

UNIVERSITY *of* GUELPH

# FROM IDEA TO IMPACT

STRATEGIC RESEARCH PLAN

2023–2028

April 2023

UNIVERSITY  
*of* GUELPH

IMPROVE LIFE.



## **Land Acknowledgement**

Our campuses reside on the treaty lands of the Mississaugas of the Credit and lands that the Anishinaabe, Hodinohso:ni, Lūnaapéewak and Wendat peoples have inhabited for centuries. We understand that these lands are connected by the Dish with One Spoon Wampum and continue to be home to diverse communities of First Nations, Inuit, and Métis Peoples. Acknowledging the land reminds us of our commitment to reconciliation with Indigenous peoples and lands.

# Contents

## Land Acknowledgement i

### Our Institution

- Our Research Vision 1
- Our Research Environment 2

### Formulating the Plan

- About the Plan 3
- The Process 4

### From Idea to Impact

- Research Activities: Disciplines and Themes 5
  - Research Disciplines 5
    - Arts, Humanities, and Social Sciences 5
    - Science, Technology, Engineering, and Mathematics 5
    - Agriculture 6
    - Veterinary Medicine 6
    - Business 6
  - Research Themes 7
    - Fundamental: Discovery 7
    - Applied: Innovation and Creation 7
    - Food 7
    - One Health 8
    - The Environment 8
- Research Principles and Goals 8
  - Elevate Excellence 8
  - Promote Partnership 9
  - Increase Impact 11
  - Develop the Research Leaders of Tomorrow 12
  - Embed Research in All We Do 12

### From Aspiration to Action

- Themes and disciplines 14
- Principles and goals 15
- Accountability 15

# Our Institution

*Research is woven into the fabric of the University of Guelph.*

The research mission embraced over a century ago by the researchers of University of Guelph's three founding colleges continues today. Those researchers made remarkable discoveries and developed exceptional innovations in agricultural productivity, animal health, and food science, sharing their insights and inventions with the world to improve lives and livelihoods in Canada and worldwide.

Today, U of G researchers continue to build on the principle that fueled their predecessors: mobilizing knowledge into action to improve life. The University now conducts leading-edge research in the physical and life sciences, business, arts, social sciences, and agricultural, food, and veterinary sciences across seven colleges, 14 research stations, and three campuses. Our dedicated faculty, students, and staff have built the University's reputation by improving communities, environment, food, and health.

This is how the University of Guelph, with more than \$160 million per year in research activity, has come to be one of Canada's top research-intensive universities.

## Our Research Vision

*The University of Guelph generates and applies knowledge to shape understanding and improve life.*

As a research-intensive institution, research excellence is at the fore of our mission. Converting the best ideas to impactful discoveries, mind-expanding creations, and game-changing inventions is at the heart of what we do. We amplify our established research strengths while creating and catalysing new opportunities for intellectual pursuit and innovation. Consistent with placing excellence at the fore of our mission, our research enterprise strives for inclusivity, promoting diversity and equity in all we do. Cognizant of the incredible pressures facing our planet, our research enterprise aims to create sustainable solutions, including managing our research resources and activities sustainably. We place a premium on connecting our research with the world, and in catalysing and stewarding research partnerships. Unconstrained by traditional barriers and boundaries, we formulate scholarly questions and seek answers that are effective in catalysing discovery and change, and propel knowledge into action.

## **Our Research Environment**

*Inclusive. Inspired. Industrious. Innovative.*

The University of Guelph is committed to equity, diversity, and inclusion, where everyone experiences an authentic sense of belonging and opportunity, and where everyone can realise their full potential as a researcher, irrespective of their identity or background.

Our research enterprise is aligned with the University of Guelph's aim to work towards Indigenization, and reconciliation with First Nations, Inuit, and Métis peoples, communities, and lands. To fulfil this commitment, our research enterprise will work to enhance the engagement of and supports for First Nations, Métis and Inuit learners, scholars, and communities.

We take inspiration from the universe around us, and it drives us in positive, industrious ways to make new discoveries, grow our knowledge, share it with others, and create innovative solutions for some of the greatest challenges of our time.

# Formulating the Plan

## About the Plan

*Our Research Vision*, the University of Guelph's 2017–2022 strategic research plan, helped enhance our reputation globally and at home, where we now rank as the first most research-intensive of Canada's comprehensive, non-medical universities and in the top 17 of all the country's universities. *Our Research Vision* guided us to secure and strengthen national and international partnerships, including twice renewing the five-year, approximately \$70 million per year agreement with the Ontario Ministry of Agriculture, Food and Rural Affairs, the Ontario Agri-Food Innovation Alliance. *Our Research Vision* also contributed to sustaining a dynamic and generative research enterprise throughout the COVID-19 pandemic.

*From Idea to Impact*, the 2023–2028 University of Guelph Strategic Research Plan refreshes and refines the most effective components of its predecessor, ensuring the new plan's ongoing relevance and increasing our effectiveness at achieving our institutional goals. The most important innovations are:

- Integration of the principles of Indigenization, equity, diversity, and inclusion (IEDI) not only in the plan but in every stage of developing the plan. Consultative bodies were strongly representative of diversity. Moreover, the plan was shaped by feedback from and truth-tested by representatives from the Department of Diversity and Human Rights, Indigenous Initiatives, and the EDI in Research Working Group.
- A discipline–theme matrix to inform strategic decision-making
- A principles-based approach to decision-making that aligns any initiative, intervention, and investment with our institutional ambitions
- Key performance indicators for both assessing proposed initiatives, interventions, and investments and for tracking our continuous improvement
- Guidelines for coordinated decision-making to track our progress toward our goals

*Our Time*, the new University of Guelph 2022-2027 Strategic Plan, defines who we are as an institution, sets our future focus, and underpins the decisions that will be made over the next five years. *Our Time* sets out six strategic priorities:

- Deepening our impact on the world
- Transforming our University through Indigenization and Equity, Diversity and Inclusion
- Advancing U of G's distinctive student experience that fuels success and future impact
- U of G's distinctive student experience that fuels success and future impact
- Building a sustainable tomorrow
- Supporting faculty and staff success
- Leveraging financial and digital capacity

Designed with these priorities in mind, *From Idea to Impact* reinforces these fundamental institution-wide goals while driving the research enterprise forward.

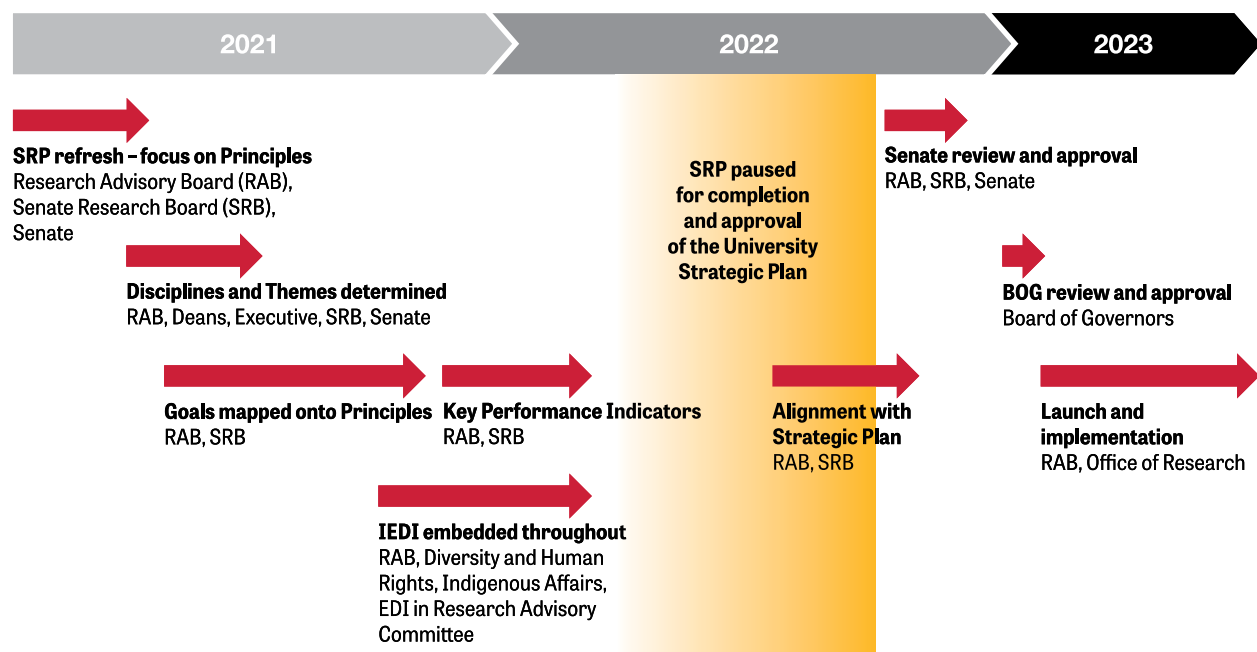
## The Process

Beginning in November 2016, the University of Guelph conducted a broadly consultative exercise to identify principles that would guide the research enterprise between 2017 and 2022. Participants included faculty, staff and students from across all seven colleges and three campuses. Over the past five years, these principles helped the University of Guelph improve across numerous key performance indicators. Moreover, they guided the University through the unprecedented upheaval of the COVID-19 pandemic with an active and robust research enterprise.

Beginning in 2021, the University began developing a plan to guide the institution from 2023 to 2028. The development of the refreshed Strategic Research Plan coincided with the formulation of a new goal-driven institutional Strategic Plan led by the President. This convergence of activity provided an excellent opportunity to ensure that the SRP reinforced the fundamental goals of the Strategic Plan while driving the research enterprise forward.

Relying largely on the Research Advisory Board, the Senate Research Board, and their constituencies, we revisited the principles of the 2017–2022 SRP, refining them to be meaningful over the next five-year period while also developing powerful new decision-making tools and assessment metrics. A high-level timeline can be seen below.

Development timeline for *From Idea to Impact*



# From Idea to Impact

## Research Activities: Disciplines and Themes

### Research Disciplines

*Comprehensive. World-Class. Dynamic.*

Our comprehensive research strengths include the humanities, creative arts, social sciences, life sciences, physical sciences, engineering, and medicine. In our pursuit of excellence, our researchers have become leaders in their disciplines, nationally and globally. Always exploratory, our researchers constantly seek new opportunities for discovery, creating transdisciplinary and interdisciplinary areas of scholarship.

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. Our research leverages deep inquiry and diverse material practices through scholarly and artistic processes to discover, analyze, and contextualize an extensive range of topics — across world history, Canadian and international literatures, historical and contemporary philosophy, languages and cultures from around the world, and the history and theory of art and culture — as well as creative practice in sculpture, painting, print-making, photography, theatre, improvisation, creative writing, music and more. Our faculty conduct cutting-edge interdisciplinary work that grapples with themes of social justice, sexuality, race, and gender; environmental responsibility; identity and community; narrative and persuasion; digital humanities; and the normative and theoretical implications of new technologies and new science. Our applied, basic, and community-engaged researchers explore a variety of contemporary issues relating to justice, inequality, social change, health and well-being, the environment, and human development.
- 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. Our STEM research considers the world through a range of lenses, from subatomic and molecular to organismal, ecosystem, and planetary. It also uses leading-edge approaches to advance our understanding of the physical and natural world, with distinct areas of STEM strength at the University being microbiology, antimicrobial resistance, DNA barcoding and biodiversity, human health, nanotechnology, particle



physics, nanoscience, cybersecurity, biomathematics, biostatistics, mathematics of quantum information, bioengineering, and computer engineering. STEM research is a large driver of Tri-Agency funding success at the University. Our diverse strengths strategically position the University of Guelph for unique collaborative research initiatives locally, nationally, and internationally.

- 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. To ensure that agricultural practices are economically and environmentally sustainable and to ensure the safety of our food systems, our faculty conduct basic and applied research in precision agriculture and the development of improved crops and livestock through omics, bioinformatics, modelling and management practices. Our faculty guide Canada's agri-food industry, shape public policy, and develop innovative solutions to social and environmental issues in rural and agricultural communities. Through our partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs, the University has an outstanding platform to conduct research with real-world application.
- 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. Veterinary medicine research at the University of Guelph has global reach — it impacts companion animal and livestock health and welfare worldwide.
- 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. Our research encompasses three inter-related streams. Discipline-Focused Knowledge Creation develops and tests theory and explores phenomena that transcend industries and professions, including economics, marketing, consumer studies, organizational behaviour, and entrepreneurship. Second, Industry-Focused Research aims to understand and support the effective operation of organizations in a variety of industries, including food and agribusiness, hospitality, tourism, real estate and housing, and sport and event management. Finally, Professionally Focused Research aims to understand and improve practical issues in various professions, including finance, accounting, project management, human resource management, and management education.

## Research Themes

*Differentiated. Cross-cutting. Cutting-edge.*

Historical research strengths established by our three founding colleges created a foundation of unique, highly reputed expertise upon which we have grown critical mass and global excellence. Our research themes transcend disciplines, bringing our comprehensive strengths address challenges requiring a broad lens and a critical mass of research strength. Our research themes place a premium on discovery, creativity, and innovation to expand the frontiers of knowledge, propel knowledge into action, and address some of the most critical challenges of our time — all to improve life.

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. Practice-based research at the University of Guelph has produced important discoveries in interdisciplinary areas and demonstrated leadership in using of arts-based inquiry, techniques, and responses to address societal issues. 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***

Research on food spans all seven colleges and is embedded across multiple disciplines at the University. 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. This area also fuses the University's traditional strengths in food-related investigations with community-engaged research. Sustainable food systems and challenges relating to food security and food safety are strategic areas of emphasis for the University, for example, sustainable agricultures, food security.

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. This research also explores how environmental parameters, like climate change, shape these factors, ultimately informing public health and environmental health practice and policy.

5. **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. To impact practice and policy, this research is conducted against a backdrop of global change, including human population growth, urbanization, and climate change.

## Research Principles and Goals

*Purpose-driven. Long-term. Forward focused. Actionable. Measurable.*

The research strategy is motivated by five principles that each generate a corresponding goal. Our institutional research goals are rooted in our university mission to improve life. Our success in pursuing these overarching goals will be assessed through relevant key performance indicators, as detailed below.

1. **Elevate Excellence.**

We will nurture and sustain ground-breaking, discipline-leading research initiatives through inclusion and diversity. We will pursue new and emerging areas of scholarship where niche opportunity, alignment, and capacity exist. We will ensure to deliver our research with impact and enable our researchers to realize their potential to be at the forefront of their disciplines.

**Goal** *We aim to be ranked among the top 10 Canadian research-intensive universities on the measures listed below and move further into the top echelon in Canada by building on our disciplinary strengths. We aim to have several disciplines ranked among the top globally and others moving along a trajectory toward national prominence.*

This goal reflects a desire both to break into the top ten Canadian universities on various research-specific rankings and to continuously improve our position relative to other universities. It also reflects a drive to be institutionally recognized for research

excellence, especially in disciplines that are areas of strength and differentiation for the University of Guelph. Research excellence across the institution requires encouraging and leveraging diverse perspectives and supporting and empowering researchers to bring an Indigenization, Equity, Diversity, and Inclusion (IEDI) lens to their work.

Consistent with our institutional goal to enhance our research excellence on a global level, we will improve our ability to track and report on our global research activities, including grants from international sources, co-publications with international authors, and other key metrics of global research excellence, using these data as benchmarks to assess our future research excellence. We will develop a plan to communicate the excellence of the university's research to domestic and international audiences, including a refresh of the research website.

**KPIs** for this principle reflect a broad set of indicators of research excellence that can be tracked to assess both absolute and relative improvement and progress toward enhanced research intensity and excellence. They include:

- Scholarly achievement appropriate for discipline, such as publications, presentations, creative outputs, peer recognition
- Recognition of leaders, such as CRCs, RSC fellows, Industry Research Chairs
- Tri-Agency research funding
- Annual research intensity per faculty
- Per capita number of research grants secured
- Per capita value of research grants secured
- Total sponsored research revenue
- Proportion of faculty with major awards and recognitions, such as membership in the Royal Society and other distinctions of merit
- Ranking on various research indicators and lists that are appropriate to both the institution as a whole and which differentiate the University on specific disciplines in which we are strong or ascending
- IEDI measure for the University from the census
- CRCs in designated groups

## 2. **Promote Partnership.**

We will catalyze, create, and steward productive research collaborations that connect partners. We will advance and sustain strategic academic, public-sector, and private-sector research partnerships that connect our fundamental and applied research both within the academy and beyond.

**Goal** *We will be globally recognized as the Canadian research partner of choice for industry, government, Indigenous Peoples, and not-for-profit organizations and will leverage strong partnerships to enhance the inclusive creation and mobilization of research knowledge to improve life.*

This goal recognizes the critical importance of partnership for successfully creating and mobilizing research knowledge. It establishes the University's goal of being the partner of choice among Canadian universities for research partners globally, thus, enhancing our reputation and impact both domestically and internationally. In developing and stewarding partnerships, we will embed equity, diversity and inclusion into our practices and empower researchers to bring an EDI and anti-oppressive lens to their research, research sponsorship applications, and teams. In keeping with promoting the best, most productive partnerships, researchers will engage equity-seeking groups at every stage of the research process.

Consistent with our institutional goal to enhance global engagement, we will continue to strengthen our global research and discovery partnerships in ways that align with the University's commitment to excellence in research and to improving life. We will seek and strengthen collaborations with international universities and organizations committed to excellence in Guelph's signature research areas and promote partnerships that align with our commitment to the Sustainable Development Goals, as well as to equity, diversity, and inclusion. We will ensure that these collaborations do not compromise our institutional or national security. We will develop metrics for measuring our global research engagement and plan to communicate this engagement to larger audiences.

**KPIs** for this principle reflect a desire to increase partnerships that meaningfully support and enhance the University's research enterprise. In addition to community engagement, we seek to capitalize on partnership to grow our research capacity and increase our impact. These KPIs include:

- Research outputs with partners, such as publications, presentations, IP, and so on
- Organizations with which the U of G has a research agreement
- Research agreements with community partners
- Research agreements with industry partners
- Research agreements with international partners
- Research partnerships with Indigenous communities
- Value of research partnership agreements
- Community support for research
- Industry liaison projects brokered
- Non-industry partnerships (public and not-for-profit)
- Leveraging of partnerships toward externally funded grants (e.g., Tri-Agency/ CFI grants, ORF grants, agricultural clusters)
- Activities and returns from the Ontario Agri-Food Innovation Alliance, focusing on the KPIs related to the Ontario Agri-Food Innovation Alliance

### 3. **Increase Impact.**

We will mobilize our research discoveries to maximize their benefit for communities by being thought shapers within our disciplines, conduits for knowledge transfer, and creators of innovative ideas and solutions for external and non-academic communities.

**Goal** *We will be a global leader in the study and practice of knowledge mobilization by increasing engagement with communities, industry, Indigenous governments, policymakers and not-for-profit partners throughout the research process. We will pursue and prioritize inclusive and open scholarship to create a real impact on society, improving life for diverse groups in diverse ways (including through fundamental and applied research).*

This goal reflects our desire to involve diverse groups of stakeholders in the conceptualization, development and conduct of research and in the dissemination of the knowledge resulting from our research. This goal also reflects the University's commitment to improving life and to its objective of embedding Indigenization, equity, diversity, and inclusion in all our activities. We recognize that for our research to be well received, it must emanate from minds that reflect the target community. This goal means engaging equity-seeking groups at every stage of the research process, from design to dissemination and application. This goal also incorporates a commitment to open scholarship as a critical element of inclusive and impactful knowledge mobilization.

In keeping with our institutional goal to enhance the positive impact of our research globally, we will track and report on our global knowledge mobilization activities, including key metrics of global research engagement, and use these data as benchmarks to assess our future global research impact. We will develop a plan to communicate the global impact of the university's research.

**KPIs** for this principle aim to assess all three elements of mobilization: engagement, EDI, openness and impact and the plurality of audiences with whom we engage. The broad KPIs are:

- Volume and reach of knowledge translation and transfer (KTT) activities
- Number and diversity of external partners — private and public sectors
- Industry sponsorship of research
- Influence on public policy and practice, especially those that reinforce the UN Sustainable Development Goals
- Influence on industry practices, especially practices that reinforce the UN Sustainable Development Goals
- New intellectual property (IP) disclosures
- IP licensing agreements per year, both new and active
- IP license income generated by research
- Media mentions of research and researchers
- Open-access research article publications
- Open datasets disseminated

#### 4. **Develop the Research Leaders of Tomorrow.**

We will nurture the long-term development of research capacity and the realization of human potential inherent in the training and support of highly qualified research personnel, including students at all levels, postdoctoral fellows, and early career researchers.

***Goal** We will increase our capacity to support the continued success of the next generation of research leaders by providing high-quality and meaningful training opportunities to a diverse and inclusive population of researchers across a variety of disciplines and approaches to research.*

This goal recognizes the University of Guelph's responsibility for the development of research capacity and the realization of human potential that results from training highly qualified research personnel, including students at all levels, postdoctoral fellows, and early career researchers. This goal reflects our commitment to ensuring that the leaders of tomorrow trained at the University reflect today's diverse society. We, therefore, place specific importance on increasing equity, diversity, and inclusion among our research community and on the Indigenization of our research environment. Fostering inclusive and diverse research environments, including in our research teams, research outcomes, and research structures, is crucial for success. Supporting IEDI in our research teams means encouraging the conditions necessary for diversity and excellence to flourish across colleges and within individual research teams. We will identify and mitigate barriers to full participation for researchers from equity-deserving groups.

***KPIs** for this principle include:*

- Research-focused student supervision
- Indigenization, equity, diversity, and inclusion of the University research community and environment
- Externally sponsored summer research positions for undergraduate students
- Externally sponsored scholarships and stipends for graduate students
- Mitacs and other industry-supported placement opportunities for graduate students
- Proportion of graduate students among our student population
- Postdoctoral fellowships
- Early researcher awards from individual scientific societies and research councils

#### 5. **Embed Research in All We Do.**

We will promote a culture that inspires discovery and innovation, emphasizing the value of transferable research skills, critical thinking, and evidence-based decision-making. We will challenge members of the University community to deliver research excellence and to use research continuously to improve our output and processes.

***Goal** We will demonstrate leadership as an evidence-driven institution by embedding our research outputs and expertise in all university activities, including teaching, research support and administration, governance, and community engagement.*

Effective knowledge mobilization and impact begin within the University community. We recognize the importance of timely and relevant research evidence to guide decision-making and practice in all areas of university operations. We seek to be exemplars in putting knowledge to work in service of all that we do as an institution. This approach facilitates full utilization of our research outputs in aid of informed decisions and improved teaching and research management.

*KPIs* for this principle include:

- Research used in decision-making and policy development
- Transfer of research knowledge in the classroom
- Research opportunities for undergraduate students
- Research-measured effects of decisions and policies
- Content specialists on relevant policy and advisory committees



# From Aspiration to Action

## Putting the strategic research plan in motion

There are three components to implementing the overall plan:

- disciplines and themes to identify priority areas;
- principles and goals, with associated key performance indicators, to guide decision-making;
- a clear system of decision-making and accountability.

### Disciplines and themes

The disciplines and themes are fundamental to the University of Guelph’s mission as a comprehensive, research-intensive university and its vision as a research leader differentiated from other universities. Together, they map the University’s research enterprise, illustrating its interdisciplinary bent. Every U of G researcher will be able to locate themselves at least once on the resulting matrix, and most will find themselves at multiple intersections.

Used at the outset of institutional decision-making processes around significant federal and provincial investments, IEDI objectives, and awards and honours, 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.

A completed matrix 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 — including gaps in diversity — and identifies priority areas where initiatives, interventions, and investment could be directed to strengthen and advance our research enterprise.

The discipline–theme matrix

	ARTS, HUMANITIES, SOCIAL SCIENCE	SCIENCE, TECH, ENGINEERING, MATHEMATICS	AGRICULTURE	VETERINARY MEDICINE	BUSINESS
FUNDAMENTAL: DISCOVERY					
APPLIED: INNOVATION AND CREATIVITY					
FOOD					
ONE HEALTH					
THE ENVIRONMENT					

**Disciplines**  
Natural divisions of scholarly activity, sometimes, but not necessarily uniquely, embodied by Colleges.

**Themes**  
Themes transcend the boundaries defined by disciplines, and are interdisciplinary or transdisciplinary in nature.

These activities are not necessarily mutually exclusive.

## Principles and goals

While the matrix highlights the University's priority considerations, a principles-based approach guides our decisions about those considerations, ensuring that any initiative aligns with our institutional ambitions. It also lays out defined metrics to measure the progress and success of any investment or intervention.

While the principles express ideas core to the University of Guelph research enterprise, the goals are aspirational and indicate how we will manifest its associated principle. Each principle-goal couplet is assigned key performance indicators, which text how a proposed initiative, intervention, or investment aligns with a principle and how it advances the University toward its corresponding goal.

Overall, the approach lends itself to creating a scoring rubric to facilitate robust and defensible decision-making, using the same KPIs we will use to track our continuous improvement.

## Accountability

Over the five years of *From Idea to Impact*, 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.

Key is a clear system of coordinated decision-making which assigns roles to individuals, teams, and other stakeholder units for completing deliverables; overseeing the work and accounting for outcomes; providing discretionary advice on decision-making; verifying outcomes; and so on. Consequently, accountability for KPIs will be distributed across various levels, for example, individual researchers, centres and institutes, academic units, administrative units, and University leadership. Leaders at all levels will be responsible for thinking about how best to measure our progress in implementing our principles and attaining our goals.

The intent is to bring structure and clarity regarding stakeholders' roles within a project so that each person can confidentially understand their expected contribution so that projects progress steadily, people are enabled to do top-notch work, and innovation thrives.

