Senate Graduate Council & Senate Research and Innovation Council

Open Session

January 13, 2026

3:00 p.m. - 4:30 p.m.

Needles Hall

NH 3318 and NH 3308

Waterloo Campus

Think Differently | Act with Purpose | Work Together

UNIVERSITY OF WATERLOO | Senate

2026 01 13 Senate Graduate Council & Senate Research and Innovation Council Meeting Book

AGENDA

	1. Governance Resources		
	1.1. Link to Governance Resources (SGC)		
	1.2. Link to Governance Resources (SRIC)		
3:00 p.m.	2. Approval of the Agenda		
	2.1. Conflict of Interest	Decision	3
	2.2. Approval of the Agenda		
	3. Regular Agenda		
3:05 p.m.	4. Co-Chair's Remarks [Dean & Wan]	Information	
3:10 p.m.	5. Annual Report of the VPRI [Dean]		
	5.1. Annual Report of the VPRI	Discussion	4
3:35 p.m.	6. GSPA Updates [Wan]	Discussion	
3:45 p.m.	7. Generative AI Consultation [Fieguth & Smith]		
	7.1. Generative AI Consultation	Discussion	29
4:05 p.m.	8. Library Updates – Open Access, Research Needs, and Data Management [Hitchens & Namachchivaya]		
	8.1. Library Updates – Open Access, Research Needs, and Data Management	Discussion	38
4:20 p.m.	9. Items Removed from the Agenda		
	10. Proposed Future Items		
	10.1. Proposed Future Items	Information	48
4:25 p.m.	11. Other Business		
	12. Adjournment The next SGC meeting will be held on January 21, 2026. The next SRIC meeting will be held on February 12, 2026.		

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For Approval **Open Session**

To:	Senate Graduate Council & Senate Research and Innovation Council
From:	Tony Ly Governance Officer
Date of Meeting:	January 13, 2025
Agenda Item:	**2. Approval of the Agenda**

2.1. Conflict of Interest

Members are invited to declare any conflicts related to the open session agenda at this time. Should a conflict of interest arise during discussion, members are asked to declare a conflict of interest as it arises. Information and guidance on conflicts of interest is provided on the Secretariat website.

The Secretariat can provide guidance regarding potential conflicts of interest in advance of or during the meeting.

2.2. Approval of the Agenda

Motion: To approve the agenda as presented/amended.

Members wishing to have an item removed from the agenda are asked to contact the Secretariat in advance of the meeting.

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For Information **Open Session**

To:	Senate Graduate Council & Senate Research and Innovation Council
Presenter(s):	Charmaine Dean Vice President, Research and International
Date of Meeting:	January 13, 2026
Agenda Item:	**5.1 Annual Report of the Office of the Vice-President, Research and International**

Recommendation/Motion

This item is for information purposes.

Summary

This Annual Report to Senate summarizes Fundamental and Applied Research, Knowledge Mobilization, Community, Campus and Culture, and Innovation and Entrepreneurship initiatives for 2024/25.

Proposal/Rationale

This report provides an annual summary of significant activities and outputs related to research, support services and commercialization initiatives in the Office of the Vice-President, Research and International.

Jurisdictional Information

N/A

Governance Path

N/A

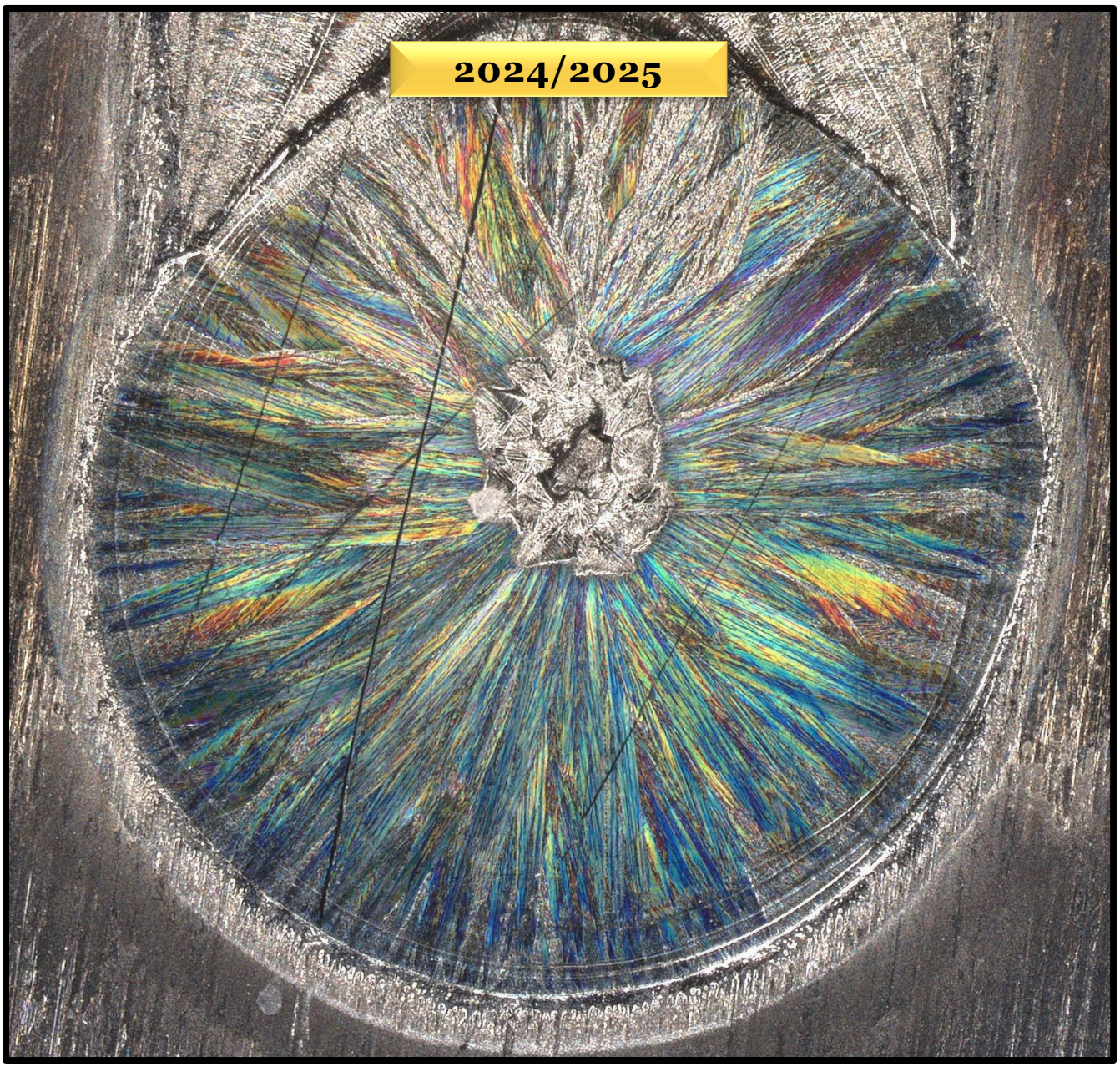
Documentation Provided

Attached – Vice-President, Research and International: Annual Report to Senate 2024/2025.

Office of the Vice-President, Research and International

ANNUAL REPORT TO SENATE

2024/2025



UNIVERSITY OF WATERLOO

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Appendix

Data Notes 21-22

Front cover photo: Peacock Mountain- This is a digital microscopy image of a laser weld produced by the laser directed energy deposition (LDED) process. The particular feature in question is the end of the weld which causes the enlarged circular shape. The colourful streaks are iron and titanium oxides of various thickness. Photo by Mikhail Malmyguine (Faculty of Engineering, BASc student) with assistance from Michael Benoit (Faculty of Engineering)– second place winner of the 2025 Art of Engineering and Architecture research photo contest.

MESSAGE

VICE-PRESIDENT, RESEARCH AND INTERNATIONAL

The Office of the Vice-President, Research and International provides support across the full research cycle from grant writing that includes research security, ethics, and diversity, equity and inclusion support to commercialization pathways that enable real-world applications in critical areas that serve humanity.

This report provides highlights of the research outputs and supports from across the OVPRI portfolio to showcase the diverse research activities that enable Waterloo to implement our long-term Waterloo@100 and Global Futures visions and be a continuous leader in solving the world's most pressing problems.

In the coming years, we will continue building Waterloo's strengths in foundational and applied research and continue to work collaboratively with a wide variety of local and global partners.

We will accomplish this by fostering an inclusive campus research environment that ensures our research planning, execution, and dissemination is locally grounded and carries global impact.

2024/2025 - HIGHLIGHTS

This year we successfully increased our overall funding by 10%. There were many initatives that contributed to this increase such as the $45M from the Digital Research Alliance of Canada and Compute Ontario for much needed computing updates to the Graham Data Centre (now called Nibi).

Our consistent leadership in NSERC funding signals the strength and commitment of our campus community to continue work toward scientific and technical breakthroughs. Although we have constantly performed well on our SSHRC Insight grants we will encourage more faculty members to apply for SSHRC funding in general. To make progress on CIHR funding, we will actively encourage applicants to use available grant writing resources and participate in the CIHR project grant external peer review program.

Our efforts in relation to Faculty level award support are visible through our upward movement in the Maclean's annual awards ranking in both the comprehensive and U15 university categories. This work will continue as a key strategy moving forward.

Over the coming year, we will continue to enhance our Knowledge Mobilization Community of Practice (CoP) to ensure that sharing of research initatives and best practices strengthens our local and global reseach impact. We will continue to actively support researchers and students to embed diversity, equity, and inclusion and decolonization, Indigenization, and reconciliation into their work, including more concerted efforts around inclusive innovation.

Our success of ensuring that we have an anchor partnership in Rogers signals our commitment to diversify partnership funding. The derived benefits to research and technology transfer, student engagement, and the innovation ecosystem development from this anchor partner will help facilitate research in telecommunications research and we will seek out other anchor partners in key strategic areas.

Finally, we have made huge strides this year in tracking multiple metrics related to our student/faculty and startup ecosystem so that we can effectively benchmark our programs and activities going forward.

10%
increase in total research funding

30%
increase in NSERC alliance funding

5TH TO 4TH RANK
for U15 NSERC funding

#1
rank for Canadian Comprehensive University faculty awards

21ST to **18TH**
spot globally in the number of investment backed undergraduate founders

$40B
Valuation for Velocity startups

University of Waterloo, Artist rendering of Mathematics 4 (M4) - a five-storey building that includes **c**lassroom space, labs and a cutting-edge eco-friendly server room – currently under construction

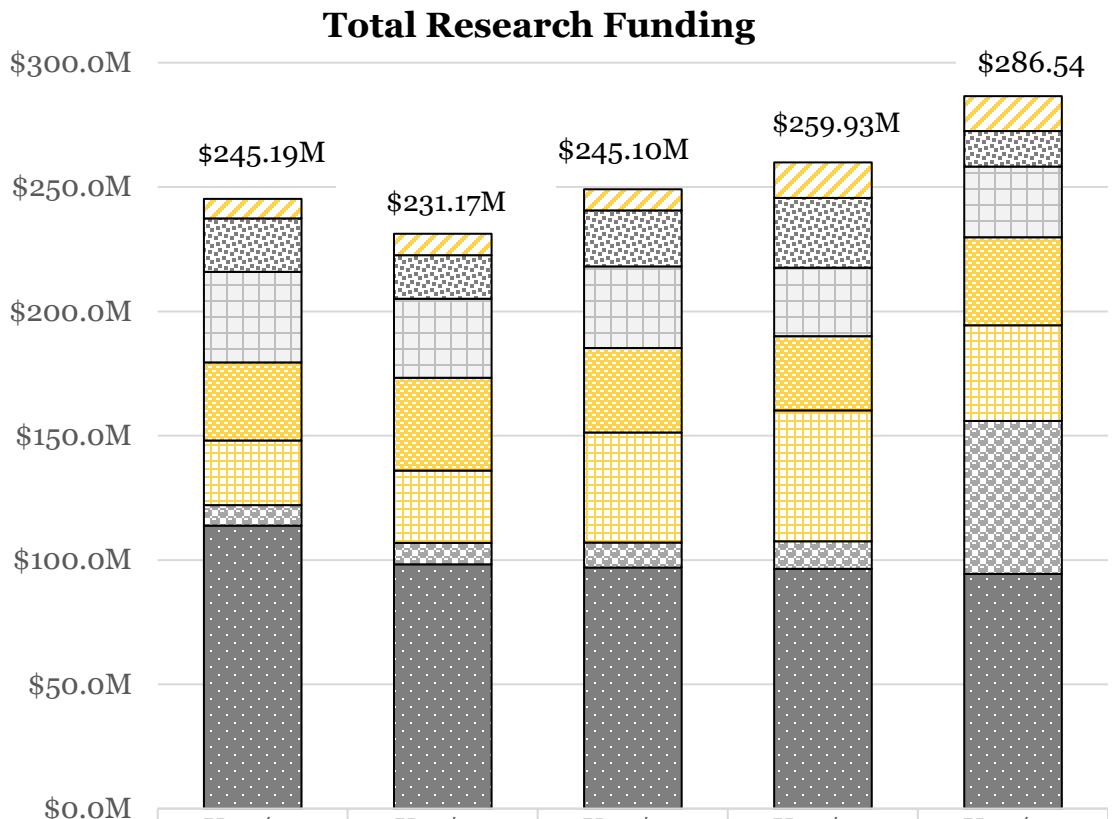
University of Waterloo, Artist rendering of Longhouse Labs - a dedicated space for Indigenous-led experiences and learning – currently under construction

Fundamental and Applied Research

Tracking our research funding

Between 2023/24 and 2024/25, total research funding increased by 10%. The largest increase was in Non-Profit funding which increased by 459% ($50.5M) due in large part to a joint grant (+$45.4M) from the Digital Research Alliance and Compute Ontario for significant upgrades and additions to the Graham data centre (now called Nibi).

+10% total research funding between 23/24 and 24/25



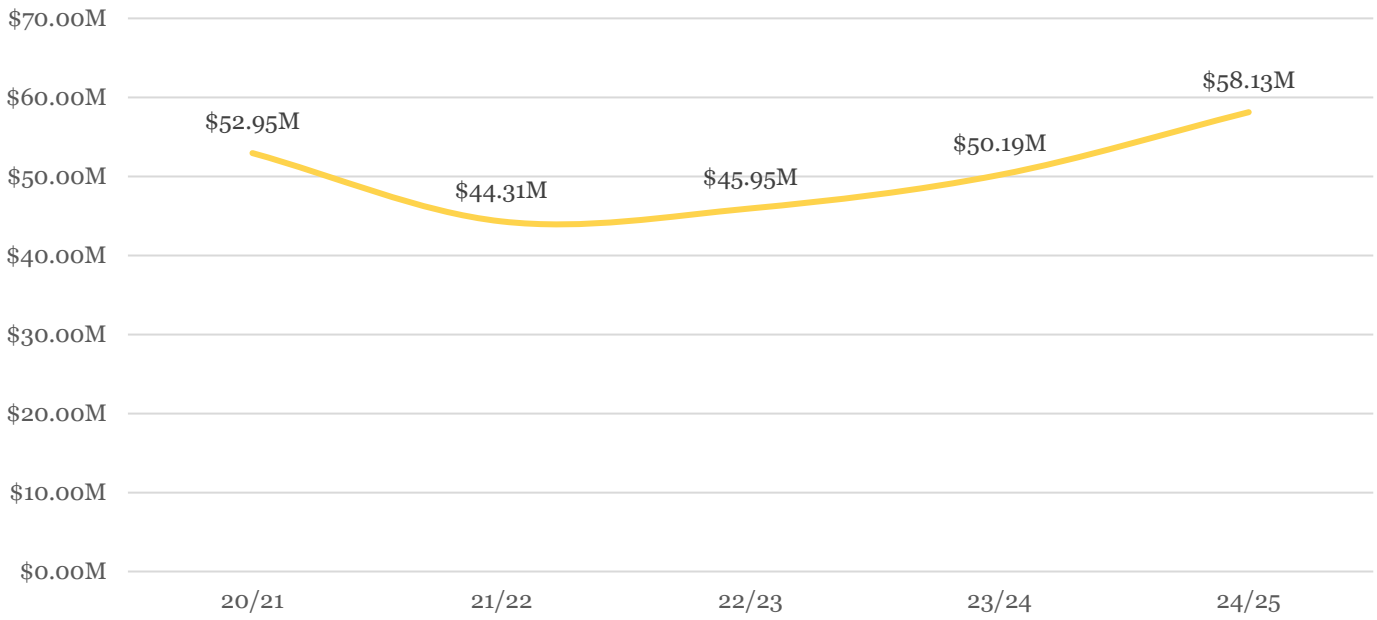
	Y20/21	Y21/22	Y22/23	Y23/24	Y24/25
Public Sector - Other	$7.83M	$8.59M	$8.50M	$14.29M	$14.01M
Provincial	$21.47M	$17.47M	$22.54M	$28.02M	$14.23M
Industry	$36.39M	$31.77M	$32.79M	$27.64M	$28.46M
Universities	$31.41M	$37.33M	$33.97M	$29.78M	$35.36M
Federal (Excluding Tri-Agency)	$26.02M	$29.11M	$44.27M	$52.69M	$38.48M
Non-Profit	$8.24M	$8.66M	$10.09M	$11.04M	$61.52M
Federal Tri-Agency	$113.83M	$98.25M	$96.92M	$96.48M	$94.46M

Federal (Excluding Tri-Agency) funding decreased between 23/24 and 24/25 due in large part to the natural end of the Canada First Research Excellence Fund grant (-$5.8M) and Federal Economic Development Agency for Southern Ontario (-$4.1M) projects. Provincial funding also decreased by $13.8M due to the end of one-time funding from the Ministry of Economic Development, Job Creation and Trade for the Innovation Arena (-$7.5M), a decrease from Ministry of the Environment Conservation and Parks (Ontario) related to Wastewater Surveillance for SARS-Cov-2 (-$3.6M) and a decrease from the Ministry of Colleges, Universities, Research Excellence and Security for Ontario Research Fund – Research infrastructure (RI) projects (-$3.1M).

Benchmarking ourselves – NSERC funding

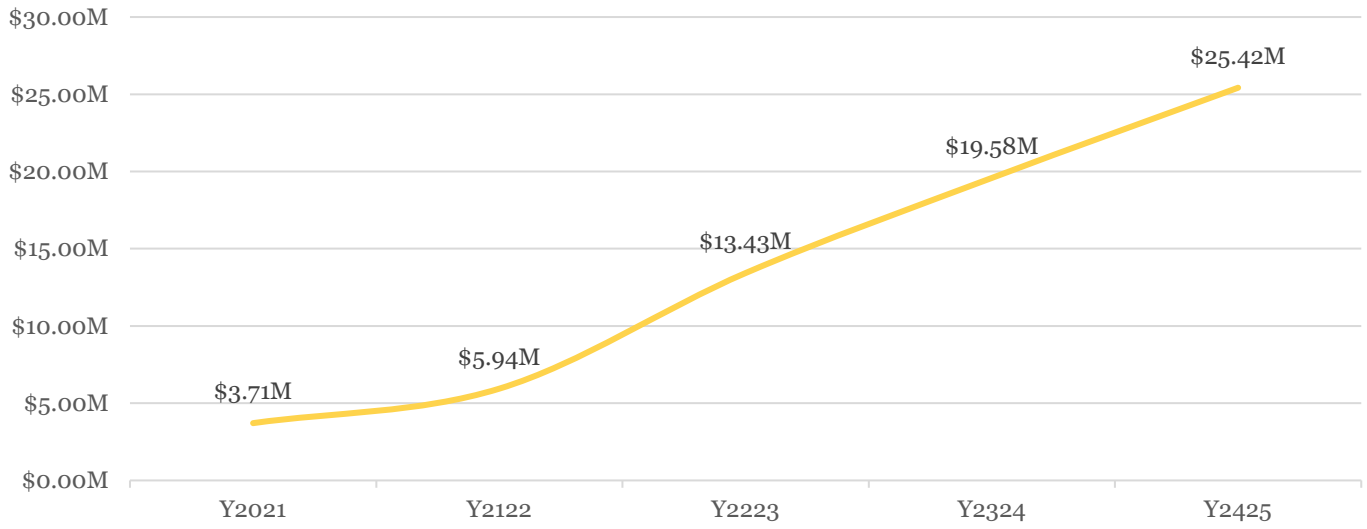
Between 2023/24 and 2024/25, Waterloo had a 16% increase in NSERC funding. The contributions to this increase include an additional $5.8M Alliance, $1.2M Idea to Innovation, $450K Research Tools and Instruments (RTI), and $500K National Science Foundation - Global Centres funding.

NSERC Funding



The data above do not include Canada Research Chairs (CRCs), Canada Excellence in Research Chairs (CERCs), and New Frontiers in Research Fund (NFRF).

NSERC Alliance Funding



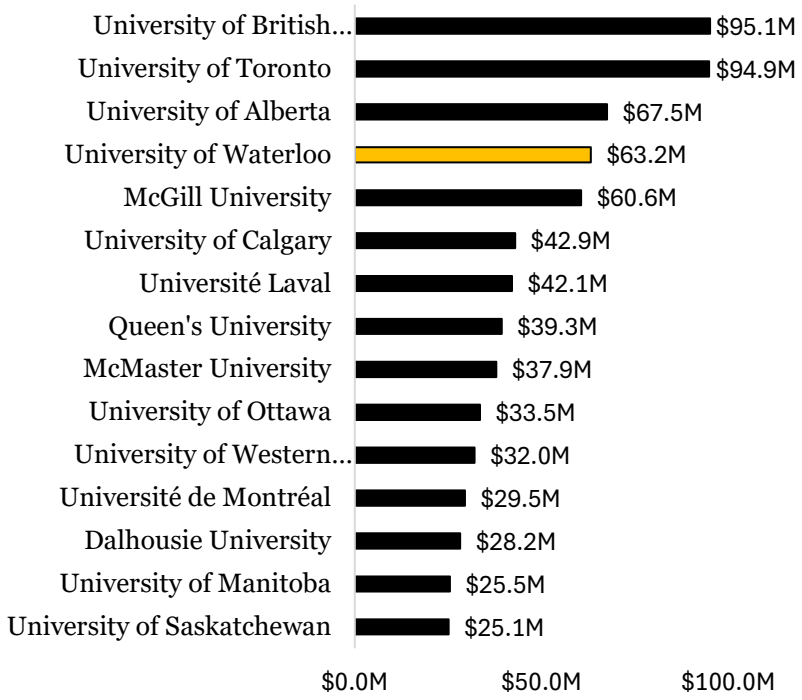
Alliance grants encourage university researchers to collaborate with partner organizations, which can be from the private, public or not-for-profit sectors. Between 2023/24 and 2024/25, there was a 30% (+$5.8M) increase in NSERC Alliance funding especially from the Alliance Advantage (+$3.3M) and Alliance Quantum (+$1.8M) programs.

Benchmarking ourselves – NSERC funding

In the last 3 years, our NSERC funding rank has remained in the top 5 among U15 Universities. Our strategic goal has been to move up one rank in NSERC funding and this year we achieved this goal by moving from 5th to 4th rank, surpassing McGill University. These publicly available data used for benchmarking include funds from CRCs, CERCs, and NFRF programs - See appendix for exclusions.

UW Historic Rank for U15 NSERC Funding			
Year	**22/23**	**23/24**	**24/25**
Rank	**5**	**5**	**4**

U15 NSERC Funding 24/25



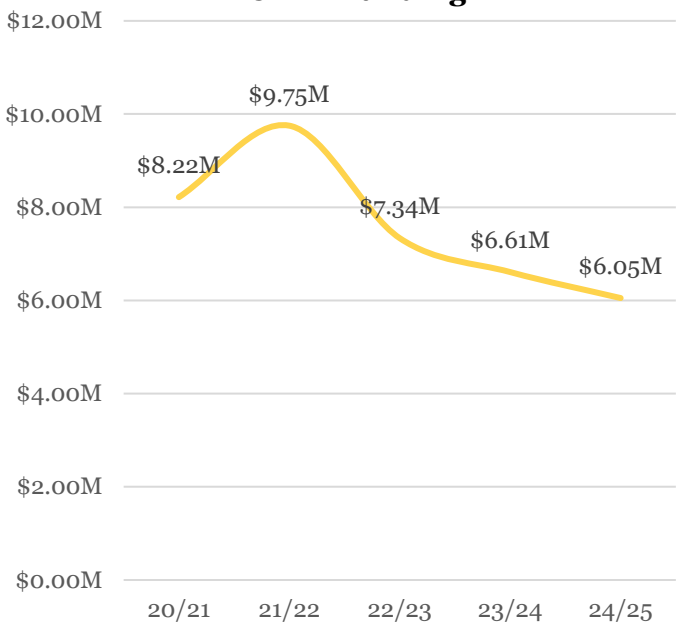
U15 NSERC Funding 23/24

U15 NSERC Funding 22/23

Benchmarking ourselves – CIHR and SSHRC funding

CIHR funding is difficult since Waterloo does not have medical school. Since 2022/23, our CIHR rank has been dropping year over year among comprehensive universities. Losing or gaining one or two grants makes a noticeable difference in CIHR funding. In 2024/25, the University of Guelph received training grants for healthy cities and one health research projects valued at $1.2M, and therefore moved into third place. Since 2020/21 Waterloo has consistently garnered over $6M in annual SSHRC funding. The University is actively encouraging more faculty to apply for SSHRC funding.

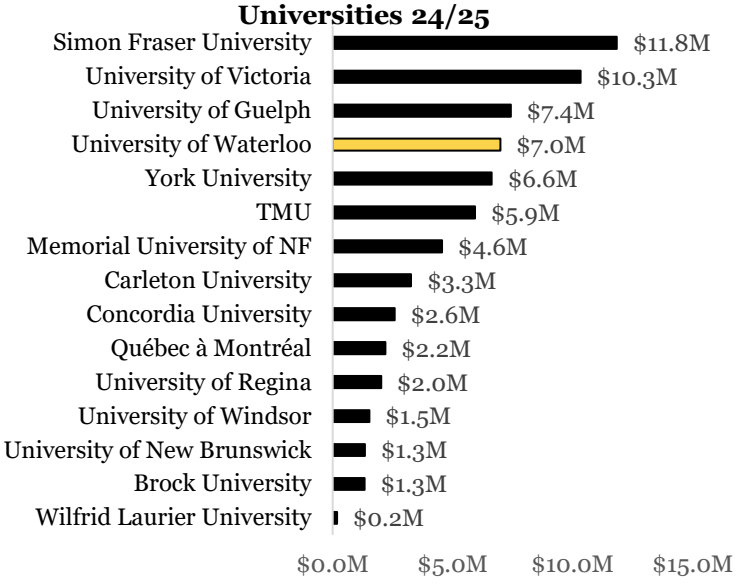
CIHR Funding



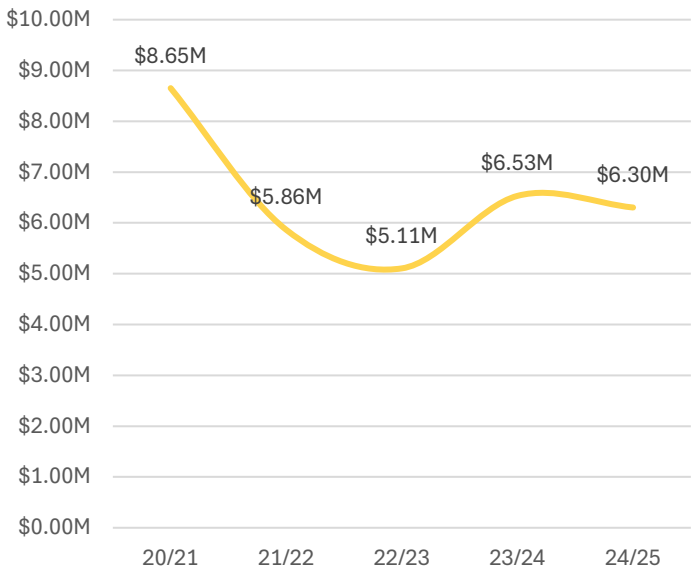
The data above do not include CRC and CERC program funding.

UW Historic Rank for Comprehensive Universities			
Year	**22/23**	**23/24**	**24/25**
Rank	2	3	4

CIHR Funding for Comprehensive Universities 24/25



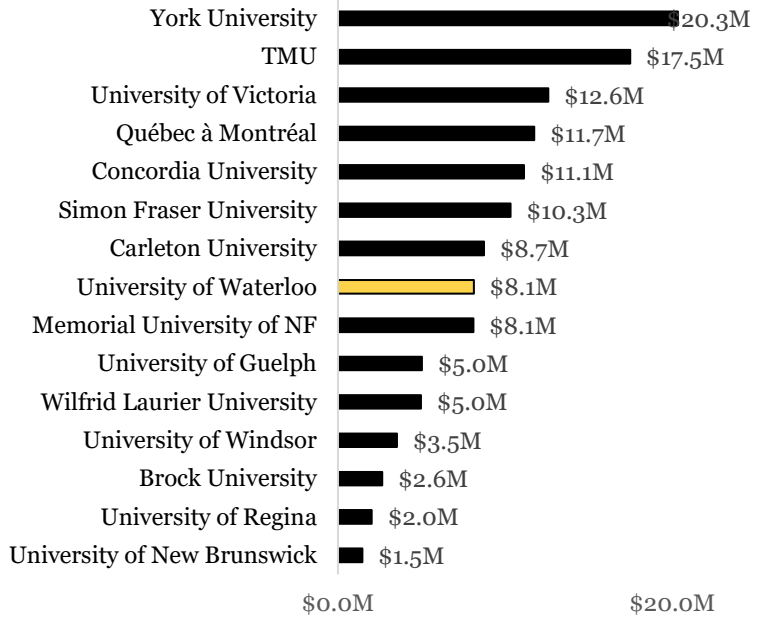
SSHRC Funding



The data above do not include CRC, CERC, or NFRF program funding.

UW Historic Rank for Comprehensive Universities			
Year	**21/22**	**22/23**	**23/24**
Rank	6	8	8

SSHRC Funding for Comprehensive Universities 23/24



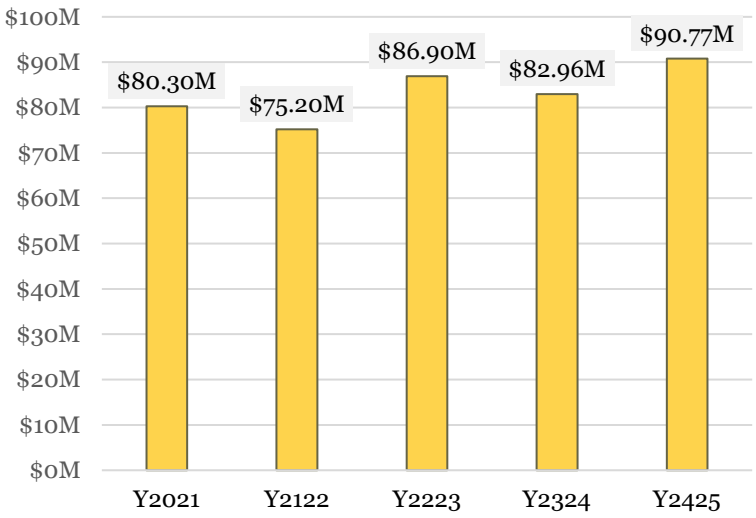
Working with partners – Partnership funding

Partnerships are critical for the success of our research enterprise. Waterloo leverages partnership funding from our government partnership programs, industry stakeholders and international partners.

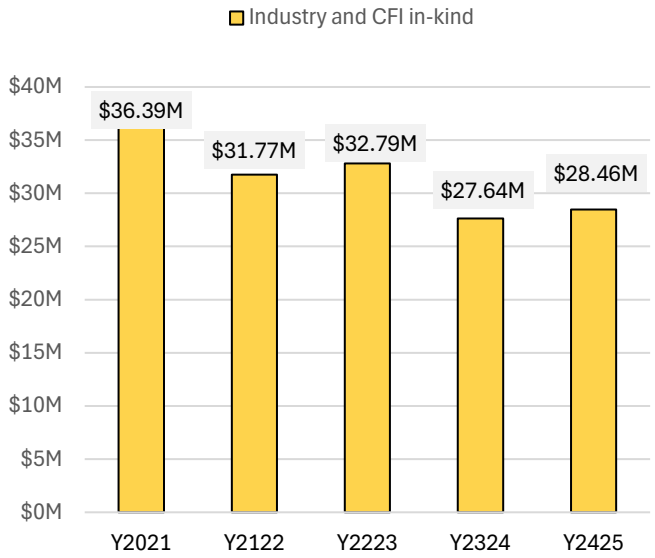
+9% total government research and industry partnership funding between 2023/24 and 2024/25

+3% total industry funding and CFI in-kind between 2023/24 and 2024/25

Government Research and Industry Partnership Funding



Industry Funding



FINCAPES

Flood Impacts, Carbon Pricing, and Ecosystem Sustainability (FINCAPES) is a five-and-a-half-year gender responsive international research and teaching project undertaken by the University of Waterloo's Faculties of Mathematics and Environment in collaboration with Indonesian partners. It focusses on providing technical assistance and capacity building to address adaptation strategies and mitigation impacts of climate change and biodiversity conservation in Indonesia. It is funded through Global Affairs Canada.

Top 10 countries, excluding the USA, with International research collaboration records in 24/25

Data notes: Appendix 1

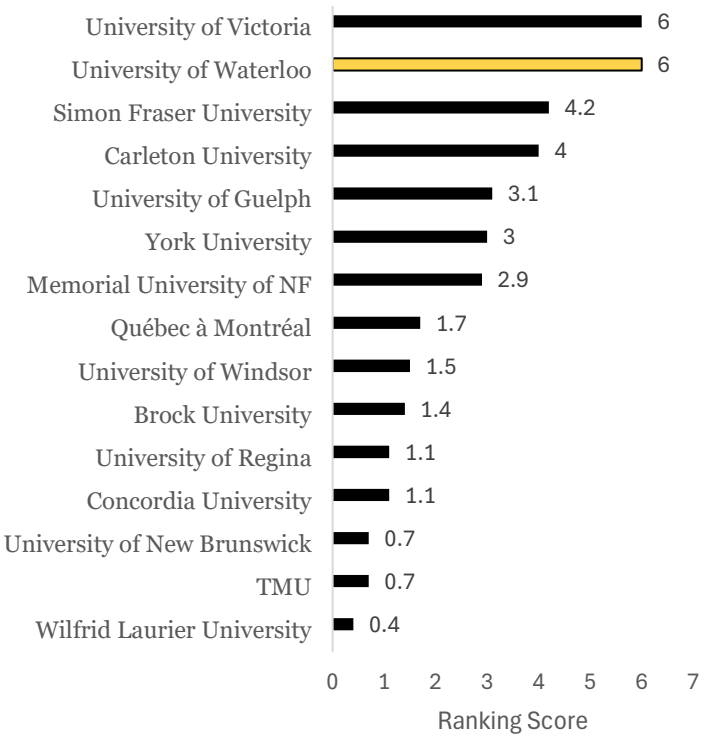
Celebrating our awards

Waterloo fosters a culture where research excellence is valued and recognized. We have been consistently successful in the Maclean's award ranking among comprehensive and the top 13 Canadian universities.

Waterloo moved from 2nd to 1st (tie) place with Victoria among the comprehensive universities in Canada

Waterloo moved from 11th to 5th place among the top 13 universities in Canada between 2020 and 2025

Maclean's Top Comprehensive Canadian Universities for 2025



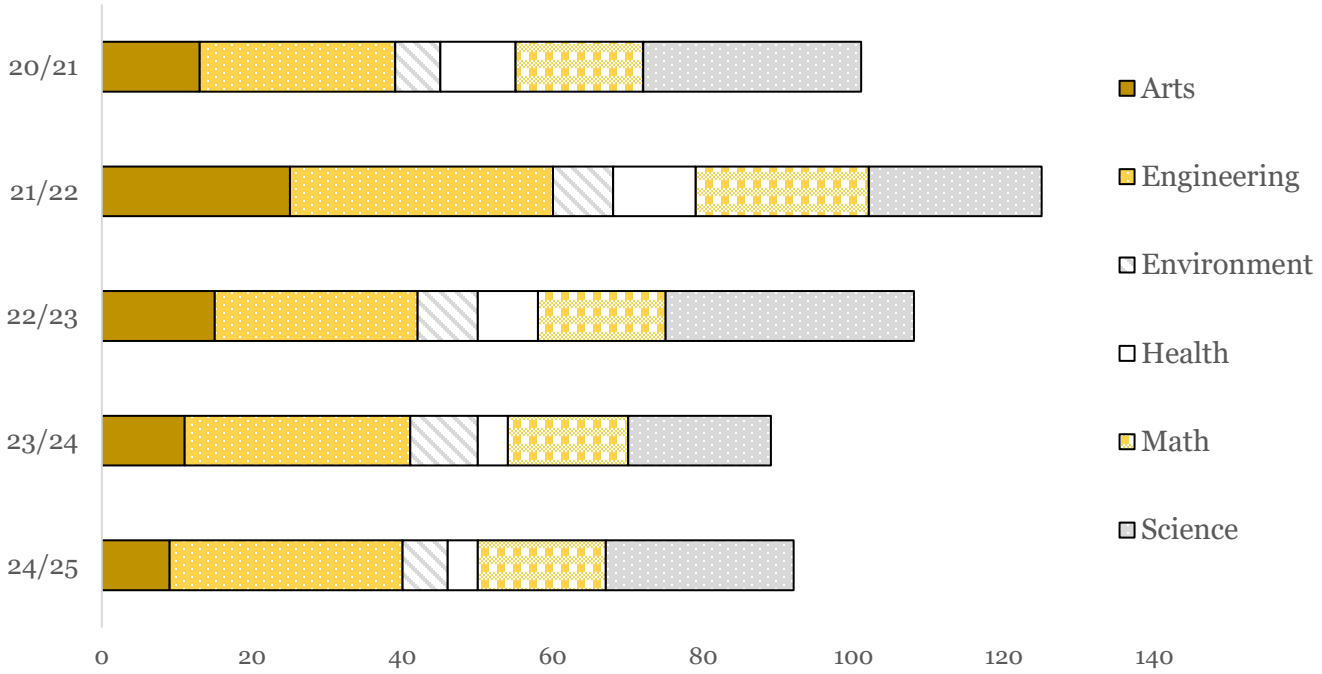
Waterloo rank in Maclean's top 13 Canadian Universities (Top Rank = 1)	2020	2021	2022	2023	2024	2025
Toronto	1	1	1	1	1	1
McGill	3	3	2	2	2	2
Ottawa	10	7	7	3	3	3
Dalhousie	8	5	6	7	5	4
Victoria	4	4	4	5	4	5
Waterloo	11	10	10	9	7	5
Queen's	2	2	3	4	6	7
McMaster	9	9	5	6	8	7
Alberta	5	8	8	8	10	7
Montreal	5	13	13	10	9	10
UBC	7	6	9	10	12	11
SFU	12	11	10	12	11	12
Western	13	12	12	13	13	13

UW Historic Maclean's Award Rank for Comprehensive Universities			
Year	**2022**	**2023**	**2024**
Rank	2	2	2

Data note: Methodology and inclusions for Maclean's ranking in Appendix 1.0

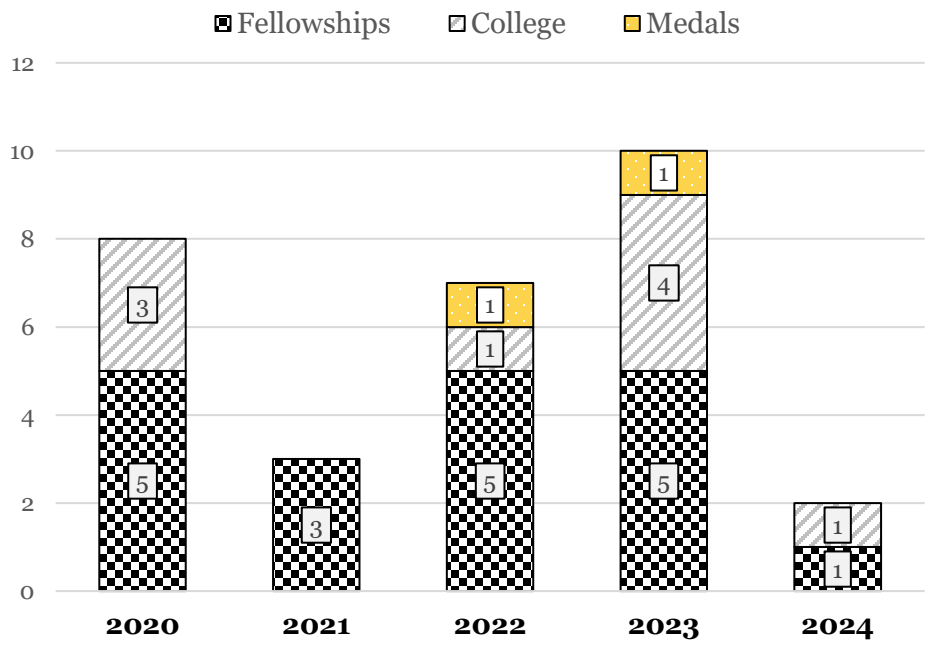
Celebrating our awards

Number of External Awards Received by Waterloo Faculty 2020-2025



Royal Society of Canada (RSC) Results

Number of Royal Society Awards per Type



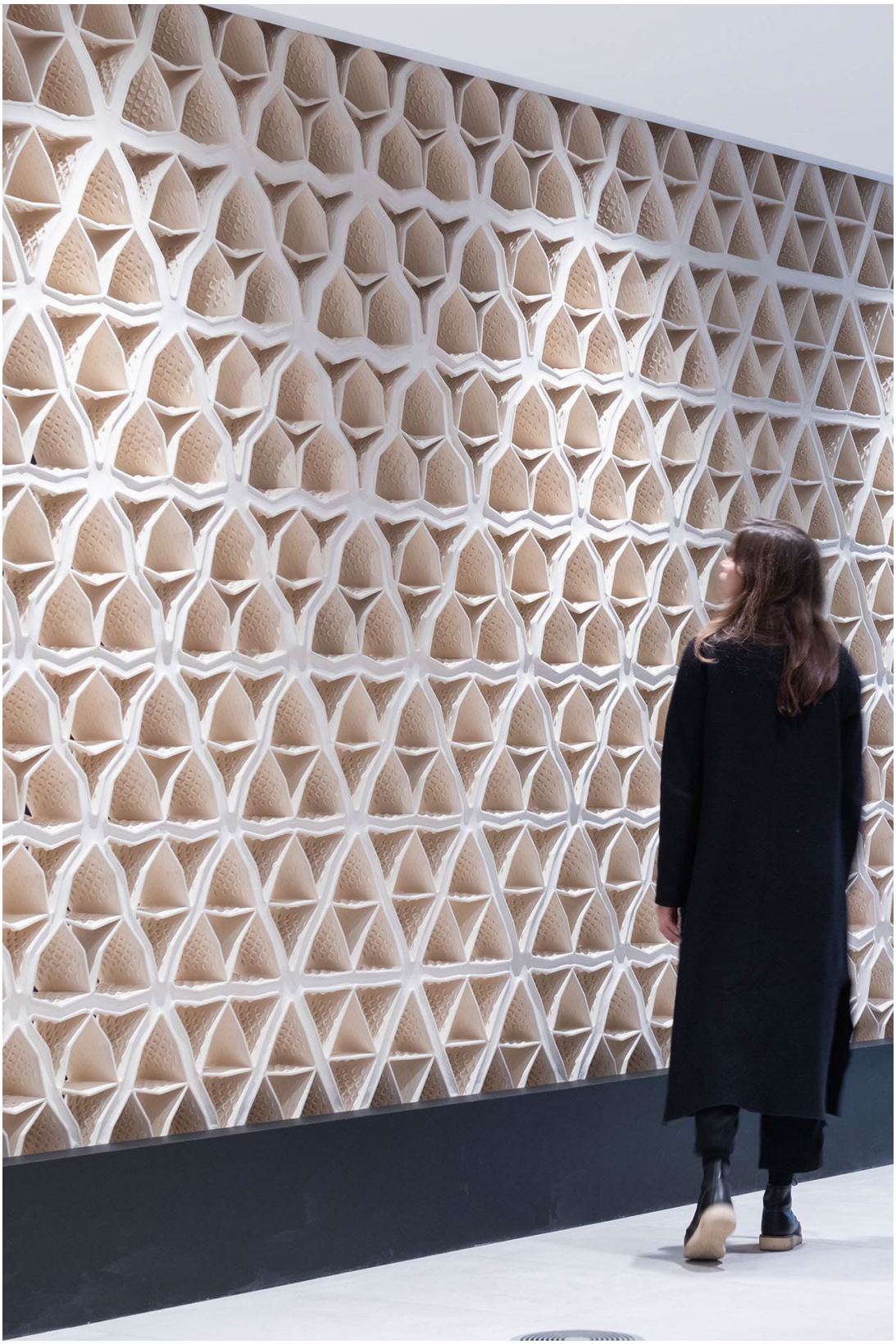
2 Medals

9 College

19 Fellowships

=

30 Total Waterloo RSC Recognitions



Architecture students at the University of Waterloo have developed a flexible wall of 175 3D-printed clay bricks for interior spaces using traditional material and robot-supported production meld to create digital artisanship. Hive is the result of a research partnership between the University of Waterloo and the Investment Management Corporation of Ontario (IMCO). The project was commissioned by SDI Interior Design and supported by the Masonry Works Council of Ontario. Credit: Shabaan Khokhar

Knowledge Mobilization

Leading a knowledge mobilization community of practice (CoP)

During 2024/25, the Office of the Vice-President, Research and International hosted approximately 65 faculty, staff and student members on the Knowledge Mobilization Community of Practice (KM CoP). This incudes membership, as examples, from the Office of Research; School of Environment, Enterprise and Development (SEED), School of Environment, Resources and Sustainability; Cheriton School of Computer Science; Centre for Bioengineering and Biotechnology; Water Institute; the Knowledge Development and Exchange Hub) at Renison; Waterloo Institute for Complexity and Innovation; Work-Learn Institute; Global Water Futures; Waterloo Climate Institute; InteRAI Canada; Schlegel-UW Research Institute for Aging; School of Public Health Sciences. Originally established in 2020, the KM CoP continues to grow.

Knowledge Mobilization is the practice of advancing research for the benefit of the public good at the local and/or global scale. It is also a pathway for research impact.

Knowledge Mobilization links research to end-users, and ensures that research addresses real world issues and uptake is maximized. Knowledge mobilization moves beyond the dissemination of research results, to support dialogue and collaboration with end users, and the co-creation of research programs and outputs.

Knowledge Mobilization Community of Practice Objectives:

- Building networks and relationships with others doing similar jobs; promote new collaborations and connections
- Promoting knowledge exchange by working across departmental boundaries and sharing ideas (e.g., share relevant articles / resources)
- Providing a platform for learning (e.g., sharing best practices, services and tools, developing technical skills, new ways of doing things, etc.)
- Enhancing Waterloo's institutional capacity to maximize innovation and the impact of its academic research and assess progress

7

KM COP facilitated seven collaborative education sessions with presenters in 2024/25

Example topics included:

- "Waterloo's Research Strategic Plan Knowledge Mobilization consultation"
- "Adventures in Knowledge Mobilization for Global Impact - Examples from the International Tobacco Control Policy Evaluation Project"
- "Knowledge Mobilization Within the Municipal Net-Zero Action Partnership (N-ZAP)"
- "Bibliometrics and Research Impact and Thinking Through How to Improve KM"

Community, Campus, and Culture

Supporting international opportunities for students

International activity related to partnership meetings, hosting delegations, and signing Memorandums of Understanding helps facilitate student mobility. Results of these initiatives over the past year are shown below.

Inbound mobility

23 Global Affairs Canada (GAC) student scholarships for undergradaute and graduate students from Asia, Latin America, the Caribean and Africa managed

21 undergraduate students from United Arab Emirates attended custom Waterloo health innovation program in collaboration with Faculty of Health and Renison University College.

4 European Union student exchange agreements executed for students from the Netherlands and Austria

Outbound mobility

12 undergradaute students received Queen Elizabeth Scholars funds for the the Beyond Borders Field School in Ghana for immersive, interdisciplinary, cross-cultural learning

6 Master of Public Health students visited University of Philiphines, Manila to strengthen academic collaboration through joint research, community site visits, and workshops addressing public health challenges

Safety Abroad Monitoring
2024/25

4153
Registered trips

97
Countries registered

89%
Trips registered by undergraduate students

Fostering equity, diversity and inclusion in research

Waterloo is a leader in inclusive research excellence by helping research leaders address systemic barriers and enact meaningful advocacy. By enabling researchers and research administrators to actively practice and embed equity, diversity, inclusion and decolonization, Indigenization, and reconciliation into their work, we work towards fully implementing equity, diversity, and inclusivity across the research enterprise.

Strategic Implementation Area 1) - Creating Impact through Collaboration

- Collaborations with: the National Indigenous Research Administrators (NIRA) Canadian Association of Research Administrators (CARA) | Research Equity, Diversity and Inclusion (REDI) Council | Velocity
- Launch of the Indigenous Research Council (IRC) in collaboration with Research Ethics and the Office of Indigenous Relations

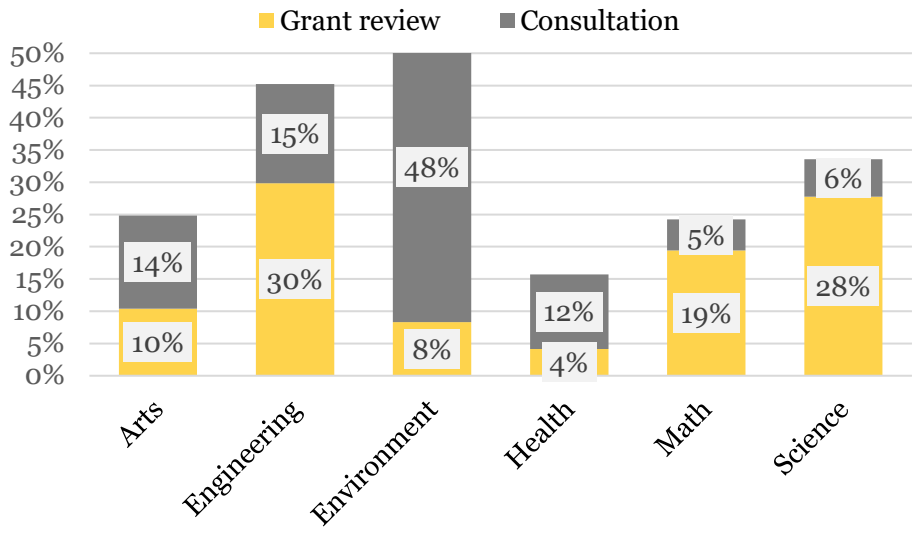
Strategic Implementation Area 2) - Creating Impact through Dismantling Barriers

- President's Anti-Racism Taskforce (PART) Recommendation 23: Needs assessment on Indigenous research training created and distributed with 77% final response rate
- PART Recommendation 63: Consultation took place to determine necessary changes to processes and supports and was welcomed and well-received. All VPRI PART items now on track to delivery or ongoing implementation

Strategic Implementation Area 3) Creating Impact through Capacity Building

- Building Inclusive Research Capacity (BIRC) Program: Launched five core webinars with over 400 attendees to sessions
- Inclusive Research Resource Hub (IRRH): 1000+ views and 40 new resources added | A Better First Draft Program launched | 80% of participants would recommend workshop | Canada Excellence Research Chair Equity Plans supported with personalized template with resources to support plan writing

Percentage of Grant Reviews and Consultations by Faculty 2024/25

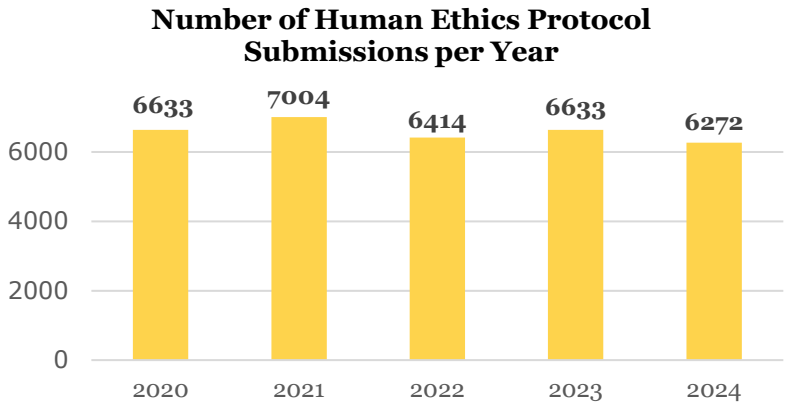


Strategic Implementation Area 4) - Creating Impact through Specialized Advice

- Grant reviews N=144
- Consultations N=104
- Additional 3 grant reviews and 131 consultations not attributed to a specific faculty

Upholding ethical standards in research - Human ethics

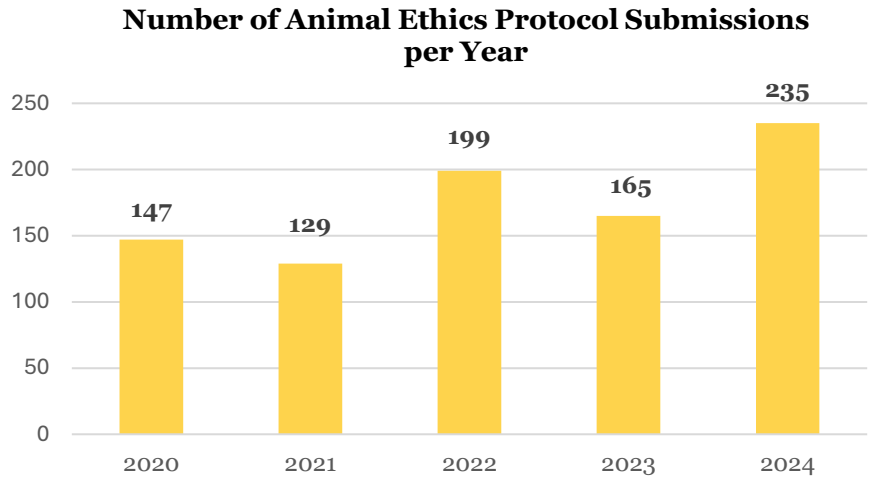
Waterloo's two Research Ethics Boards (REBs) are responsible for reviewing the ethical aspects of all human participant research, whether funded or unfunded, conducted by faculty, staff, or students, regardless of where the study takes place. Ethics reviews are also conducted for studies by members of Waterloo's Affiliated and Federated Institutions. The welfare and respect of study participants through a risk-benefit analysis focuses on informed consent and voluntariness along with privacy, confidentiality, equity, and fairness; especially in situations where individuals may be vulnerable. Research education about ethical principles and practices are provided, including the creation of guidelines on research with, for, and about Indigenous Peoples along with in person consultations and interpretations of international, national, and provincial ethical guidelines and/or legislation.

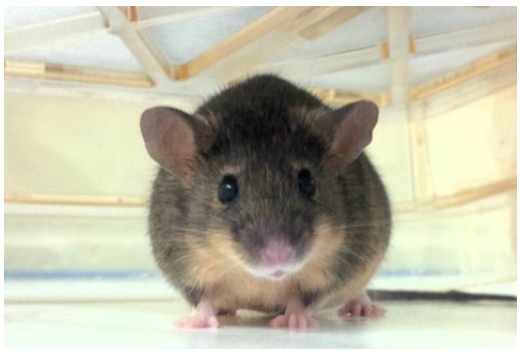


Protocol submissions = total of all initial application, amendments, resubmissions, renewals, and closure reports.

Upholding ethical standards in research – Animal ethics

Waterloo's Animal Care Committee (ACC), in accordance with institutional, provincial, national, and international guidelines, laws, and regulations, ensures the University fulfills its responsibilities for the use of live, non-human vertebrate animals (hereafter referred to as animals) in research and teaching. This responsibility includes ensuring the quality and operation of animal housing facilities, and temporary holding spaces on campus, meets these standards. The jurisdiction of the ACC extends to all teaching and research activities involving animals conducted on or off-campus by faculty, students, and staff.





Safeguarding Research

Safeguarding Research support ensures that every faculty member receives assistance with understanding and implementing research security guidelines in their research portfolios. The following are internal and external Safeguarding Research collaborators.

Internal collaborations

- University of Waterloo Departments and faculty members
- Procurement and Contract Services
- Information Technology Services
- Graduate Studies and Postdoctoral Affairs
- Waterloo Centres and Institutes

External collaborations

- Ontario Community of Practice for Research Security and the U15
- Ministry of Colleges and Universities
- Ontario Solicitor General
- Public Safety and Emergency Preparedness of Canada
- Global Affairs Canada
- Department of National Defence
- NSERC, CIHR, SSHRC and CFI

International collaborations

United States

- Stanford University
- Harvard University
- Massachusetts Institute of Technology
- Texas A&M University

United Kingdom

- University of London
- Queen Mary University of London

European Union

- Technical University of Munich
- Dutch Embassy Representatives

Japan

- Government Reps

The Safeguarding Research team works with faculty members to assist them with industry and grant-related security risk assessments and risk mitigation plans. The graphic below shows the number of risk assessments conducted and/or risk mitigation plans developed in 2024/25. The team also conducted 307 discrete open-source due-diligence assessments to support these applications and address inquiries from researchers, departments, faculties, and the broader university community.

Federal = 69	• Tri-Agency (NSERC, CIHR, SSHRC)/ Canada Foundation for Innovation (CFI): 69
Provincial = 74	• Ontario Research Fund (ORF) – Small Infrastructure Fund: 35 • ORF-Large Infrastructure Fund: 12 • Ontario Early Researcher Awards (ERA): 27
Industry = 82	

In December 2024, the Canadian Controlled Goods Program conducted a routine physical inspection of campus locations where controlled goods are stored, to verify the university's compliance with the Defense Production Act (DPA) and Controlled Goods Regulations. The inspection concluded with no adverse findings or procedural deficiencies, affirming that the university's practices for managing and safeguarding controlled goods meet all regulatory requirements.

Innovation and Entrepreneurship

Our innovation impact

University of Waterloo entrepreneurship activities – defined as startup development and ventures through incubators and accelerators that are associated to the University of Waterloo contribute $430M annually to Ontario's GDP. This includes supporting 3500 jobs each year (see Appendix 1 for data notes).

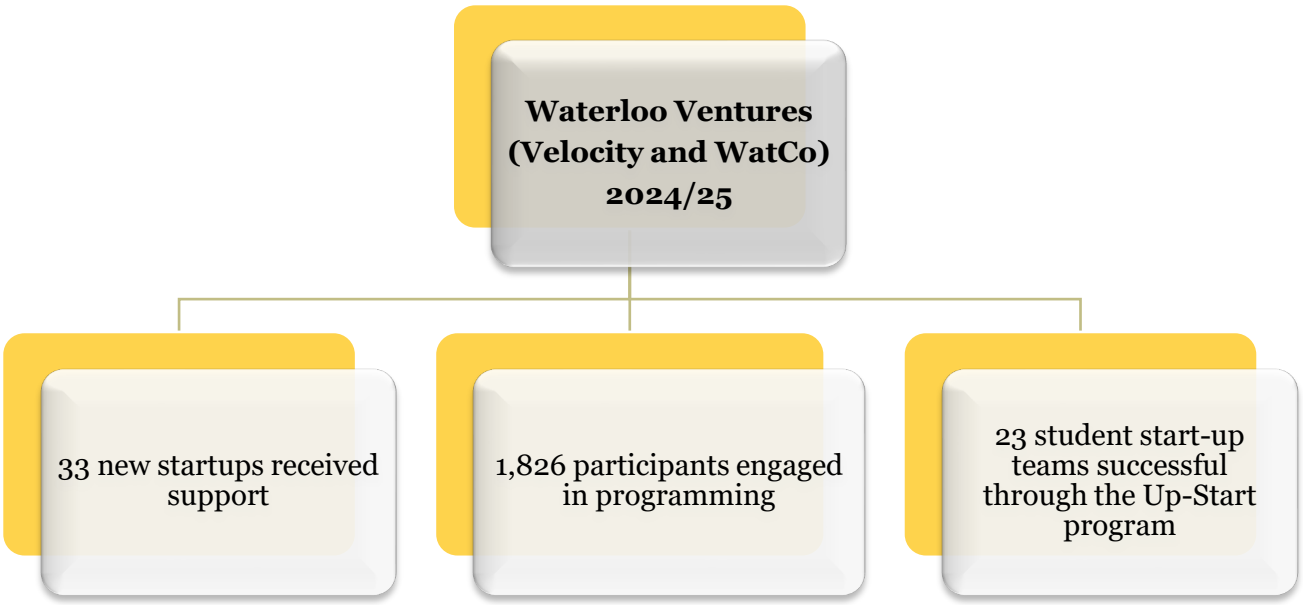
Waterloo Rank among U15 in Pitchbook's Top 100 Global Universities Producing Investment backed **Undergraduate Entrepreneurs** (rank based on Founder count)			
Year	**2025**	**2024**	**2023**
Rank	2 (N=639)	1 (N=562)	1 (N=511)

Additionally, in 2025, Waterloo moved from 21st to 18th spot globally for the count of investment backed **Undergraduate Founders**.

Waterloo Rank among U15 in Pitchbook's Top 100 Global Universities Producing Investment-backed **Graduate Entrepreneurs** (rank based on Founder count)			
Year	**2025**	**2024**	**2023**
Rank	4 (N=220)	4 (N=184)	4 (N=173)

Additionally, in 2025, Waterloo moved from 96th to 75th spot globally for the count of investment backed **Graduate Founders**.

The 2025 PitchBook University rankings are based on the total number of founders whose companies received a round of venture funding in the previous 12 years (i.e. between Jan. 1, 2014, and Sept. 1, 2025)



Creating an anchor partnership – Rogers

The University of Waterloo and Rogers have signed a partnership for research and knowledge transfer, student engagement, and ecosystem development.

Research and technology transfer component focusses on:

- 5G MEC Architecture
- 5G Network Slicing
- 5G Smart Infrastructure
- 5G Data Driven Operations
- 5G Asset Tracking
- Flexible Open Radio Access Network
- Hockey Analytics
- Fire Detection
- Robotic Transportation
- 5G-Enabled Autonomous Fleet Operations
- Mobile Remote Healthcare

Future Research areas identified:

- Smart Micro Grids
- Network Resilience

79 students supported through the Rogers partnership in 2024/25

Student engagement:

- Commercial Viability Stream: Through collaboration with students in the Master of Business, Entrepreneurship and Technology (MBET) program in the Faculty of Engineering, commercial viability studies completed and presented to Rogers.
- Corporate Innovation Program: Students from the MBET program completed a Rogers climate-themed emergency response use-case project.
- Hackathon/Scholarships supported by Rogers: Sponsorship of a Ted Rogers Undergraduate scholarship, Sponsorship of a Wildfire Hackathon and Cybersecurity conference, and Sponsorship of a uXperience Design Jam with the Stratford School of Design.

Ecosystem Development:

- Partnership with the Ontario Centre of Innovation (OCI)
- Centre of Excellence in Next Generation Networks (CENGN)
- Collaboration with Velocity for a Amazon web services (AWS) & Rogers Hackathon on AI/ML & GenAI for Environmental conservation and monitoring using satellite and remote sensing data.

Nurturing commercialization activities - Velocity

The 1200+ founders who have accessed support from Velocity since 2008, together make up 500 companies and have a combined value of $40B.

Velocity in 24/25

- 83 pilots with 136 customers
- $12M in revenue
- $62.3M capital

Velocity Health in 24/25

- 32 health tech pilots in hospitals
- 127 health tech ventures launched
- 155 intellectual property patents secured

Student startup highlight – PatientCcompanion

Who?

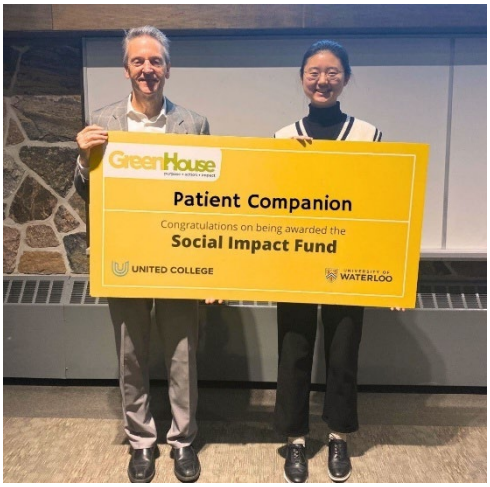
- Christy Lee, fourth year Waterloo Biomedical Engineering Co-founder

What?

- Communication app between healthcare providers (i.e. nurses) and patients

How?

- Patients make specific requests that are automatically prioritized on the healthcare provider's end



Support?

- $25K StartUp Lab Pitch competition (WLU)
- $5K Velocity pitch (UW) competition
- $5K Greenhouse social impact fund (UW)
- Pilot opportunity at local hospital

Appendix 1

Data notes

Pages 6 - 8

Total research + Longitudinal NSERC, CIHR and SSHRC funding – Internal awards database InfoEd – Fiscal years are Mar 31 to April 1.

Data note- Universities funding group includes Waterloo internal funding + non-University funding that flows through Universities (i.e. CFI grants at other Universities on which Waterloo is a co-applicant)

Tri-Agency funding from InfoEd = Does not include CERC, CRC, CFREF, NFRF.

Comparative NSERC funding- Government of Canada NSERC public funding database

Exclusions:
Alexander Graham Bell Canada Graduate Scholarships - Doctoral
Alexander Graham Bell Canada Graduate Scholarships - Master's
Canada First Research Excellence Fund
Canadian Graduate Scholarships Foreign Study Supplements
NSERC Student Ambassadors
- Vanier Canada Graduate Scholarship Tri-Council - Doctoral 3 years
New Frontiers in Research Funding (NFRF)
Inclusions: CERCs, CRCs

Comparative CIHR funding- Government of Canada CIHR grants and awards open government database
Inclusions: CERCS and CRCs

Comparative SSHRC funding- Government of Canada SSHRC grants and awards open government database

Exclusions:
Canada First Research Excellence Fund
Canada Graduate Scholarships – Doctoral
Canada Graduate Scholarships – Masters
Canada Graduate Scholarships - Michael Smith Foreign Study Supplements
New Frontiers in Research Fund
SSHRC Doctoral Awards
Vanier Canada Graduate Scholarships
Inclusions: CERCs and CRCs

Page 9
Research and industry partnership funding =

1. If the sponsor is one the following:

Communitech
OCI (Ontario Centre for Innovation)
Ministry of Colleges & Universities (MCU) - ORF-RE (Ontario Research Fund - Research Excellence)
APC (Automotive Partnerships Canada)
NSERC - Engage Grant
NSERC - Engage Plus Grants
NSERC - I2I (Idea to Innovation Program)
NSERC - Interaction Grant
NSERC - IRC (Industrial Research Chairs Program)
NSERC - Other
NSERC - Strategic Project Grants Program (STP)
NSERC - Strategic Project Grants Program (STP)
NSERC - CDE
NSERC - CRD (Collaborative Research and Development)
DND/NSERC RSCH PARTNERSHIP PGM
OCE - CMM
OCE - CCIT
OCE - CPRO
OCE - CEET
OCE - CE
OCE - INC/CCR
NSERC - Alliance Grants - Alliance Advantage Grants
NSERC - Alliance Grants - Alliance Consortia Quantum Grants
NSERC - Alliance Grants - Alliance Quantum Grants
NSERC (Natural Sciences and Engineering Research Council of Canada)/NSERC - Alliance Grants - NOVA Program
NSERC - Alliance Grants - NRCan - Small Modular Reactors
SSHRC - Partnerships
NSERC - Alliance Grants - Alliance Society Grants
NSERC - Alliance Grants - Canadian Nuclear Safety Commission (CNSC) - Small Modular Reactors
NSERC - Alliance Grants - CSE- Research Communities
NSERC - Alliance Grants - Mission Grants
NSERC - Alliance Grants - SSHRC Sustainable Agriculture Research Initiative

2. If the projects is identified as "Matching" in InfoED and is one of these sponsors:
FedDev - Federal Economic Development Agency for Southern Ontario
FedDev - AMF (Advanced Manufacturing Fund)
FedDev - ARC (Applied Research & Commercialization)

FedDev - ICP (Investing in Commercialization Partnerships)
FedDev - TDP (Technology Development Program)
FedDev - Other
MITACS - NCE
MITACS - non NCE
Mitacs Inc
European Commission – Horizon Europe

3. If the project is identified in as "Matching" in InfoEd and the sponsor type if NCE
CFI Cash Funding (IF and JELF) + ORF RI (SIF and LIF) to match CFI In-Kind
CFI Innovation Fund (IF) (added in Y2425)
CFI John Evans Leadership Fund (JELF) (added in Y2425)
Ontario Research Fund - Research Infrastructure (RI) (added in Y2425)

International partnership funding = 1) the research is being conducted outside of Canada 2) the funding may originate from a country where there is collaboration with a researcher from that country 3) the professor has a partnership with an institution there 4) there is a projected impact of the research on that community.

Industry funding = all industry partners included and industry in-kind CFI

Pages 10-11
Data = Office of Research, Awards Officer
Maclean's ranking = Maclean's faculty award ranking Data is for previous five-year period; 2024 ranking is for 2019 to 2023 data. Each annual ranking shows the number of faculty members who have won major awards over the past five years, including Killam, Molson and Steacie prizes, the Royal Society of Canada awards, the 3M Teaching Fellowships and more than 30 other award programs. The total award count is divided by the number of full-time faculty.

Page 13
Data = Co-operative Education, Director, Student and Faculty Relations

Page 14
Data = Office of Research, Senior Manager, Knowledge Mobilization & Partnerships

Page 15
Text= Responsible Conduct of Research team

Page 16
Data= International team

Page 17
Information and data= Director, Inclusive Research

Page 18
Information and data= Director, Research Ethics

Page 19
Information and data= Safeguarding Research team

Page 20
University of Waterloo entrepreneurship activity data= Ernst and Young 2025 report

Pitchbook Ranking= Pitchbook annual ranking of Universities: Top 100 colleges ranked by startup founders

Waterloo Ventures data = Directors, Velocity and WatCo.

Page 21
Rogers information = Corporate Partnerships team

Page 22
Velocity data = Program participation data, and partnership records, from Velocity (Incubator and Campus), and WatCo. From Director, Velocity

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This annual report was prepared by the
Office of the Vice-President, Research and International

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uwaterloo.ca

TEMPLATE FP2925 – 02-2024

Generative AI at Waterloo

1/6/2026

Paul Fieguth, Associate Vice-President, Academic Operations

Gregory Smith, Chief Information Officer

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Urgency of Generative AI

Canadian AI Strategy Task Force… due in 30 days!

COMMENT | 24 September 2025

Universities must move with the times: how six scholars tackle AI, mental health and more

Ohio State University is requiring every student to use AI in class to become 'AI fluent'

BY BEATRICE NOLAN
TECH REPORTER

June 10, 2025 at 1:34 PM EDT

Canada needs a national strategy for generative AI in higher education

Without co-ordination among Ottawa and the provinces, universities risk deepening inequities in how students and faculty use generative AI across campuses.

SEPTEMBER 19, 2025

Are You Ready for the AI University?

Everything is about to change.

The AI Wake-Up Call for Universities: Key Insights from the 2025 EDUCAUSE Survey

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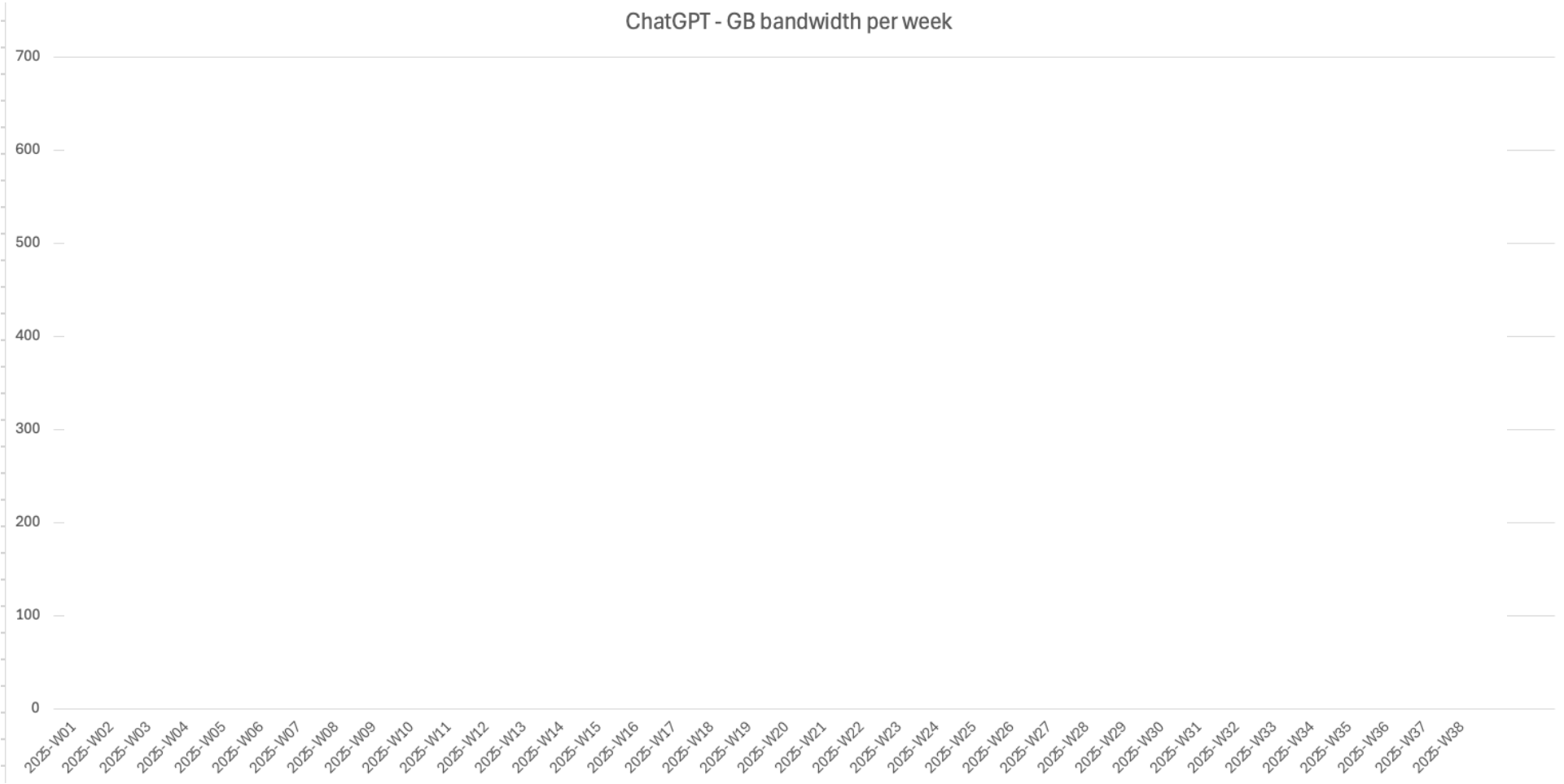
Urgency of Generative AI



Winter Term	Spring Term	Fall Term

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Urgency of Generative AI

"Thousands of years of status quo human dominance, a few decades of weak competition, a few years of struggle for supremacy. Then, game over. For the rest of human history, [. . .] machines will be better than humans at chess. The competition period is a tiny dot on the historical timeline. This is the unavoidable one–way street of technological progress in everything from the cotton gin to manufacturing robots to intelligent agents."

-- Garry Kasparov

- Before the competition period, the general impression is that the period is quite long, or event indefinite.
- In actual fact, the competition period is quite short, catching many people off guard, and we believe that we are in such a transition
- Not knowing the eventual end-date does not change our need to adapt now in order to lead, rather than to chase, this transformation that is upon us

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Initial Engagement Approach and Outcomes

Draft Generative AI Principles
Aligned with Waterloo Values

Initial Opportunities
that could be focused on as institutional projects and priorities

Technology Strategy
to enable Generative AI use broadly by our community and throughout our campuses

Desired Outcomes from Fall 2025 Consultations:

- Proposed Principles socialized to go forward for approval
- Technology and Priorities Strategies to yield a 26/27 budget request
- More/new Gen AI supports for our community

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Generative AI at Waterloo – Proposed Principles

Purpose First: AI that matters
We use AI deliberately to enhance learning, research, and campus life, not simply because it is available. (*Act with Purpose*)

Human Agency: People in control
AI supports human judgment. We remain accountable for outcomes. (*Act with Purpose, Work Together*)

Shared Learning: Empowering our community
We equip students, staff, and faculty members with the skills to engage with AI confidently and critically. (*Work Together*)

Exploration: Courage to experiment
We explore, learn from mistakes, and iterate quickly, sparking fresh ideas and new solutions. (*Think Differently*)

Safe & Fair Use: Responsible, ethical, inclusive AI
We proactively consider the responsible and ethical use of AI, including energy use and climate impacts, protecting privacy, respecting data rights, compliance with laws and policies, and actively checking for bias, working to make AI safe and fair. (*Act with Purpose, Work Together*)

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Generative AI at Waterloo - Technologies

Individual Computers/Servers
[Local Gen AI workloads, significant adoption barriers]

On-Premises protected Gen AI platform(s) – Open-Source Model(s)
[Restricted/Highly Restricted Data use]

Enterprise-wide Cloud-based Platform (ChatGPT, CoPilot or similar)
[Broad, rapid availability and easier adoption]

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Generative AI at Waterloo – Opportunities

What could enterprise-wide AI offer? Any of the following could be implemented in a matter of *minutes*, assuming available source material:

1. A smart Chat Bot to answer student questions, based on web pages and/or compilation of files.

2. AI study assistant (e.g., ChatGPT Edu), available for all students on any topic (except, perhaps, highly specialized contexts, which could be addressed by custom tutor in #3, below).

3. A custom tutor in some sort of sandbox framework (can only ask course-related questions, will not answer anything outside of scope), typically based on a textbook or course notes or slides.

4. Rapid online course-development tool, creating one or more online modules based on other content (textbook, course notes etc)

5. Text-based analytics, for example analyzing thousands of responses to surveys (student satisfaction, graduation surveys, co-op work term surveys etc.)

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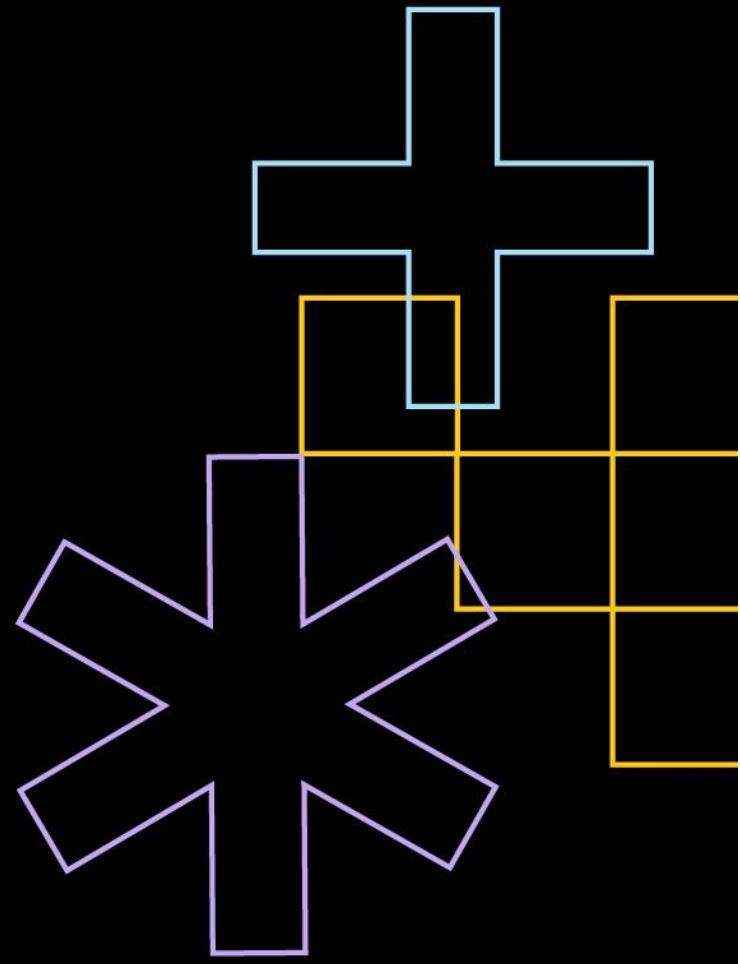
QUESTIONS, CONCERNS, THOUGHTS, FEEDBACK

Libraries Updates: Joint Senate Graduate and Research & Innovation Councils

1/12/2026

Beth Namachchivaya

Alison Hitchens



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Purpose

- Highlight services focused on the needs of our researchers
- Invite future conversations on complex topics

Our shared context

	Local:	Institutional priorities, individual and collective strengths
	Ontario:	Higher education resourcing scarcity
	Canada:	Research policy (Open Access, RDM) and compliance requirements
	US:	Disruptive change in federal research policy & funding
	Global:	Geopolitical shifts and alignments

Anticipating & responding to researcher needs

Highlights from research focus groups in 2025:

- Targeted training—especially around AI literacy, research data.
- Effective strategies for knowledge synthesis.
- Collaborative spaces for fostering inter- and multi-disciplinary work.
- Support for communicating research in an era of misinformation.
- Navigating publishing and Open Access mandates.

Navigating TriAgency mandates

Research data management highlights

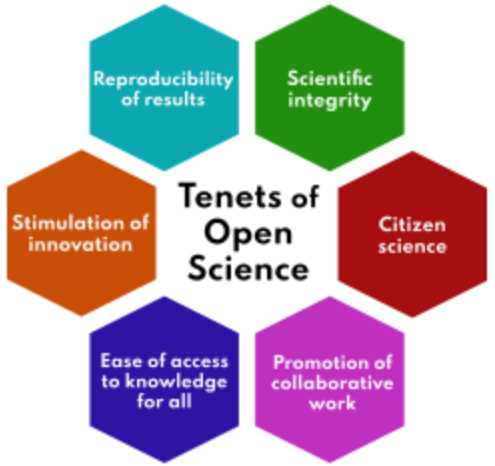
- RDM portal continues to evolve
- Data journeys training series
- High engagement at national level – RDM Jumpstart, community data toolkit, sensitive data resources

Open access and publishing highlights

- UWSpace for free, secure, long-term deposit
- Open Journals – Waterloo hosts 19 OA journals
- Guidance on author rights, predatory publishing, coverage of OA fees, understanding copyright and licenses

Researcher ID (ORCID) implementation project

- NSERC and SSHRC have integrated ORCID into Convergence platform
- UW Pilot project using Affiliation Manager tool
- 68% of PhD students and postdoctoral researchers affiliating with UW on ORCID
- Collaborating with Faculty of Science to expand audience



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PLUS:
Better citation rates for open access articles and research data

Access to content

Strong & Diverse

- Robust print holdings and extensive e-resources
- Majority of budget invested in electronic content; print acquired where it adds clear value

Evidence-Based & Responsive

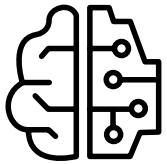
- Decisions guided by academic programming, cost and usage trends
- Balancing quality and breadth with budget realities
- Subject librarians leverage expertise and researcher relationships

Access, not just ownership

- Robust document delivery, often with 24-hour turnaround for journal articles
- Browser tools for quick discovery of open access versions

Future conversations

Discovery of Waterloo scholarship



AI literacy and training pathways

Open Access mandates and cost models

Sensitive data and research data management

Our research services

Subject expertise

Research consultations

Knowledge synthesis/systematic reviews

Research data management

Citation management

Maps and geospatial services

Bibliometrics and research impact

Discovering information resources

Discovering government information and data sets

Open access publishing

Copyright and licensing

Archival research

Digital scholarship

Helping you manage your researcher identity: ORCID Implementation Project

Benefits for Researchers

- ORCID reduces time by enabling automatic linkage
- ORCID provides researchers with greater control over how their scholarly record is represented and only takes minutes to set up
- ORCID increases research visibility
- ORCID is currently required by 112 journals and publishers
- NSERC and SSHRC have integrated ORCID into their new Convergence platform, with a similar integration planned for the CFI CAMS CV system
- Over 1400 institutions worldwide are ORCID members

Key Project Developments

- ORCID was implemented using Affiliation Manager
- We engaged through email, social media, and graduate supervisors
- This project led to 68% of PhD students and postdoctoral researchers affiliating with UW on ORCID
- New cross-campus collaborations (e.g., Faculty of Science) are enabling broader identification of researchers

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Libraries

Empowering learning and research

UNIVERSITY OF WATERLOO | Senate

For Information **Open Session**

To:	Senate Graduate Council & Senate Research and Innovation Council
From:	Tony Ly Governance Officer
Date of Meeting:	January 13, 2025
Agenda Item:	**10. Proposed Future Items**

Senate Graduate Council Proposed Items

- Graduate funding and student financial support
  - Comparison between faculties and external institutions
- Strategic priorities for graduate education and studies at the university
- Institutional plans for recruiting and supporting international students
- Development of new graduate programs and the approval process
  - Market trends and developing effective business cases
- Graduate student experience and survey results
- Relationship between supervisors and graduate students
- Guidance on AI and new technology
- Implication and impact of the TA/RA unionization.

Senate Research and Innovation Council Proposed Items

- DORA
- CREATE grant proposals
- Statement and procedures on principles for institutional partnerships
- Research security plan
- Global Futures
- The role of Centres and Institutes at the university
- Entrepreneurship and startup needs
- Open access and the evolving scholarly publishing landscape
- Research data management
- Library updates on research needs