FOR INFORMATION   **PUBLIC**   **OPEN SESSION**

TO:	UTM Campus Council
SPONSOR:	Kent Moore, Vice-Principal, Research
CONTACT INFO:	gwk.moore@utoronto.ca
PRESENTER:	As above
CONTACT INFO:	
DATE:	January 17, 2024 for January 24, 2024
AGENDA ITEM:	5

ITEM IDENTIFICATION:

Strategic Research Framework, Office of the Vice-Principal Research

JURISDICTIONAL INFORMATION:

Under section 5.1 of its *terms of reference*, the UTM Academic Affairs Committee is responsible for research planning. The Committee receives annually, from the appropriate administrators, reports on services within its areas of responsibility, including research.

GOVERNANCE PATH:

1. UTM Academic Affairs Committee [For Information] (January 11, 2024)
2. **UTM Campus Council [For Information] (January 24, 2024)**

PREVIOUS ACTION TAKEN:

None.

HIGHLIGHTS:

The Office of the Vice-Principal Research (OVPR) launched UTM's first Strategic Research Framework on October 23rd 2023, following a yearlong development process, including a self-study and stakeholder engagement, culminating into a fulsome guide. The framework will not only help shape the OVPR's path going forward but that of UTM as well. UTM's Strategic Framework, UTM's 2017 Academic Plan, UTM's Sustainability Strategic Plan, and the University of Toronto Strategic Research Plan 2018-23 all guided the work and served as the foundation on which this framework was built. The accountabilities laid out in UTM's Strategic Framework kept the framework development process on course, with the following questions top of mind:

- Have we fostered a dynamic research environment, with administrative and infrastructural supports, that encourage our researchers' diverse pursuits?
- Have we built rewarding collaborations among faculty, students, librarians, and research and core facilities staff at UTM and U of T?
- Have our research discoveries shaped academic inquiry, student teaching and learning, innovations in industry and entrepreneurship, and public discourse?
- Have we cultivated research partnerships that leverage the strengths of UTM's unique Mississauga location and of U of T's tri-campus system?
- Does research at UTM address challenges of immediate and enduring relevance and help translate knowledge effectively for internal and external communities?

The Framework is built on five pillars:
1. **Strengthen Capacity** - Success Statement: Through increased internal research support, collaboration, and information-sharing, we will maximize researchers' efforts, improving their capacity to secure external funding and awards.
2. **Equip Trainees** - Success Statement: By increasing our recruitment of, and investment in, student and emerging researchers at various stages of their training, UTM will grow our research capacity, retain promising researchers, and create a pipeline of talent.
3. **Empower People** - Success Statement: By advocating for and supporting faculty, librarians, and staff with a suite of high-quality services, resources, training, and expert knowledge, UTM will foster a dynamic research environment that encourages our researchers' diverse pursuits.
4. **Cultivate Partnerships** - Success Statement: By cultivating research partnerships that leverage the strengths of our unique location — and the benefits of U of T's tri-campus system — UTM will help propel our researchers' work and create knowledge and technologies that impact communities both locally and globally.
5. **Share Knowledge** - Success Statement: By expanding our communications reach and by showcasing the work and impact of our diverse research community, the OVPR will connect with university, community, and international audiences — which, in turn, will elevate UTM's research profile and present exciting opportunities for new partnerships, philanthropic investments, and knowledge translation.

These pillars are non-hierarchical, working in synergy to advance the larger research goals of the University of Toronto Mississauga. They guide our thinking, our actions, and our interactions, and reflect UTM's principles as a dynamic, inclusive, and innovative institution of higher learning. Each pillar is made up of the Goals we will set out to achieve. The correlating Actions outline the approaches we are taking to meet each goal. A set of Outcomes indicates the ways we will measure and track our progress. Lastly, the framework is underpinned by two strategic enablers that steer our decision-making:
1. *Embed inclusivity as a core value:* We will strive to make equity, diversity, inclusion, Indigeneity, and accessibility essential components of how we define and foster excellence, both in scholarship and project outcomes.
2. *Integrate data and analytics as drivers:* We will intentionally collect, document, analyze, and track outcome metrics that will guide us on how best to deploy our resources, and will work collaboratively with teams across the university that engage in research data management.

FINANCIAL IMPLICATIONS:

There are no net implications for the campus' operating budget.

RECOMMENDATION:

For information.

DOCUMENTATION PROVIDED:

- Strategic Framework, October 2023
- Presentation: Strategic Research Framework, Office of the Vice-Principal Research

Strategic Framework

STRENGTHEN • EQUIP • EMPOWER • CULTIVATE • SHARE

October 2023

UNIVERSITY OF TORONTO MISSISSAUGA | Office of the Vice-Principal, Research

CONTENTS

Statement on Acknowledgement of Traditional Land

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

IN CONTEXT

The University of Toronto Mississauga (UTM) is a thriving campus, generating research discoveries, innovation, and new knowledge from an impressive breadth of fields and collaborations that bridge many disciplines. Over the past decade, we have grown into the second largest division at the University of Toronto, with 15 departments, three academic institutes, and 180 undergraduate and graduate programs. UTM is home to 1,200 continuing faculty, librarians, and staff, and more than 16,000 students. The leading faculty and outstanding staff and students at UTM contribute to U of T's standing as one of the world's top twenty universities, distinguished by our researchers' unique range of expertise. U of T is one of eight universities — University of Oxford; University of Cambridge; Harvard University; University of California, Berkeley; Stanford University; University of California, Los Angeles; and the National University of Singapore are the others — to rank in the top 25 globally in 34 fields of research. We rank in the top fifty globally in 48 fields, more than any other university on earth.

Our research enterprise has been on a rapid rise; researchers continue to have high scholarly outputs and secure significant research funding each year, with grants supporting pioneering work in the humanities, natural and life sciences, and social sciences. In 2022 our scholars were awarded over $15 million in research funding, published more than 550 journal articles and over 10 books, and received several local and national honours. In addition, UTM is proud to have 13 Canada Research Chair holders. Strategic projects such as the Black Research Network, Critical Digital Humanities Initiative, Robotics Institute, Centre for Medicinal Chemistry, and Novo Nordisk Network for Healthy Populations empower our researchers and benefit the people, communities, and economies we serve. UTM also hosts a wide range of research programs that address regional and global research questions, from studying pressing environmental issues to developing a more holistic understanding of child development. Initiatives such as the Centre for Urban Environments; Centre for Child Development, Mental Health, and Policy; Centre for South Asian Critical Humanities; and the Centre for NonLinear Analysis & Modeling are sites of groundbreaking cross-disciplinary research and training. Furthermore, UTM is involved in a number of cross-divisional research initiatives, including the Data Science Institute, the Mobility Network, and the Climate Positive Energy Initiative. Then, there are the many dedicated researchers who are hard at work all across the UTM campus, conducting top-tier research in our labs, our libraries, and our communities.

The Office of the Vice-Principal, Research (OVPR) plays a foundational role in aiding research excellence by the way of state-of-the-art core facilities, internal funding programs, and staff and faculty expertise. Our mission is to provide a comprehensive suite of high-quality services, resources, and knowledge in support of this enterprise. I am confident that these investments and resources, coupled with the research infrastructure expansions taking place across our campus, will extend UTM's leadership as a centre of creativity, discovery, and positive social change.

[UTM's Strategic Framework](#), launched in 2022, highlights the need to empower research discovery and impact. Its commitments — to attract, support, and retain world-leading researchers; to advance insight, innovation, creativity, and curiosity; and to catalyze research inquiry that enhances U of T's reputation for inclusive excellence that benefits both the region and the world at large — have informed our work on campus and beyond. This Framework, which revolves around a focus on truth, openness, and reciprocity, has guided our strategic research planning, and we have benefitted from it and from plans across U of T's tri-campus as we've worked to establish our own clear and actionable framework.

With our vision to support, promote, and inspire the research, scholarship, and creative activity of our community, and to enhance UTM's research reputation and profile, I am pleased to launch the OVPR's inaugural Strategic Framework. Though the OVPR is the hub for research support at UTM, our research enterprise touches every part of the campus. It informs the ideas we teach; the co-curricular opportunities we provide; the facilities we construct; the investments we make; the priorities we fundraise for; and the external relationships we build.

In the following pages, you'll learn about our priorities and commitments, as well as our ambitious plans, which will not only help shape the OVPR's path going forward but that of UTM as well.

G.W.K Moore, PhD
Vice-Principal, Research
Professor, Department of Chemical & Physical Sciences

OUR PROCESS

This Research Strategic Framework was developed in collaboration with our community from October 2022 to April 2023. It was guided by input from the OVPR Leadership team, as well as 24 interviews conducted with various stakeholders — a process comprising structured conversations and focus groups and a campus-wide survey for UTM faculty.

Our team conducted a self-study of our portfolio strengths, needs, and pressure points. We engaged members of our community in the process and considered how best to foster new ideas; to identify, cultivate, and champion industry and public partnerships; and to expand knowledge sharing and storytelling efforts.

We also benefitted from plans shared across the University. UTM's Strategic Framework, UTM's 2017 Academic Plan, UTM's Sustainability Strategic Plan, and the University of Toronto Strategic Research Plan 2018-23 all guided our work and served as the foundation on which this framework was built.

As we developed our plan, the accountabilities laid out in UTM's Strategic Framework kept us on course, with the following questions top of mind:

- Have we fostered a dynamic research environment, with administrative and infrastructural supports, that encourage our researchers' diverse pursuits?

- Have we built rewarding collaborations among faculty, students, librarians, and research and core facilities staff at UTM and U of T?

- Have our research discoveries shaped academic inquiry, student teaching and learning, innovations in industry and entrepreneurship, and public discourse?

- Have we cultivated research partnerships that leverage the strengths of UTM's unique Mississauga location and of U of T's tri-campus system?

- Does research at UTM address challenges of immediate and enduring relevance and help translate knowledge effectively for internal and external communities?

The culmination of the above efforts and guiding principles is the following framework.

THE FRAMEWORK

UTM's scholars generate world-class research outputs, lead multidisciplinary and public-facing collaborations, and shape cross-divisional initiatives that expand the University's scope and impact. Our researchers leverage their discoveries to take on pressing challenges and make the world a better place. So, OVPR seeks to promote this research discovery, to effect positive change, and to elevate UTM's standing as a research-intensive institution — one that's both of and for Mississauga and that lifts up our region and our world.

To achieve the goals of our office and to enact the campus-wide priorities outlined in UTM's Strategic Framework, the OVPR is committed to our ongoing work in the following areas:

- Collaborating with units across our campus and the University at large;
- Enhancing our core facilities and enabling unique experimentation on the UTM campus;
- Building out our strategy and supports for strong external partnerships and research-based entrepreneurship;
- Designing effective internal funding programs that give researchers a head start when applying for external funding competitions;
- Answering research-specific calls to action from U of T's anti-oppression groups — e.g., Truth and Reconciliation Committee, the Anti-Black Racism Task Force, and the Anti-Asian Racism Working Group;
- Enabling inter-disciplinary and trans-disciplinary research related to sustainability, and being a collaborative partner with UTM's Sustainability Office, supporting research goals outlined in their strategic plan;
- Encouraging the next generation of diverse research leaders, including by promoting our Postdoctoral Fellowship Award program with a focus on equitable recruitment, retention, and growth;
- Empowering our faculty and staff, providing them with mentorship and ongoing professional development;
- Evolving our model of staff support to advance priorities of our research community; and,
- Expanding communications efforts to showcase the work, scope, and impact of our diverse research community.

With these priorities in mind, the Office of the Vice-Principal, Research Strategic Framework is built on five pillars:
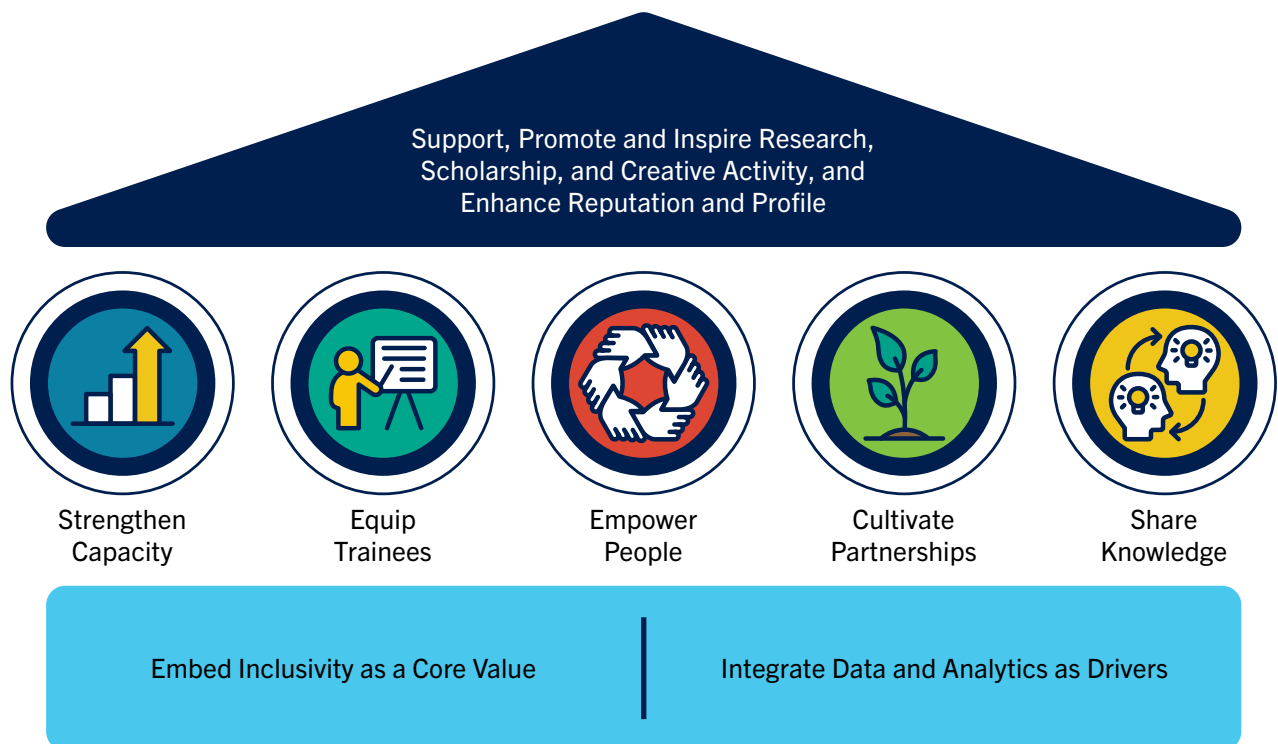
1. Strengthen Capacity
2. Equip Trainees
3. Empower People
4. Cultivate Partnerships
5. Share Knowledge

These pillars are non-hierarchical, working in synergy to advance the larger research goals of the University of Toronto Mississauga. They guide our thinking, our actions, and our interactions, and reflect UTM's principles as a dynamic, inclusive, and innovative institution of higher learning.

Each pillar is made up of the **Goals** we will set out to achieve. The correlating **Actions** outline the approaches we are taking to meet each goal. A set of **Outcomes** indicates the ways we will measure and track our progress.

The framework is underpinned by two strategic enablers that steer our decision-making:

1. *Embed inclusivity as a core value*: We will strive to make equity, diversity, inclusion, Indigeneity, and accessibility essential components of how we define and foster excellence, both in scholarship and project outcomes.

2. *Integrate data and analytics as drivers*: We will intentionally collect, document, analyze, and track outcome metrics that will guide us on how best to deploy our resources, and will work collaboratively with teams across the university that engage in research data management.

Support, Promote and Inspire Research, Scholarship, and Creative Activity, and Enhance Reputation and Profile

Strengthen Capacity

Equip Trainees

Empower People

Cultivate Partnerships

Share Knowledge

Embed Inclusivity as a Core Value | Integrate Data and Analytics as Drivers

STRENGTHEN CAPACITY

Success Statement: Through increased internal research support, collaboration, and information-sharing, we will maximize researchers' efforts, improving their capacity to secure external funding and awards.

Goals	Actions	Outcomes
Increase external research funding by offering internal mechanisms to seed and grow research ideas	• Evolve current offerings to include seed, collaborative and bridge grants, matching funds, and/or new programs for early career and teaching-stream faculty engaging in research • Launch annual, tailored funding application calls based on community feedback and needs • Partner with individual units on special internal support programs • Facilitate collegial feedback on research grant applications • Incorporate internal research support into annual budget planning	• Success rates in tri-council competitions that continue to exceed the national average • Upward trend in the average value of awarded grants
Increase research funds secured from non-traditional research funding opportunities	• Send monthly summaries of non-traditional funding opportunities to each unit • Promote available funding opportunity databases offered through U of T's Division of the Vice-President, Research and Innovation and Strategic Initiatives • Facilitate collegial feedback on research grant applications	• Increased participation rate for UTM faculty in funding competitions beyond the tri-council

Increase the number of nominations for national and international awards, including researchers from under-represented groups	• Explore a pilot program integrating awards and honours into the PTR process to encourage identification of possible nominees and improve tracking strategies • Leverage Senior Research Development Officers to support nominators and nominees in the development of award dossiers • Improve website, award advertisement, and communication channels to foster a positive award culture at UTM • Develop mechanisms to celebrate award recipients	• Increased annual nomination numbers • Upward trend in awards received across early career, mid-level and senior faculty
Grow core research facilities offerings, creating opportunities for impactful collaboration and connection on campus	• Survey user experiences and needs • Expand access to external partners • Plan for new core facilities to support gap areas and align with opening of new campus buildings • Develop fee structures that support the sustainability of core facilities	• Easier and more economical access to specialized research equipment

EQUIP TRAINEES

Success Statement: By increasing our recruitment of, and investment in, student and emerging researchers at various stages of their training, UTM will grow our research capacity, retain promising researchers, and create a pipeline of talent.

Goals	Actions	Outcomes
Recruit and retain the next generation of diverse research leaders, sharing the tools they need for successful careers — both within and outside of academia	• Expand UTM's suite of Postdoctoral Fellow Awards • Collaborate with interested units and the Vice-Dean Graduate & Postdoctoral Affairs to explore a funding model that includes teaching as an integral component of postdoctoral fellowship positions • Strengthen engagement with Provost's Postdoctoral Fellowship Programs, including awards for Black and Indigenous researchers	• Increased numbers of nationally and internationally trained postdoctoral fellows at UTM • Increased number of UTM recipients of Provost's Postdoctoral Fellowship Programs
Champion initiatives for UTM research at the undergraduate, graduate, and postdoctoral levels, in collaboration with teams across the campus	• Incorporate recruitment team into UTM's annual Summer Undergraduate Research Fair (SURF), INSPIRE, and SpinUP programs • Collaborate with UTM's Experiential Education Unit and Career Centre to support students in progressing from the undergraduate Research Opportunity Program into graduate-level research • Amplify research and researcher profiles through a multimedia approach	• Increased number of trainees accessible to faculty • Greater interest in UTM research, programs, and partnerships

EMPOWER PEOPLE

Success Statement: By advocating for and supporting faculty, librarians, and staff with a suite of high-quality services, resources, training, and expert knowledge, UTM will foster a dynamic research environment that encourages our researchers' diverse pursuits.

Goals	Actions	Outcomes
Foster a culture of inclusion, innovation, incubation, and collaboration	• Facilitate access to research administration support across the tri-campus • Develop customized, discipline-specific toolkits and resources • Open SpinUp, U of T's first wet lab venture incubator, positioning UTM as a leader in entrepreneurship in U of T's innovation ecosystem • Establish the OVPR as a central research hub, developing workshop programming based on our areas of expertise: e.g., research funding, partnerships, and faculty awards and honours	• Increased number of citations of UTM researchers • Increased number of international collaborations • Increased number of start-ups launched from UTM labs
Provide training and support to help researchers develop the leadership skills needed to run a successful academic research program	• Partner with the offices of the Vice-Principal Academic & Dean (OVPAD) and Equity, Diversity, and Inclusion to launch workshops on topics such as research project management, challenging situations and conversations, negotiations, leadership styles, and healthy and inclusive research culture	• Increased workshop participation by research community members • High satisfaction scores on workplace interactions and culture in annual survey
Advocate for UTM researchers to increase awareness of, and support for, their diverse research strengths and activities	• Share the challenges facing UTM researchers, as well as proposed solutions, with institutional U of T units and funding and government agencies	• Increased size and scope of internal and external funding opportunities
Encourage responsible data stewardship and support data management strategies	• Collaborate with campus and tri-campus partners on UTM's data management principles, including CARE principles for Indigenous data governance • Create and promote accessible data resources and toolkits on the OVPR website	• Influence U of T's research data management strategy, implementation, and resources • Increased adherence to new data policies

CULTIVATE PARTNERSHIPS

Success Statement: By cultivating research partnerships that leverage the strengths of our unique location — and the benefits of U of T's tri-campus system — UTM will help propel our researchers' work and create knowledge and technologies that impact communities both locally and globally.

Goals	Actions	Outcomes
Clearly communicate support for partnerships available to researchers across UTM; increase fluency in partnered research	• Engage with Chairs and Associate Chairs, Research, and join faculty meetings to share available support • Foster close relationships with UTM units that engage with external partners, identifying avenues for collaboration • Develop research partnerships training, including workshops and consultations • Create a comprehensive suite of resources for UTM researchers and external partners that will be hosted on a new Partnerships webpage	• Increased number of citations of UTM researchers • Increased number of international collaborations • Increased number of start-ups launched from UTM labs
Support researchers in conceptualizing, identifying, securing, and formalizing external research partnerships	• Connect with individual researchers and priority research initiatives to support partnership development from conceptualization through execution and project completion • Engage in external outreach to showcase UTM's research capacity	• Increased external partnership engagement by UTM researchers • Increased number of partnership-focused grant applications, resulting in increased funding
Collaborate with UTM community on sustainability research endeavours	• Work with UTM's Sustainability Office to implement their strategic goals • Connect researchers with available sustainability research resources at U of T	• Successful implementation of goals outlined in the Sustainability Office's strategic plan • Increased participation across UTM on inter-disciplinary and trans-disciplinary sustainability research
Grow Indigenous research engagement	• Guide researchers through Indigenous engagement resources at U of T, communicating when and how to leverage each resource • Work with UTM's Office of Indigenous Initiatives and VPRI to continue to answer calls to actions 20, 21, and 22 of Wecheehetowin on Indigenous research ethics and community relationships	• Increased interactions by UTM researchers with U of T's Indigenous engagement support offices • Increased Indigenous engagement by UTM faculty for research

SHARE KNOWLEDGE

Success Statement: By expanding our communications reach and by showcasing the work and impact of our diverse research community, the OVPR will connect with university, community, and international audiences — which, in turn, will elevate UTM's research profile and present exciting opportunities for new partnerships, philanthropic investments, and knowledge translation.

Goals	Actions	Outcomes
Inform our community about resources, events, and opportunities, establishing our office as a 'go-to' resource for all things research at UTM	• Improve the OVPR website architecture, using best practices to optimize content and user experience • Expand the OVPR's social media platforms and grow following and user engagement • Boost research newsletter subscribers	• Better site navigation with enhanced ease of access to relevant resources and support • Increased following across all platforms, content sharing, and user engagement
Showcase UTM's research and impacts and increase visibility of achievements across owned and earned media channels	• Help inform and implement research-focused components of UTM's integrated marketing and communications strategy • Partner with and provide researchers with resources, consultations, and support in sharing their work both internally and externally	• Increased collaboration with and sharing of strategic communication activities across university portfolios • Wider knowledge mobilization, strengthening UTM's global research reputation and profile
Implement robust systems to measure and expand our communications activities and to ensure we share our work transparently with our community	• Use OVPR's Annual Report to assess and share research strengths, accomplishments, and successes • Use analytics to measure web traffic, social media engagement, story reach, event attendance, and newsletter activities	• Wider reach and a more transparent look at how our office is working to support research at UTM • Greater understanding of how our communications activities are helping us to engage our audiences, allowing us to see what works, test new ideas, and pivot when required

LOOKING FORWARD

With the steady pace of new initiatives, collaborations, and opportunities emerging across UTM, it is essential that we be flexible; we've designed this Framework to be both structured and agile, enabling us to adapt our planning as research practices and the needs of our community evolve. Each year, the OVPR will review this strategy, assess priorities, and update the Framework as required. Research goals and outcomes will be tracked accordingly and incorporated into our annual research report.

Importantly, we will remain committed to building bridges with our research partners across the University. With planning for U of T's 2024–2029 Institutional Strategic Research Plan (IRSP) underway, we are pleased to continue working with members of our tri-campus research community and contributing to the University's strategic priorities.

We hope that the activities outlined in our Framework will complement these efforts and positively impact the research and innovation taking place across our campus — enabling our people, communities, and environments to thrive.