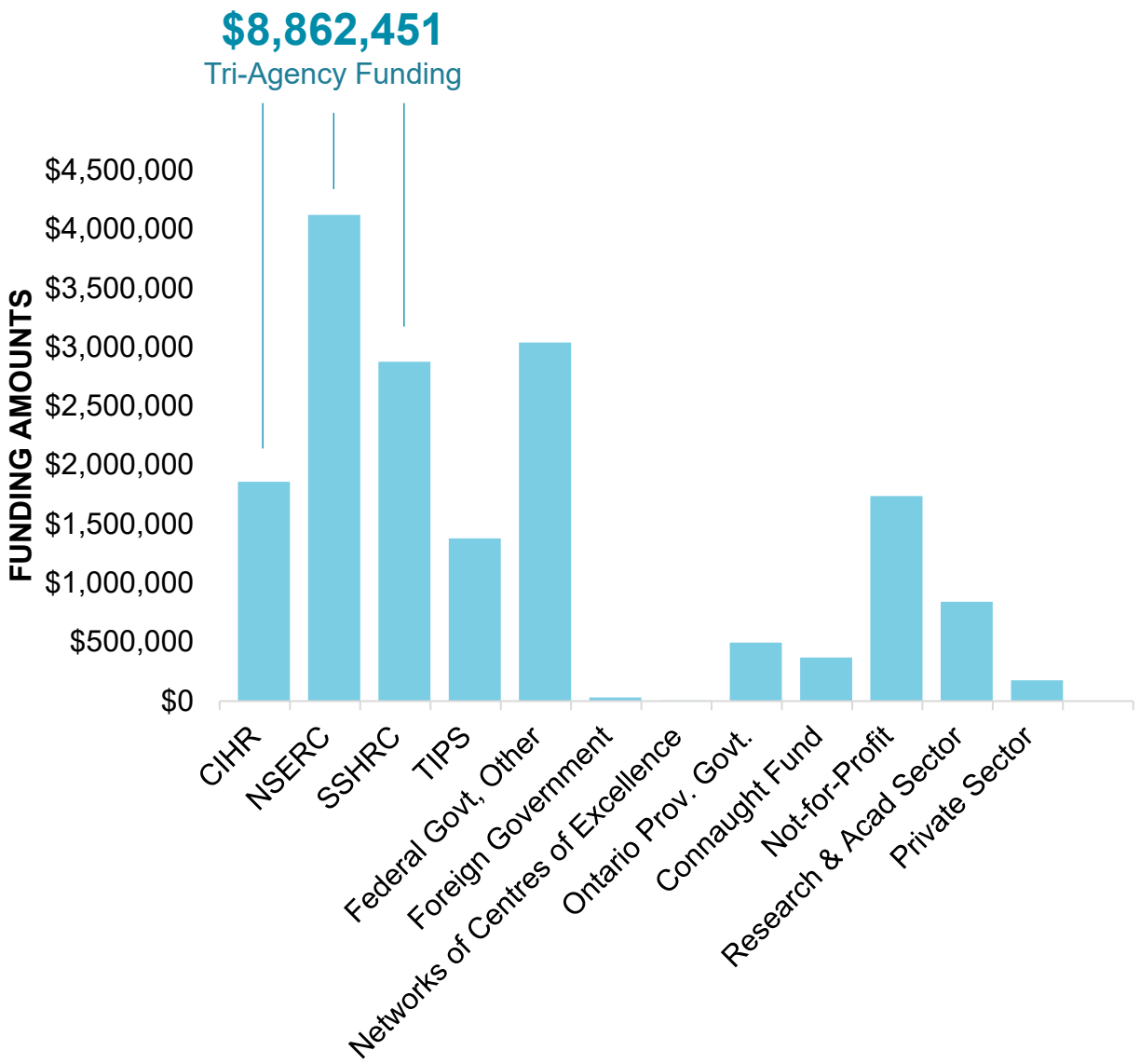
As well as core research facilities.

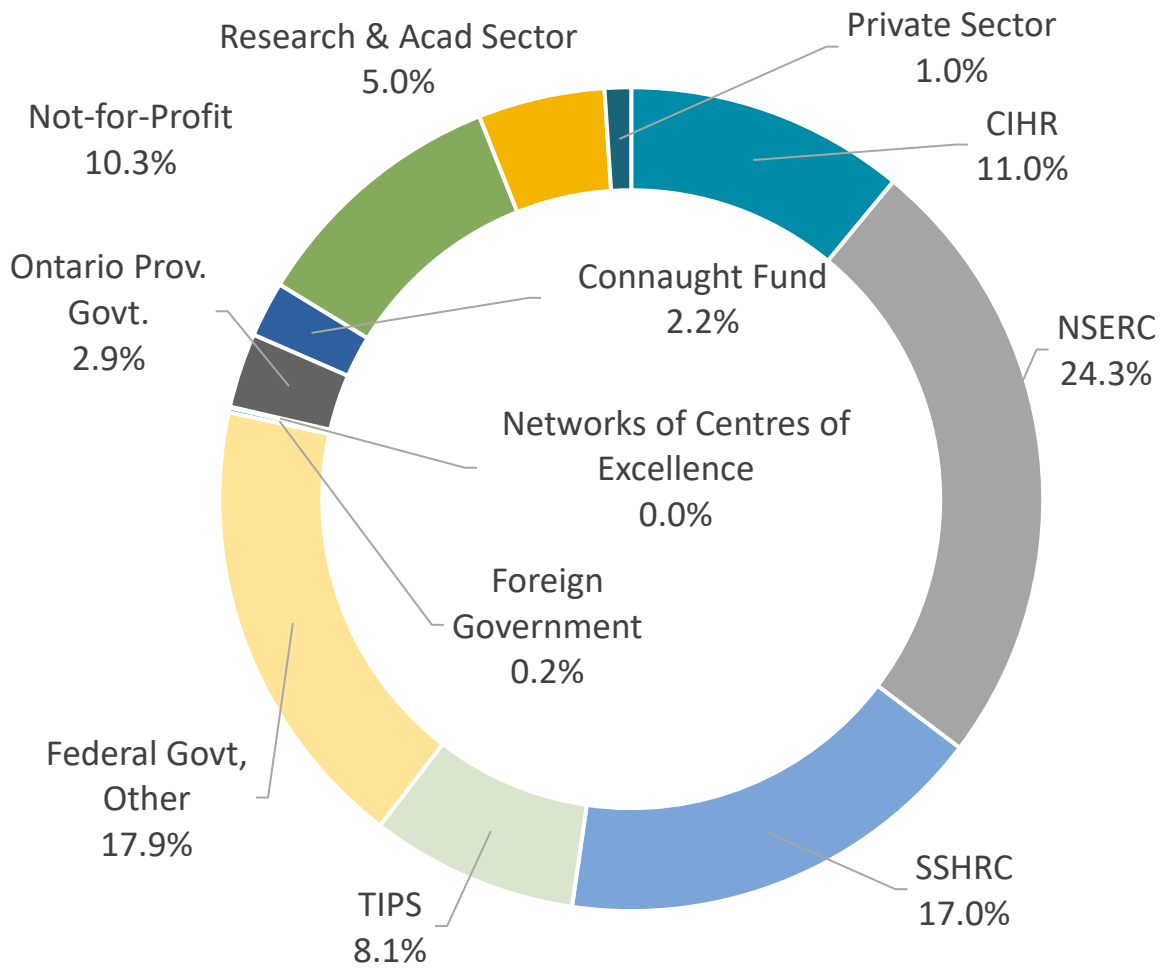


We invested over $2M in UTSC Core Facilities to ensure our researchers had the needed infrastructure, tools, and techniques.



The total annual research funding was $16.9 million*, with ≈52% of it coming from Tri-Agency sources.

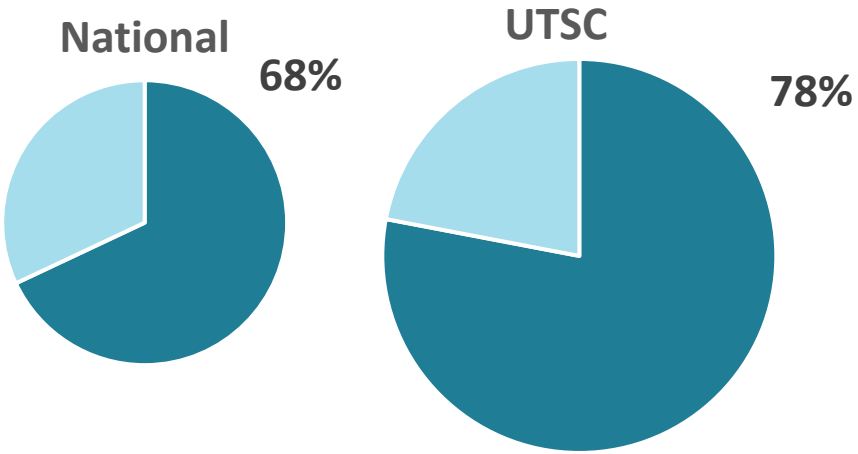




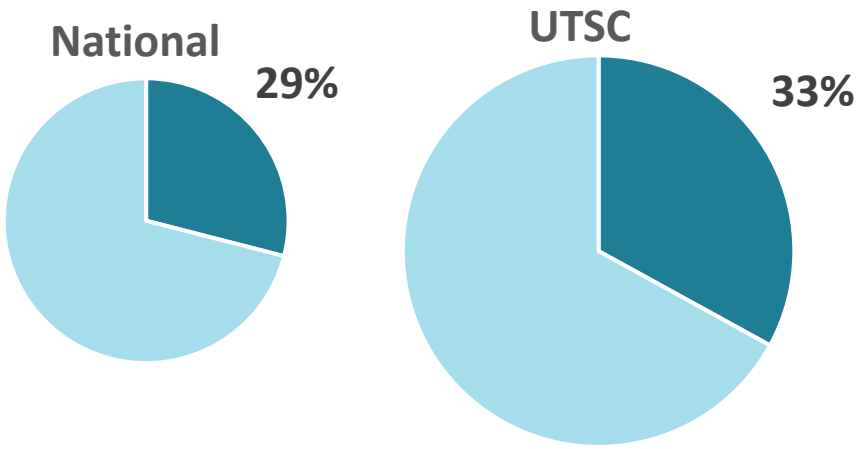
Note: 2022-23's final figures are pending upcoming competition results.
Data source: VPRI Dashboards, April 2023

Our Tri-Agency success rate typically exceeds the national success rate.

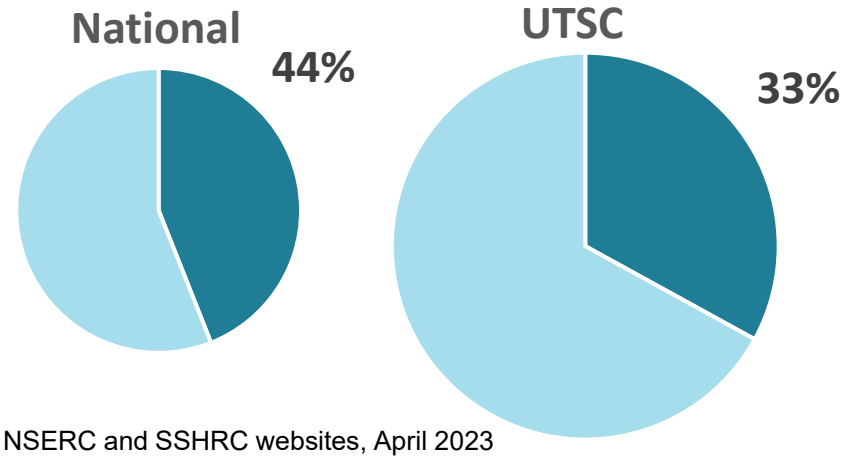
NSERC Discovery Grant



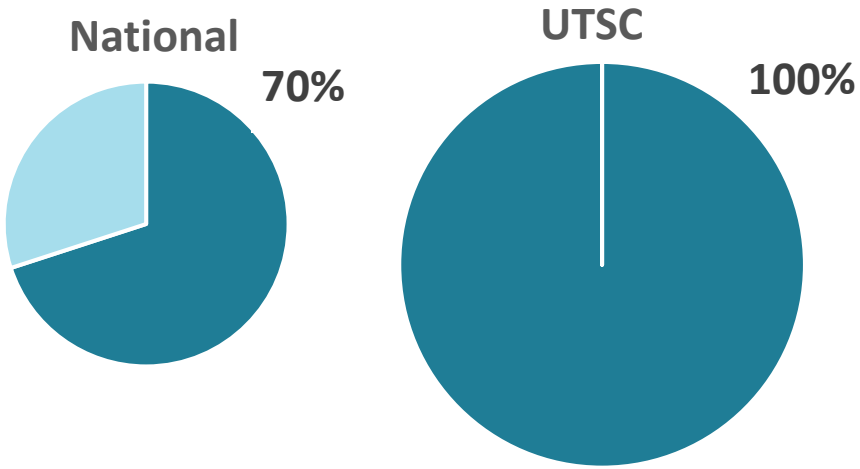
NSERC RTI Grant



SSHRC Insight Grant



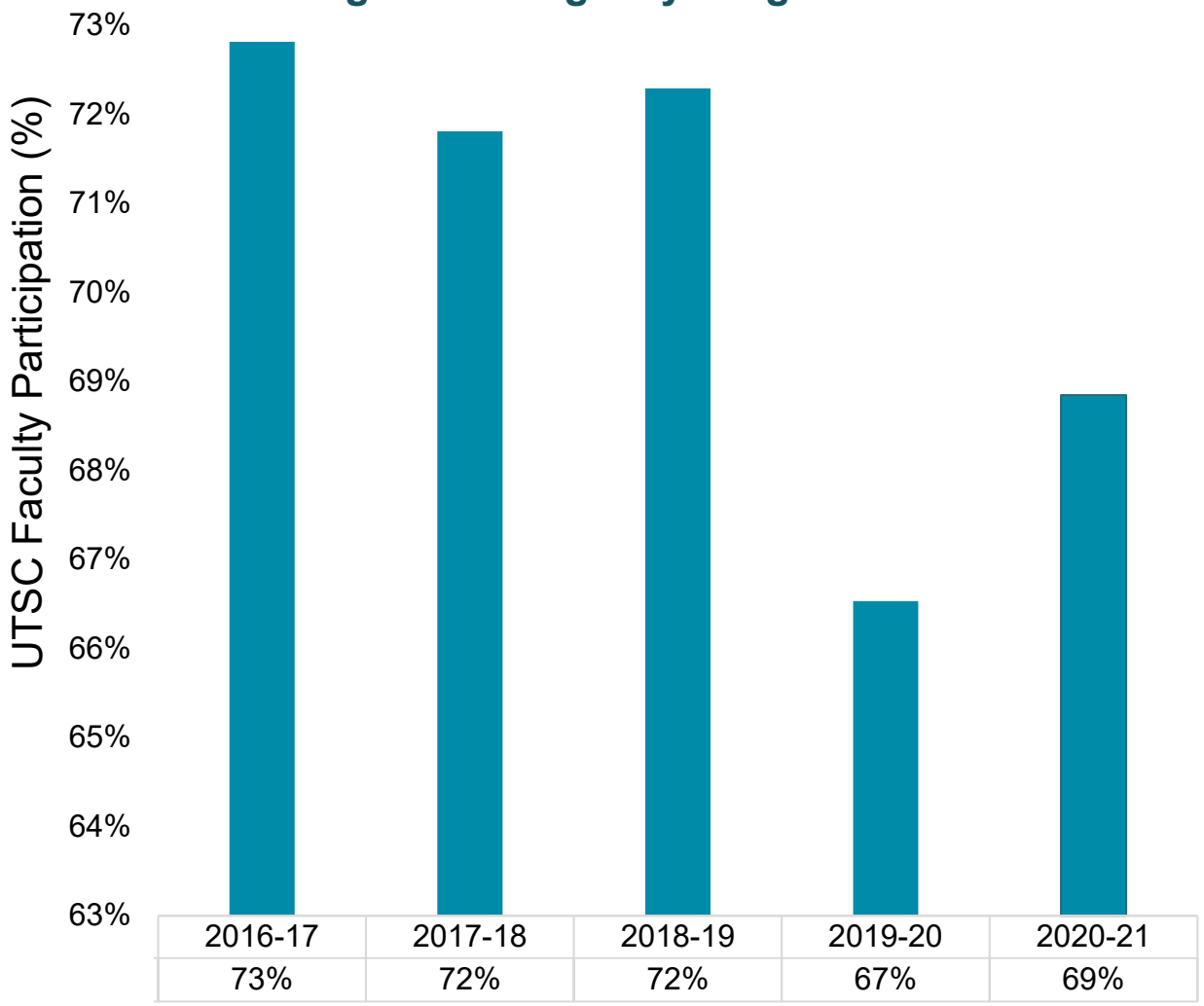
SSHRC Connection Grant



Data sources: NSERC and SSHRC websites, April 2023

But we are pursuing areas where we can reach new heights.

UTSC Faculty Member Participation in CRC-Eligible* Tri-Agency Programs



2016-17	2017-18	2018-19	2019-20	2020-21
73%	72%	72%	67%	69%

GOAL:
Increase Participation in CRC-Eligible Tri-Agency Programs

Strategy

Engage faculty who:

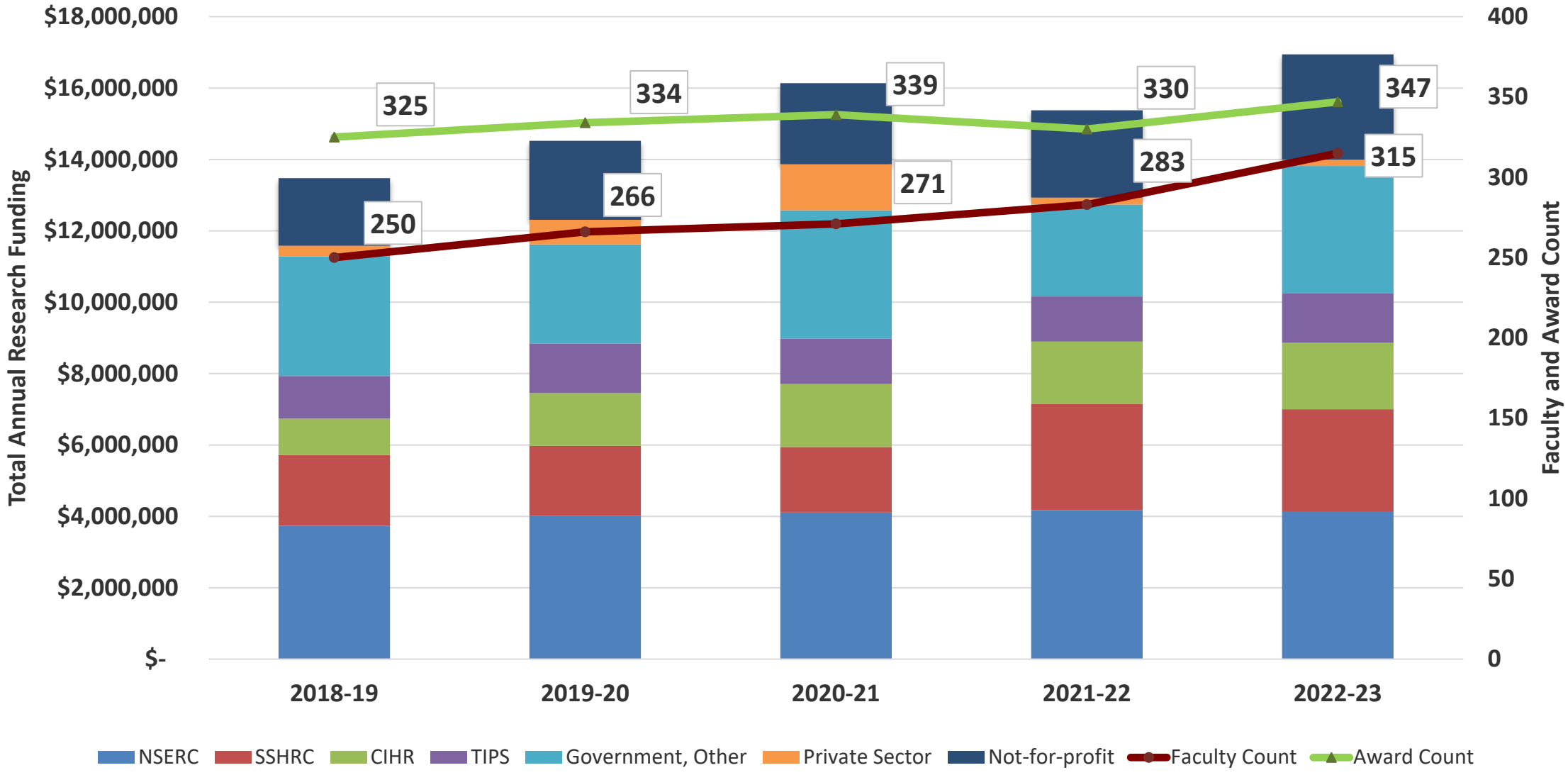
1. do not hold/have not recently applied for Tri-Agency funding
2. have research programs that were adversely affected by the pandemic
3. could be good candidates to pursue more complex, larger value grants

Note: Faculty Participation data is currently only available until 2020-21.

*CRC-ineligible Tri-Agency Programs: https://www.chairs-chaires.gc.ca/program-programme/research_funding-financement_recherche-eng.aspx#exclusions

Data source: VPRI Dashboards, March 2023

With these supports, our research productivity continued to increase.

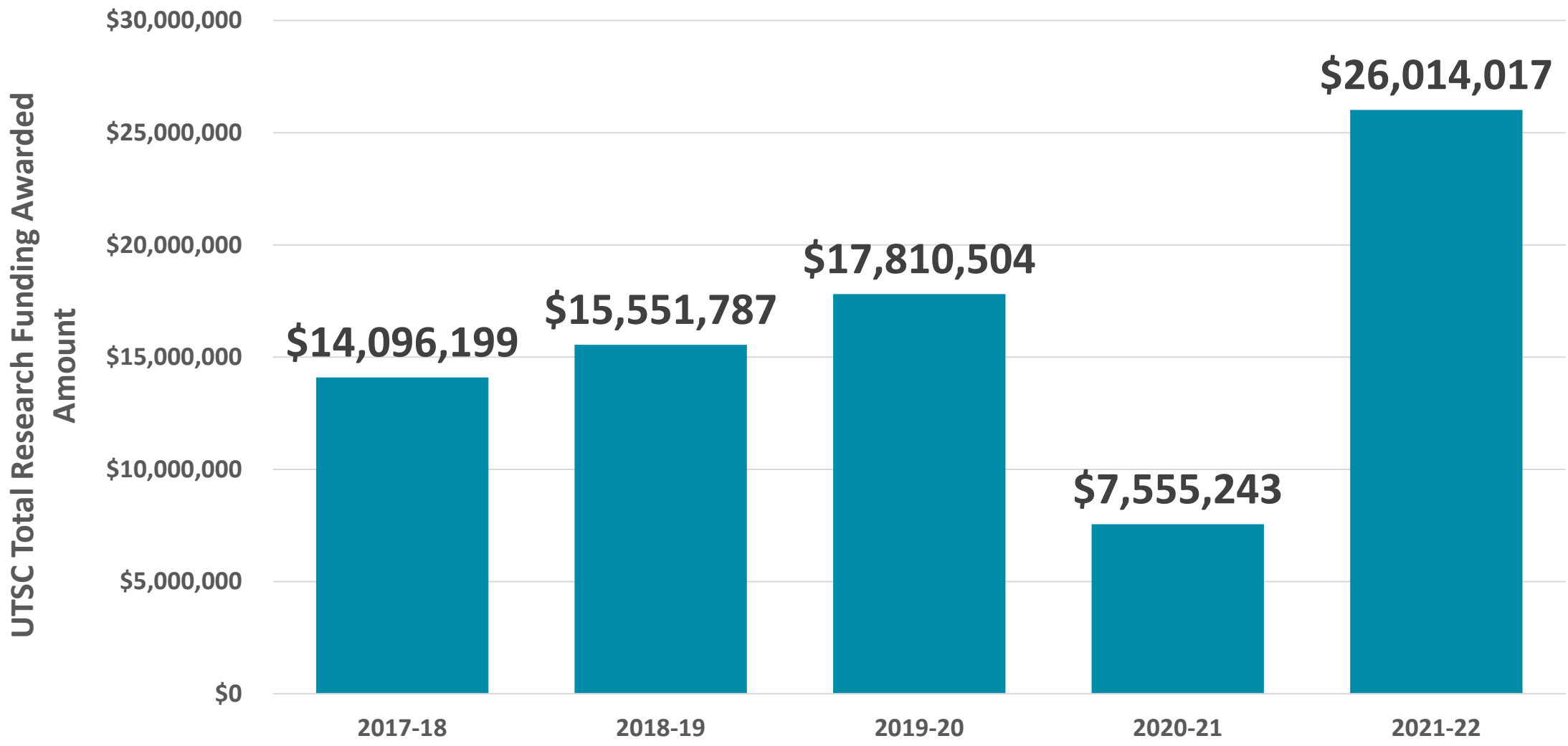


* : 2022-23's final figures are pending upcoming competition results

Data source: VPRI Dashboards, April 2023.

Our 315 research faculty were awarded 347 grants.

Total $ of newly awarded grants variable, but on the rise.



Note: Total Awarded Amount data is currently only available until 2021-22.

Data source: VPRI Dashboards, April 2023.

Plus 0.5 M awarded and 15.8M pending for learner experiential and entrepreneurial learning opportunities.

We continued to support our innovators through the campus accelerator, The Hub.

TheHub

The Hub End of Year Report, 2022 - 2023

Combined revenues and investment of Hub Start-ups

$3.05 M

Total Companies in Residence

87

Companies graduated **30**

New companies **53**

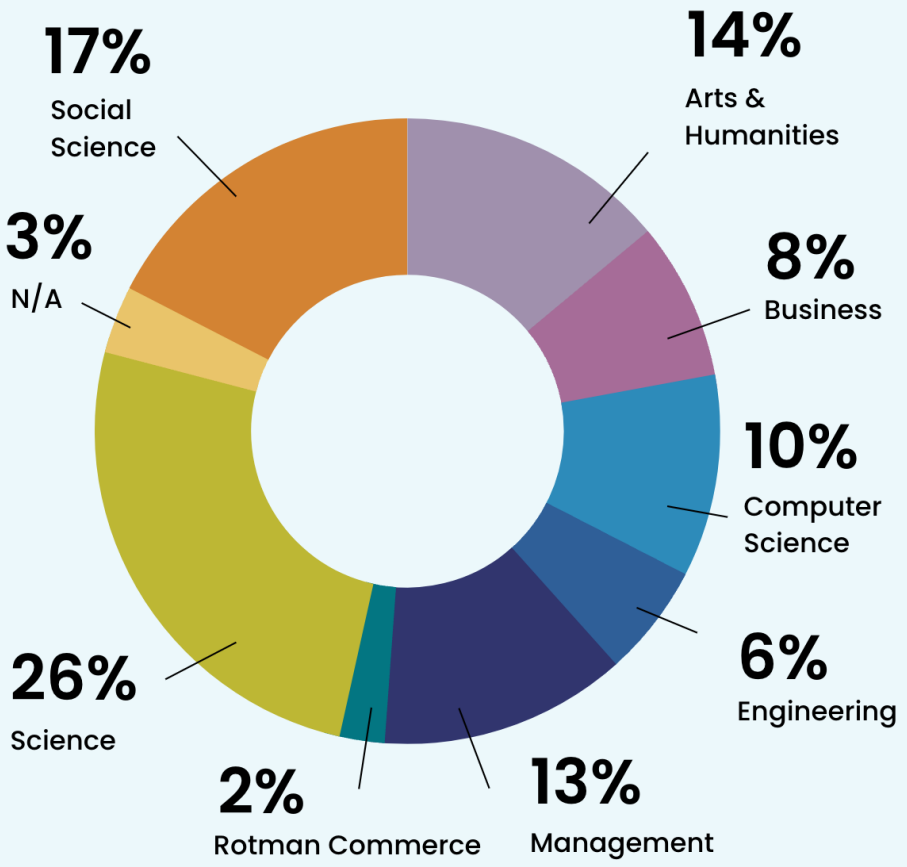
Total percentage of companies with **women founders**

Total percentage of founders identifying as **people of colour**

Total participants in Hub events in 2022-23 **993**

Total events **48**

Founders in The Hub by discipline, 2022-2023



Note: The Hub's final 2022-23 data is still pending

The Hub continues to stimulate the growth of trailblazers in the innovative space.

Neurokin

Maria Khandaker (top) and Shupa Rahman, co-founders of Neurokin

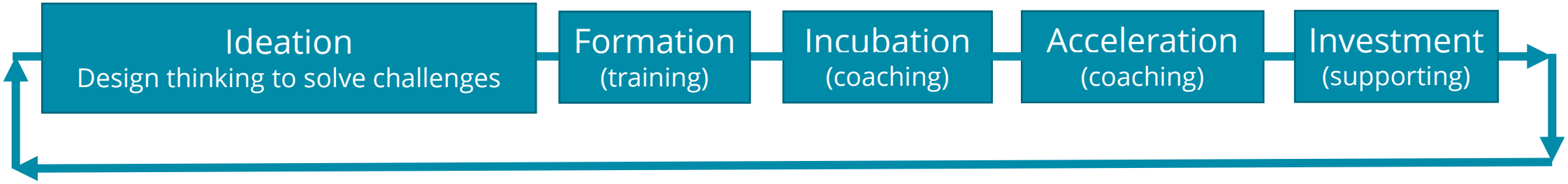
A one-stop information shop for marginalized neurodivergent people who identify as women, 2SLGBTQ+ and/or people of colour.

mhapy

Chijindu Ukagwu, founder of mhapy.

The company created a chatbot named Ruby that tracks users' mental health symptoms the way nurses do

Life cycle of the developing an entrepreneur, innovator, leader



EaRTH District

“SWITCH: EaRTH flips the switch for cleaner automotive technologies and mobility solutions”

Promoting careers in the automotive and mobility sector to high-school and postsecondary students

$500,000 and a minimum of 1,100 students

OVIN AUTONOMOUS • CONNECTED • ELECTRIC

Ontario

EaRTH District

Survey partners to understand competencies needed and then customize our training.

Employment and Social Development Canada Grant.

Pending $18,000,000.

>1,000 learners in the first three years of funding.

EaRTH Excites

(Highschool level learners)

EaRTH Activate

(Post-secondary level learners)

EaRTH Works

(Recent graduate / international graduate learners)

EaRTH Leads

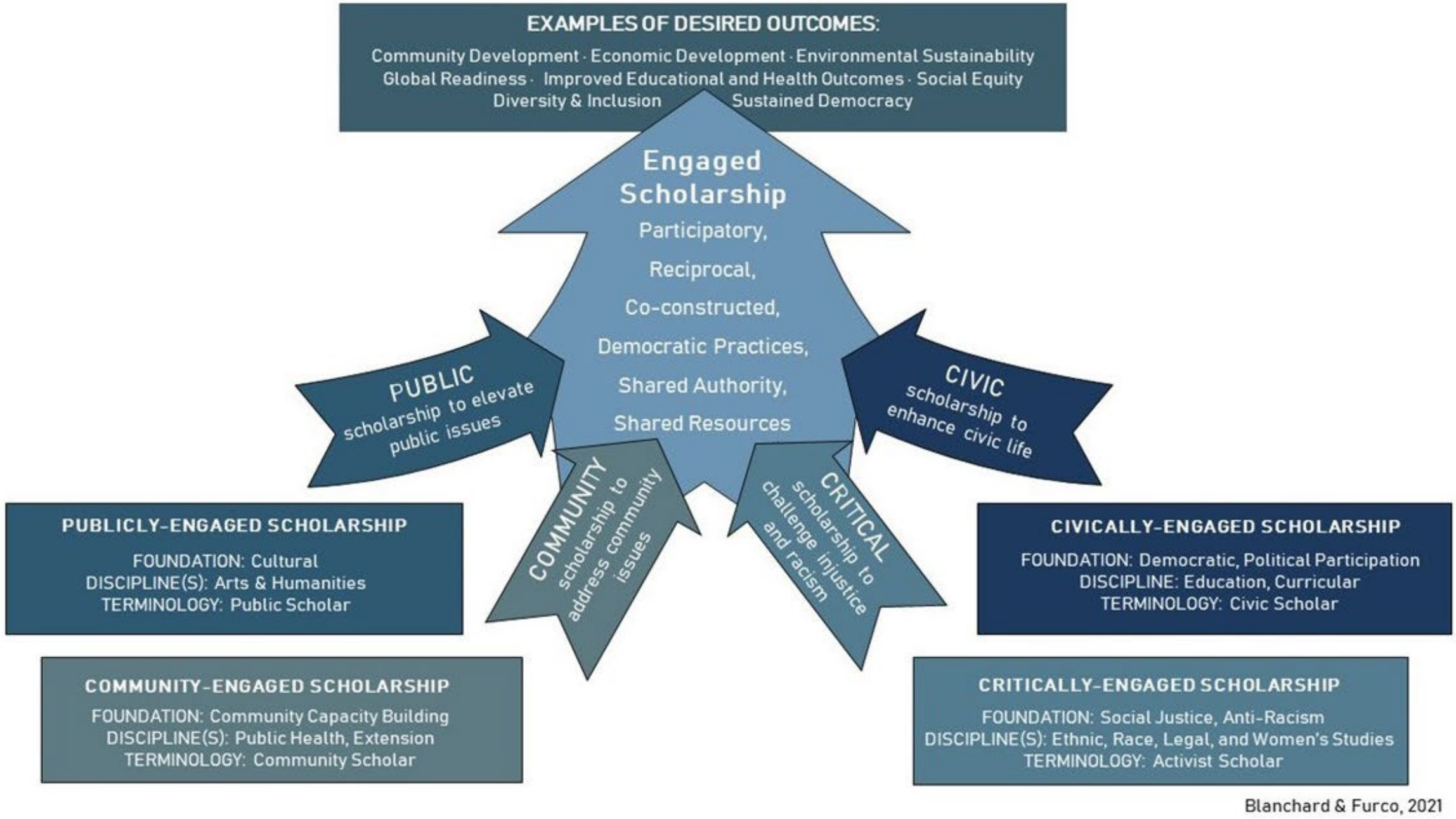
(Post-doctoral level learners)

We are working with early adopters to help shape and launch the training program.

We engaged the community to advance scholarship and innovation.

Engaged Scholarship:
Towards
Inclusive Excellence
in Research

PESI is diverse in practice, focus and scope.

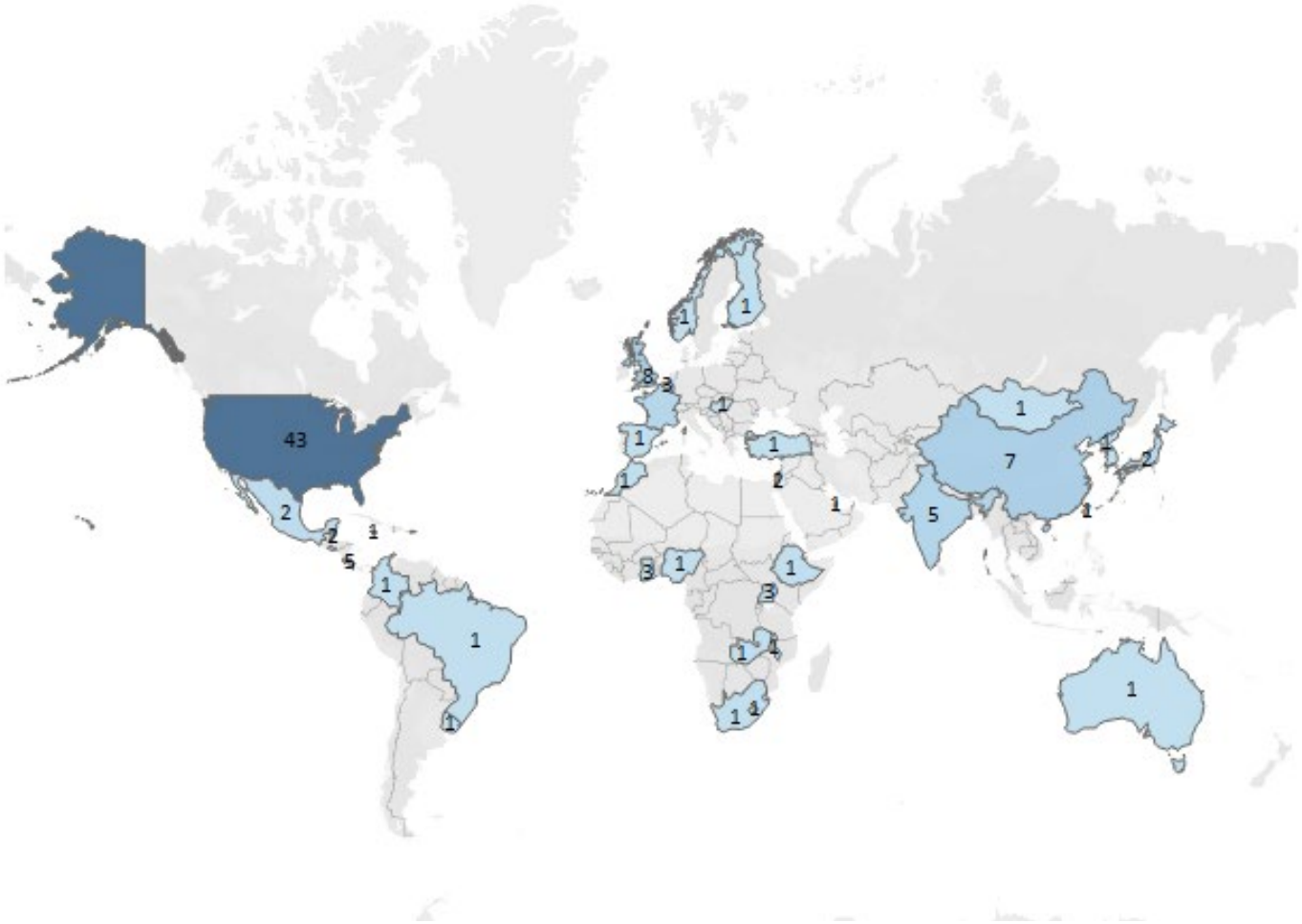


Blanchard & Furco, 2021

Our faculty are engaging in more international research.

- Our faculty is actively engaged in international research
- Top research locations
  - United States - 43
  - Great Britain - 8
  - China - 7
  - Costa Rica - 5
  - India - 5
  - France - 4
  - Belgium - 3
  - Ghana - 3
  - Uganda - 3
  - Belize - 2

Active Awards by Country (2022-23)



We continued our Celebration of Research Excellence Lecture Series.

Mark Campbell
Arts, Culture and Media

Andrea Charise
Health & Society

Artur Izmaylov
Physical & Environmental Sciences

Scott MacIvor
Biological Sciences

Alan Saks
Management

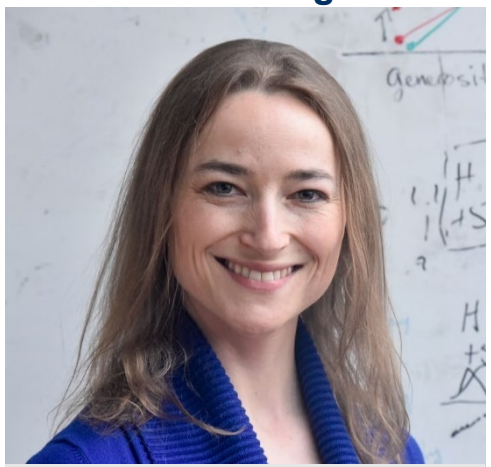
Jessica Wilson
Philosophy

We awarded our high-performing faculty.

UTSC Principal's Research Award

Mark Schmuckler
Psychology

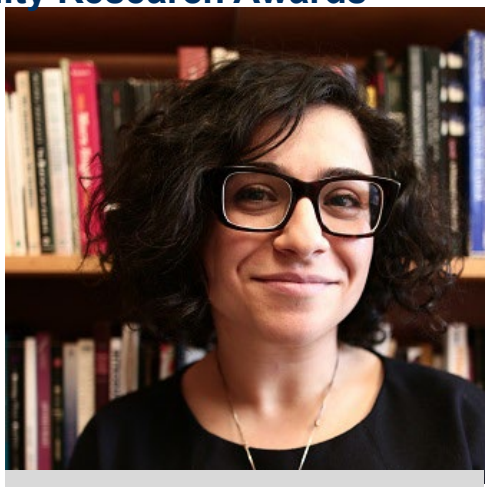
UTSC Research Recognition Award



Cendri Hutcherson
Psychology

UTSC Pre-Tenure Faculty Research Awards

Cassandra Hartblay
Health and Society



Sara Saljoughi
English

UTSC Research Excellence Faculty Scholars

Patrick McGowan
Biological Sciences

Hanno Rein
Physical & Environmental Sciences

Christina Guzzo
Biological Sciences

Oleksandr Voznyy
Physical & Environmental Sciences

And we celebrated faculty that received prestigious national and international recognitions.

Notisha Massaquoi
Department of Health & Society

2023 YWCA Toronto Women of Distinction Award for fighting inequities in health-care

A community-based health researcher who is interrogating anti-Black racism of those navigating institutional structures and systems in Canada.

And we celebrated faculty that received prestigious national and international recognitions.

Wisdom Tettey
Principal UTSC, Department of Political Science

African Scholars Award
Distinguished Influencers Award

Maydianne Andrade
Department of Biological Sciences

African Scholars Award
Distinguished African-Caribbean Award

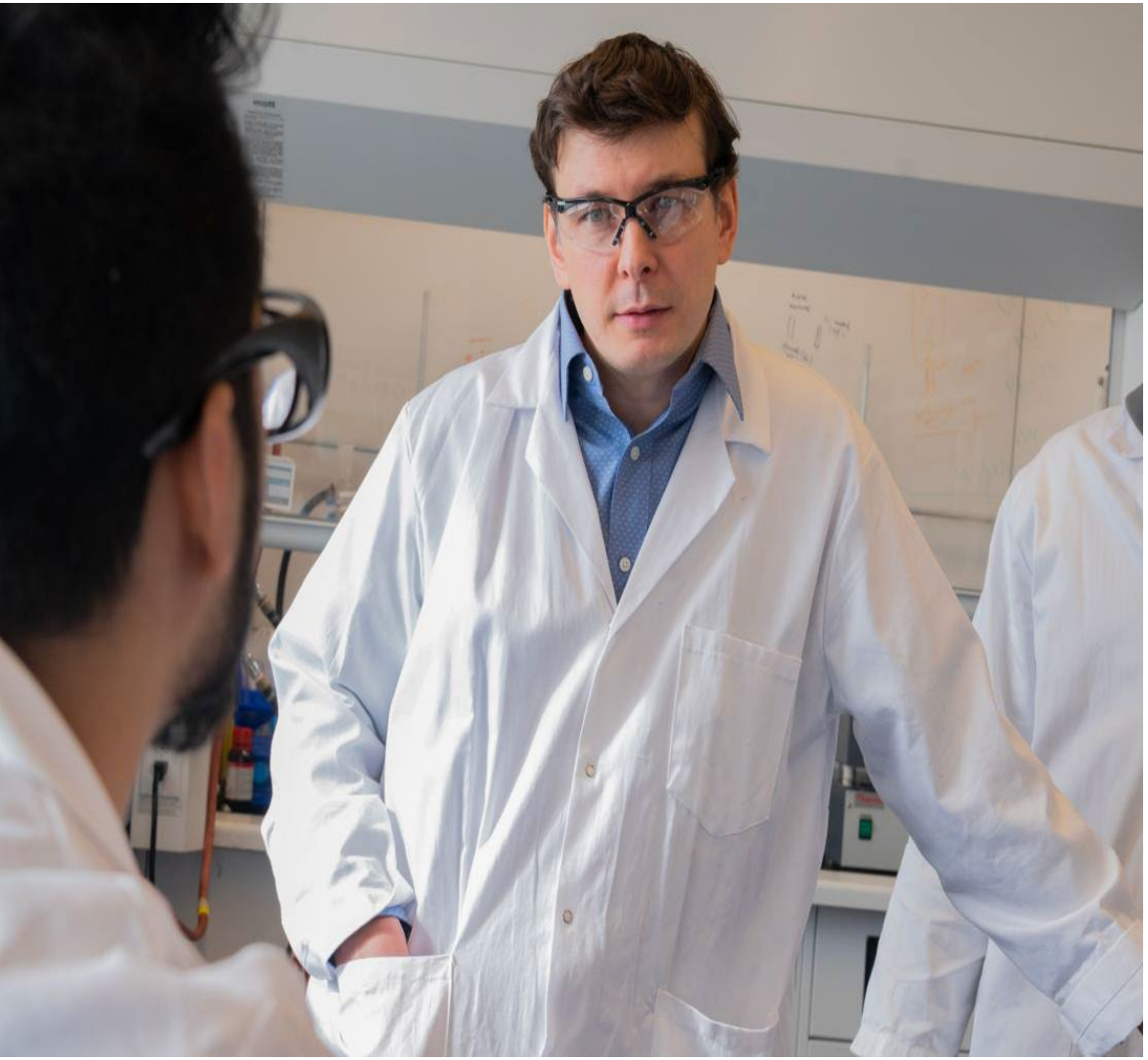
And we celebrated faculty that received prestigious national and international recognitions.

Ashton Anderson
Department of Computer and Mathematical Sciences

CS-CAN-INFO-CAN
Outstanding Career Computer Science Research Prize

Computational social scientist who has pioneered computational methods to quantify online phenomena including **political polarization.**

And we celebrated faculty that received prestigious national and international recognitions.



Alex Voznny
Department of Physical and Environmental Sciences

Chemical Institute of Canada
2023 Strem Award

Chemist who has advanced our understanding of artificially grown **colloidal nanocrystals**, which are particularly useful in LEDs, solar cells and certain types of lasers, among other applications.

And we celebrated faculty that received prestigious national and international recognitions.

Myrna Simpson
Department of Physical and Environmental Sciences

Geochemical Society
Clair C. Patterson Award

Environment scientist who is using nuclear magnetic resonance (NMR) and mass spectrometry to address knowledge gaps related to global environmental change, pollutants and contaminants.

And we celebrated faculty that received prestigious national and international recognitions.

Aisha Ahmed
Department of Political Science

Royal Society of Canada
College of New Scholars, Artists and Scientists

Political scientists who focuses on the intersection of Islamists and economies. She was named one of Toronto's most inspiring women in 2017 by Post City Magazine and won Muslim Woman of the Year at the Muslim Awards of Excellence MAX Gala a year later.

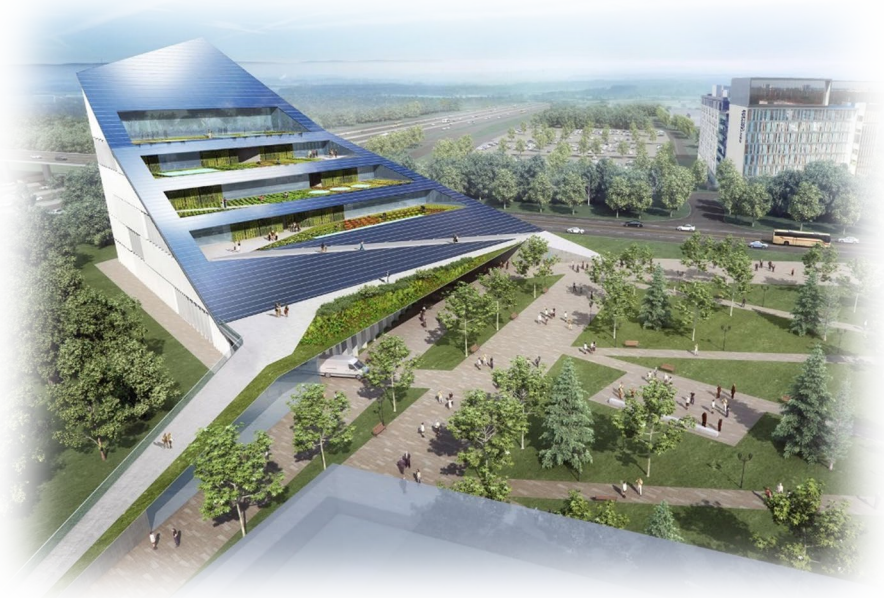
And we celebrated faculty that received prestigious national and international recognitions.

Diana Valencia
Department of Physical and Environmental Sciences

Guggenheim Fellowship

Physical scientist who studies the interior of planets, its composition and how it evolves – including ways in which it might enable the emergence of life.

We are focused on building regional innovation districts, including EaRTH and HeART.



CENTENNIAL COLLEGE

FLEMING

Ontario Tech UNIVERSITY

TRENT UNIVERSITY

UNIVERSITY OF TORONTO SCARBOROUGH

Ontario Shores
Centre for Mental Health Sciences

MICHAEL GARRON HOSPITAL
TORONTO EAST HEALTH NETWORK

SHN
SCARBOROUGH HEALTH NETWORK

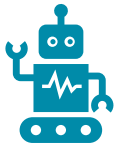
UNIVERSITY OF TORONTO SCARBOROUGH

Lakeridge Health

Sunnybrook
HEALTH SCIENCES CENTRE

As we look forward to the next year, we have selected the following strategic priorities to further advance the research vision and mission of the campus.

Complete the optimization of the organization of the OVPRI.



Review research institutes, centres and clusters and core facilities to ensure they conform to our guidelines.

Complete a space audit to and develop a plan to support the needs of UTSC

Pursue CFI major infrastructure grants.

Create & operationalize a new innovation lifecycle website that provides a “one-stop shop” for fundamental information related to the innovation enterprise

Launch the Centre for Inclusive Excellence in Innovation, Entrepreneurship and Leadership

Develop a strategic action plan for internationalization.

Develop a strategic action plan for iRISE

Develop a strategic plan for the National Academy for Inclusive Leadership.

Build and put into action a road map for the 2025 Scarborough Global Summit.

Develop a plan to have a United Nations University node located at UTSC