

UNIVERSITY OF WATERLOO
STRATEGIC PLAN 2013

A DISTINGUISHED PAST — A DISTINCTIVE FUTURE



UNIVERSITY OF
WATERLOO



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A DISTINGUISHED PAST — A DISTINCTIVE FUTURE

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A distinctive **FUTURE**


The world beckons. For a fast-evolving globe, where the pace of emerging challenges often outstrips available answers, conventional approaches to higher education, innovation and discovery are no longer enough.

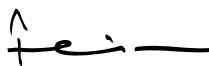
Answering that call requires **a bold and unconventional approach** — one that combines deep knowledge, extraordinary research, broad-based experience and academic excellence. It requires interdisciplinary approaches and a single-minded and forward-looking focus on advancing knowledge and meeting society's needs.

Without hesitation, the University of Waterloo accepts this challenge.

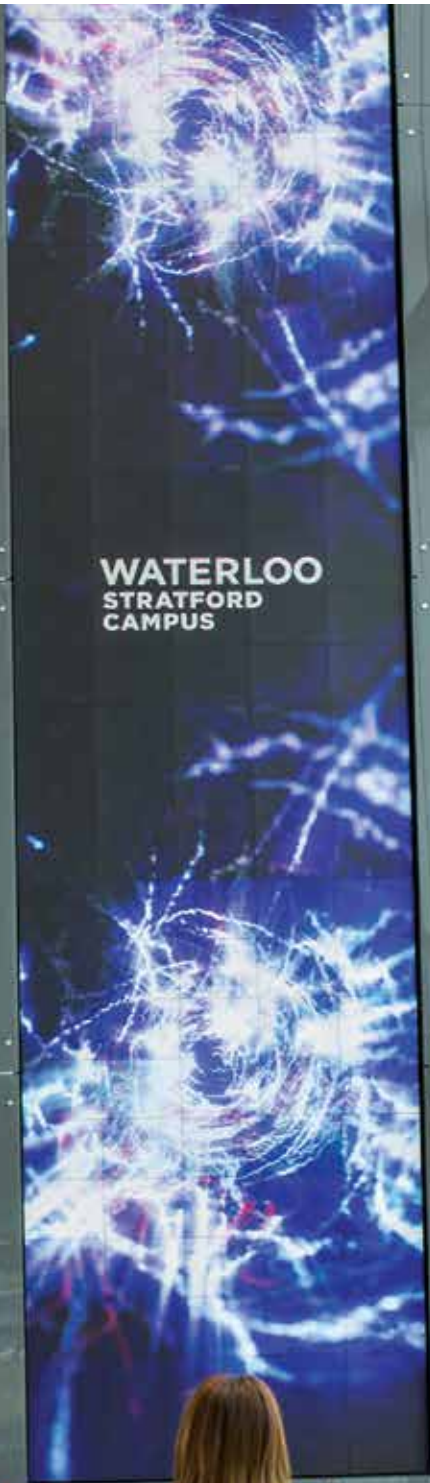
Waterloo is the right institution at the right time. **Waterloo's Strategic Plan** charts a distinctive course for an institution defined by our distinguished past. It builds on the traditions of excellence established by our founders, with a clear view of where energy and resources must be focused in order to achieve our full potential as a world leader in higher education. It will be anchored by an accountability framework that measures and monitors progress towards our ambitious but achievable goals.

Over the next five years, building on foundational strengths and propelled by the promises outlined in this strategic plan, **we will answer the call of society and emerge as one of the world's top innovation universities.**

This plan is the collective vision of our campus community and partners, based on consultations and feedback from hundreds of our students, faculty, staff, alumni and stakeholders. **This is our strategic plan, and we each have a vital role to play in its ultimate success.** 

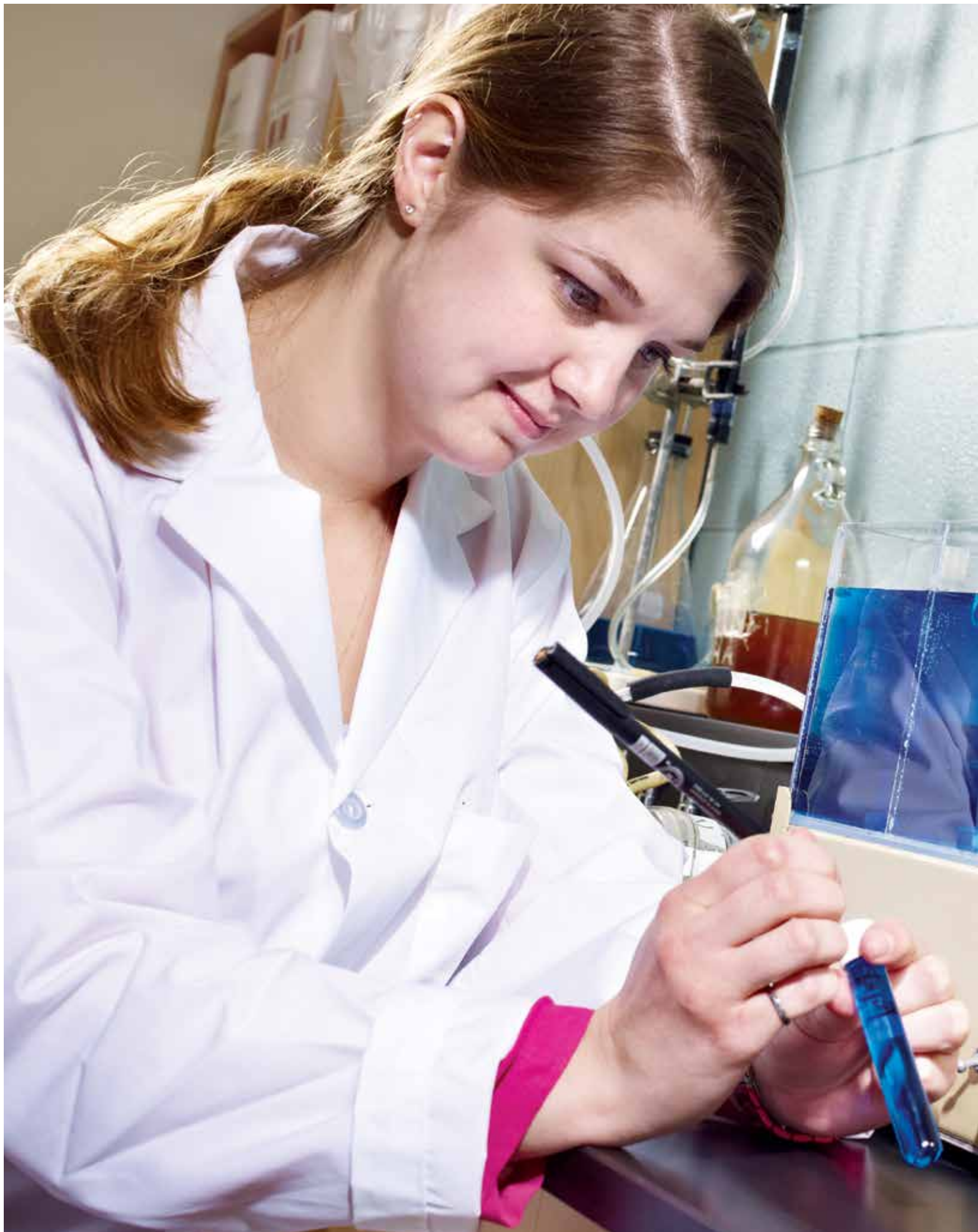


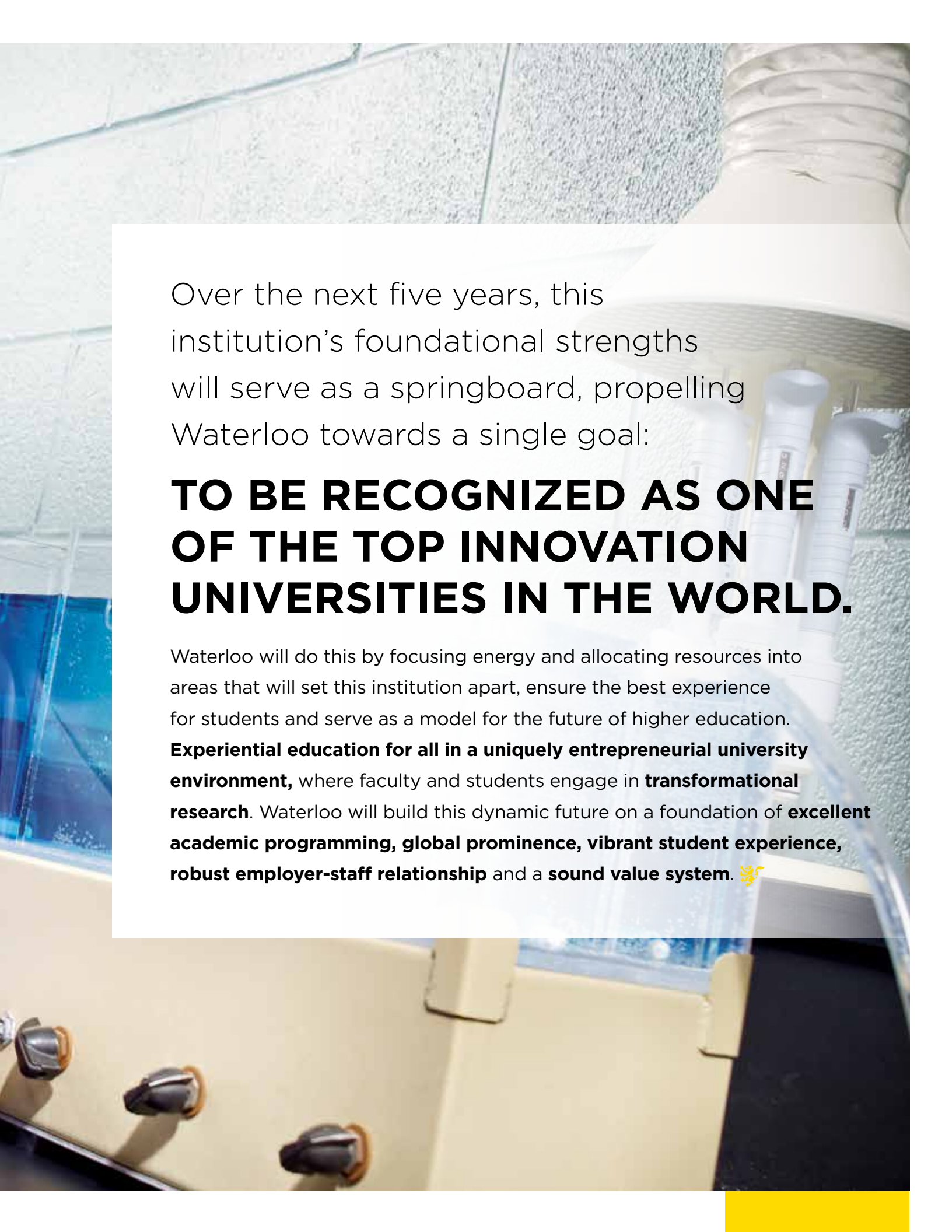
FERIDUN HAMDULLAHPUR
President and Vice-Chancellor, University of Waterloo



**WATERLOO
STRATFORD
CAMPUS**





A laboratory setting with a microscope, pipettes, and a beaker of blue liquid.

Over the next five years, this institution's foundational strengths will serve as a springboard, propelling Waterloo towards a single goal:

TO BE RECOGNIZED AS ONE OF THE TOP INNOVATION UNIVERSITIES IN THE WORLD.

Waterloo will do this by focusing energy and allocating resources into areas that will set this institution apart, ensure the best experience for students and serve as a model for the future of higher education.

Experiential education for all in a uniquely entrepreneurial university environment, where faculty and students engage in **transformational research**. Waterloo will build this dynamic future on a foundation of **excellent academic programming, global prominence, vibrant student experience, robust employer-staff relationship** and a **sound value system**. 🦋

A distinguished **PAST**

The University of Waterloo was founded in the aspirational era following the Second World War, a time when the world was rapidly rebuilding and racing **to create a new and better future.** New industries and technologies were emerging, with space seen as the new frontier.

A UNIQUE APPROACH TO HIGHER EDUCATION

Sophisticated practical skills were urgently needed, and **Waterloo's unique approach to higher education was seen as the solution to this growing societal need.** The mission was to educate graduates with impeccable academic knowledge and the ability to fast track into employment, a skill derived from work terms in their chosen field. **Co-operative education** started in 1957 in engineering, then spread to science and mathematics, and subsequently to all other Faculties.

AT THE HEART OF A TECHNOLOGY REVOLUTION

Recognizing the value of early computers as a teaching and research tool, Waterloo was an early adopter of the technology, and on the vanguard of the information age. Starting in the 1960s, **information technology innovations flourished** at the university, including WATFOR and WATFIV, early FORTRAN compilers that revolutionized efficient compilation and put Waterloo's computer science program on the international map. From there, Waterloo developed globally recognized high-technology expertise, which fuelled significant economic spin-offs. The growth of many start-up companies helped earn the region around the university a reputation as the "Silicon Valley of the North."

A CULTURE OF INNOVATION AND CONNECTION

Springing from Waterloo's unique history is a strong culture of innovation and a can-do attitude in its students, faculty and staff. A tradition of incorporating relevance and applicability into teaching and research programs is inspired by Waterloo's longstanding commitment to meet the intellectual and practical challenges that arise from societal change. **A strong track record of engagement with industry** — evolving from co-op and continuing through its research programs — fosters an innovative and entrepreneurial culture.

SERVING A FAST-CHANGING SOCIETY

A singularly powerful and long-standing principle of the University of Waterloo is to anticipate the needs of society and respond effectively as challenges arise. This principle was a key motivator behind both the founding of this institution and its early commitment to creative thought, applied knowledge and experiential learning. Waterloo looks to the future with energy, enthusiasm and commitment to its core strengths, while identifying key new areas of discovery, innovation and application that **will further elevate its reputation as a research powerhouse offering superior quality education.**




Charting a course for **GROWTH**

Responding to the challenges of rapidly changing social, environmental and economic conditions, the university has embarked on a **comprehensive strategic planning process** in order to identify new opportunities to serve society as effectively as possible, further **advancing its reputation for excellence, innovation and relevance.**

STAYING TRUE TO THE MISSION

Waterloo's mission is charted in the University of Waterloo Act as “the pursuit of learning through scholarship, teaching and research within a spirit of free enquiry and expression.” Over the last several years, the university has been guided in this mission by the Sixth Decade Plan, formulated in 2006. At the midway juncture, a review of its goals and objectives was undertaken in the light of changing world conditions. The Mid-cycle Review involved a series of wide-ranging consultations with key stakeholder groups — students, faculty, staff, alumni, donors and selected community leaders.

The review highlighted priorities for the next five years that build on the university's foundational pillars: academic excellence, research excellence and impact, co-operative education, graduate studies, internationalization and entrepreneurship. 


MID-CYCLE REVIEW CONSULTATIONS INCLUDED:



40 MEETINGS
with over **60**
groups of **students, faculty, staff, alumni** and **community leaders**

ONLINE SURVEY
2449 RESPONSES

- 1199** » undergraduate students
- 288** » graduate students
- 228** » faculty
- 346** » staff
- 88** » alumni
- 300** » undeclared role




75
stakeholder group representatives

Waterloo's distinct **ADVANTAGE**

Profound change — occurring at breakneck speed — is a defining characteristic of this era.


Institutions that aspire to greatness must eagerly embrace change. In the future, successful universities will be defined by the ability to meet emerging challenges. In this regard, **Waterloo will add to its record of success by mobilizing its strengths — research and scholarship and purposeful in-depth teaching and learning** — in new ways and with a clear and accurate understanding of the world.

Relevance is defined in global terms, not regional or national. **Impact is measured against higher standards** not just of academic learning, but also of contribution to society's well-being. **This is where Waterloo excels** and will continue to do so with unwavering commitment.

Over the next five years, this institution's foundational strengths will serve as a springboard, propelling Waterloo towards a single goal: **to be recognized as one of the top innovation universities in the world.** 







Over the next five years, inspired
by our culture of innovation,

WATERLOO WILL

- » Transform education and economies
with **experiential learning for all**
- » Build its reputation as **a uniquely
entrepreneurial university**
- » Change lives and advance industries
through **high-impact, highly-relevant
research**



EXPERIENTIAL EDUCATION FOR ALL

GOAL »»

Be the world-leading university in co-op education and other forms of experiential and work-integrated learning

Whether enhanced by research opportunities or real-world experience, Waterloo is proof **that higher education can't — and shouldn't — be constrained by classroom walls.** As the pioneer and the world's leading provider of post-secondary co-operative education, Waterloo has long recognized **that learning is stronger when knowledge is tried and tested.** Experience-based learning produces **graduates that are uniquely employable** — ready to not just fill jobs, but to lead.

OVER THE NEXT FIVE YEARS »»

Waterloo will take co-operative education to the next level, making experiential education an integral part of the way all students learn. Embracing new and emerging technologies, **Waterloo's unique brand of education will reshape lifelong learning for students on and beyond its campuses.** Recognizing the value of broad experiences in a global economy, **Waterloo will increase opportunities for international work-terms, exchanges and research opportunities.**

BACKGROUND »»

Co-operative education programs at Waterloo have undoubtedly been one of the most powerful incentives that draw students to the university. In blending alternating intervals of academic learning on campus with periods of experiential learning as an employee, the student is given a full and relevant educational experience. The graduating co-op student thus has a comprehensive understanding of how an organization works and what it requires of an employee, which proves to be a valuable attribute in acquiring employment upon graduation.

WORLD-READY GRADUATES

As a truly global institution, Waterloo offers a wide range of international learning opportunities and experiences, and educates graduates who are at home in a culturally diverse environment and knowledgeable about its attributes.

THE FUTURE OF CO-OPERATIVE EDUCATION

Waterloo can rightfully boast the largest co-op education program of any university in the world. The university intends to widen the learning experience to include work-related activities, wherever the activity offers a genuine learning experience of a work situation. Included in this type of experiential learning will be entrepreneurial pursuits, clinical internships and practicums required in programs such as psychology, social work and optometry; and community service and fieldwork activities which expose the student to the practical application of academic theory.

PRIMARY OBJECTIVES

- » Educate outstanding and world-ready graduates whose skills are in high demand globally
- » Enlarge the resource base of professionally credentialized and/or discipline-relevant employers
- » Achieve a closer integration of research opportunities and co-op work terms
- » Expand experiential learning to include service-based activities and international programs

SUPPORTING ACTIONS

- » Enhancing the interaction between the university and the co-op employer base
- » Integrating more effectively the outcome of a student's work term into the student's academic program
- » Increasing opportunities for students' first work terms
- » Increasing awareness of the value of co-op and other forms of experiential learning among potential students, employers and external audiences
- » Increasing the number of research-oriented work terms
- » Expanding and supporting work term opportunities internationally
- » Expanding the employer recognition (appreciation) program
- » Improving opportunities for co-op employers and students to have input into the co-op process
- » Developing professional skills courses to benefit non-co-op undergraduate students
- » Using alumni networks to expand co-op work term opportunities
- » Creating an organizational framework to promote, develop, implement and manage the use of experiential learning
- » Creating student mobility programs that utilize the best universities and practices in the world in support of academic exchange, international service learning, field programs and international co-op placements

A UNIQUELY ENTREPRENEURIAL UNIVERSITY

GOAL »»

Solidify Waterloo's global leadership in all forms of entrepreneurship education and practice

Entrepreneurship at Waterloo isn't business as usual — extending from its classrooms to global communities, from research labs to innovative startups, it's **a spirit defined by a burning desire to make things better**. Entrepreneurial spirit is part of Waterloo's DNA, from long-standing **intellectual property policy that ensures creators retain control of their ideas** to the **networks of support and mentorship** that enable the commercialization of socially relevant research. Waterloo embraces entrepreneurial approaches in teaching, learning and scholarship — **educating, inspiring and employing people who lead change**.

OVER THE NEXT FIVE YEARS

Waterloo will lead Canada's innovation agenda and aspire to be recognized as **a uniquely entrepreneurial university**. This institution **will enable national and international conversations as host of an international leadership summit** and increase opportunities for entrepreneurial learning and activity. Waterloo's innovative approaches to technology, social innovation and social entrepreneurship will create recognizable impact — **fuelling economic growth and improving the human condition**.

BACKGROUND

Innovation in teaching, research and scholarship, and experiential learning — best exemplified by co-op education — are longstanding pillars of this institution. Together they have underpinned Waterloo's distinctive success in entrepreneurial pursuits. Waterloo is uniquely placed among universities to address the growing societal need for both commercial and non-commercial knowledge discovery and entrepreneurial output.

ENTREPRENEURIAL APPROACHES TO EDUCATION

Entrepreneurship is promoted both in academic programs and in practice at Waterloo. The university offers a unique graduate degree in the subject through the Conrad Business, Entrepreneurship and Technology Centre. The centre also manages a rapidly growing Enterprise Co-op program combining academic student and entrepreneurship work terms, which has seen a 10-fold increase in undergraduate demand in the last three years. At the undergraduate level, Waterloo takes an unconventional approach to Business education by linking it to specific disciplines as in degree programs including: Arts and Business, Environment and Business, Computer Science and Business Administration, Recreation and Business and Science and Business. The latest addition to these binary degrees is Recreation and Sports Business. Waterloo's co-op program is perhaps the most fruitful educational format for new practical

knowledge and product development, as work term opportunities allow students to observe and participate in innovation in the marketplace or laboratory.

AN ENTREPRENEURIAL ECOSYSTEM

Waterloo has created a vibrant ecosystem of entrepreneurship within the university. Entrepreneurial practices are encouraged and range from start-ups devised by student innovators, to radical knowledge discovery in the fields of quantum computing and nanotechnology that promise new applications in the industrial arena. Student entrepreneurship, which has tended to focus on software development, is nurtured in the living-learning environment of VeloCity, and operationalized in the start-up space at VeloCity Garage. For students, faculty and staff ready to bring their innovation to market, the University of Waterloo Commercialization Office (WatCo) can assist in developing patents and identifying sources of venture capital. The new Accelerator Centre at Waterloo's Stratford Campus provides mentorship, educational programs and support services to local start-up companies in the field of technical and digital media. In addition to its leadership in promoting technological innovation, Waterloo is also a catalyst for social innovation and social entrepreneurship through the Waterloo Institute for Social Innovation and Resilience, the Waterloo Institute for Complexity and Innovation and its partnership with the Centre for International Governance Innovation.

CREATOR-OWNED INTELLECTUAL PROPERTY POLICY

Intellectual property and commercialized innovations originating from students, faculty or staff remain the property of the innovator and not the university. This policy, which is not typical of the academic world, has proven to be a key factor in the vibrant growth of entrepreneurship at Waterloo. Waterloo's enduring search for innovation and relevance has produced a culture of entrepreneurship. This unique culture now promises to become a truly defining characteristic of Waterloo's future profile.

PRIMARY OBJECTIVES

- » Enhance student opportunities to participate in entrepreneurial activities
- » Build relationships and generate opportunities with the regional entrepreneurial community
- » Advance commercialization and other forms of utilization of leading-edge entrepreneurial research and intellectual property
- » Promote innovation and entrepreneurship that spans a wide range of needs, including social, political, health, environmental and technological
- » Make entrepreneurship a key element of the Waterloo brand

SUPPORTING ACTIONS

- » Increasing the number of students who participate in entrepreneurial work opportunities as part of experiential learning
- » Supporting entrepreneurial activities leading to start-up company creation
- » Facilitating student, faculty and staff entrepreneurship in a broad range of fields, including social entrepreneurship (not-for-profit)
- » Encouraging, supporting and promoting student, faculty and staff entrepreneurship
- » Encouraging research into entrepreneurship
- » Developing learning opportunities to address entrepreneurship in relevant courses
- » Strengthening entrepreneurship linkages with co-op education
- » Promoting awareness of Waterloo's leadership in entrepreneurship externally
- » Leveraging the entrepreneurial skills of alumni

TRANSFORMATIONAL RESEARCH

GOAL »»

Increase the worldwide impact and recognition of University of Waterloo research

Starting at the undergraduate level **research at Waterloo is ignited by a shared passion for discovery and action.** Curiosity becomes a quest to **answer existing and emerging global challenges.** Experience shows **that learning is enhanced when it includes research, and that strong researchers have the tools to be talented teachers.** Waterloo researchers redefine what is known about the world around us. They shed new light on the mysteries of the universe through deep and fundamental research.

OVER THE NEXT FIVE YEARS »»

Waterloo will expand research opportunities for undergraduate and graduate students, including through research-focused work terms. Waterloo will allocate current resources and align future resources to support areas of research where we have the **greatest potential for world leadership, including quantum science, water and aging.**

BACKGROUND »»

Landmark research — addressing major challenges that arise from the interaction of social, economic, scientific, technological, health and policy issues — calls for input and collaboration from the finest scholars. Waterloo has built a reputation for excellence in research across all six of its Faculties and in many disciplines.

MATHEMATICS AND SCIENCE LEADERSHIP

For example, the university's renown in the fields of computer science, discrete mathematics,

cryptography and biostatistics has emerged from the **Faculty of Mathematics.** The **Faculty of Science** is recognized for prominence in the natural sciences including ecotoxicology, aquatic biology, analytical and materials chemistry, earth sciences, condensed matter physics and astronomy; as well as in the applied sciences including neuroscience, ocular pathology, technology and optics and drug delivery within the Schools of Optometry and Pharmacy.

ENGINEERING AND APPLIED HEALTH SCIENCES

In the **Faculty of Engineering,** more than 1,000 industry and government partners support leading-edge research in information and communications technologies, automotive, sensors and intelligent infrastructure, water treatment, biomedical devices and biotechnology, nano- and micro-technologies, energy, design, modeling and systems optimization.

The **Faculty of Applied Health Sciences** is a global leader in the development of strategies that improve well-being through advanced research in chronic disease prevention and management, healthy active aging, youth health, public health policy and practice, nutrition and human movement.

ARTS A RESEARCH LEADER

Waterloo's **Faculty of Arts** is changing the landscape of social sciences and humanities research by harnessing new technologies and methodologies to traditional modes of analysis. This will generate new insights into the human condition in areas including finance and accounting, clinical and social psychology, digital media, science and technology studies, languages, literatures and culture, international governance and public policy.

ENVIRONMENT SETS NEW STANDARDS

Within the **Faculty of Environment**, interdisciplinary groups collaborate with other Faculties to solve climate change, water, energy, food systems, ecological restoration and urban planning issues through science and policy. The Faculty's new teaching and research initiatives in green entrepreneurship and corporate social responsibility are setting a new agenda for social entrepreneurship and innovation.

SIX STRONG FACULTIES, STRONGER TOGETHER

Pressing and emerging global challenges will increasingly be addressed through collaboration across disciplines. Waterloo will continue to support and nurture the interdisciplinary culture that fuels its globally recognized research institutes.

QUANTUM SCIENCE AND NANOTECHNOLOGY

The Institute for Quantum Computing (IQC) brings together internationally recognized researchers from mathematics, science and engineering to discover and develop methods to understand and control the quantum world leading to the development of revolutionary technologies. Researchers from science and engineering come together in the Waterloo Institute for Nanotechnology (WIN), where they undertake groundbreaking research into the observation and manipulation of matter at the atomic scale to further scientific understanding, and to devise applications that will lead to new materials and devices in such fields as biomaterials, medicine and electronics.



WATER, DIGITAL MEDIA AND AGING

More than 125 Waterloo researchers from many disciplines collaborate in the Water Institute (WI), engaging in research both scientific and management-related to ensure the sustainability of global water resources. The Games Institute is leading interdisciplinary research into game-related interactions and technologies, as well as to improve understanding of social and behavioural ramifications of gaming. And the new Research Institute for Aging (RIA) will draw on the expertise of researchers, educators, caregivers, seniors and families in order to build an inclusive knowledge base to support the development of innovative and relevant educational and training programs.

Building on this foundation of excellence, Waterloo's research capabilities will continue to thrive, fuelling this institution's growth. Basic, foundational research of the highest calibre will continue to be undertaken by faculty and students. Research activities and output will continue to be integrated into both co-op and non-co-op programs. Research and scholarship will continue to be a driving force for Waterloo's professoriate.

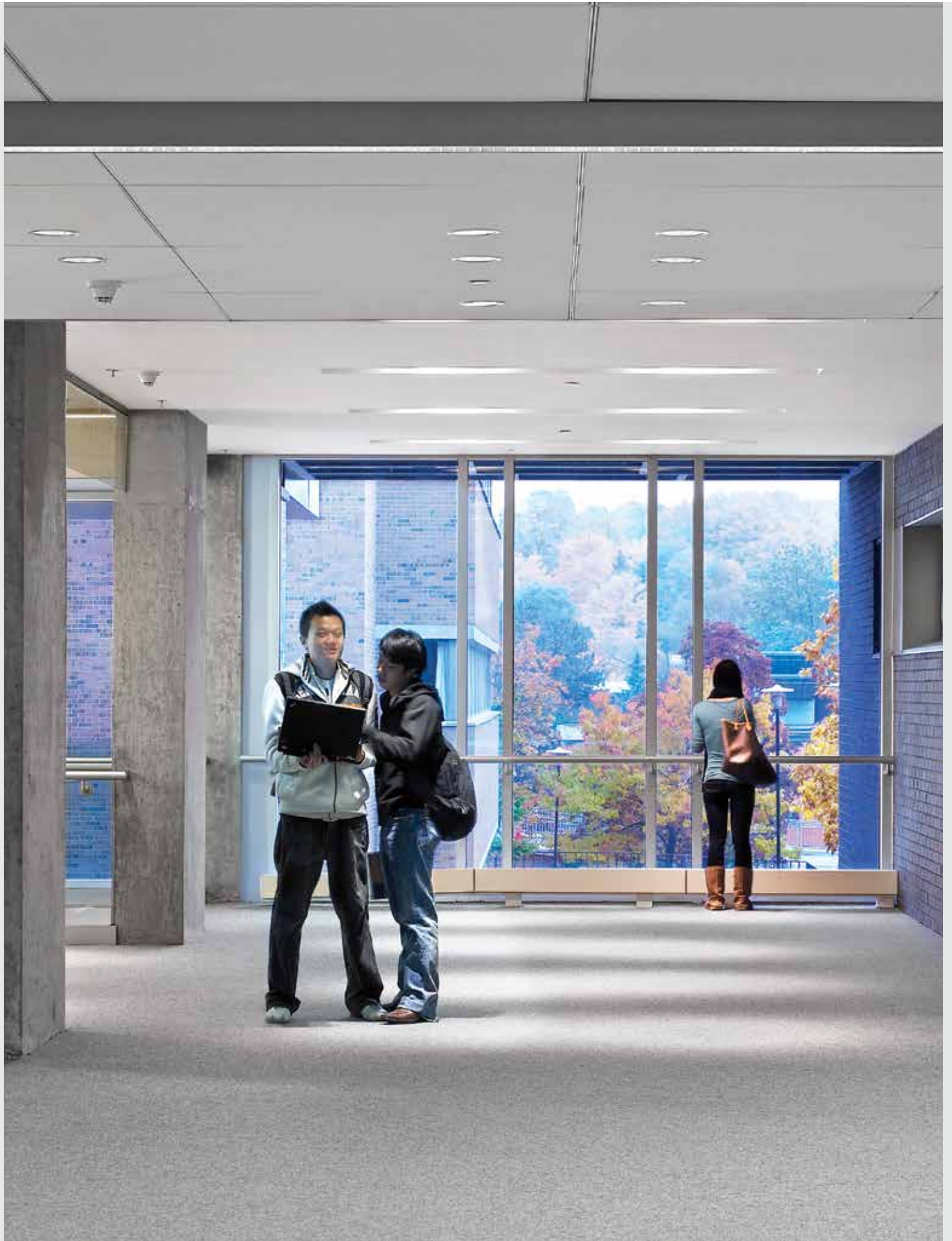
The original knowledge created within Waterloo will achieve even greater relevance as it is promoted and disseminated throughout an industrial and business community urgently seeking innovative concepts to commercialize. This longstanding Waterloo tradition will be the pillar that will ensure this institution's future as a leader in research productivity, application and commercialization.

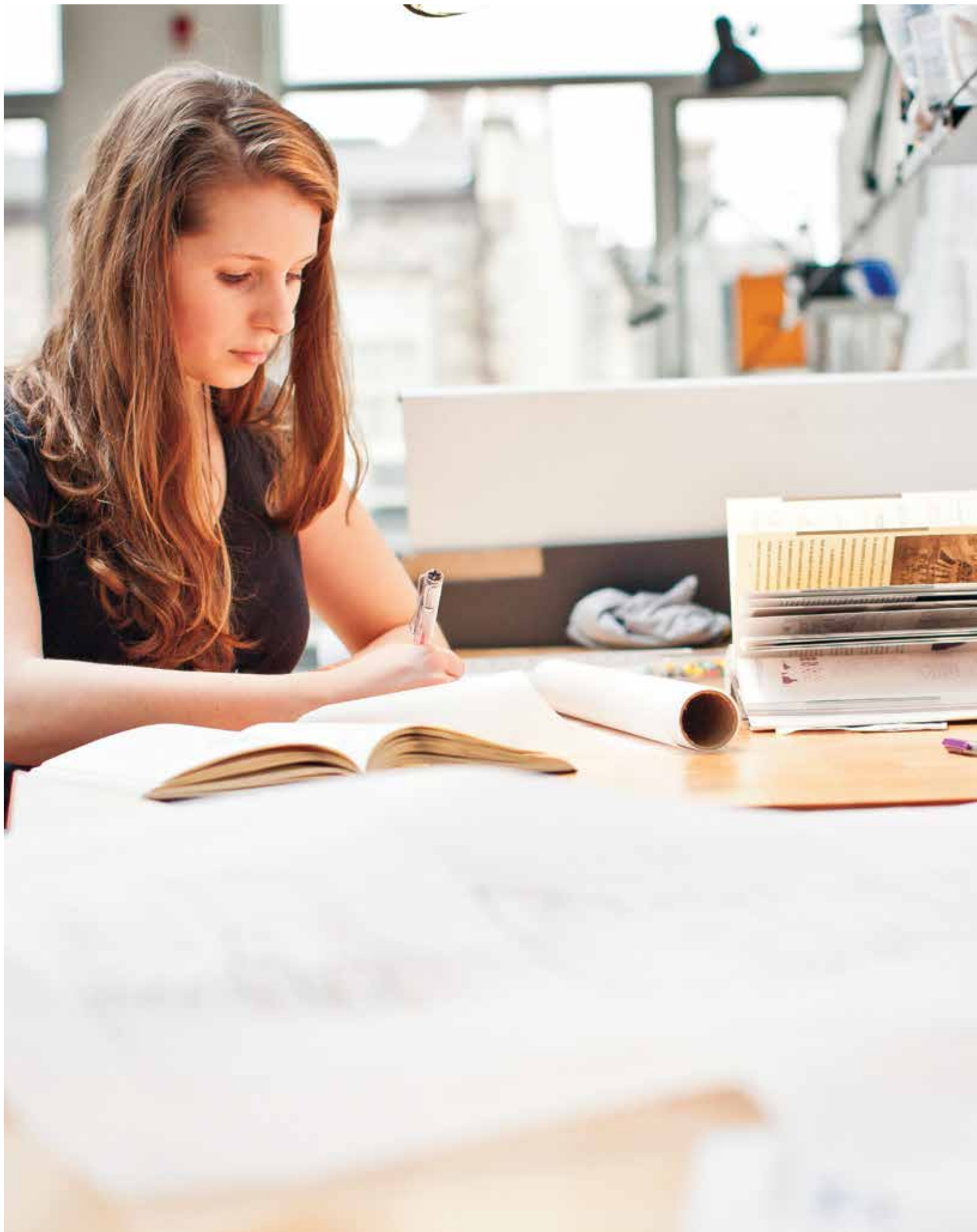
PRIMARY OBJECTIVES

- » Be recognized internationally for excellence and innovation in education, research and scholarship
- » Enable conditions which support research excellence and impact
- » Identify and seize opportunities to lead in new/emerging areas
- » Increase interdisciplinary and transdisciplinary research at the global, national and local scale
- » Strengthen the relationship between research and teaching at the undergraduate level
- » Build wider awareness and understanding of Waterloo's research productivity and impact
- » Seek global awareness of Waterloo's research and teaching expertise

SUPPORTING ACTIONS

- » Attracting and retaining premier level scholars, researchers and staff
- » Fostering a supportive environment for research by facilitating access to funding resources, information, space and facilities
- » Providing strategic expertise to maximize research grant success
- » Diversifying funding resources beyond Tri-Council sources
- » Encouraging research networks which build on partnerships with internationally recognized universities
- » Providing and facilitating opportunities for interdisciplinary and transdisciplinary research
- » Providing opportunities for undergraduate students to engage in research across all disciplines
- » Building further exemplary international research networks of elite institutions and individuals that utilize the intellectual and physical assets of the institution
- » Celebrating the research successes of students, faculty, staff and alumni
- » Pursuing prestigious national and international awards for faculty
- » Creating a new marketing and communications initiative to build profile for the wide and varied accomplishments of the Waterloo research community
- » Continuing to be an effective pipeline for high-quality research to meet the needs of business, industry, government and civil society







Building on a

FOUNDATION OF EXCELLENCE

Waterloo has already distinguished itself in these important areas of existing strength, which will be further enhanced through this strategic plan:

- » **Outstanding academic programming**
- » **Global prominence and internationalization**
- » **Vibrant student experience**
- » **Robust employer-staff relationship**
- » **Sound value system**



OUTSTANDING ACADEMIC PROGRAMMING

GOALS >>

- A** Offer leading-edge, dynamic academic programs
- B** Be a leading provider of technology-enabled learning opportunities

A shared passion for learning and discovery brings some of the **world's top students and scholars** to Waterloo. They are drawn by a foundational commitment to **top-quality academic programming**, which is **emboldened by an innovative and dynamic approach to learning that is uniquely Waterloo's**. Top students and faculty expect the best from Waterloo's academic programs and supports. Waterloo will continue to deliver.

OVER THE NEXT FIVE YEARS >>

Academic programming at Waterloo will evolve and grow, supported by **faculty who engage and inspire through their teaching and research**. Waterloo will set an ambitious agenda to lead in the implementation and use of new and emerging technologies. Waterloo will be a leader in developing and employing such technologies to **enhance learning, to reshape the traditional classroom and to expand the impact and reach of Waterloo programs** on its campuses, and beyond.

BACKGROUND >>

Meeting consistently high standards, Waterloo's academic programs are one of the university's pillars of strength. Both at the university and at its Federated University (St. Jerome's) and Affiliated University Colleges (Conrad Grebel, Renison and St. Paul's), faculty members are engaged in teaching, research and the delivery of

unique programs. This is a direct result of the university's policy of hiring the very best faculty and staff, and providing an environment that will allow the university to reach its full potential. With a foundation of excellent faculty and strong academic programs, along with the opportunity to engage in experiential learning, Waterloo's undergraduate programs are in high demand and attract students of the highest calibre. Forty-two per cent of all students entering undergraduate programs at the university have a high school average mark of 90% or higher.

Waterloo has thus created an educational environment in which research, scholarship and learning are inseparable at both undergraduate and graduate levels, and where relevance, innovation, creativity and application are concepts that drive the academic agenda.

A Program development

Partnership is one of Waterloo's methods of ensuring the highest quality of graduate research programs. The university has partnered with selected international universities to develop dual degree doctorate (co-tutelle) programs in the fields of chemistry, physics, nanotechnology, earth sciences and several branches of engineering. The Perimeter Institute has also partnered with the university to offer a Master's level program in research training through its Perimeter Scholars International. Based in Waterloo, the institute is an independent, non-profit science research organization, renowned worldwide for groundbreaking work in the field of foundational theoretical physics.

Waterloo continuously develops new programs to address new knowledge demands that arise from societal change. Recent introductions include Master's degrees in climate change, public issues anthropology, sustainability management, digital experience innovation and mathematics for teachers. A new PhD program in pharmacy will begin in 2013. Many of these new graduate degrees are offered in an online format to enable access for professionals working in their fields, wherever they are geographically located.

B Technology-enabled delivery systems for learning

The use of new technologies for program delivery offers an enormous opportunity to reach wider educational markets both across Canada and around the world, and to deliver programs to graduates and professionals where they live and work. Waterloo can make a significant societal contribution by bringing the benefits of outstanding academic programs to those in far-flung locations, and at the same time achieve a wider awareness nationally and globally of the university's role as a provider of quality education.

Technology-enabled learning is a concept that Waterloo embraced many years ago for its distance-learning programs, first through the use of cassettes and now through emerging technologies and the internet. The university provides online courses that assist on-campus students with scheduling or job-related time conflicts, and allow off-campus and distant students to pursue the course requirements necessary for graduation. Several graduate degrees are offered fully online and more are planned, in part to meet the needs of working professionals. The university also provides credential courses to meet certain professional accreditation requirements and skills tailored to specific career needs.

OUTSTANDING ACADEMIC PROGRAMMING CONTINUED

PRIMARY OBJECTIVES

A Program development

- » Educate graduates uniquely prepared to address the challenges and opportunities of the 21st century
- » Enhance Waterloo's excellence in academic programs
- » Ensure teaching quality of the highest international standard
- » Assign a higher value to recognizing and rewarding high-quality teaching
- » Seek global awareness of Waterloo's research and teaching expertise

B Technology-enabled delivery systems for learning

- » Expand Waterloo's footprint in the online-learning market
- » Provide leading-edge, technology-enabled learning opportunities

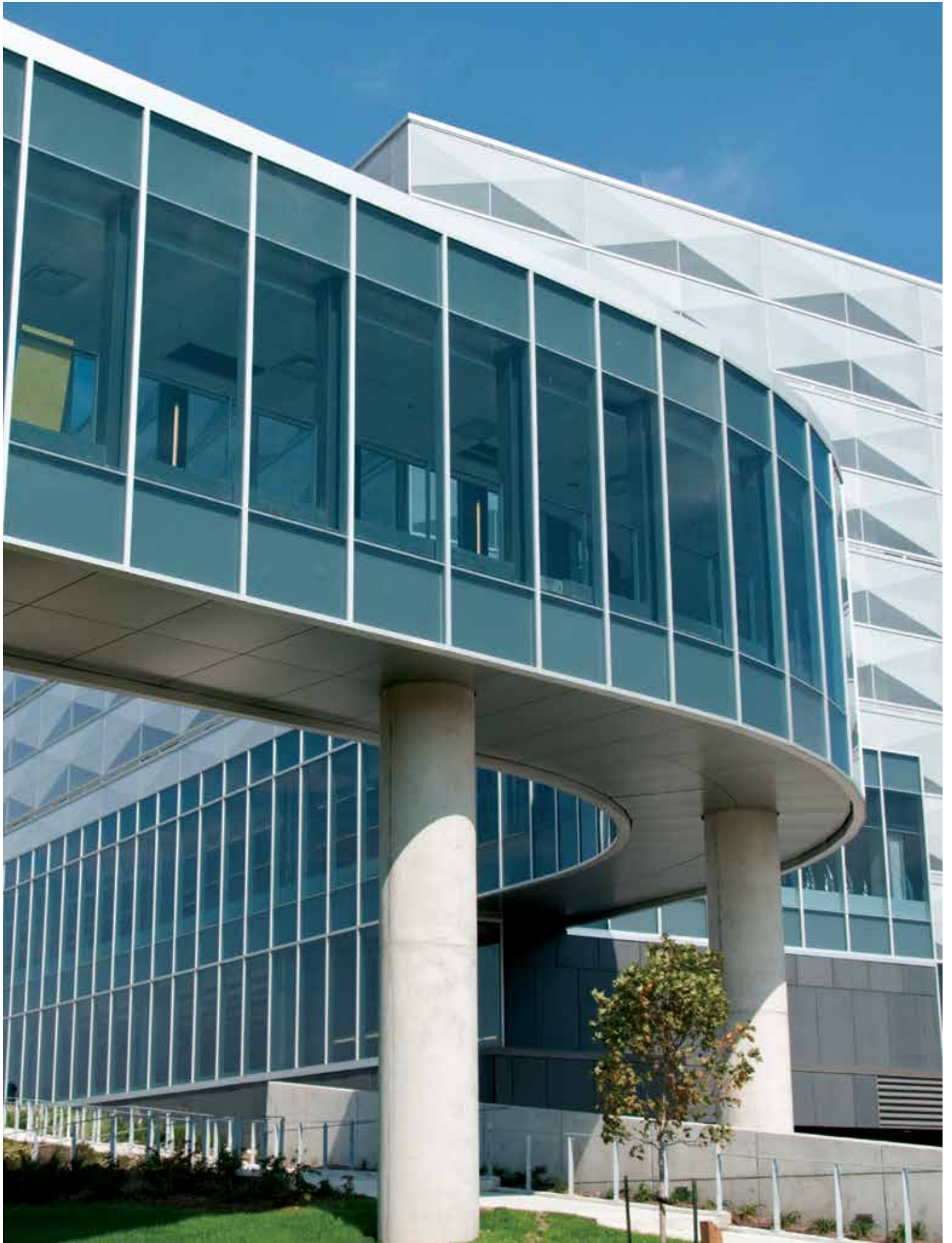
SUPPORTING ACTIONS

A Program development

- » Increasing the number of top level undergraduate and graduate students from national and international sources
- » Increasing the value of teaching quality and adopting a teaching-learning charter that captures Waterloo's commitment to teaching and learning
- » Encouraging faculty members to integrate their research and the process of research into course activities
- » Regularly collecting input from students on ways to improve the learning experience
- » Ensuring that graduate students at Waterloo are supervised and mentored by the highest calibre of research personnel
- » Strengthening excellence in teaching skills at Waterloo for both graduate students and faculty
- » Articulating assessable learning outcomes and designing meaningful assessment methods for all academic courses and programs
- » Ensuring that graduate programs include components that address professional and transferable skills
- » Improving classroom design and supporting technology-enabled learning to optimize the learning experience
- » Acknowledging the changing balance between teaching and research as faculty members progress, and reflecting this in resource planning

B Technology-enabled delivery systems for learning

- » Increasing the number of online courses and degree programs
- » Employing the most innovative methods of course delivery and new learning technologies
- » Identifying external academic or skills needs and developing relevant new programs for online delivery to meet those needs
- » Making wider use of online course materials, including, for example, Massive Open Online Courses (MOOCs), corporate training modules and professional development courses
- » Creating and facilitating strategic partnerships in online learning provincially, nationally and internationally
- » Increasing the use of mobile technologies in and out of the classroom for learning and support services
- » Expanding the appropriate use of technologies to enhance classroom learning experience



GLOBAL PROMINENCE AND INTERNATIONALIZATION

GOAL >>

Become one of the most internationalized universities in Canada

Broad impact requires broad understanding and outlook. As **a university committed to improving the world and to educating graduates ready to lead in a global economy**, Waterloo maintains an enviable and expanding **network of international research and industry partnerships, alumni connections, learning opportunities, work placements and field programs**. Research and learning are enhanced by the contributions of international students and faculty who offer **diversity of experience and insight vital to the pursuit of knowledge and discovery**. Waterloo is a place the world turns to for answers to its most pressing questions.

OVER THE NEXT FIVE YEARS >>

Waterloo will offer more opportunities for international exchange, service learning, field programs and co-op employment. The university will grow its global research network and be recognized internationally for excellence in education, research and scholarship. Waterloo will embrace global viewpoints and experience, attracting a diverse and growing group of the best and brightest international students and faculty to its campuses.

BACKGROUND >>

Internationalization includes a wide range of information, activities, policies and strategies, which give teaching, research and service functions an international dimension at the university. Waterloo graduates are at home in a culturally diverse environment and knowledgeable about its attributes.

CONNECTED TO THE WORLD

International connectivity offers major benefits in terms of professional, research and employment linkages, as well as in social networking to improve cultural understanding and diversity. Waterloo actively promotes outbound academic and research mobility through co-op opportunities, exchange programs and research collaboration; and promotes inbound mobility by foreign students and researchers participating in Waterloo programs and research. Currently, 11 per cent of undergraduate students are international, predominantly from China, India, Pakistan and South Korea. Graduate programs in global governance are offered by the Balsillie School of International Affairs, through a collaborative format drawing together scholars, students and policy-makers focused on finding solutions to pressing issues.

ENHANCED INTERNATIONAL PRESENCE

Enlarging and enhancing Waterloo's presence in the international arena is a priority for the university. This will be achieved by providing academic services of the highest order, attracting the best and brightest faculty, students and research graduates from around the world, and partnering with international institutions of high reputation — such as existing partnerships with Tsinghua University, University of Hong Kong, National University of Singapore, University of Queensland, École Polytechnique, Technische Universität München, ETH Zurich and Universidade de São Paulo. Raising Waterloo's international profile will heighten its prestige and ranking on the global stage.

PRIMARY OBJECTIVES

- » Be recognized internationally for excellence and innovation in education, research and scholarship
- » Educate globally literate and world-ready graduates

SUPPORTING ACTIONS

- » Creating student mobility programs that utilize the best universities and practices in the world in support of academic exchange, international service learning, field programs and international co-op placements
- » Enhancing whenever appropriate, the international content and approach of degree programs
- » Building further exemplary international research networks of elite institutions and individuals that utilize the intellectual and physical assets of the institution
- » Attracting a diverse group of the best and the brightest international students to Waterloo's campuses through the provision of an outstanding student experience, academically and socially

VIBRANT STUDENT EXPERIENCE

GOAL >>

Ensure that students have an engaging, purposeful and relevant experience

With a global reputation for excellence and some of the highest entrance averages in the nation, **Waterloo attracts the world's best, brightest and most motivated students, offering them the opportunity to become something more.** Students are inspired in an environment of imagination, innovation and interdisciplinary endeavours. The confluence of remarkable **classroom, campus and community experience at Waterloo transforms excellent students into extraordinary alumni uniquely equipped to contribute to society and lead change.**

OVER THE NEXT FIVE YEARS >>

Waterloo will enrich the student experience with a student-focused approach to services. The university will expand the range of experiences, programs and supports designed to develop student potential, and build a stronger sense of community connection for students both on and off campus.

BACKGROUND >>

Students come to Waterloo for high-quality education and, in the case of co-op, for relevant work experience. But they also study, use a wide range of campus facilities and engage socially with others. For many students, the university campus is their "home base" for several years. It is also where faculty and staff interact with students and each other as they go about their daily business.

A SPIRIT OF COMMUNITY AND CONNECTION

The educational component of a student's life on campus will be vibrant and fulfilling, supported by "down-time" activities that are rich, rewarding and diverse. Waterloo should not be left behind after graduation, but rather remembered with gratitude, fondness and pride, as a place where graduates would be happy for their own sons and daughters to be educated.

Waterloo's Federated University (St. Jerome's) and Affiliated University Colleges (Conrad Grebel, Renison and St. Paul's), have been remarkably successful in promoting a sense of well-being for students by creating a spirit of fellowship among their residents, nurturing faculty-student engagement and giving students many leadership opportunities to thrive as responsible and compassionate citizens here and around the globe.

A NETWORK OF SUPPORT AND OPPORTUNITY

Waterloo created the Student Success Office and Counselling Services to address the need for emotional and academic support for students. Organizations, including the Organizational and Human Development office, offer valuable student leadership opportunities which should be recognized and expanded as crucial to the development of future leaders.

Student organizations on campus can provide a sense of community for like minds. The university will continue to work to create an encompassing sense of community that engages all those on campus, including faculty and staff.

For students, the years at Waterloo should provide both an excellent education and an enriching experience of campus life, enabling each student to reach her or his potential in the fullest sense.

PRIMARY OBJECTIVES

- » Deliver excellent student services through an integrated student-focused approach
- » Provide enabling experiences, programs and supports, including student leadership development opportunities, in order to develop student potential
- » Develop strong partnerships within and between academic and non-academic units to enhance the positive student experience
- » Build a community of communities by providing an environment where students, faculty and staff can connect
- » Deepen the connections between students and the City of Waterloo community

SUPPORTING ACTIONS

- » Incorporating mentorship of students into curricular and co-curricular programs wherever possible
- » Creating a strong virtual environment so students always feel connected to Waterloo, wherever they are physically located
- » Enabling an IT environment that facilitates student interaction and improves student life
- » Providing the means for students to interact across different programs
- » Integrating and optimizing processes, communications and systems to support student success
- » Encouraging collaborative, multidisciplinary projects in undergraduate coursework to enhance learning and teamwork skills
- » Enhancing research, study and social space
- » Improving support services for students who live off-campus
- » Enhancing the physical appearance of the campus to be more attractive and people-centric

ROBUST EMPLOYER-STAFF RELATIONSHIP

GOAL »»

Be an exemplary employer

The success of this institution's programs, research and students hinges on a superior complement of high-functioning staff. As an institution that expects outstanding results from all of its people, **Waterloo aspires to be an employer of choice**, and a place where opportunity and experience inspire **deep institutional pride and professional satisfaction**. Enabling top performance from staff members, who achieve their full potential, professionally and personally, is key to Waterloo's mission as an institution of higher learning.

OVER THE NEXT FIVE YEARS »»

Waterloo will offer new opportunities for staff to grow professionally, with investments in development and leadership training and an enhanced focus on succession planning. Waterloo will become an international employer of choice for talented, motivated individuals whose support and engagement will ensure the institution's continued successes. In support of achieving our priorities, Waterloo will measure performance against external standards for global excellence, and ensure rigorous management to attain these benchmarks.

BACKGROUND »»

The effectiveness of the research agenda, program delivery and administrative functions of Waterloo relies upon a superior complement of staff. In this regard, the University of Waterloo has worked diligently in many ways to be an exemplary employer and an employer of choice. The university will continue to provide challenging career opportunities for its staff

and encourage its staff to develop higher-level skills through ongoing training and professional development.

PRIMARY OBJECTIVES

- » Be a destination of choice for superior individuals seeking employment
- » Enable staff to fulfill their potential in a career at the university

SUPPORTING ACTIONS

- » Attracting and retaining the highest quality candidates
- » Providing staff with opportunities to acquire new competencies
- » Encouraging a more diverse work experience for staff through trial periods of different roles, responsibilities and positions
- » Supporting mentoring skills training for managers
- » Continuing to be competitive in the job market
- » Having the employment attributes of the university judged against an external standard for excellence
- » Encouraging Faculties and academic support units to undertake succession planning for key leadership position

PROMOTING A SOUND VALUE SYSTEM

GOALS >>

- A** Enhance the well-being of students, faculty and staff
- B** Promote integrity as a core value of the campus community
- C** Provide an equitable and inclusive environment for students, faculty and staff

As an international leader and standard-bearer in higher education, Waterloo is unshakeable in its **commitment to integrity, equity, diversity and a balanced life for students, faculty and staff**. Without these core values, the university cannot fulfill its mission as a leading institution of higher learning.

OVER THE NEXT FIVE YEARS >>

Waterloo will expand its efforts to ensure integrity is a core value instilled in every student, faculty member and staff member. The university will seek new and better ways to support mental and physical well-being, promote school pride and support equity and diversity, enabling the ongoing success of all members of the campus community.

BACKGROUND >>

A **Balanced life:** Modern life makes many competing demands on an individual's time. The responsibility of caring for a sick child or elderly parent, for example, at the same time as addressing work requirements can lead to stress-related problems. Extended periods of work overload can also trigger health problems. Fulfilling one's responsibilities at work, home and in the community requires effective time management practices.

WORK-LIFE BALANCE

It is in the university's best interests to assist students, faculty and staff, as far as possible, to maintain an appropriate balance between work demands and those beyond the purview of the university. This approach will help to minimize problems of stress-related illness and absenteeism, and to enhance the university's ability to attract and retain quality faculty and staff.

PROMOTING A SOUND VALUE SYSTEM CONTINUED

ENHANCING SHARED CAMPUS SPACES

In the case of on-campus students, very many of their academic and non-academic activities occur in the confines of university buildings, accommodation and recreational facilities. To enhance the overall experience of learning and living at Waterloo, the university will make every effort to provide additional space to allow greater social interaction and mentorship opportunities, and foster a greater sense of school spirit and pride. Support in dealing with stress is one of the functions of the Student Success Office, Health Services and Counselling Services.

B Integrity: Integrity includes the concepts of honesty, trust, respect, fairness and responsibility. Academic excellence without personal integrity is of little value to an employer, and ultimately proves a major detriment in the career development of a student, faculty or staff member. The university is known for creating the leaders for the future, and nowhere are honour, respect, reliability and accountability called for more than at the highest level of decision-making. Waterloo's professoriate and staff are held to the highest standards of conduct, and its administration is committed to open, responsible and fair governance.

INTEGRITY IN ALL AREAS

Waterloo seeks to develop integrity at every level of the institution, and in 2008 created an Academic Integrity Office, whose initial focus was to partner with student groups, Faculties and staff to provide information and education so that new students understand expectations related to integrity for their academic work. Integrity has now been widened to be a core value for all aspects of university-related life of students, faculty and staff.

C Embracing equity and diversity

Waterloo is committed to supporting equity and diversity. It does this through its AccessAbility office, which provides support for students, faculty and staff with disabilities, the Principles of Inclusivity sessions offered by the office of Organizational and Human Development, and the University Diversity Advisory Committee (UDAC), which addresses diversity in its many forms. In addition, the Status of Women and Equity Committee (SWEC) — based in the Faculty Association — focuses on matters related to the status of women and broader equity issues among faculty.

PRIMARY OBJECTIVES

A Balanced life

- » Develop a strong, vibrant integrated community
- » Assist students, faculty and staff in achieving appropriate work-life balance
- » Foster student success through engaging and relevant university-based experiences

B Integrity

- » Deepen and broaden the university's approach to integrity

C Equity and diversity

- » Develop a supportive campus community that proactively articulates, promotes and effects change to achieve equity for students, faculty and staff through policies, programs and practice

SUPPORTING ACTIONS

A Balanced life

- » Providing diverse, integrated and targeted services to address the mental and physical well-being of students, faculty and staff
- » Creating an environment where students, faculty and staff collaborate in support of one other
- » Developing activities to promote school pride
- » Encouraging Faculties to devise activities that foster student-faculty fellowship
- » Developing non-academic activities sought by diverse student communities
- » Increasing the availability of on-campus student accommodation
- » Promoting and adopting flexible work arrangements where such arrangements are consistent with operational needs
- » Improving communication within the campus community

B Integrity

- » Determining ways to recognize and celebrate behaviour that exemplifies integrity
- » Enhancing the existing online tutorial on academic integrity, combined with discipline-specific case studies as a milestone for all incoming undergraduate and graduate students
- » Exploring the idea of a student-led honour code, to be implemented by student associations with support from administration

C Equity and diversity

- » Setting up an Equity Office and hiring a Director of Equity
- » Developing and enhancing relevant policies, taking into consideration input from student, faculty and staff stakeholders, including the AccessAbility office, UDAC and SWEC
- » Enhancing awareness, understanding, respect, support and celebration of equity and diversity among students, faculty and staff
- » Meeting accessibility standards in new buildings and in those being renovated
- » Meeting accessibility standards, as outlined in the Accessibility for Ontarians with Disabilities Act (AODA), across print and digital communications platforms





Why Waterloo?

UNIQUELY QUALIFIED TO ANSWER THE WORLD'S CALL

As the world seeks answers, the University of Waterloo stands uniquely ready to respond. This institution will rise to be recognized as one of the world's top innovation universities, on the strength of six world class Faculties, made even stronger through **interdisciplinary collaboration, an enviable network of business and industry connections and a track record of innovation and excellence.**



A track record of **INNOVATION** and **EXCELLENCE**

Waterloo's contributions to higher education, global prosperity and the betterment of society are many. The Mid-cycle Review identified and solidified Waterloo's ongoing excellence in several key areas:

» Producing **outstanding and employment-ready graduates** as an outcome of world-renowned **co-op programs**, which blend academic learning with work experience. These programs act as a bridge between Waterloo and the world outside, underscoring relevance as one of the university's foundational principles. Academic knowledge, job readiness and confidence keep Waterloo graduates in high demand with employers.

This array of employers provides Waterloo students with a more diverse and stimulating range of workplace experiences than is available anywhere else.

» **Entrepreneurial successes** achieved by students, faculty and staff. All of Waterloo's past and potential entrepreneurs benefit from the university's **intellectual property (IP) policy**, whereby ideas or products commercialized by students, faculty or staff members belong solely to the creator. Entrepreneurial enterprises are further supported by strong connections between Waterloo research and industry.

ENTREPRENEURIAL IMPACT

Faculty startups:

- » Certicom
- » Maplesoft
- » OpenText
- » Teledyne DALSA

Alumni startups:

- » BlackBerry®
- » Desire2Learn
- » Public History Inc.

VeloCity startup success:

- » **45** companies
- » **250+** jobs
- » **\$90M+** in investment capital

*as of April 2013

» **Ongoing innovation and entrepreneurship.** Innovative and creative approaches to research, teaching and learning are sought from — and achieved by — Waterloo’s faculty and staff, and inspired in its students. For example, to support a growing number of students interested in entrepreneurship, the university in 2008 established **VeloCity, a living-learning community of like-minded entrepreneurial students.** At VeloCity, students have access to the latest technologies and are mentored by a network of entrepreneurial experts. In 2010, VeloCity Garage was set up to provide students and alumni with access to free space and expert mentoring to assist in advancing successful start-ups. In 2012, the VeloCity Campus program began to expand entrepreneurial programs and mentorship to the broader student community.

» **Excellence in research.** Research and scholarship will continue to be a driving force for Waterloo’s professoriate. According to Research Infosource, Waterloo has been Canada’s **top ranked comprehensive research university for five consecutive years.** As one of Canada’s 15 research-intensive universities, Waterloo has **34 Senate-approved centres or institutes of research** crossing many disciplines.

These research ventures are underpinned by a distinguished professoriate whose reputation draws top-level graduates from around the world.

A GLOBAL UNIVERSITY

- » **30** per cent international graduate students
- » **11** per cent international undergraduate students
- » Waterloo students come from **90+** countries
- » **350+** educational and research agreements with institutions in **60** countries
- » Co-op opportunities in **90** countries
- » **700** international co-op opportunities each year

EMPLOYMENT-READY GRADUATES

Co-op 2013:

- » **17,500** students
- » **3,000** employers

A decade of growth:

- » **139,000** undergraduate students enrolled in **140+** co-op programs over the past **10** years

LEADER IN ONLINE LEARNING



297
online
courses

Five fully online
undergraduate
degree programs

11 approved online
graduate programs with
more in development

» Persistently **seeking out the cutting edge of discovery**. Waterloo is poised once again to lead the world in the revolutionary fields of **quantum computing** and **nanotechnology**, which have the potential to transform the world as we know it — from how we share and store information, to the ways we diagnose and treat disease. The recently opened Mike & Ophelia Lazaridis Quantum-Nano Centre is home to the Institute for Quantum Computing (IQC) and the Waterloo Institute for Nanotechnology (WIN), which attract some of the finest minds in these fields.

» Applying Waterloo’s customary forward-looking vision to respond to key educational advances by incorporating innovation, relevance and value in curriculum development and delivery. This includes technology-enabled learning, allowing a growing number of courses to be accessible online to a broad set of learners in Ontario and beyond. A **pioneer in distance education** going back to 1968, Waterloo is now **one of the largest institutions of online learning in Ontario**.

A major grant is allowing the Conrad Business, Entrepreneurship and Technology Centre to use advanced learning technology systems to create and deliver a unique Virtual Incubation Program to support the development of local, Canadian and international entrepreneurs.

» The ability to attract **highly qualified students** and a **research-oriented professoriate** from around the world brings an **international dimension** to Waterloo’s student body, to its research endeavours and to its connectivity. This international dimension includes collaboration with global business enterprises, governmental agencies and other major academic institutions. It also accounts for the university’s involvement in social and environmental issues in Canada and in countries around the world.

RESEARCH LEADERS

Leading faculty:

- » **26** active Fellows of the Royal Society of Canada
- » **Two** Canada Excellence Research Chairs (CERCs)
- » **62** Canada Research Chairs (CRCs)
- » **23** industrial and endowed chairs

Leading research institutes:

- » Games Institute
- » Institute for Quantum Computing
- » Propel Centre for Population Health Impact
- » Research Institute on Aging
- » WatCAR (automotive)
- » Water Institute
- » Waterloo Institute for Nanotechnology
- » Waterloo Institute for Sustainable Energy

Little wonder that for 21 consecutive years *Maclean's* magazine has named the University of Waterloo **Canada's most innovative university**; and for 14 of the past 21 years has named this institution most likely to produce **"the leaders of tomorrow."** The university is proud of its many successes.



Poised for **ACTION**

Waterloo has much to be proud of. Built by entrepreneurs, the University of Waterloo is a place **where innovation has impact.**

No ivory tower, this is an institution uniquely connected to the world, and committed to making it better — by **fuelling prosperity** and **improving the human condition.** This is a place of constant forward motion.

A magnet for the best and brightest from around the world, Waterloo **converts the strong into the extraordinary** — students who graduate ready to lead in their careers, faculty who inspire through world-class teaching, and world-changing research ignited by the spirit of entrepreneurship.

A young institution, Waterloo swiftly outpaced its national and global peers to rise through the ranks of higher education. **Unconventional from the start,** Waterloo forges new paths, redefining higher education as relevant and meaningful.

Already a world leader in research that creates new understanding of quantum science, water and aging, **Waterloo aspires to even greater success.**

The University of Waterloo Strategic Plan will create a differentiated university for the province and the country, one that offers a unique experiential learning experience for every student; one that focuses on entrepreneurship to create new companies, new jobs, even new industries; one that manages for global excellence; one that will be a world leader in select and pivotal areas of research with strong research foundations throughout.

This plan reflects pride in all Waterloo has accomplished and aspirations for what can be achieved. Over the next five years, on the collective strength of its stakeholders, Waterloo can and will lead Canada's innovation agenda, redefining higher education for this country and the world.

Waterloo will answer the world's call. 

