

University of New Brunswick: SRP 2023-2028 Summary

Major objectives of the SRP

Elevating our people:

- Advance our institutional priorities in honouring our reconciliation commitments and our commitment to equity, diversity and inclusion and belonging.
- Recruit and retain exceptional researchers at all levels, including graduate students, faculty and postdoctoral fellows.
- Improve awareness of the quality of UNB research.
- Celebrate researchers and their discoveries and achievements.

Advancing our research excellence:

- Increase overall research activity and intensity across the institution.
- Support the advancement of knowledge through ground-breaking, high impact research.
- Enhance and optimize our state-of-the-art research infrastructure.
- Strengthen and enhance institutional support for research.
- Integrate the Truth and Reconciliation Commission's (TRC) Calls to Action and the principles of ownership, control, access, and possession (OCAP) into our research policies and practices.

Strengthening our collaborations:

- Grow and enhance our connections with community, government and industrial stakeholders and partners.
- Expand upon our collaborative and interdisciplinary approach to research, between units and campuses, between UNB and other institutions and entities, and through participatory research initiatives.
- Support academic initiatives using research to enhance student learning.

Increasing our research impact:

- Continue striving to improve the environmental, social, health and economic well-being of the province of New Brunswick and all of its people, and to create a positive impact regionally, nationally and internationally.
- Generate and promote research that guides and supports evidence-informed regional, national and international policy decisions.
- Contribute to solving the greatest challenges facing our lives, our communities and our planet.
- Intensify our relevance and impact in applied research and through participatory research, knowledge mobilization, knowledge translation and public scholarship activities outside of the institution.

A priority call to action: Piluwitahasuwawakon: Recognizing and advancing Indigenous scholarship

UNB is committed to Piluwitahasuwawakon, a Wolastoqey word gifted to UNB by Opolahsomuwehs (Elder Imelda Perley) which means "allowing your thinking to change so that action will follow in a good way toward truth."

To most fully support this commitment to Indigenous world views, histories, persons and practices, our first defined priority in this Strategic Research Plan is deliberately creating a space for an Indigenous-led and driven research agenda.

Recognizing the risk of perpetuating marginalization and exclusionary institutional histories if current and future Indigenous scholarship and scholars are not recognized and supported, we have included this priority in our discussion of research themes that will guide strategic activity and investment.

While current Indigenous research activities and researchers figure in the strategic themes presented in this document, and while future Indigenous research will also continue to be part of UNB's overall research landscape, this priority area also stands independently of these topical themes. In creating this space now, we recognize that supporting and advancing Indigenous-led research efforts are an essential starting point toward a more fulsome consideration of Indigenous research strengths and priorities in future strategic research planning. It is our hope and intent that future SRPs will continue to elevate and incorporate Indigenous researchers, research, perspectives and methodologies.

Strategic research themes

In this SRP, we identify five research themes that reflect emerging and core strengths as demonstrated through research leadership and reputation, the subject areas of our research centres and institutes, and investment from competitive funding programs. They help identify research strengths and synergies that will focus discussions and build critical mass.

Underlying these research themes is a recognition of the essential importance of the discovery-based research upon which all further innovation is built. We recognize that our current areas of strength are bolstered by the self-directed pursuit of our individual and collective curiosity, and that future research strengths and priorities will emerge from this same inquiry.

We intend for these themes to be landmarks in the research landscape to which many in our community will find connections to their research programs.

Energy systems, materials and industry for tomorrow

The intersection of growing demands for power in our ever more electrified world and increasing pressure on our resources and natural environment challenge us, in this moment, to identify solutions for a more sustainable and more informed future.

Our research community is leading the region in innovating new, safe and efficient sources of energy, and in more intelligent and efficient infrastructure to deliver power where it is needed.

Healthy and safe communities

Taking care of our people and our communities is how we set the stage for a thriving future in our province and beyond. Increasing healthcare pressures, an aging population and the complex and intersecting factors affecting health require innovative approaches. We are challenged to discover new knowledge and new solutions to create this future, and our researchers are responding to it.

UNB researchers are investigating the interconnected web of health determinants to comprehensively improve health, supporting the community-based and healthcare organizations

of our province (and beyond) and their workers, and helping people live healthy and fulfilling lives across the full lifespan, particularly among the youngest and oldest generations.

Secure and intelligent futures

Today's world is one where cars talk to each other, where refrigerators can order food, and where computers can understand increasingly complicated ideas. As digital technologies become more complex, we are challenged to better understand their operation, address emerging security risks and take advantage of the opportunities they provide in solving complex problems.

Our researchers provide sector-leading insight in cybersecurity, integrating data security in other projects and leveraging big data and artificial intelligence.

Water and our natural environment

Water covers 71% of our planet, makes up more than half of our body weight and is critical to our survival. It's no surprise, then, that water is a primary interest for many of our researchers. Water, however, isn't our institution's only area of concern in the natural world that surrounds us. Human pressures on our resources, rapidly changing climates and a general drive to better understand the Earth we inhabit in a planetary and cosmic context press us forward.

UNB's research community provides groundbreaking insight about our inland, coastal and ocean waters, the life that inhabits them and the communities that surround them, contributes significantly to our knowledge of the forests that make up so much of our region's landscapes, and leverages observation and measurement technologies to map and define the planet.

Humanity and society: Knowing our pasts, understanding our presents, creating our futures

Our continued, fundamental desire to understand ourselves and others drives us toward discovery and creation. Through our social science and humanities research, we are able to see ourselves and others through new lenses, and are urged to better ourselves as neighbours, citizens and human beings. Through our engagement, partnership and participatory practices, we can create a real impact on real issues. Critical and innovative perspectives push us toward a more prosperous, just and fulfilling world, and inspire us to think differently about ourselves and our future.

Research chairs

The foundation of UNB's research ecosystem is composed of exceptional faculty and graduate students conducting leading research enabled by our world class research institutes, centres and labs.

Research chairs, including Canada Research Chairs (CRCs), contribute to that ecosystem and are used strategically to seed new research initiatives and establish novel areas of growth, as well as to bolster and further enhance existing research strengths within our institution. Chairs represent world-class expertise who build up UNB's research excellence and our ability to make positive change in our province, across Canada and around the world.

Chairs allocated by research area

UNB currently holds 12 CRCs and 21 other research chairs, distributed as shown below. Chairs represent an impressive proportion of full-time, research-active faculty, making up more than 6.5% of UNB's approximately 450-person professoriate and research associate community.

The five identified strategic research themes are included in this table, representing the established areas of strength and growth at UNB. The self-determined Indigenous research agenda, as a priority that transcends others and sets an aspiration for the future, informs all research themes and is not currently listed as a separate category.

Theme	Canada Research Chairs						Other Research Chairs	Total
	NSERC		SSHRC		CIHR			
	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2		
Energy systems, infrastructure and industry for tomorrow	1	1					7	9
Healthy and safe communities		1		1		1	6	9
Secure and intelligent futures	1	2		1			4	8
Water and our natural environment		2					3	5
Humanity and society: Knowing our pasts, understanding our presents, creating our futures			1				1	2
Total	2	6	1	2	0	1	21	33

Equity, diversity and inclusion

The value of diversity is profoundly important in research; it is in our diversity of thinking and experience, and with our diverse preoccupations and approaches, that we ignite both creativity and innovation. At UNB, Canada Research Chair (CRC) positions help to create hubs around strategic areas of research excellence. We strive to ensure that these programs include a diversity of perspectives in order to enrich the cultural, social, and academic communities that we represent and serve, and we will continue to investigate ways to empower members of marginalized groups to make their voices heard within the CRC program and beyond. UNB is committed to strengthening these areas, as outlined in our CRC EDI Action Plan.

UNB's Employment Equity program is designed to address historical disadvantages faced by some members of our society. As a signatory to the Federal Contractors Program (FCP), UNB's program identifies Four Designated Groups (FDGs), representing communities within our society that have traditionally faced disadvantages in participating in the Canadian workforce: women, persons with disabilities, members of visible minorities, and Indigenous peoples.

The CRC program has also introduced equity, diversity and inclusion (EDI) targets for Canadian postsecondary institutions. The office of the Vice-President (Research) will actively monitor our institution's performance against these benchmarks to ensure that UNB remains compliant, and take any steps required to achieve them.

UNB employs equitable practices to ensure that the representation of equity-deserving groups, including gender representation, is always considered when filling chair positions. These practices include removing gendered language from recruitment postings, targeting distribution of these postings to women, gender-diverse and other equity-deserving groups, and prioritizing research areas with more diverse applicant pools. More information about UNB's EDI strategy, with a specific emphasis on meeting CRC objectives, can be found here:

<https://www.unb.ca/research/vp/diversity.html>.

Use of chairs for recruitment and retention

Research chairs, and CRCs in particular, are an important recruitment and retention tool used to enhance the University's research capacity and performance. In all instances, UNB will pursue the best possible candidate in line with the University's strategic goals, whether the candidate be internal to the University or an external prominent national or international researcher.

The strategic areas identified in this document are areas of existing and increasing strength within our institution. We are confident that this will help UNB to recruit and retain established researchers who are recognized internationally as leaders in their fields, and early-career researchers with the potential to become internationally recognized within the next decade. We are also confident that they will facilitate increasing national and international research impacts and collaborations.

Planning and approval process for chairs

To take advantage of research opportunities which align with our academic and strategic aims, CRC selection is carried out through a competitive process that respects our equity program.

When choosing a research area in which to place a new CRC, expressions of interest are requested from across the institution. An internal selection committee assesses these identified opportunities based on current and future strengths and goals to identify which will advance with a CRC nomination.

Additionally, all new CRC nominations submit CFI JELF applications associated with the nomination. This ensures that UNB's CFI allocation continues to support strategic research priorities via new chairholders' research infrastructure.

Assessing research objectives

The University will routinely review research performance using both leading and lagging indicators. Recognizing that research results and impacts are broad and diverse, and that accepted and preferred methods of assessing these are changing, we will strive to establish metrics and indicators that best represent the merit of the comprehensive research activity at UNB. Such indicators will include, but are not limited to:

- Research output such as journal articles and books, conference papers, patents and other intellectual property, datasets, knowledge translation and public engagement efforts, and so on;
- Indicators of research use, including its influence on policy, practice, and community;
- Measurable research quality metrics such as citations, awards and national/international reputation;
- Number of faculty actively participating in research;
- Number of postdoctoral fellows and graduate students active in research;
- University research rankings performance;
- External research revenues;
- Research intensity (research revenue generated per faculty member, as well as research output per faculty member);
- Number of research grant proposals, as well as the number of different faculty members submitting research grant proposals;
- Success rate of Tri-Agency and other funding submissions; and

Advances in policy, practice and education opportunities on equity, diversity, inclusion and belonging, and on reconciliation and decolonization.