uOttawa

Strategic Research Plan Summary (2020-2025)

1. <u>Major objectives of the Strategic Research Plan.</u>

Our Vision

The University of Ottawa is among Canada's top universities in terms of research intensity. We're recognized for being at the forefront of knowledge creation in many disciplines and some of our research centres are ranked among the top 100 worldwide. We're cultivating research and scholarly talent at home and reaching out to partner with other talent centres across Canada and around the world. We're mobilizing knowledge in areas of social and economic importance. We pursue excellence, relevance and impact in all we do.

Our Values

As a research community we value:

- **Excellence in Research,** pursuing creative approaches and bold ideas.
- **Innovation,** building on existing strengths, supporting talented researchers and innovators to seize new opportunities to deliver the best outcomes.
- **Integrity, Honesty and Accountability** in all our research activities.
- **Experiential Learning**, providing our undergraduate and graduate students and postdoctoral fellows with transformative learning experiences and a rich learning environment.
- **Dynamic collaborations,** working hand in hand with post-secondary institutions, governments, not-for profit organizations, industry and other stakeholders to identify emerging opportunities, exploiting synergies.
- **Inclusiveness, Diversity and Equity**, celebrating diversity in culture, language, gender, identity and experience as a source of strength for scholarship, research and innovation.

Strategic Directions and Objectives:

1. **DEMONSTRATE** national and global leadership in our Strategic Areas of Research.
2. **STRENGTHEN** international connections and collaboration.
3. **EXPAND** research opportunities through increased competitiveness and diverse sources of funding.
4. **ENGAGE** local, national and international communities and partners in areas of mutual interest and increase the impact of our research by promoting its uptake into policies, practices, services and products.
5. **FOSTER AND CELEBRATE** excellence, equity, diversity and inclusiveness within our research community and in our research approaches.

6. **SUPPORT** state-of-the-art infrastructure and administrative structures to attract and retain world-class researchers and to support them in their research.

2. Priority areas for research and research training.

Four interconnected Strategic Areas of Research tackle some of humanity's most pressing challenges, while pursuing our ideals of excellence, relevance and impact in all that we do.

Strategic Areas of Research

After an extensive consultation with its research community, the University of Ottawa has defined its new Strategic Areas of Research along the following themes:

Creating a sustainable environment

- Canadian environment
- Emerging materials and nanotechnology
- Sustainable development, regulation and education
- Sustainable natural systems, infrastructure, technology and energy
- Synthetic biology

Advancing just societies

- Democratic governance, public policy and law
- Human rights, migration, equality and social justice
- Arts, culture and values
- La Francophonie and bilingualism
- Responsible management

Cross-cutting themes

- Interdisciplinarity
- Knowledge mobilization, translation and transfer
- International collaboration
- La Francophonie and bilingualism
- Indigenous knowledge

Shaping the digital world

- Quantum and photonics technology
- Law, ethics, security and policy
- Digital health, digital humanities and digital entrepreneurship
- Learning in a digital age
- Digital technology development and applied artificial intelligence

Enabling lifelong health and wellness

- Reimagined health care systems, practice-changing research and education
- Genetics and systems biology of health and disease
- Brain and mental health
- Vascular and cardiovascular health
- Regenerative medicine and innovative therapies
- Infection, immunity and inflammation

Cross-Cutting Themes

Important themes that cross all areas of research are:

- **Interdisciplinarity**: promoting research across disciplines and supporting partnerships.
- **Knowledge Mobilization (KMb), Translation and Transfer**: engaging local, national and global communities and partners, and promoting research uptake into policies, products and practices.
- **International Collaboration:** forging partnerships across geographic boundaries, building our expertise, creating synergies and increasing impact, and making connections between the University and communities.
- **La Francophonie and Bilingualism:** promoting bilingualism and Francophone culture; reaching out to Francophone communities across Canada and around the world.
- **Indigenous Knowledge:** applying Indigenous methodologies and perspectives; reflecting respectful engagement, interconnections, and reciprocity; and providing support for learning.

Advancing Just Societies

Located in Canada's national capital, uOttawa is at the forefront of research in public policy, governance and the federal justice system. Its high-quality research informs and promotes evidence-based decision-making that supports equality and social justice. We especially value our capacity for research with and on behalf of marginalized populations such as immigrants, refugees, Indigenous peoples and Francophone minorities in our local community, in our province, in Canada and beyond.

Enabling Lifelong Health and Wellness

In industrialized societies, people who are living longer are exposed to environmental factors that influence their health. New and complex health issues are on the rise — chronic diseases, brain and mental health problems and cardiovascular diseases are examples. With its 10 faculties and six affiliated hospital research institutes, uOttawa is a key source of groundbreaking research that supports mental, emotional, physical, social and community wellness for people of all ages.

Shaping the Digital World

Digital technology is transforming almost every aspect of daily life, enabling innovations in fields such as health, business, education, the Internet, law and the visual arts. uOttawa is home to internationally recognized leaders in digital technologies, photonics, cybersecurity and artificial intelligence. These top researchers are helping to shape the digital world by improving technology's speed and efficiency, improving the quality of life and creating new economic opportunities. Not only are our researchers helping to shape this digital world, they're also addressing the social, cultural and legal impacts of technological change, as well as associated ethical, legal and regulatory challenges.

Creating a Sustainable Environment

uOttawa researchers are increasing our capacity for environmental sustainability. They're designing materials, infrastructure, technologies and laws using interdisciplinary approaches which involve research in engineering and sciences as well as business, law, the humanities and social sciences. What's more,

uOttawa's research strengths in Earth sciences, catalysis, materials and photonics are key to solving environmental issues specific to Northern climates and climate change.

3. <u>Gender representation in Canada Research Chair nominations and monitoring of progress.</u>

The University of Ottawa is strongly committed to equity and promotion of all minority groups protected under the Ontario Human Rights Code including women, indigenous people, visible minorities and disable people. uOttawa is implementing preferential hiring procedure since 2018. The revised EDI **institutional action plan** describes our actions and measures to improve the representation of CRC holders belonging to the four designated groups and to remove barriers for all. uOttawa will continue to improve its EDI action plan in order to meet the new equity targets before 2029. uOttawa is proactively fostering and growing a culture of inclusion, diversity, equity and excellence within its research portfolio.

4. <u>Chairs planning</u>.

Period covered 2020-2025

	Advancing Just Societies	**Creating a Sustainable Environment**	**Enabling Lifelong Health & Wellness**	**Shaping the Digital World**
NSERC	0	12	2	12
CIHR	2	1	30	4
SSHRC	11	0	2	3
Total*	13	13	34	19

As of March 2020

5. <u>What the University has done to develop research and research training in these areas.</u>

Canada Foundation for Innovation and Canada Research Chairs investments have been key tools used by the University to strengthen research capacity. Important external funds from these prestigious federal programs have been leveraged with significant levels of internal uOttawa financial contributions.

Excellence in research begins with excellent researchers and uOttawa has brought together some of the world's best. We continue to search for new talent and provide opportunities for research partnerships — in Canada and around the world.

Moreover, we have armed our researchers and their students with a wealth of valuable research tools – the latest equipment used in a wide range of disciplines, an advanced digital infrastructure and a talented support team that is committed to reducing bureaucracy and administrative burdens imposed on researchers. We have taken care to ensure our growing physical plant provides spaces that encourage cross-disciplinary conversations and fosters creativity inspired by different perspectives.

6. <u>Inter-institutional and inter-sectoral collaborations</u>.

The University of Ottawa has developed close ties to research institutes at hospitals in the National Capital Region, including: Bruyère Research Institute, Children's Hospital of Eastern Ontario Research Institute, Institut du Savoir Montfort, Ottawa Hospital Research Institute, The Royal's Institute of Mental Health Research, University of Ottawa Heart Institute.

The University of Ottawa and affiliated institutes are working together to prepare joint CRC applications and this effort will continue in the future to encourage inter-institutional and inter-sectoral collaborations. This type of collaborations is supported by [Core facilities](#). Core facilities are broadly available to all University of Ottawa researchers and specifically to CRC Chairholders as these spaces and equipment are leveraged in CRC nominations. Core facilities provide services, analysis, instrument and technology access, and expertise researchers require but which are generally too expensive, complex or specialized for them to provide and sustain for themselves on a cost-effective basis. By fostering common management of similar or complementary research facilities, whether located together or distributed, core facilities offer significant benefits including:

- Broad access to state-of-the art services, facilities and technology;
- Financial savings resulting from economies of scale and development and consolidation of in-house maintenance capabilities;
- Availability of skilled operators ensuring effective equipment use, enhanced data quality and safe operations;
- Increased equipment reliability;
- Reduced duplication of effort.

7. <u>Progress assessment</u>.

Ongoing assessment of performance against objectives provides opportunities to fine-tune strategies and activities in support of our vision. The University will use key performance indicators to track its progress annually and will make adjustments as required.

8. <u>Planning and approval process</u>.

The institution's planning and decision-making processes for major federal programs (CFI and Canada Research Chairs) are directly aligned with the Strategic Research Areas (SARs). Approval of all institutional programs is the responsibility of the Administrative Committee of the University, chaired by the President. The Office of the Vice-President, Research coordinates and approves all institutional research grant applications, including CFI, CRC and CERC nominations and submissions. uOttawa and affiliated institutes are working together to prepare joint CRC applications and this effort will continue in the future.

Note 1: More information related to uOttawa recruitment processes and monitoring of EDI efforts are available on our Public Accountability web page: https://research.uottawa.ca/chairs/canada-research-chairs.
Note 2: Link to access uOttawa Process for the Allocation of Canada Research Chairs: https://research.uottawa.ca/chairs/canada-research-chairs/process-allocation.