

The University of Regina
2020-2025 Strategic Research Plan Summary for the Canada Research Chair (CRC) Program And
the Canadian Foundation for Innovation (CFI)

The University of Regina (U of R) endeavours to develop and maintain a supportive and diverse research environment and a culture of excellence for all scholars. Specifically, we intend to be recognized as leaders nationally and internationally in our four signature areas of research.

OBJECTIVES

The 2020-25 Research Action Plan: *Transformational Research for Societal Resilience* provides the strategic research direction for the University of Regina. It is aligned with and linked to the University of Regina's Strategic Plan 2020-2025: "*All Our Relations kahkiyaw kiwâhkômâkaninawak* " which commits the U of R to goals in 5 areas of focus: Discovery; Truth and Reconciliation; Well-being and Belonging; Environment and Climate Action; and Impact and Identity.

The research enterprise is deeply rooted in a culture of discovery that propels the University's strategic vision/direction as the innovative and entrepreneurial core of Saskatchewan and the Prairies. The U of R's commitment to decolonization, Indigeneity and climate action, in line with the inclusive and socially responsible vision of *All Our Relations*, informs our culture of discovery and innovation and the entire strategic research vision.

Over the next five years we are committed to the following strategic actions that will support **transformational research with high impact** with associated key actions:

I: Grow the research enterprise at the University through new funding and support of our research centres;

- Encourage, support, and promote student, faculty, and staff research and scholarship at home and abroad. This will include engaging our early career researchers in our University research centres and institutes and focusing resource support to centres and institutes;
- Develop and validate incentive programs to expand Tri-Council Agency research funding across all Faculties;
- Strengthen Indigenous research by working closely with the Associate Vice-President Indigenous Engagement and building new supports for Indigenous researchers; and
- Invest in technology that allows for active participation in research with an awareness of environmental impact.

II: Promote the U of R signature research strengths in Climate and the Environment, Digital Futures, Living Heritage, and Health and Wellness and the aligned research centres. See Signature Research Strengths section below.

III: Establish a robust innovation and entrepreneurship framework to position the U of R as the leading innovative and entrepreneurial postsecondary institution in Saskatchewan and the Prairies;

- Promote a sustainable entrepreneurship culture, training and social R&D;
- Enable commercialization of research to serve industry and community needs; and
- Support the establishment of interconnected major (digital) innovation hubs for regional development.

IV: Expand the graduate studies enterprise as graduate students and postdocs will be vital to the intensification of research activity, innovation and entrepreneurship at the U of R; and

- Unleash creativity and discovery through expansion of new graduate and interdisciplinary programs;
- Improve recruitment, support and training of highly qualified, talented doctoral students and postdoctoral scholars from across Saskatchewan, Canada and around the world;

- Enrich graduate student experience through inclusive and robust graduate professional development and entrepreneurship programming;
- Advance collaboration and partnerships with local organizations and international institutions; and
- Enhance impactful communication through social media and alumni networks.

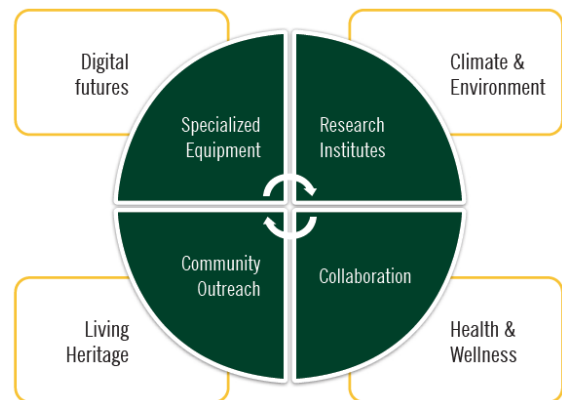
V: Build a partnership network with Indigenous communities, industry, government, and non-profit stakeholders.

- Build alliances with Indigenous communities that facilitate accountable research and support Indigenous researchers;
- Develop new partnerships that produce positive social impact through new relationships and joint initiatives with community partners;
- Broaden partnerships that enhance institutional identity and reputation; and
- Encourage, support and promote internationalization through close research collaboration.

SIGNATURE RESEARCH STRENGTHS

Through consultation and review of research impacts and activities, the University has identified Four Signature Research Areas, to position the research enterprise around cutting-edge clusters. Formalizing our signature areas of research will address the specific objectives of the institutional Strategic Plan to: broaden partnerships; provide a foci for institutional identity, and produce social impact. Research clusters streamline institutional resources to better support research and creative work, as well as enhance technologies for research.

The University’s research is not limited solely to these areas of strategic priority, and they do not diminish the important contributions of individual researchers and creative practitioners. In fact, individual research strengths collectively formed the foundation of the University’s strategic research directions and will continue to foster new opportunities.



Climate and the Environment

Many members of the University of Regina’s research community work on the most serious threats to environments in semi-arid regions in Saskatchewan and elsewhere. The U of R has maintained a long commitment to researching and mitigating societal impacts to climate and the environment. This is clearly evident in the number of research centres that are aligned to this signature area and work together to address grand challenges via multi-disciplinary approaches; including: the Clean Energy Technologies Research Institute, Institute for Energy, Environment and Sustainable Communities, Institute for Environmental Change and Society, Prairie Adaptation Research Collaborative, and the Centre for the Study of Science and Innovation Policy. Their research provides information to decision-makers on how to alleviate negative impacts on climate, land-use and pollution on hydrology, degradation of water quality and food-web integrity. We develop adaptive management strategies and policies for the impacts of anticipated climate change, population growth and increased development of natural resources.

Researchers in this signature area evaluate the impacts of natural and anthropogenic effects on grassland, forest and aquatic habitats, develop environmental low carbon technologies to mitigate carbon dioxide emissions associated with climate change, and study other aspects of clean energy such as smart grids, intelligent transportation systems, and lean and agile manufacturing.

Key actions:

- Work with researchers and Research Centre Directors to develop a leadership presence dedicated to sustainability and societal resilience
- Deploy research administration resources to help researchers develop strategic initiatives that protect source water quality and reduce degradation of water resources
- Transform the University of Regina into a Living Lab where models for energy transitions are developed

Living Heritage

Living Heritage, as defined by UNESCO, is also referred to as intangible culture. Research in this area examines the practices, production/reproduction, expression, spaces, and knowledges that protect the diversity of human creativity and humanity's collective heritage. Every day, University of Regina researchers focus their efforts on understanding and preserving the dynamic and evolving elements of cultural heritage – oral histories, food heritage (traditional, sustainable cuisine), music, dance, ceremony, the natural world, and aesthetic and spiritual beliefs. Through this work, researchers across our campus create partnerships and produce scholarship that positively impacts our communities and our world.

Researchers in this signature area are highly engaged in the diverse and creative works that support Living Heritage scholarship, and are examining a range of diverse activities that center on it. Through our commitment to creating a culture of Living Heritage on our campus, we envision the University of Regina as a living lab of intangible culture – a space to ask questions, to research, and to experiment – a place where we embrace existing and emerging opportunities within the realm of Living Heritage research. The U of R's Humanities Research Institute plays a vital role in actioning our Living Heritage signature area.

Key actions:

- Support research and cultural production at the University to play a critical role in policy development within the cultural sector;
- Expand the University's relationships with community groups and government to increase knowledge translation and dissemination; and
- Build a transnational research and training network that encourages the integration of diverse cultural heritage expressions into sustainable development policies in SouthSouthNorth.

Digital Futures

The growth and continuous expansion of the data culture provides constant opportunities for our researchers to innovate, partner, develop and produce across fields such as commerce, science, education, healthcare, public administration, the arts and culture industries.

Digital Future researchers are leading the way through innovation and creativity in computing and digital media. They are performing research in data mining, wise computing, visualization, data security, and policy design, creation and analysis of emerging technologies, as well as within the digital humanities. They are emphasizing effective, efficient and sensitive decision-making by working with new information accumulated from diverse sources in scaled quantities of heterogeneous, electronic data.

Key actions:

- Research and validate approaches to develop digital hubs that drive local/regional social and economic development;
- Facilitate the integration of technologies and efficient evaluation of big data to enhance economic and social resilience within our communities; and
- Work with Faculties to support the development of highly qualified personnel (HQP), increased graduate student co-op placements, and recruitment of top data scientists.

Health and Wellness

The U of R has an exceptional research reputation and international recognition in mental health and wellness. This is particularly evident by the strengths in our institutional research centres including: Centre on Aging and Health, Child Trauma Research Centre, and Canadian Institute for Public Safety Research and Treatment, and Saskatchewan Population Health and Evaluation Research Unit. Emerging areas of research within the Health and Wellness signature area include: neuroscience, therapeutic recreation and nutrition and training.

Pain, anxiety, depression, and stress can be understood as being part of a self-perpetuating cycle. Understanding, evaluating, managing and mitigating this cycle is the focus of this signature area. Researchers are tackling complex and costly human problems related to anxiety, stress and pain, their clinical evaluation, manifestation, causal factors and their management, with the goal of improving functional ability and quality of life for millions of people. The Health and Wellness signature area also builds on our strategic commitment to mental health literacy and research, strengthening connections with communities; providing positive social, environmental, economic, and health impacts through our reciprocal relationships with our communities. Our research in mental health leads to discoveries that have measurable impacts on our communities.

Key actions:

- Prioritize research activities at existing health-related research centres;
- Strengthen positive and reciprocal connections with communities and other University partners;
- Work with Research Centre Directors to position the U of R as the leading centre of excellence in Mental Health and Wellness research.

CANADA RESEARCH CHAIRS

The University of Regina's Vision for Canada Research Chairs

Chairholders are expected to: demonstrate strength in an area of research strength; enhance the institution's national and international reputation and leverage additional resources; and, contribute to the creation and mobilization of knowledge through training of graduate students and highly qualified personnel, outreach activities and interdisciplinary collaboration.

Allocation of Chairs

Canada Research Chairs (CRCs) are an important part of the University's ability to attract and retain high calibre researchers. They complement our endowed and industrial research chairs. The following is a breakdown of the University's current allocation of CRCs. The University maintains flexibility in its allocation of CRCs among the four research areas of strength as well as the emerging areas.

The University's policy on Research Chairs outlines the process by which vacant chairs are allocated. The Vice-President (Research), the Provost and Vice President (Academic), and the Associate Vice President (Research), and the relevant Dean(s) will determine the general research area of the chair. Faculties and Academic Units are invited to submit letters of intent (LOIs) demonstrating the strategic impact of allocating a research chair in a given area. Proposals are reviewed against criteria such as fit with the strategic plan, and faculties with successful proposals are invited to begin the recruitment process for the vacant chair and submission of a nomination to the CRC.

Major research theme of occupied and planned CRCs as of 2022:

| Area of Institutional Strength | CIHR | | SSHRC | | NSERC | |
|-------------------------------------|--------|--------|--------|--------|--------|--------|
| | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 |
| Water, Environment and Clean Energy | | | | | 2 | 1 |
| Living Heritage | | | | 2 | | |
| Digital Futures | | | | | 1 | 1 |
| Health and Wellness | | 4 | | | | |

Currently, 40% of occupied chairs at the University of Regina are held by females. The University remains committed to equity practices consistent with the guidelines established by the CRC Program and supporting actions identified in the U of R's Canada Research Chairs Equity, Diversity and Inclusion Plan.

CANADA FOUNDATION FOR INNOVATION

The VPR Office oversees and supports the development of research infrastructure at the University which includes building resilient/robust technical and financial foundations for sustainable research institutes, centres, and labs. Funds available through the Canada Foundation for Innovation (CFI) are allocated according to various criteria. The University has a criteria document related to the John Evans Leadership Fund (JELF) that is reviewed with every notification of the University's allocation. It currently provides set-aside allocations for CRCs, established researchers, and junior faculty. Guidelines prioritize fit with strategic research plan while maintaining adherence to standards of excellence used by the CFI.

For larger competitions such as the Innovation Fund, the University issues internal calls for proposals, with criteria such as fit with strategic research plan, prior investments, collaboration and partnership, and an overarching emphasis on excellence of the researchers and proposed research.

EVALUATION OF SUCCESS

The following research-related metrics and benchmarks from the University of Regina Performance Management Framework will be used to monitor progress on the Research Action Plan.

- Annual Researcher Satisfaction Survey targeted to faculty, student and staff researchers.
- SciVal Metrics (Field Weighted Citation Impact (FWCI), # of publications, # of citations)
- Completed implementation of the Innovation Eco-system and Entrepreneurship Strategy
- Increase graduate student enrollment to 15% of the student population
- Annual Partnership Scan to obtain an inventory of partnerships and collaborations across sectors (industry, government, and non-profit) and geographies (Saskatchewan, Canada, international).
- # of student registrations in experiential learning
- # of living labs on- and off-campus focused on decarbonization
- % increase in researchers affiliated with research centres focused on environment and climate action
- # of media engagements with U of R research and creative contribution
- Growth in Research Revenue

PLANNING AND APPROVAL PROCESS

The strategic actions were developed from a major assessment of the University's research strengths and analysis of potential areas of growth that consisted of consultations with faculty members and researchers, government, industry and community partners. Additionally, a review of research units, research funding, and other supports took place. The University's Research Action Plan was developed by a Working Group comprising senior researchers, special advisors to the Vice-President (Research) and senior staff reporting to the Vice-President (Research). The final version was reviewed and approved at the Council Committee on Research, the body responsible for providing strategic advice and recommendations on research initiatives, policy and matters at the University to Council and its representatives and the Vice-President (Research).