

UNIVERSITY OF GUELPH

From Idea to Impact | Summary

STRATEGIC RESEARCH PLAN 2023–2028

Objectives: Research principles and goals

The University of Guelph's Strategic Research Plan (SRP) is driven by five research principles and goals: Elevate Excellence, Promote Partnership, Increase Impact, Develop the Research Leaders of Tomorrow, and Embed Research in All We Do. The plan is guided by the university's mission to improve life, and success in achieving these goals will be assessed through relevant key performance indicators (KPIs).

1. **Elevate Excellence.** The university aims to be ranked among the top 10 Canadian research-intensive universities and have several disciplines ranked among the top globally. This will be achieved by nurturing ground-breaking research initiatives, pursuing new and emerging areas of scholarship, and ensuring research impact. KPIs include scholarly achievements, recognition of leaders, research funding, research intensity, and internal and external Indigenization, equity, diversity, and inclusion (IEDI) measures, among others.
2. **Promote Partnership.** The university aims to be a globally recognized Canadian research partner of choice for industry, government, Indigenous Peoples, and not-for-profit organizations. We will catalyze, create, and steward productive strategic academic, public-sector, and private-sector research partnerships. KPIs for this principle include research outputs with partners, number and value of research partnership agreements, diversity of partners, and leveraging partnerships toward externally funded grants.
3. **Increase Impact.** The university aims to be a global leader in knowledge mobilization by increasing engagement with communities, industry, Indigenous governments, policymakers, and not-for-profit partners. To do so, the university will mobilize our research discoveries to maximize their benefit for communities for external and non-academic communities. KPIs include volume and reach of knowledge translation and transfer activities, influence on public policy and industry practices, intellectual property disclosures and licensing agreements, and open-access research article publications.
4. **Develop the Research Leaders of Tomorrow.** The university will increase its capacity to support the next generation of research leaders by providing high-quality training opportunities to a diverse and inclusive population of researchers, including students, postdoctoral fellows, and early career researchers. KPIs for this principle include research-focused student supervision, IEDI in the University research community, industry supported placements, scholarships and fellowships, and early researcher awards.
5. **Embed Research in All We Do.** The university will demonstrate leadership as an evidence-driven institution by embedding research outputs and expertise in all activities, including teaching, research support, administration, governance, and community engagement. KPIs for this principle include use of research in decision-making and policy development, research-measured effects of decisions and policies, transfer of research knowledge in the classroom, and undergraduate research opportunities.

Priority areas for research and research training: Disciplines and themes

The **research disciplines** in which we excel are:

- A. **Arts, Humanities, and Social Sciences** research extends from artistic, creative, and critical practice across the breadth of the liberal arts, to the examination of families, communities, economies, geographies, and societies to improve the health and well-being of families and society.
- B. **Science, Technology, Engineering, and Mathematics** research at the University of Guelph encompasses both curiosity-driven exploration of the properties of the universe and living systems and the application of newly discovered knowledge to real-world problems.
- C. **Agriculture** and the related bio-economy is an area of research specially embedded in the *1964 University of Guelph Act*. Built on this foundation, the University of Guelph has been ranked globally for its impact on agricultural sciences and is a leader in research in every part of the food value chain, including food science and food safety.
- D. **Veterinary Medicine** research at the University of Guelph is founded on the great strengths of the Ontario Veterinary College. The University of Guelph is a leader in veterinary medicine, covering the continuum from molecular and cellular processes to whole animal health and welfare to population medicine, with unique strengths in comparative medicine.
- E. **Business** research at the University of Guelph addresses critical problems affecting consumers, employees, employers, organizations, industries, markets, economies, societies, and, indeed, the entire planet. Advancing business as a force for good, the University leads the shift to more ethical and responsible use of resources.

The **themes** that connect our research are:

1. **Fundamental: Discovery** University of Guelph's fundamental research builds an understanding of the continuum between curiosity-driven, discovery-based exploration of the properties of the universe and living systems on the one hand and the application of that knowledge and wisdom to real-world problems on the other.
2. **Applied: Innovation and Creation** University of Guelph researchers are solving problems through the production and analysis of novel innovations, be they technological or cultural forms, and in doing so, expand the boundaries of practice-based research. The University of Guelph has a deep history and prominent expertise in community-engaged research, including an extensive focus on Ontario's rural communities. Community-engaged scholarship allows researchers to collaborate with local and global populations using scholarly approaches and evidence to address the challenges and opportunities they identify.
3. **Food** Food research at the University of Guelph extends from the fundamental chemistry of foodstuffs to the private and public decisions that impact food production, food safety, food distribution, and the business of food, and ultimately, to the impact of food production on ecosystems, the economy, and society. Sustainable food systems and challenges relating to food security and food safety are strategic areas of emphasis.
4. **One Health** One Health is an interdisciplinary framework focused on the complex interconnectedness between human, animal, and environmental health and welfare. Within One Health, the University of Guelph researchers work across disciplines and sectors to

interrogate the biological and social factors that impinge on the health of organisms, from the level of molecules to that of ecosystems, with unique strengths in comparative medicine.

- The Environment** Research into biodiversity, ecology, and the environment are core areas of distinction for the University of Guelph, where we target our efforts at addressing UN Sustainable Development Goals. The University places particular emphasis on soil, water, and air quality, providing a strong foundation for their preservation and wise, sustainable management.

Gender representation in Canada Research Chairs nominations

The University is currently meeting its 2029 equity targets in all categories, including women and gender minorities. Progress against targets is monitored using the CRC equity data (see the University’s [Public Accountability and Transparency page](#)) and reported annually. Institutional actions that support diverse representation in CRC nominations are outlined in the [University’s Equity, Diversity, and Inclusion \(EDI\) Action Plan](#).

Areas of research in which the university intends to deploy Chairs and/or CFI support

The matrix is a tool for informed and strategic decision-making that bolsters intersections of critical mass, elevates emerging areas of expertise, energizes untapped opportunities, and shapes our research story.

	Science, Tech, Engineering and Mathematics	Arts, Humanities and Social Sciences	Agriculture	Veterinary Medicine	Business
Fundamental: Discovery	4 x T2 NSERC; 1 x T2 CIHR ; 1 x T1 CIHR;	1 x T1 SSHRC; 1 x T2 SSHRC	1 x T2 NSERC;	1 x T1 CIHR; 1 x T2 NSERC	
Applied: Innovation and Creation	1 x T1 NSERC; 1 x T2 NSERC	1 x T2 SSHRC; 1 x T1 SSHRC; 1 x CIHR ;	1 x T1 NSERC		
Food	1 x T1 NSERC; 1 x T2 NSERC ;		1 x T2 NSERC 1 x T1 NSERC		
One Health	1 x T2 CIHR; 1 x T1 CIHR; 1 x T2 NSERC	1 x T2 CIHR		1 x T2 NSERC; 1 x T2 NSERC	
The Environment	1 x T1 NSERC; 1 x T2 NSERC ; 1 x T1 NSERC				

The matrix will be used to assess priority targets for CRC and CFI investments:

- CRC allocation:** The matrix will help to identify priority areas for investment in CRCs based on the intersection of Thematic Areas of Focus and Disciplinary Strengths. For example, a priority area for investment in CRCs is identified when the intersection of a row (Thematic Area of Focus) and a column (Disciplinary Strength) shows a strong research capacity and potential for

impact. Using this approach ensures that CRC investments are aligned with both strategic research priorities and existing research strengths.

2. **CFI funding:** The matrix will also help guide decisions around the allocation of funding for research infrastructure supported by the CFI. By identifying priority areas for investment in research infrastructure based on the intersection of Thematic Areas of Focus and Disciplinary Strengths, the University can ensure that CFI funding is used in a strategic and effective manner. For example, if a particular research area has strong disciplinary strengths but lacks the necessary infrastructure to support research excellence, this becomes a priority area for investment in research infrastructure.

Efforts and plans for research and research training

A discipline-themes matrix has been developed to inform decision-making to bolster intersections of critical mass, elevate emerging areas of expertise, and energize untapped opportunities. A completed matrix (see “Canada Research Chairs” above) provides a high-level view of how research expertise is distributed at any level, from department to research centre to College to the University as a whole. The matrix locates our strengths and gaps, identifying priority areas where initiatives, interventions, and investment — like new infrastructure, Canada Research Chairs, revamped policies, commercialization opportunities, knowledge mobilization — could be directed to strengthen and advance our research enterprise, to embed research in everything we do.

Assessment of success in meeting objectives

The University will use the key performance indicators to set milestones for assessing our progress toward our reach goals. Dashboarding our progress at key junctures will provide opportunities to reflect on what we have achieved and what more we aim to accomplish.

Planning and allocation

The Provost & VPA and the VPR, in consultation with the Dean(s), will make the decision to allocate a vacant CRC. The Provost and VPR may employ any of the following approaches to allocating CRCs:

Open call for allocation proposals from colleges

- Thematic call for allocation proposals from colleges (i.e., the call is focused on an identified strategic research theme)
- Direct allocation to colleges without a competition
- A special call for self-nomination from members of equity-seeking groups

The Provost and VPR will then make strategic allocation decisions based on the following principles:

- Equity, diversity, and inclusion (EDI)
 - Alignment with the themes and disciplines of the Strategic Research Plan
 - Alignment with the principles of the Strategic Research Plan
- College Tri-Agency market share