**Faculty of Environment Strategic Plan 2020 – 2025**
**Progress Report for the year ended December 31, 2022**

The Faculty of Environment strategic plan for 2020-2025, TOGETHER for a sustainable future (the "Plan") outlines the following vision for Environment:

> To use our unique position as a leading teaching and research institute for the environment to create sustainable solutions needed to address complex challenges facing our world.

Environment will realize this vision through the pursuit of three goals:

1. Be Canada's leader in environmental and sustainability education.
2. Achieve increased impact through national and global leadership in environmental and sustainability research.
3. Demonstrate an ethos of caring in all that we do.

Each of these goals has several commitments which are outlined in the Plan and restated below. Key accomplishments, progress and connections to the University's Strategic Plan are summarized below.

**Goal 1: Be Canada's leader in environmental and sustainability education.**

In 2022, Waterloo was ranked:
- 2nd in Canada for Water Resources Research and 5th in Canada for Geography by the Academic Rankings of World Universities
- 4th in Canada for Geography and Environmental Science by QS World University Rankings

While these rankings almost certainly take into account work of other Faculties given the interdisciplinary nature of the subject matter, they also reflect the world-class research and programming in the Faculty of Environment.

| Commitment | Pathways | Accomplishment & Progress | Connection to UW Strategic Plan Goals and Objectives |
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| 1. Extend environmental and sustainability education on campus in partnership with others. | Identify 3 priority areas where, working in partnership with other Faculties, new degrees, diplomas or specializations are introduced.<br><br>Develop at least two new Faculty-based academic programs to address emergent issues. | Bachelor of Sustainability and Financial Management (with School of Accounting and Finance, Arts) welcomed its first cohort in 2022.<br><br>Collaborative Aeronautics Program launched with 17 participating graduate programs.<br><br>Collaborative graduate program in Climate Change is under development; training program specialist hired to support the development of this program, a lecture series, and a suite of life-long learning programs.<br><br>BSc in Climate and Environmental Change - welcomed its first cohort in 2022. | **Educate global citizens for the future of work and learning to thrive in an age of rapid change …**<br><br>**Enhance graduate and post–doctoral studies …**<br><br>*Further enhance the "Business at Waterloo" programming model to inspire people to lead in a rapidly changing economy.*<br><br>*Foster an interdisciplinary environment for graduate students and post–doctoral scholars to increase the impact of their work.*<br><br>*Find new ways to work together and remove barriers to collaboration, interdisciplinarity and the integration of knowledge.* |

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| | | [Undergraduate diploma in Future Cities](#) launched in 2022.<br><br>[Master of Future Cities](#) advanced through governance process in 2022 (received Senate approval in early 2023). | *Become a societal role model of sustainability …* |
| 2. Increase our involvement in non-traditional educational activities. | Collaborate with other campus or community partners to develop three new professional/ executive training opportunities related to environment and sustainability. | Collaborative lifelong learning programs on Climate Change are in development. These will be offered in partnership with the [Waterloo Climate Institute](#).<br><br>Environment faculty and administrators have met with WatSPEED on several occasions to understand their business model and opportunities for Environment. Several program proposals were presented to WatSPEED for discussion over the course of 2022. Further discussions will occur on these and other opportunities in 2023 through the newly appointed Associate Dean, Work Integrated Learning. | **Establish a unique Waterloo approach to support learning at various stages of individuals' professional lives.** |
| 3. Ensure our graduates have the necessary leadership, collaborative, and technical skills to fully contribute to society and the economy. | Pilot new delivery models that develop competencies in key areas that complement existing curriculum.<br><br>Conduct a Faculty-wide curriculum review that (a) identifies opportunities to enhance technical training that addresses the rapidly evolving role of technology in the workplace; (b) addresses decolonization, Indigeneity, and inclusivity; and (c) reviews how students' co-op experiences integrate with their academics to support 'future-ready' learning outcomes. | We are exploring opportunities for novel cross-campus learning experiences that will teach interdisciplinary frameworks and foster collaboration skills.<br><br>Academic programs in the Schools of Planning and Environment, Resource and Sustainability underwent cyclical review. Recommendations included delivery models and curriculum. | **Educate global citizens for the future of work and learning to thrive in an age of rapid change …**<br><br>*Promote quality and innovation in teaching and learning and support infrastructure, policy and practice that remove systemic barriers.*<br><br>*Continue to advance an agile, technology–enabled learning ecosystem that supports high–quality, open content and digital learning options. Continue to lead the world in co–operative education and* |

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| | | On Indigeneity and decolonization, we recognize and celebrate:<br><br>The work of Dr. Kelsey Leonard in leading the Indigenous Curriculum Working Group for the Faculty;<br><br>The Teaching Towards Reconciliation series led by Dr. Steffanie Scott, Julia Burke (CTE) and Madison Hill (CTE); and<br><br>[Environment graduate students who developed an e-Learning course on Decolonizing Methodologies for Sustainability Research, which was offered in Winter 2022](). | *support the workforce of the future through fully integrated academic and experiential learning opportunities.* |
| 4. Expand both experiential learning opportunities and international education, being sensitive to the need for accessible and affordable options. | Conduct a program and course review to better coordinate, scaffold and enhance experiential learning opportunities.<br><br>Work with the non-profit sector to create new opportunities for co-op and internship terms.<br><br>Ensure that every student has an opportunity to participate in an international exchange, field school, co-op placement, or conference. | The Faculty appointed Michael Wood as the inaugural Associate Dean, Work-Integrated Learning in early 2023 to explore further opportunities in this space.<br><br>Some highlights from 2022:<br><br>Piloting new work-integrated learning opportunities for the Master of Climate Change and MES in ERS.<br><br>Exploring additional information provided by Major Reflective Reports which replaced Work Term Reports in 2022.<br><br>Expanded support for "Global Citizen Internships".<br><br>An agreement was signed with World University Service of Canada to facilitate international, skills-based volunteering assignments for students. | **Continue to lead the world in co–operative education and support the workforce of the future through fully integrated academic and experiential learning opportunities.** |

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| | | Faculty leadership has been meeting with international partners to develop potential pathways. A delegation from University of Diponegoro in Fall 2022 led to an MOU signed in 2023, which anticipates discussions regarding, among other things, exchange and graduate research. | |
| 5. Be a culture that supports educators and celebrates educational excellence. | Introduce a program of supportive peer review to improve course design and program delivery.<br><br>Provide more opportunities for teaching experience among doctoral candidates and postdoctoral fellows.<br><br>Implement a program to recognize outstanding contributions to teaching | Faculty of Environment, Teaching Fellow, is a member of the Faculty leadership information exchange and participates in Faculty and campus-wide activities to help advance strategic priorities related to teaching and learning within the Faculty and University.<br><br>The Faculty continues to engage graduate students in teaching roles.<br><br>New awards were introduced by the Faculty to celebrate, among other things, excellence in teaching. The first such award was presented in 2022. | **Educate global citizens for the future of work and learning to thrive in an age of rapid change …**<br><br>*Promote quality and innovation in teaching and learning and support infrastructure, policy and practice that remove systemic barriers.* |
| 6. Improve our students' capacity to succeed in entrepreneurial and social enterprise activities. | Double the number of students exposed to or participating in entrepreneur-related events.<br><br>Increase leadership and social innovation training | Environment through E@E continues to look for ways to expose students to entrepreneurial and social enterprise activities. UWaterloo is also increasing support and activities centrally.<br><br>Some examples from 2022:<br><br>Hosted Jack Rosen Virtual Pitch Competition on February 9, 2022.<br><br>Three Environment students were awarded funds for their ventures at the Greenhouse 25th Social Impact Showcase. | **Propel Waterloo's global leadership in innovation, entrepreneurship and social impact.** |

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| | | [Four Waterloo undergraduate students, including one from the School of Planning, won the 8th edition of the annual Ryerson Real Estate Expand Your Empire (EYE) 2022 case competition.](#) | |
| 7. Achieve ambitious reductions in the Faculty of Environment's carbon footprint. | Reduce our carbon footprint on campus through initiatives related to food, space heating and cooling and other office practices.<br><br>Develop a plan to reduce and/or offset our work travel-related carbon footprint by 50% by 2025 | The Faculty is reviewing results of the energy audit and exploring opportunities for improving sustainability of Faculty facilities.<br><br>The 2022 policy permitting two days of work from home will have a positive impact on the Faculty's work travel-related carbon footprint. | **Continue to leverage our resources to engage, develop and build our capacity and infrastructure to create a sustainable and effective institution.**<br><br>*Leverage our entrepreneurial spirit and model organizational efficiency and sustainability in all domains of our service.* |
| 8. Provide leadership on University initiatives related to environment and sustainability. | Engage with others to explore and expand opportunities to green the campus. | Environment provides leadership roles in PACES and in Senate-approved research centres under the "sustainable futures" umbrella.<br><br>Associate Dean, Undergraduate is participating in a Teaching Innovation Incubator project regarding the integration of sustainability in curriculum across campus.<br><br>Environment is leading the development of new interdisciplinary climate change programs in the graduate and professional development spaces that will involve all six Faculties. | **Continue to leverage our resources to engage, develop and build our capacity and infrastructure to create a sustainable and effective institution.** |
| 9. Be at the forefront of defining and researching emergent environmental and sustainability problems that require an interdisciplinary approach. | Lead on and/or collaborate in highly impactful national/international sustainability research.<br><br>Attract support for large-scale projects and increase our overall annual research funding. | Environment continues to partner across all disciplines and sectors, attracting well-deserved attention and research funding for its critical work.<br><br>Some highlights from 2022: | **Waterloo will use its disciplinary and interdisciplinary strengths to solve increasingly complex, real–world problems.** |

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| | Develop a 'future cities' hub/centre<br><br>Strengthen knowledge mobilization | WISA, which officially launched in late 2021, held several webinars on sustainable aeronautics, an aviation summit, a design competition for the flight school at the Waterloo Wellington Flight Centre, and attracted significant research funding to, among other things, further interdisciplinary research in sustainable aviation ([the FedDev grant was formally announced in early 2023](#)).<br><br>[Environment launched the Future Cities Initiative in 2022, formalizing a futures lens in urban-focused research](#).<br><br>Environment is working with Mathematics and local Indonesian partners on the [FINCAPES project](#).<br><br>[Four of six Waterloo projects funded by the Federal government through the Climate Action and Awareness Fund are led or co-led by Faculty of Environment researchers](#).<br><br>Environment faculty were authors and contributing researchers for the IPCC sixth assessment report.<br><br>Environment faculty and graduate students participated in COP15 and COP27.<br><br>Environment faculty led the creation of a new International Tourism Panel on Climate Change at COP27.<br><br>Environment faculty were recognised with awards and appointments including: Paul Parker – received International Sustainable | |

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| | | Aviation and Energy Research Society Science Award; Martine August – won Early Researcher Award in Planning;  Simron Singh – appointed Executive Secretary of the International Society for Industrial Ecology, and Co-Chair of Risk-KAN; Jeremy Pittman - appointed to the Nature Advisory Committee created by Environment and Climate Change Canada; Daniel Scott - awarded the newly created faculty research award; Heather Hall - received Minister's Award of Excellence in the Category of Everyday Hero; Marie-Claire Cordonier Segger – named Fellow of the Royal Society of Canada. | |

**Goal 2: Achieve increased impact through national and global leadership in environmental and sustainability research.**

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| 10. Enhance inter-Faculty research collaborations, especially in areas that align with the University's strategic priorities. | Participate in large University-level research proposals and projects with a technology focus.<br><br>Provide leadership in three environmentally focused University Research Centres related to water, energy and climate | Environment faculty members serve as Executive Director of Waterloo Climate Institute, Founding Director of WISA, Director of WICI, Head of Intact Centre for Climate Adaptation, Associate Director of P4A, co-director of the newly created Waterloo Institute for Sustainable Finance, and board or planning committee members of WISE and the Water Institute. Through these research centres and institutes, faculty are collaborating with colleagues in other Faculties on interdisciplinary research. | **Achieve greater research impact by leveraging Waterloo's partnerships.** |
| 11. Ensure a faculty and research staff complement that supports interdisciplinarity in research and teaching. | Develop a strategic plan that ensures an appropriate balance of natural science, social science, technology, business, health and humanities in faculty hires.<br><br>Incorporate Equity, Diversity and Inclusivity in all hiring processes in order to increase representation of black, Indigenous and other under-represented groups | Four new faculty members joined Environment in 2022 with expertise in areas including: pedagogies of social transformation and ecological consciousness, environmental, climate and design justice, sustainable urban futures, ecosystem services and human well-being, environmental governance, social impact assessment, science and policy integration, agriculture, food security, innovations in agricultural and food systems, and digital agriculture.<br><br>Two of the four new faculty members hired in 2022 were recruited through the Black Faculty Cluster hiring initiative.<br><br>Director, Strategic Initiatives & Communications has consulted with the Provost's Office on the terms of the Indigenous Faculty Cluster hiring program to provide advice to those conducting searches that may qualify for funding, so as to increase opportunities to attract | **Promote and support Indigenous initiatives and a culture of equity, diversity and inclusivity for all.**<br><br>*Improve the representation, participation and engagement of equity–seeking groups within our community.* |

| | | Indigenous scholars to Environment. | |
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| 12. Collaborate with external partners in shaping our research agenda and in co-creating and mobilizing knowledge. | Develop a plan for better integrating alumni into the Faculty's research and teaching.<br><br>Develop strategic partnerships with corporations, non-profits and/or governments where the impact of our work can be transformative | Working strategically with faculty who are working on fundraising priorities, we have involved key alumni and industry partners to support research and teaching.<br><br>Some relevant projects:<br><br>Received funding for new project supported through the Canadian Space Agency to develop satellite technology to understand climate change.<br><br>Researchers received funding to work with community to investigate lack of family sized apartment housing in Waterloo.<br><br>See also research projects and international partnerships outlined above, many of which involve multiple stakeholders in knowledge co-creation and capacity building. | **Achieve greater research impact by leveraging Waterloo's partnerships.**<br><br>**Propel Waterloo's global leadership in innovation, entrepreneurship and social impact.**<br><br>*Leverage alumni, research and industry networks to expand entrepreneurial opportunities for members of the Waterloo community.*<br>*Increase the availability and depth of partnerships with external agencies to advance applied research …* |
| 13. Develop and implement an internationalization strategy that prioritizes partnerships and participation that increase the impact of our work. | Identify three priority regions and invest in relationships and projects that will have long-term benefit for research and community impact.<br><br>Develop an international student recruitment strategy that connects with research partnerships | Discussions in process with MUR and Waterloo International regarding priority areas and decision-making factors for international student recruitment.<br><br>Senior leadership is participating in discussions, delegations and visits to build and reinforce partnerships in countries including India, Indonesia, Namibia and South Africa.<br><br>Environment participated in the IISMA program which welcomed 15 Indonesian students to campus in 2022. | **Waterloo will use its disciplinary and interdisciplinary strengths to solve increasingly complex, real–world problems.**<br><br>*Prioritize Waterloo's international partnerships to maximize impact for the global good.* |

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| 14. Contribute meaningfully to the achievement of the United Nations Sustainable Development Goals (SDGs) in Canada and globally. | Grow the programming and impact of SDSN Canada.<br><br>Expand programming related to the mobilization of youth for sustainability | Environment continues to host SDSN Canada and support its work, including helping to attract funding and providing facilities, volunteers, and communications amplification for conferences and events.<br><br>Environment celebrates all the hard work that went into sustainability events last year by faculty, staff, students and partners, including: ENVigorate, Together Ensemble, SDG Week, and all the events hosted by the Ecology Lab.<br><br>See also research projects linked above that relate to the achievement of the SDGs. | **Continue to leverage our resources to engage, develop and build our capacity and infrastructure to create a sustainable and effective institution.**<br><br>*Leverage our entrepreneurial spirit and model organizational efficiency and sustainability in all domains of our service.* |

**Goal 3: Demonstrate an ethos of caring in all that we do.**

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| 15. Create, model and support a culture of wellbeing for students, staff and faculty. | Lead/support, as appropriate, the implementation of the recommendations of the President's Advisory Committee on student mental health.<br><br>Ensure that 90% of faculty and staff have mental health training by 2025. | Prateep Nayak was appointed the inaugural Associate Dean, Equity, Diversity, Inclusion and Justice in 2022.<br><br>The Teaching Fellows as a group are centering their next project on addressing student wellness in the classroom, starting with the new AODA recommendations.<br><br>Environment hosted wellness events last year, including:<br>Environment Cares Student Social<br><br>Happiness and Mindfulness Event | **Be a people–centered institution committed to genuine care, concern, respect, inclusivity and well–being for all.** |
| 16. Offer varied learning environments to support students with different learning styles and backgrounds. | Align our activities with university priorities around individualized 'learning pathways'.<br><br>Support and encourage participation in thesis, capstone and independent studies courses | See above activities around curriculum and program reviews undertaken in 2022. | **Be a people–centered institution committed to genuine care, concern, respect, inclusivity and well–being for all.**<br><br>*Create a supportive environment for international students that also celebrates their contributions to our diverse community.*<br><br>*Increase flexible curricula that stimulate reflective, deep learning and develop competencies to address global challenges and opportunities.* |
| 17. Focus on the student experience. | Focus on the transition to university through better coordination of first-year assignments and tests.<br><br>Use the NSSE results to frame initiatives for improvement, especially in fourth year undergraduate programs | See above activities around curriculum and program reviews undertaken in 2022.<br><br>Several initiatives were undertaken in response to the most recent NSSE, including:<br><br>Continued student leadership breakfast series | **Foster a connected and supportive community that inspires students, faculty, staff and alumni to achieve their personal, academic and professional goals while feeling valued.** |

| | | Created a new position - Student Transitions and Engagement<br><br>Initiated a peer mentorship program between first and upper year students Organized/participated in a number of town hall and other meetings with grad student groups, both at the UW and ENV levels. Those events are ongoing.<br><br>The EGSA and the units organize events on a regular basis. ENV grad administration participates in those. | |
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| 18. Work with graduate students to create and steward communities of learning. | Provide opportunities for theme-based mentoring through our research clusters. | Research clusters were implemented in response to this item. The Faculty is engaging with students to assess the success of this model. | **Enhance graduate and post–doctoral studies …**<br>Strengthen academic, personal and professional supports for our graduate student community. |
| 19. Continually review student-facing roles to ensure excellent academic support. | Evolve practices in order to improve the timeliness and quality of response | Participated in the "Enhancing UG Advising Project" with the SSO and committed to continual review of student-facing roles to ensure excellent academic support. | **Foster a connected and supportive community that inspires students, faculty, staff and alumni to achieve their personal, academic and professional goals while feeling valued.** |
| 20. Provide staff with more opportunities for professional growth. | Develop a culture of career-long training and development. Provide staff with more opportunities to engage in leadership and academic decision making.<br><br>Ensure full-time research staff are integrated into career training | Dean's Office conducting workforce planning exercise through HR. Recommendations expected in 2023.<br><br>Environment created new service awards for those who show leadership and engage in a diverse number of responsibilities with positive impact on those around them and demonstrating an ethos of caring. | **Foster a connected and supportive community that inspires students, faculty, staff and alumni to achieve their personal, academic and professional goals while feeling valued.** |
| 21. To better support research faculty. | Encourage academic units to adopt a teaching load of 4 courses and 3 courses in alternate years. | Transitioning into academic units adopting a teaching load of 4 courses and 3 courses in alternate years, with most units expected to adopt this model by 2023. | **Waterloo will use its disciplinary and interdisciplinary strengths to solve increasingly complex, real–world problems.** |

| | | Provide more support for proposal development and research administration | Dean's Office conducting workforce planning exercise through HR. Recommendations expected in 2023. | |
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| 22. | To thoughtfully and respectfully engage with members of Indigenous communities to forge a path whereby our activities are increasingly aligned with the Calls to Action of the Truth and Reconciliation Commission. | Develop an Indigenous advisory committee for the Faculty.<br><br>Provide faculty and staff with opportunities for Indigenous knowledge and teaching method integration, and language learning.<br><br>Develop an Indigenous student recruitment strategy | Director, Strategic Initiatives & Communications has met with members of the campus community, including the Office of Indigenous Relations, Myeengun Henry, leadership in Health and the Provost's Office to understand what resources are available, what other faculties are doing, and opportunities for Environment. She has also recently reached out to individuals in Environment to discuss consultation with Indigenous members of the Environment community.<br><br>Prior to going on secondment, the Faculty's embedded marketing and recruitment specialist was working with MUR Indigenous Recruitment and Partnership specialist on a strategy. For 2023, the MUR specialist is engaging in direct outreach to encourage applicants to join Environment. A more fulsome strategy will be developed when the new marketing and recruitment specialist is settled in ENV. | **Promote and support Indigenous initiatives and a culture of equity, diversity and inclusivity for all**.<br><br>*Embrace and act upon the Truth and Reconciliation Commission's recommendations and calls to action and build stronger relationships with our local Indigenous community.* |
| 23. | To increase our Faculty's capacity to offer informed opinion, analysis, and debate on local and global environmental policy issues. | Establish a structure to convene and coordinate environmental policy work on campus in order to offer informed opinion, analysis, and debate on global environmental policy issues | Environment faculty and members of our research centres and institutes are regularly engaged in these activities.<br><br>Director, Strategic Initiatives & Communications is talking to government relations about other opportunities and resources on campus to further this work. | **Achieve greater research impact by leveraging Waterloo's partnerships.**<br><br>*Increase partnerships with the public and not-for-profit sectors to catalyze important policy development.* |