

JANUARY 2025

WATERLOO | ENGINEERING

STRATEGIC PLAN **WHERE EXCELLENCE THRIVES** 2025-2030

uwaterloo.ca/engineering-strategic-plan



UNIVERSITY OF
WATERLOO

LAND ACKNOWLEDGEMENT

WATERLOO ENGINEERING ACKNOWLEDGES THAT WE SHARE KNOWLEDGE ON LAND THAT HAS SEEN HUMAN ACTIVITY FOR THOUSANDS OF YEARS. WE RESIDE ON THE TRADITIONAL TERRITORIES OF THE NEUTRAL, ANISHINAABEG AND HAUDENOSAUNEE PEOPLES. WE HAVE DEEP GRATITUDE AND APPRECIATION FOR THE CARE THEY HAVE GIVEN TO THIS LAND.

OUR WATERLOO AND CAMBRIDGE CAMPUSES ARE SITUATED ON THE HALDIMAND TRACT, THE LAND GRANTED TO THE SIX NATIONS THAT INCLUDES SIX MILES ON EACH SIDE OF THE GRAND RIVER. AS ENGINEERS AND ARCHITECTS, WE ARE COMMITTED TO MEANINGFUL ACTION TOWARDS TRUTH AND RECONCILIATION; IT IS ONLY THROUGH THIS PROCESS THAT WE CAN WORK TOWARDS BUILDING A BETTER FUTURE FOR GENERATIONS TO COME.



DEAN'S MESSAGE

I'm excited to share our future vision for the University of Waterloo's Faculty of Engineering – a vision that's all about elevating our already exceptional Faculty to new heights, together.

WHY WE STRATEGIC PLAN

In today's rapidly changing world, institutions like ours must have a clear and forward-thinking strategic plan. Strategic planning helps us navigate challenges, seize new opportunities, and stay true to our core mission. It's a way for us to align resources, energy, and efforts toward shared goals, ensuring that we're not just reacting to changes but actively shaping the future we want to see. By planning thoughtfully, we can continue to innovate, lead and make a meaningful impact on the world around us.

WHY WE ARE CREATING THIS PLAN

Over the past year, we've closely engaged with our community – students, faculty, staff, industry partners, and alumni. Their invaluable insights have underscored one clear fact: our Faculty's strengths are unparalleled. Our core principles of experiential education via our award-winning co-op program, research excellence, and entrepreneurial spirit are the bedrock of our identity. These values continue to shape our reputation as a global leader, attracting bright and ambitious minds eager to make a difference.

Reflecting on the achievements of our last five-year plan – from new opportunities for graduate studies and world-class research facilities to a stronger sense of community (all while navigating a pandemic!) – we are inspired to envision how we can further build on our historical excellence while addressing the needs of the future.

With the Waterloo at 100 strategic framework as our guide, I'm confident that our talented students, faculty and researchers are not just capable but ideally situated to solve our world's most urgent societal, health, sustainability, technological, and economic needs.

SO, WHAT'S NEXT?

I'm delighted to introduce "Where Excellence Thrives", our strategic vision for 2025-2030. Rooted in the strength of our diverse community, this plan focuses on the core elements that fuel our global leadership in teaching and research. More than a guide, it's an inspiring reflection of our collective vision and values – community, responsibility, innovation, and excellence.

What we do now matters. By committing to this strategic vision, we will equip our graduates, faculty, staff, and researchers to lead the way in a rapidly changing world, empowering them to make a lasting, positive impact on the future.

Sincerely,

Mary Wells

DEAN WELLS



OUR ASPIRATION

Waterloo Engineering will draw upon our roots in excellence, entrepreneurship, and innovation to lead society in meeting the generational challenges facing humanity and the natural world. Together, we will connect our knowledge, curiosity, and ambition to build a better future for all.



OUR VALUES

COMMUNITY

WE FOSTER A SUPPORTIVE, INCLUSIVE, AND COLLABORATIVE ENVIRONMENT

INNOVATION

WE CONTINUOUSLY SEEK OUT SOLUTIONS TO THE CHALLENGES FACING OUR WORLD

RESPONSIBILITY

WE MAKE A MEANINGFUL AND POSITIVE IMPACT ON SOCIETY AND THE LAND

EXCELLENCE

WE STRIVE FOR THE HIGHEST STANDARDS WITH HUMILITY AND INTEGRITY

GRADUATES

EMPOWER THE NEXT GENERATION
TO TRANSLATE LEARNING
INTO LEADERSHIP FOR A
PROSPEROUS FUTURE

KNOWLEDGE

TRANSFORM OUR CURIOSITY
AND AMBITION INTO GLOBAL
IMPACT FOR PUBLIC GOOD



STRATEGIC THEMES

CULTURE

CREATE A CULTURE THAT WELCOMES
DIVERSE PERSPECTIVES TO SHAPE
THE COMMUNITIES WE SERVE

CAMPUS

BUILD A CAMPUS ENVIRONMENT
THAT INSPIRES CONNECTION,
SUSTAINABILITY, AND INNOVATION



CULTURE

We will foster an environment of collaboration and community that empowers our faculty, staff, and students to reach their full potential. By creating an ecosystem where teamwork and mutual understanding are paramount, we want everyone to thrive personally and professionally. Together, we contribute to a vibrant, financially sustainable, and innovative community.



PRIORITY A

THRIVING INTELLECTUAL COMMUNITY

- › Cultivate a culture of personal and collective excellence amongst students, staff, and faculty
- › Provide an environment that empowers people to be bold and innovative
- › Support the mental and physical well-being of our students, staff, and faculty
- › Be a trusted source of scientific and technical knowledge and design

PRIORITY B

INCLUSIVE INNOVATION AND LEARNING

- › Understand and improve our Indigenous relations
- › Foster a respectful community that values curiosity and the diversity of ideas
- › Establish accessible and barrier-free opportunities to engineering, architecture and entrepreneurship education



PROGRESS INDICATORS

EMPLOYEE AND STUDENT
SURVEY RESPONSES:
SENSE OF EMPOWERMENT

STUDENT EXPERIENCE
SURVEY: INDIGENOUS
LEARNING ACTIVITIES

STUDENT EXPERIENCE
SURVEY: I AM RESPECTED
FOR WHO I AM

EMPLOYEE ENGAGEMENT
SURVEY: COLLABORATION

PRIORITY C

ONE FACULTY OF ENGINEERING

- › Effectively use our spaces to reflect the changing and diverse needs of our community
- › Implement digital solutions to enhance student experience and administration functions
- › Build communities of practice amongst our administrative and technical services teams

GRADUATES

UNDERGRADUATE STUDENTS

Waterloo Engineering remains the destination of choice for the next generation of global leaders. For our undergraduate students, we will expand exposure to cutting-edge research, interdisciplinary collaboration, and a deeper understanding of the connection between technology and society.



PRIORITY A

CONNECT STUDENTS TO RESEARCH

- › Develop high-impact learning activities related to research for the classroom
- › Connect high-potential senior students to research opportunities
- › Expose first-year students to research at Waterloo
- › Build pathways and incentives for undergraduate students to pursue a graduate degree

PRIORITY B

ENRICH STUDENT'S ACADEMIC LIFE

- › Rightsize and regularly refresh our curriculum to provide students with more flexibility and choice
- › Increase opportunities for students to have a global experience
- › Expand opportunities to participate in interdisciplinary design and capstone teams that connect to generational challenges



PROGRESS INDICATORS

STUDENT SURVEY
RESPONSES: CONNECTING
LEARNING TO REAL-
WORLD PROBLEMS

STUDENT PARTICIPATION
IN GLOBAL EXPERIENCES

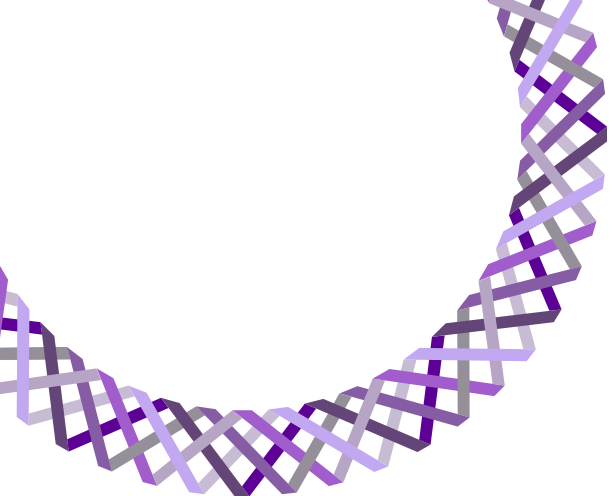
STUDENT EXPERIENCE
SURVEY: EXPOSURE
TO RESEARCH

STUDENT EXIT SURVEY:
CO-OP SATISFACTION

PRIORITY C

IMPROVE CO-OP EXPERIENCES

- › Improve the student co-op experience from application to graduation and beyond
- › Increase co-op employment in the not-for-profit and public services sectors
- › Increase opportunities for return co-op employment, including longer work terms



GRADUATES

GRADUATE STUDENTS

Waterloo Engineering attracts the brightest minds and unleashes their potential. For our graduate students, we will forge stronger connections to entrepreneurship, work-integrated learning, and comprehensive career preparation.



PRIORITY D

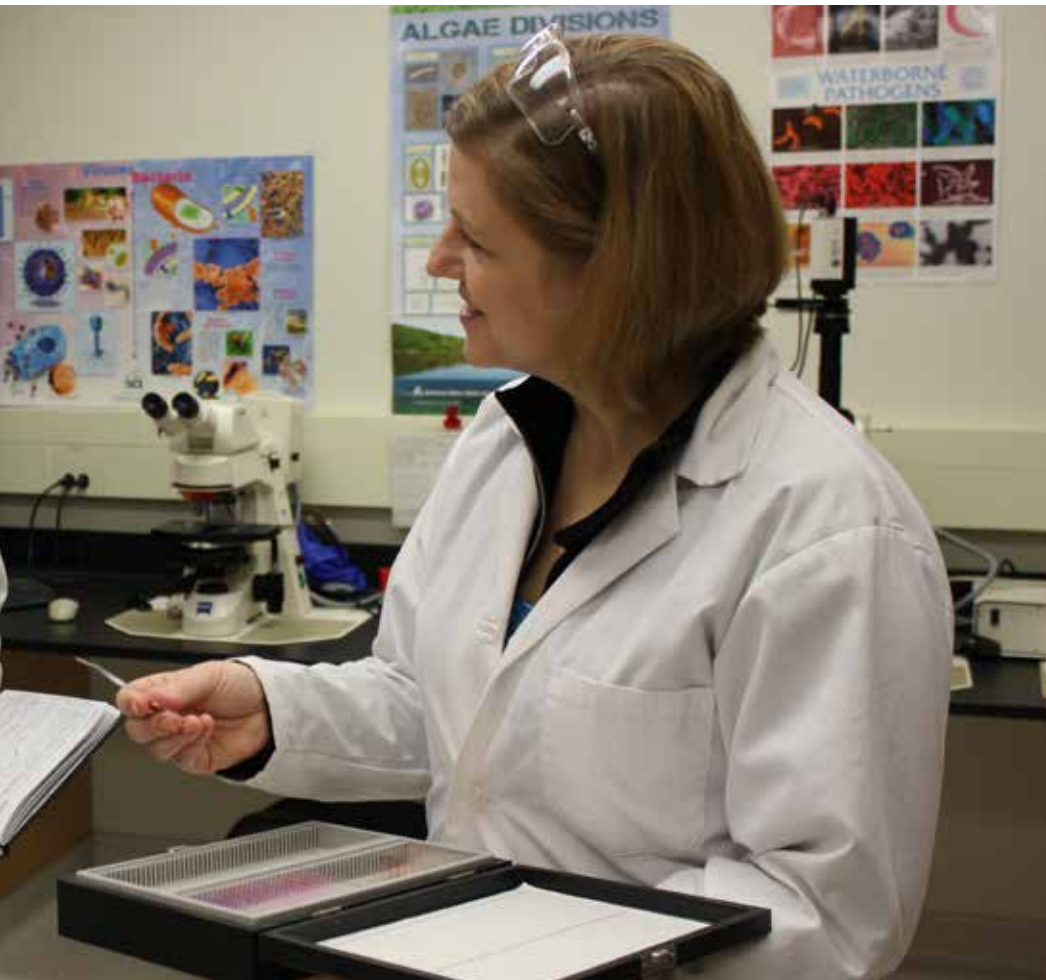
ENHANCE RESEARCH GRADUATE PROGRAMS

- › Increase the opportunities for professional and leadership development
- › Offer more work-integrated learning opportunities
- › Diversify and improve financial support

PRIORITY E

STRENGTHEN COURSE-BASED MASTERS PROGRAMS

- › Create new interdisciplinary academic programs to meet industry needs
- › Improve quality and quantity of MEng co-op opportunities
- › Pursue an online learning strategy, where appropriate, to expand the reach of our programs



PROGRESS INDICATORS

GRADUATE
STUDENT INTAKE

MENG CO-OP
OPPORTUNITIES

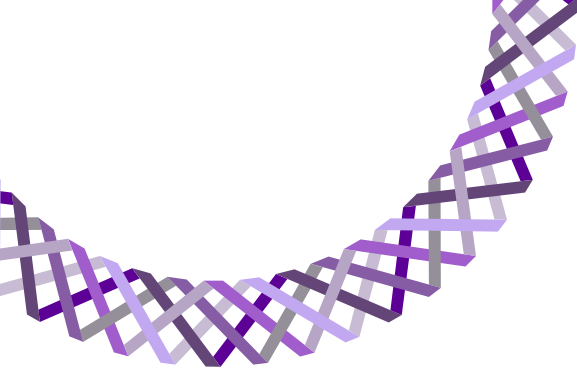
GRADUATE STUDENT
EXPERIENCE SURVEY:
ACADEMIC AND
PERSONAL DEVELOPMENT

GRADUATE STUDENT
EXPERIENCE SURVEY:
ENTREPRENEURSHIP

PRIORITY F

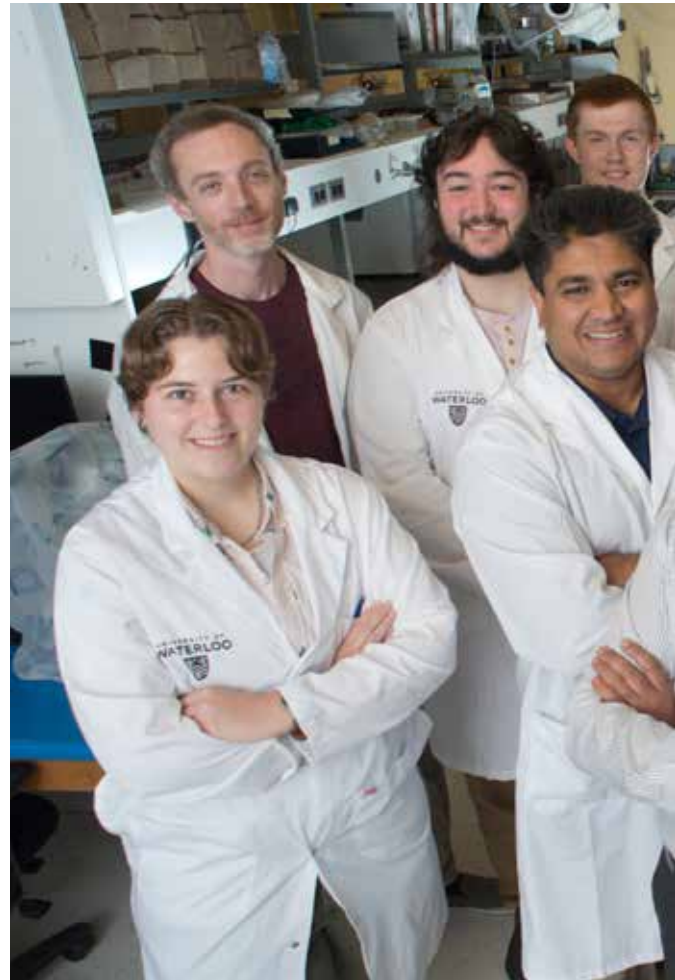
ENTREPRENEURSHIP OPPORTUNITIES

- › Develop educational opportunities for graduate students to engage in entrepreneurship
- › Connect graduate students to seed funding to support research-initiated ventures
- › Grow fellowships to earn a part-time MBET degree while pursuing a PhD



KNOWLEDGE

Cultivating knowledge with global impact remains a cornerstone of our vision. We will enhance our research funding, broaden our influence, and forge partnerships aligned with local and global priorities. We will achieve this by strengthening interdisciplinary innovation across Waterloo's Global Futures, engaging our alumni network and reinforcing public trust in research.



PRIORITY A

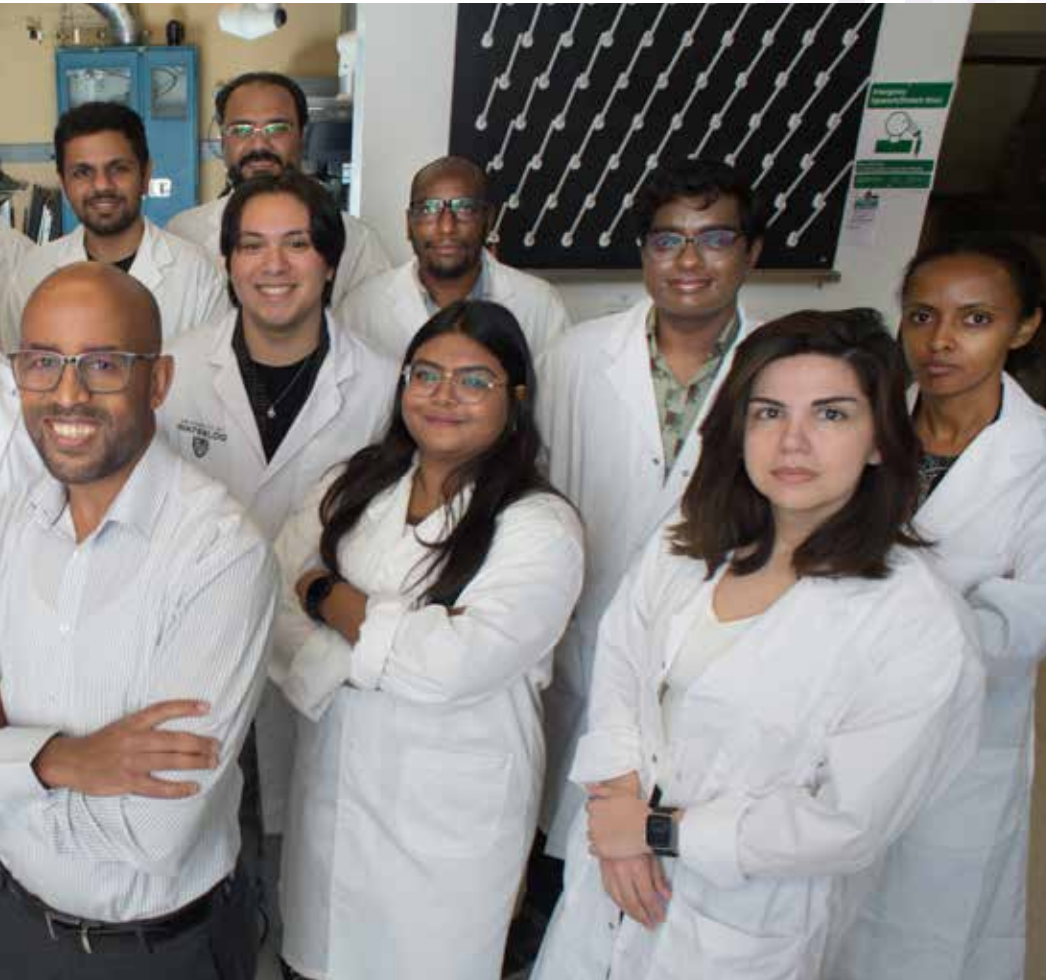
CELEBRATE OUR KNOWLEDGE AND ITS IMPACT

- › Communicate our expertise in inter-connected themes across Waterloo's Global Futures
- › Share our research through approachable mediums to reach a broader audience
- › Elevate the visibility and prominence of unique infrastructure and capabilities

PRIORITY B

EXPAND RESEARCH IMPACT

- › Inspire interdisciplinary connections across disciplines and institutions to create scalable impact
- › Support research for the public good through our Engineering Research Impact Fund
- › Grow and diversify our research funding with support from the public sector, industry connections and philanthropic leaders
- › Ensure our research resources are effectively and equitably used and managed



PROGRESS INDICATORS

RESEARCH FUNDING
PER TENURE STREAM
FACULTY MEMBER

ACADEMIC RANKINGS
(QS, AWRU)

WATERLOO ENGINEERING
RESEARCH STORIES:
MEDIA IMPRESSIONS

INCREASE IN GRADUATE
STUDENT ALUMNI
CONNECTIONS

PRIORITY C

DEEPEN ALUMNI ENGAGEMENT

- › Increase mentorship opportunities between student leaders, design team members, and their alumni counterparts
- › Learn from our vibrant network of alumni to enhance our programs and bolster student career success
- › Strengthen engagement with graduate student alumni



CAMPUS

Our campus is the heart of Waterloo Engineering, where cutting-edge facilities, collaborative spaces, and a vibrant community drive innovation. We are dedicated to enhancing our infrastructure to support interdisciplinary research, inclusive learning, and connections among students, employees, and industry. Our campus is more than a place of learning – it is where ideas thrive and engineering, architecture and entrepreneurship meet societal challenges.



PRIORITY A

BUILD COMMUNITY

- › Create more “third spaces” to enhance connection and social engagement
- › Inspire curiosity and creativity by infusing our spaces with art, nature, and history
- › Invest in experiential learning spaces where students, faculty and staff can collaborate

PRIORITY B

FACILITY ENHANCEMENTS

- › Develop and execute carbon reduction initiatives
- › Leverage faculty research expertise to improve the environmental impact of our spaces
- › Strategically invest in our current spaces and equipment
- › Ensure our facilities are accessible to all people



PROGRESS INDICATORS

EMPLOYEE AND
STUDENT SURVEYS:
SENSE OF BELONGING

SEED FUNDING
FOR ENGINEERING 8

PARTICIPATION IN
SUSTAINABILITY OFFICE
LED ACTIVITIES

PRIORITY C

PLAN FOR ENGINEERING 8

- › Focus building plans on innovations at the intersection of health, humanity and technology
- › Align Engineering 8 with Waterloo's Campus Plan

CONSULTATION PROCESS

Over the past year, we gathered vital feedback from our community.

The Engineering Planning Committee (EPC) was instrumental in crafting a strategic planning process that balanced top-down and bottom-up approaches. We were inspired by Waterloo at 100 as our guiding framework, while our Academic and Administrative units shared their priorities through, workshops, surveys, and working groups.

We deployed a consultation survey to all employees and students, inviting detailed responses for a deeper understanding of shared priorities. To foster ongoing dialogue, we created a “What We Are Hearing” document summarizing community feedback, which was shared in consultation sessions. This feedback provided clear guidance for our strategic direction.

After reviewing strategic plans from both Academic and Administrative Units, we compiled the final Faculty priorities and presented them to external reviewers through the Deans Advisory Council. Our strategic planning process has been a collaborative effort to solidify our shared vision.



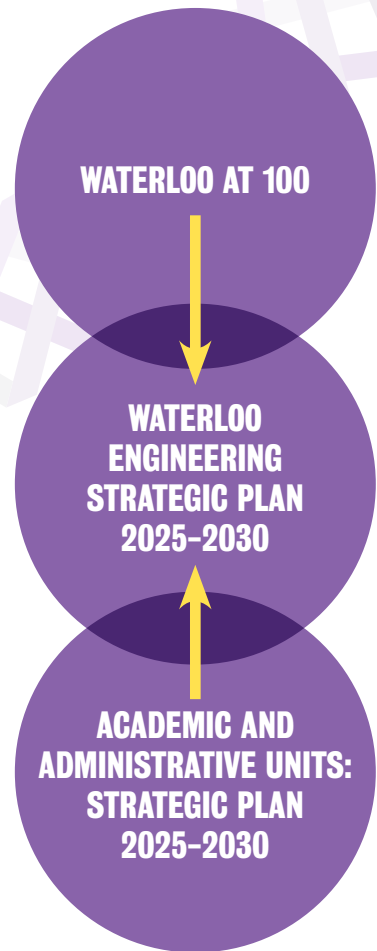
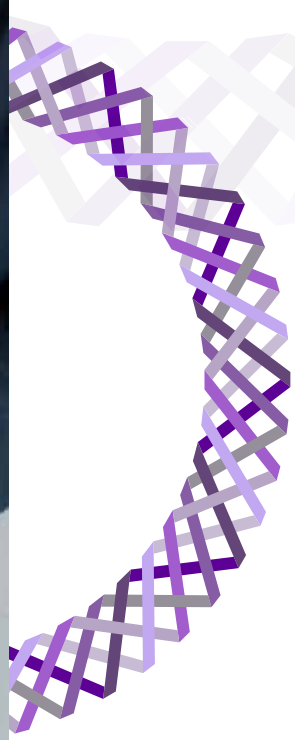


CONNECTION TO WATERLOO AT 100

Waterloo at 100 provides the long-term strategic vision of our institution.

Using it as a guide, Waterloo Engineering developed a five-year strategic plan to take steps towards the institution's long-term vision.

We embrace the University of Waterloo's values and vision and with confidence we will move together as One Waterloo to 2057.





**MOVING
FORWARD
TOGETHER**



NEXT STEPS

The work does not stop now – in fact it has just begun. We will hold ourselves accountable to implement our ambitious goals. Academic and administrative leaders will collaborate with their respective units to ensure its successful integration within their departments. Together, we will work as One Faculty, united by the guiding framework outlined in our strategic plan, as we move towards our goals for 2030.

ANNUAL UPDATES

Annual progress reports will be generated to track our performance against the measures outlined in the strategic plan. These reports will be presented by the Dean at the Engineering Faculty Council, highlighting the year's activities and their alignment with our strategic objectives.

CONTINUED CONSULTATION

Consultation does not stop.

Regular engagement, experience, and wellness surveys will be leveraged to inform the implementation of our plan.

Dean Wells will continue to connect with students through weekly Coffee and Conversations to hear concerns and suggestions.

Feedback will be regularly welcomed from meetings with the Engineering Faculty Council, Dean's Staff Advisory Council, and the Dean's Advisory Council.

We will continue to face challenges and opportunities together and the input from our community will help inform a nimble implementation of our strategic plan 2025-2030.



ADDITIONAL RESOURCES

UNIVERSITY OF WATERLOO STRATEGIC PLAN

uwaterloo.ca/waterloo-100

FACULTY OF ENGINEERING STRATEGIC PLAN

uwaterloo.ca/engineering-strategic-plan

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