

Discovery the World Needs

University of Saskatchewan's Strategic Research Plan

2018-2025



Chapter 1

Context

Working hard today with the future in mind.

It's a distinctively Prairie ethic—doing what needs to be done in the present, motivated by the promise of a fruitful, if uncertain, harvest—and it perfectly describes the discipline and optimism that have animated the University of Saskatchewan for over a century.

Discipline and optimism are the lifeblood of research, scholarship and artistic creation. All are rooted in knowledge, skill, technique, rigour—and all derive purpose and energy from a spirit of curiosity, a willingness to

test boundaries, a belief in humanity's potential to shape the future. It is for this reason that research, scholarship and artistic creation have always been central to the mission and accomplishments of the University of Saskatchewan. From the work of Harold Johns and Sylvia Fedoruk in developing Cobalt-60 as a revolutionary cancer treatment to the Crop Development Centre's role in securing Saskatchewan's leadership in the global pulse market; from Nobel Laureate Gerhard Herzberg's pioneering work in describing the structure and geometry of molecules to the many recognized writers, composers, artists and actors who have discovered their voice and honed their craft on our campus—all speak to the indomitable discipline and optimism that drive the university's engine of inquiry, discovery and creativity.

At no point in the university's proud history has our vital core of research, scholarship and creativity enjoyed greater recognition—and more urgent possibility—than it does today. Since the launch of former President Peter MacKinnon's *Renewing the Dream* strategy in 2002 and the visionary

articulation of six signature areas in 2009, the University of Saskatchewan has witnessed an unprecedented period of growth, success and heightened pre-eminence as one of Canada's leading, research-intensive centres of learning and discovery.

This track record of achievement has delivered USask to an inflection point.

Our progress over the past 10 years has both prepared us for the next decade of achievement—and magnified how much we have at stake strategically, particularly as we aspire to strengthen our position and sustain our trajectory. More than ever, we need an inspiring strategy that aligns our community scholars, students, staff, partners, donors—around a vision, spirit and sense of possibility for research, scholarship and artistic creation. We need a strategy that ensures all students have opportunities to take part in research excellence. We need a strategy that uplifts Indigenization and

the experience of reconciliation in our work. And we need a strategy that prepares and supports the courageous students and faculty—tomorrow's leaders—who will drive our aspiration to be the university the world needs.

As we look to the future, we are mindful that our rich legacy will be sustained by a new generation of trailblazers: ~60% of our faculty were hired within the last decade—a vibrant cohort of scholars inspired by the opportunities our university affords. It is these faculty to whom we have entrusted our future and to whom we must now dedicate our vision for a flourishing community of discovery.

The title of this plan—DISCOVERY THE WORLD NEEDS—speaks to the discipline and optimism at the heart of our university: our drive to engage in research, scholarly and artistic works that matter. This plan should affirm what we believe to be true about our university. And it should expose with integrity what makes this institution great—and what can make it greater.

Chapter 2

Our Research Strategy

Our researchers, scholars, and artists will lead the next leg of the journey.

Our university enjoys enviable opportunities to inspire communities with discovery the world needs. But we cannot take this position for granted. We must be dauntless in confronting the challenges we face and honest about where we need to focus.

It is for this reason that our university must tackle five pivotal COMMITMENTS that are essential to strengthening, diversifying and seizing research, scholarly and creative opportunities:

BUILD INSTITUTIONAL FORTITUDE. We will empower an academic community with the vision, agility, diversity and courage to excel in research, scholarship and creativity.

transformative decolonization and reconciliation. We will support flourishing Indigenous scholarship rooted in reciprocal, respectful and relational academic and community partnerships to guide our journey of transformative decolonization and reconciliation.

INVIGORATE OUR HEALTH CLUSTER.

We will unlock the creativity, innovation and community potential of interdisciplinary health and wellness research.

EMBOLDEN OUR STRENGTHS. We will cultivate areas of emerging strength and potential while amplifying our signature priorities.

PUT OUR KNOWLEDGE TO WORK. We will put our knowledge to work for the benefit of society, telling our stories of how we are the university the world needs.

Collectively, these commitments embody the STRATEGIC INTENT of this plan: To engage in research, scholarly and artistic works that embolden our faculty, create opportunities for our students, and enrich and inspire Saskatchewan, Canada and the world.

THE ILLUSTRATION ON THE NEXT PAGE UNITES THE VALUES AND COMMITMENTS INTEGRAL TO THIS PLAN.

The outer ring identifies the values central to our identity:

PARTNERSHIP & COLLABORATION. We thrive though our relationships and connections—a strength rooted in the pragmatism and ambition of a community of scholars who recognize that we can simply do more by working together.

COMMUNITY & SENSE OF PLACE. We are inspired by the communities we serve and the land we inhabit—and we aim to bridge local priorities to knowledge and opportunities across the globe.

INTERDISCIPLINARY LEADERSHIP. We understand that tackling the world's greatest challenges requires the intersection of diverse minds, traditions, experiences and ways of knowing.

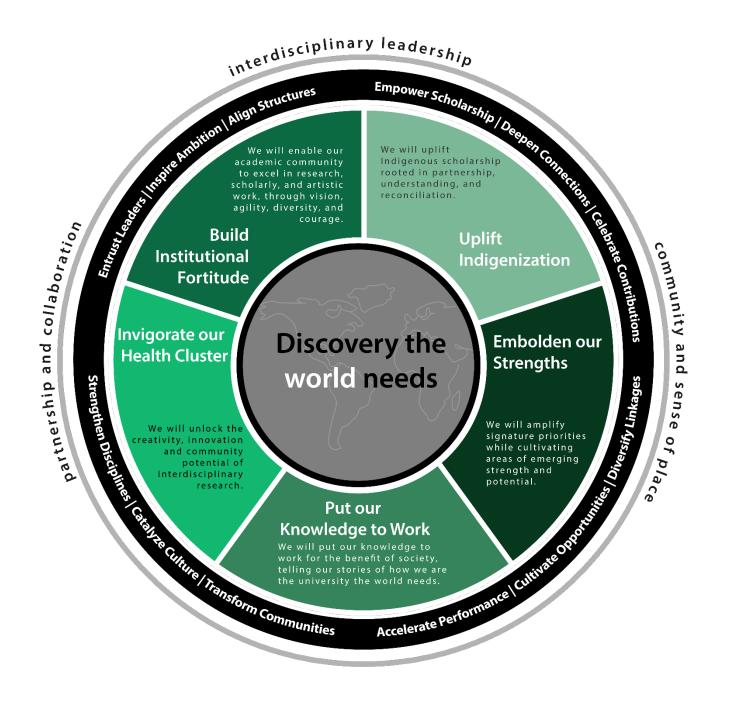
These values are bound together by the overarching aspiration to achieve

PURPOSEFUL IMPACT— "Discovery the World Needs" — the knowledge that our work is germane to the challenges of our era and will contribute to the social, cultural, ecological and economic goals of the communities we serve.

Our values provide the cultural and intellectual context for the COMMITMENTS and associated GOALS that will focus our actions and drive change. We elaborate on our commitments and goals in the pages that follow, and we propose a series of GUIDEPOSTS that will help to mark progress along our journey together.

Discovery the world needs is the

touchstone of our research vision.



The job of our leaders is to create opportunities.

-College Dean

We're just about at a place where collaboration goes beyond being a strategy, goes beyond being a goal: it has just become a value.

-Senior Academic Leader

Build Institutional Fortitude

WE WILL EMPOWER AN ACADEMIC COMMUNITY WITH THE VISION, AGILITY, DIVERSITY AND COURAGE TO EXCEL IN RESEARCH, SCHOLARSHIP AND CREATIVITY.

Leadership across our university—beginning at the most senior ranks—must be prepared to take bold steps aimed at tackling unevenness in research, scholarly and creative output; driving performance; empowering gender and cultural diversity within faculty, staff and student communities; and aligning institutional systems with our vision (which includes addressing limitations within and across college systems and heightening our expectations of leaders at all levels). In short, our university must take steps to bridge our legacy to our future.

At the same time, we need to do a better job of holding ourselves accountable to this future: cataloguing our achievements, sharing our stories and demonstrating how every member of our community wins when the university earns a place of distinction among the world's leading centres of research and scholarship.

This future will distinguish us in many ways. We will be better educators, inspiring students with our research and engaging them in our discovery mission. We will be more inventive and entrepreneurial, pushing ourselves to translate knowledge with social, economic and cultural value. And we will be better community partners, deepening connections that fuel creativity, expand horizons and ensure that the world benefits from our work.

Building institutional fortitude will therefore require us to focus on 3 goals.

Entrust Leaders. Ensure that academic leaders embrace their central role in identifying, cultivating and fulfilling the potential of research opportunities, talent and teams.

Inspire Ambition. Engage all members of our university community in a shared commitment to earning a place of global prominence in research, scholarship and creative endeavour.

Align Structures. Optimize recognition systems, physical environments, and administrative practices, policies and infrastructure to enable flourishing research, scholarly and artistic collaborations, foster innovation, empower diversity and facilitate community partnership.

Six guideposts will mark our journey toward Building Institutional Fortitude.

- Focused development of interdisciplinary mindset and skills among faculty and students and active facilitation of novel, highly productive research collaborations within and across disciplines, departments, colleges, schools and institutes.
- Measurable growth in research revenues (notably Tri-Council funding), scholarly influence, innovation/commercialization outcomes and community impact across all academic units.
- Strategic recruitment of distinguished researchers, scholars and artists—faculty, fellows and graduate students—in areas of established and emerging strength, including growing numbers of women, Indigenous peoples and visible minorities.
- Growing numbers of faculty, fellows, graduate trainees and undergraduate students across colleges and academic units, along with start-ups and businesses in the adjacent Innovation Place research park, actively connected to and engaged with signature research areas.
- Tenure, promotion, merit and reward systems increasingly recognize the value of innovative and collaborative research endeavours.
- Collaboration has become a central premise in the design, development and use of physical infrastructure and spaces.

... and 11% of Canada's Aboriginal population Saskatchewan accounts for 3% of Canada's population...

Source. Statistics Canada, 'Projections of the Aboriginal population and households in Canada, 2011 to 2036' (2015).

2 Uplift Indigenization

WE WILL SUPPORT FLOURISHING INDIGENOUS SCHOLARSHIP ROOTED IN RECIPROCAL, RESPECTFUL AND RELATIONAL ACADEMIC AND COMMUNITY PARTNERSHIPS TO GUIDE OUR JOURNEY OF TRANSFORMATIVE DECOLONIZATION AND RECONCILIATION.

A significant proportion of Indigenous Canadians live in and contribute to the social, cultural and economic life of Saskatchewan—and by 2036, 1 in 5 residents will identify as Indigenous. Our province's history and future are intimately linked to the history and future of Indigenous peoples—and our university has a profound responsibility to partner with Indigenous communities to ensure that research, scholarly and creative activities preserve, celebrate and create place and space for Indigenous knowledges, stories, languages and cultures.

Our commitment must be matched by action. We must transform an informal model of engagement into a sustainable, relevant and responsible framework for reciprocal and respectful dialogue and constructive action. We must overcome the limitations of a rigid academic

recognition system that can impede the very collaborations with and among Indigenous researchers and communities we most need to deepen. And we must build a vibrant community of Indigenous scholars—faculty, graduate students, fellows—with the critical mass to embed Indigenous methodologies and the unity of inquiry, teaching and service as a core thesis of discovery at our university.

Through meaningful partnership and strategic action, the journey of transformative decolonization and reconciliation will enrich our research, scholarship and creative pursuits.

Embracing Indigenization will therefore require us to focus on 3 goals.

Empower Scholarship. Expand, connect, support and ensure the success of a vital community of engaged faculty, students and fellows who uplift Indigenization and support transformative reconciliation through their research, scholarship and creative pursuits.

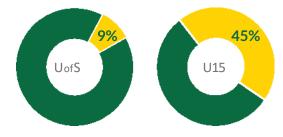
Deepen Connections. Align and strengthen practices and supports to enable sustainable and inspiring research, scholarly and artistic partnerships with Indigenous communities.

Celebrate Contributions. Recognize and encourage scholars whose work is central to building meaningful research and creative collaborations with Indigenous communities.

Six guideposts will mark our journey toward Uplifting Indigenization.

- Growth in the number of Indigenous faculty, fellows and students engaged in all dimensions of the university's research, scholarship and artistic endeayours.
- Indigenous scholars increasingly occupy positions of leadership across academic units and within university administration.
- Engagement of Indigenous communities in developing dedicated, accessible and sustainable policies, tools, learning opportunities and support systems aimed at strengthening and uplifting partnerships with Indigenous communities.
- Growth in the number of faculty engaged in reciprocal, respectful, relational research partnerships with Indigenous communities.
- Enhanced support for and recognition of (e.g. through tenure, promotion, merit and reward systems) the unique contributions of Indigenous faculty and students to all research, including Indigenous methodologies and collaborative and community-based research, and to the scholarly and creative life of the university and its communities.
- Heightened recognition—both within the university and among community partners, funders and external collaborators—for globally distinguished leadership in Indigenous research, scholarship and artistic endeayours.

College of Medicine as a Share of Total Revenue



Source. Canadian Medical Education Statistics - Association of Faculties of Medicine of Canada (2016).

Invigorate Our Health Cluster

WE WILL UNLOCK THE CREATIVITY,
INNOVATION AND COMMUNITY POTENTIAL
OF INTERDISCIPLINARY HEALTH AND
WELLNESS RESEARCH.

Elevating the performance of our health colleges and schools is one of our most pressing imperatives—and one of our greatest opportunities for transformational development.

This imperative is most consequential for our College of Medicine, which has latent potential to raise its scholarly standing and grow its contribution to university research income. Given the advantages we enjoy—infrastructure purpose-built for interdisciplinary health discovery, global distinction in infectious disease mitigation, unique biological imaging assets, leadership in community-engaged research, to name a few—our lagging performance vividly exposes unfulfilled promise.

Capitalizing on this promise will require three, mutually reinforcing efforts. First, our College of Medicine must clarify areas of focus, recruit outstanding clinician-scientists and researchers to drive growth, and cultivate an environment to ensure sustainable productivity and success. Second, we must elevate research quality, output and impact across health sciences disciplines. Third, we must capitalize on our unmatched constellation of health colleges and schools by unlocking opportunities at the nexus of medical, social and environmental health and wellness; we have often speculated on the potential of our diverse health cluster, and now is the time to focus strengths, invest strategically and ambitiously deliver.

Invigorating our health cluster will therefore require us to focus on 3 goals.

Strengthen Disciplines. Identify areas of existing and emerging health and wellness research strength and elevate performance within and across health sciences disciplines through strategic investments in talent, research support and infrastructure.

Catalyze Culture. Foster interdisciplinary research collaborations to confront the convergent medical, social and environmental foundations of health and wellness.

Transform Communities. Unite faculty, students and community partners in addressing challenges and creating solutions that build on the distinguishing value of the university's integrated health and wellness cluster.

Six guideposts will mark our journey toward Invigorating Our Health Cluster.

- Growth in the number of College of Medicine faculty with active, productive and nationally competitive research programmes.
- Expanded research revenues and enhanced scholarly impact within the College of Medicine, specifically, and more broadly across all health sciences disciplines, colleges and schools.
- New and durable research and scholarly collaborations across health colleges and emerging identity as an integrated health and wellness cluster.
- Colleges, schools and institutes across the university increasingly engaged in interdisciplinary research collaborations inspired by the convergent medical, social and environmental determinants of health and wellness.
- Attraction of faculty, students, partners and resources reinforces emerging global reputation as a unique, community-engaged, researchintensive health and wellness cluster.
- Health and wellness research and innovation efforts increasingly shaped by community partnerships, priorities and opportunities in Saskatchewan, across Canada and throughout the world.

Our Signature Areas

Agriculture

Food and Bioproducts for a Sustainable Future

Energy and Mineral Resources

Technology and Public Policy for a Sustainable Environment

Indigenous Peoples

Engagement and Scholarship

Synchrotron Sciences

Innovation in Health, Environment and Advanced Technologies

One Health

Solutions at the Animal-Human-Environment Interface

Water Security

Stewardship of the World's Freshwater Resources

Embolden Our Strengths

WE WILL CULTIVATE AREAS OF EMERGING STRENGTH AND POTENTIAL WHILE AMPLIFYING SIGNATURE PRIORITIES.

This commitment hinges on two important strategic approaches. Firstly, strategic investment in our signature areas has arguably been the most propulsive driver of our research reputation, productivity and impact, and it is incumbent on all of us to maintain a strong commitment to the growth and global aspirations of our six signature areas.

To this end, we need to acknowledge and address unevenness in the development of our signature areas: some have flourished beyond expectations, while others have not yet gained sufficient traction. We must redouble our commitment to these priority areas, providing the sustained leadership needed to clarify their strategies, confirm and amplify their competitive advantages, and harness their distinguishing interdisciplinary potential on an international scale.

Secondly, we must remain strategically agile and open to new possibilities. Our future hinges on identifying and nurturing new or emerging areas of distinction, and we need to keep our ear to the ground—particularly through engagement of students, faculty and key stakeholders—to facilitate creative connections and ensure that promising opportunities surface.

Emboldening our strengths will therefore require us to focus on 3 goals.

Accelerate Performance. Elevate all signature areas to a global level of achievement and impact in research, innovation and community partnership.

Cultivate Opportunities. Identify and support emerging interdisciplinary clusters of distinguishing research, scholarship and creativity with the potential to advance discovery the world needs.

Diversify Linkages. Enable opportunities to build upon existing partnerships, internationalize research collaborations and stimulate interdisciplinary connections across our campus.

Six guideposts will mark our journey toward Emboldening Our Strengths.

- All signature areas have a clear strategy to achieve and sustain global distinction, attract world-class faculty, fellows and graduate students, and secure substantial new resources through diverse channels and partnerships.
- Growing number and diversity of faculty engaged in meaningful interdisciplinary collaborations across signature areas.
- Expansion in the number and diversity of international research collaborations across signature areas.
- Increasing number and breadth of academic units making strategic investments in people, infrastructure and programmes to amplify the impact, scale and diversity of signature areas.
- Enhanced focus on identifying, validating and unlocking the potential of emerging areas of global distinction through strategic investments in interdisciplinary teams within and across colleges and schools.
- Communities in Saskatchewan, across Canada and around the world increasingly engaged in identifying, shaping and fulfilling the social, economic and cultural value of our signature areas.

5

Put Our Knowledge To Work

WE WILL PUT OUR KNOWLEDGE TO WORK FOR THE BENEFIT OF SOCIETY, TELLING OUR STORIES OF HOW WE ARE THE UNIVERSITY THE WORLD NEEDS.

For over 100 years, USask has been making a difference in the lives of the people of Saskatchewan and beyond our provincial borders. We will build on this strong foundation and provide real benefit. Our commitment to be the university the world needs is grounded in ensuring our research contributes to social, economic, environmental, and cultural benefits. In putting our knowledge to work, we will mobilize individual and institutional resources to develop partnerships with government, industry and communities which will be the beneficiaries of this knowledge. Collectively we will raise our consciousness of the need to conduct research to achieve beneficial impact, celebrate these, and support a community-of-practice to overcome institutional barriers and seize opportunities for impact and for contributing positively to society.

Putting Our Knowledge To Work will therefore require us to focus on three goals:

Strengthening Our Partnerships. Engage and enhance a growing number of diverse community, university, and industry partnerships both locally and globally.

Turning Our Knowledge Into Solutions. Turn our knowledge into solutions for the benefit of society, the environment, and the economy.

Telling Our Research Stories. Show the world we are the university the world needs by sharing and promoting the university's knowledge, successes, and stories.

Six guideposts will mark our journey toward Putting Our Knowledge To Work.

- Enhanced partnerships and engagement between communities and the University.
- Enhanced growth in intellectual property transfer that meaningfully moves discoveries out into the world.
- Foster and entrepreneurial spirit and culture where faculty, students, trainees and staff embrace their role as entrepreneurs and innovators.
- Governments, communities and industry increasingly partner with USask.
- Conduct research that is responsive to social, economic, cultural and environmental needs of society.
- Increased local, national, and international profile, including increased communications and improved rankings.

Our Aspirations

Together, we will unleash discovery the world needs.

This is the University of Saskatchewan's moment. Our research productivity and impact have never been more distinguished. Our influence at national and global tables has never been more respected. Our commitment to Indigenization and decolonization will be transformative, illuminating pathways for reconciliation, helping to shape national dialogue on Indigenousinspired research, and inspiring new, creative, scholarly and research partnerships. Our community connections—locally, provincially, nationally and globally—increasingly amplify the purpose and relevance of our work.

It is this sense of urgent possibility that inspires the four aspirations against which we will measure our progress over the coming years. These aspirations reflect our model of research, scholarship and creative endeavour and amplify the spirit of optimism and discipline central to our work.

RELENTLESS DISCOVERY. Our per capita research revenues and scholarly output exceed the U15 average, and we are a highly competitive global destination for students and faculty.

as a leader in the commercialization and application of our research and scholarship, attracting a growing number of community and industry partnerships both locally and globally.

MEANINGFUL ENGAGEMENT.

Indigenization and transformative decolonization leading to reconciliation have become hallmarks of our approach to scholarship and discovery—and diverse faculty, student and community connections animate every facet of our research and creative enterprise.

PURPOSEFUL IMPACT. We are contributing meaningfully and measurably to social development, holistic wellbeing, cultural expression, ecological sustainability and economic prosperity in Saskatchewan, across Canada and around the world.

If we're successful, the University of Saskatchewan will be distinguished by institutional structures and supports that are unequalled in rewarding courageous leadership and supporting collaborative discovery. We will be strengthened by partnerships with Indigenous communities that uplift Indigenization and transformative decolonization leading to reconciliation in our research, scholarly and creative endeavours. We will be at the vanguard of communityengaged health and wellness research, innovation and impact. And we will be globally recognized for leadership in

signature areas rooted in interdisciplinary excellence, community partnership and human, environmental and societal impact.

Working hard today with the future in mind. This is the spirit of a university committed to discovery the world needs.