

2026-2030

STRATEGIC RESEARCH PLAN





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ACKNOWLEDGING THE LAND

Durham College is situated on the traditional lands of the First Peoples of the Mississaugas of Scugog Island First Nation. These lands are covered under the Williams Treaties and rest within the traditional territory of the Anishinaabeg. We offer our gratitude to the Indigenous Peoples who care for and, through the treaty process, share the lands on which we live, learn, teach, and prosper today.



MESSAGE FROM THE ASSOCIATE VICE PRESIDENT, INNOVATION AND RESEARCH

Durham College’s Strategic Research Plan (2026–2030) reaffirms our commitment to advancing industry-led and community-based problem-solving through innovation, applied research, and commercialization. Informed by extensive consultations across the college and with our broader community, the plan provides a clear roadmap for the continued growth and evolution of our research enterprise.

Grounded in the strength of our five established research centres—each supported by robust partnerships—we will continue to address community needs with real-world solutions while creating meaningful, hands-on learning opportunities for our students.

Aligned with the priorities of the [DC 2030 Strategic Vision](#) and [Academic Plan](#), this plan supports our institution-wide goals and strengthens the College’s leadership in innovation, applied research, and commercialization.



Debbie McKee Demczyk
Associate Vice President, Innovation and Research

COMMITMENT TO ANTI-BLACK RACISM

Durham College is committed to a diverse and inclusive campus for all students and employees, regardless of race. We condemn all forms of anti-Black racism and all systems of oppression which deny individuals the right to equitable treatment, access and fairness. We acknowledge that systemic and institutionalized racism serve to limit the opportunities and potential of members of the Black community and Durham College pledges to listen, learn and take actionable steps to ensure equitable and inclusive access for all.

COMMITMENT TO INDIGENIZATION

Durham College recognizes that Indigenization is a continuous process requiring each member of our campus community to actively commit to reconciliation with the goal of building respectful, reciprocal relationships that will contribute to better educational outcomes for all students. Inherent among this commitment is our pledge to uphold the seven principles of the Indigenous Education Protocol for Colleges and Institutes of which DC is a proud signatory.

INTRODUCTION AND VISION

Durham College (DC) has built a strong reputation as a leader in applied research, innovation, and collaboration. Applied research at DC bridges the gap between ideas and impact—helping industry partners, community organizations, and students work together to solve real-world challenges. Unlike traditional academic research, which is focused on theory and discovery, applied research at DC is grounded in practice. It is designed to deliver measurable outcomes, new services, products and processes, and tangible benefits for industry and society.

Through its five applied research and innovation centres—the AI Hub, Mixed Reality Capture Studio, Centre for Cybersecurity Innovation, Centre for Craft Beverage Innovation, and the Social Impact Hub—DC delivers practical, technology-driven solutions that strengthen businesses, communities, and the regional economy. Each centre focuses on a unique area of expertise but shares a common commitment to hands-on learning, industry collaboration, and sustainable innovation.



STRATEGIC ALIGNMENT

This Strategic Research Plan aligns with Durham College’s institutional goals outlined in our [DC 2030 Strategic Vision](#), ensuring that applied research contributes directly to a People-Centric, Sustainable, Community-Connected, and Future-Focused college.

BACKGROUND

Applied research at DC is an essential driver of student success, industry competitiveness, and community development. The College's applied research activities are recognized for

- **Collaborative Partnerships** – we work closely with small and medium-sized enterprises, municipalities, community and public sector organizations to address real challenges
- **Experiential Learning** – we provide students with paid, hands-on opportunities to apply classroom knowledge to real-life scenarios, enhancing employability skills and career readiness
- **Community and Industry Impact** – we deliver solutions that improve productivity, foster innovation, and generate measurable social and economic benefits
- **Inclusive Innovation** - we strive to enable diverse participation in research, including gender diverse peoples, Indigenous peoples, newcomers, and underrepresented groups in technology fields.

As the Canadian innovation landscape evolves, DC's applied research ecosystem is positioned to respond. The next four years will focus on deepening community engagement, strengthening industry integration, scaling successful models, and ensuring financial sustainability through diversified funding and revenue streams.

COMMITMENT TO EQUITY, DIVERSITY AND INCLUSION IN RESEARCH

Equity, diversity, and inclusion (EDI) are essential to ethical, relevant, and locally responsive research. In recognizing this, the Office of Research Services, Innovation and Entrepreneurship (ORSIE) created an actionable EDI framework to guide our efforts—not only to meet national expectations and commitment to the Government of Canada Dimensions Charter, but to ensure research practices and outcomes reflect and serve the diverse populations we engage.

An EDI Working Group was created that led the development of an EDI Action Plan grounded in consultation, collaboration, and accountability. These conversations shaped a living document that identifies barriers, sets clear goals, and outlines concrete steps for building inclusive teams, projects, and partnerships. Our approach is aligned with broader institutional values and national frameworks, supporting DC's commitments to anti-Black racism and Indigenization.





 **DURHAM COLLEGE**
SUCCESS MATTERS

CENTRE FOR INNOVATION
AND RESEARCH

GOALS

Over the next four years, ORSIE will lead and support the following goals:



PEOPLE-CENTRIC INNOVATION

Empower students, researchers, and partners to co-create applied solutions that enhance learning and engagement in an environment of respect.



COMMUNITY- CONNECTED RESEARCH

Strengthen connections with local, regional, national, and international organizations to co-create solutions that support economic, health, and social outcomes.



SUSTAINABLE AND RESPONSIBLE RESEARCH

Integrate sustainability principles into every aspect of applied research, from planning to outcomes.



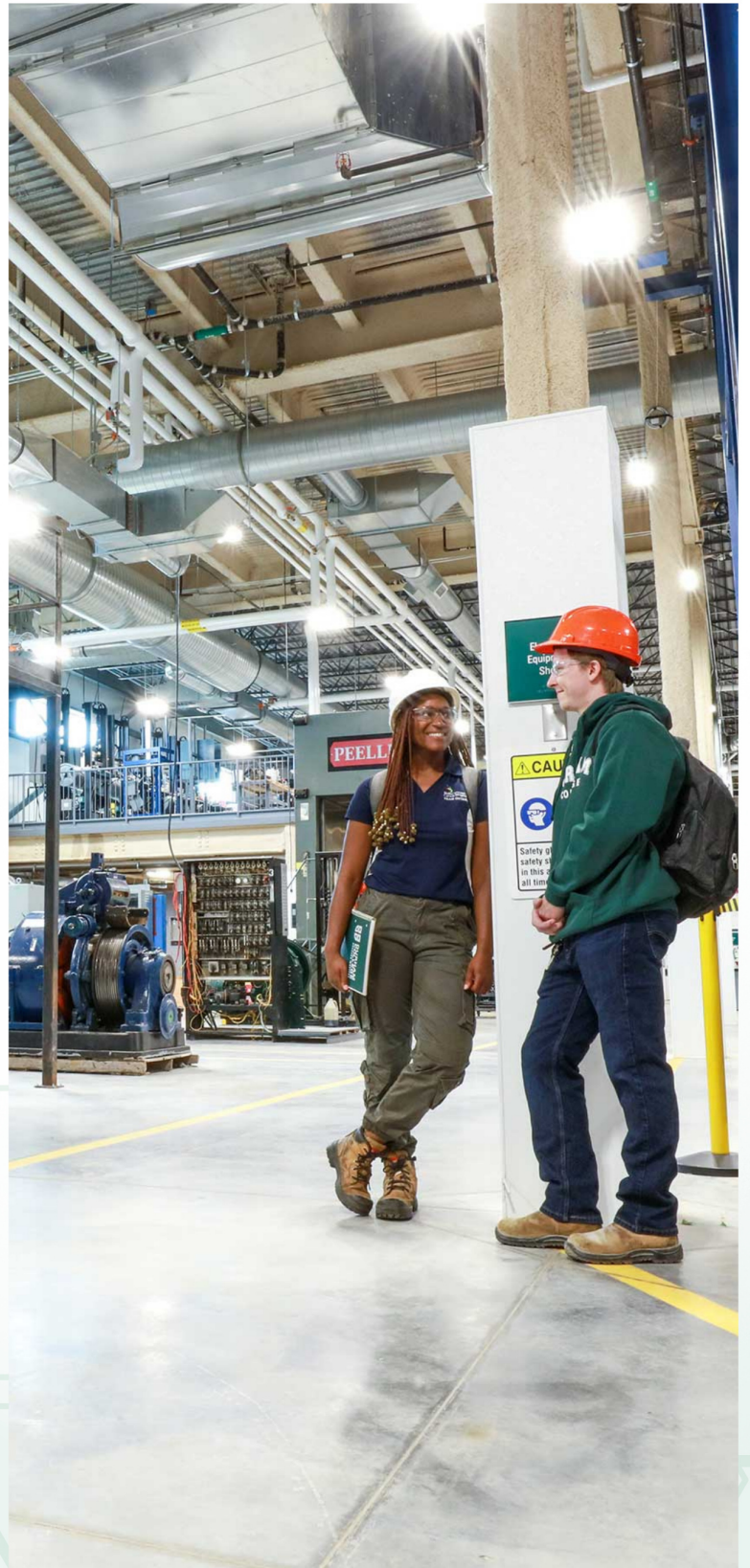
FUTURE-FOCUSED RESEARCH AND TECHNOLOGY LEADERSHIP

Position Durham College as a national leader in applied research, technology adoption, and innovation for the future economy.

ALIGNMENT WITH RESEARCH STANDARDS AND INTERNATIONAL GOALS

To strengthen activities and support a broader impact we will continue to be guided by:

- The Secretariat on Responsible Conduct of Research
- Government of Canada Dimensions Charter: Equity, Diversity and Inclusion
- Tri-Agency Research Data Management Strategy
- The First Nations Principles of OCAP®: Ownership, Control, Access, Possession
- Innovation, Science and Economic Development Canada - Policy on Sensitive Technology Research and Affiliations of Concern
- National Security Guidelines for Research Partnerships
- Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans
- United Nations Sustainable Development Goals





APPLIED RESEARCH CONCENTRATIONS

Since its establishment in 2009, ORSIE has pursued a mandate to drive socio-economic success in our community. We accomplish this by expanding and deepening regional partnerships; addressing skills gaps and labour market needs; strengthening faculty and staff research and innovation capabilities; growing capacity within research areas of strength; fostering equitable, diverse, and inclusive work environments; and responsibly managing resources, while ensuring good governance.

These goals continue to align with the College's strategic priorities, scope of academic programs, and emerging areas of need identified by external collaborators across sectors and communities. ORSIE's efforts to follow this mandate and support research concentrations has led to the evolution of five thriving and innovative applied research centres.





social
impact
hub

SOCIAL IMPACT HUB

Since its inception in 2021, the Social Impact Hub has become a dynamic catalyst for transformative change in social and health equity through applied research and service-learning projects. Our research will continue to demonstrate a deep commitment to addressing social determinants of health, expanding the Social Impact Hub's network of collaborators into a vibrant ecosystem of shared purpose. By mobilizing resources, fostering interdisciplinary expertise, and following principles of Community-Based Research, project teams will co-create solutions that positively impact communities.

Over the next four years, the Hub will strengthen capacity to address social determinants of health in partnership with community voices, fostering collaboration and reciprocal mentorship. At the same time, create service-learning opportunities for students, helping to shape the future workforce while tackling issues that matter most to community partners.

Research initiatives will be guided by local priorities, including those identified in the Region of Durham's Community Safety and Well-Being Plan and the Poverty Reduction Strategy. Cross-disciplinary projects will be supported, with particular emphasis on mental health, social inclusion, and accessibility. Dedicated funding mechanisms will be used to strengthen capacity for both Community-Based and Indigenous research.



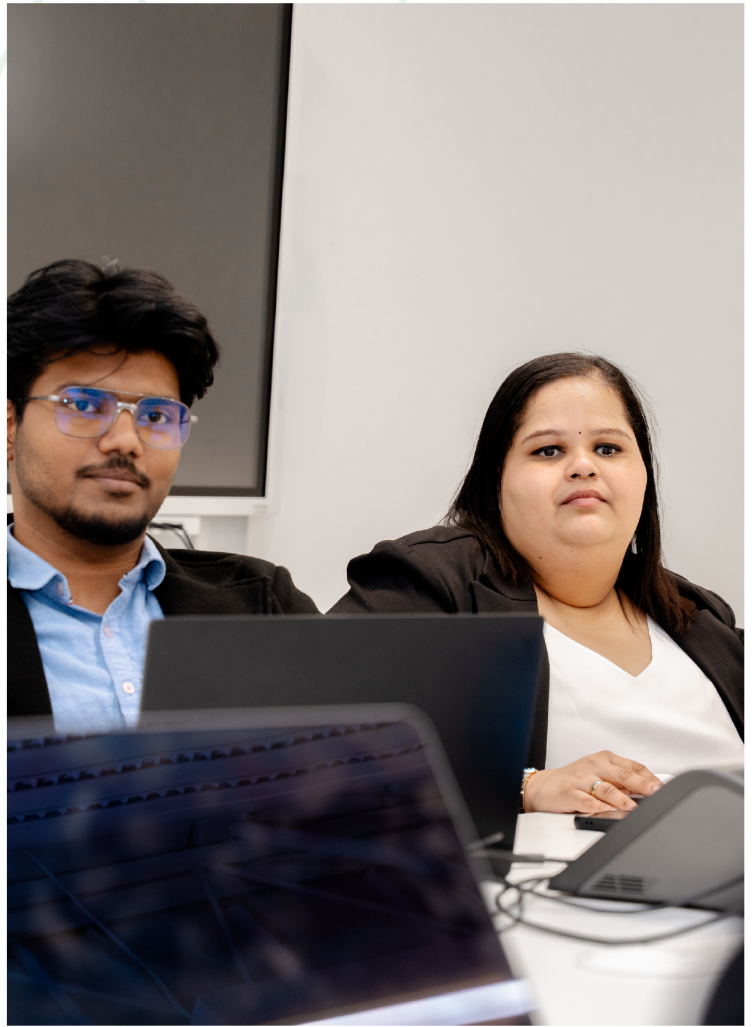
MIXED REALITY CAPTURE STUDIO

Launched in 2020, Mixed Reality Capture (MRC) Studio is a facility that partners with businesses to create immersive solutions, including advanced training simulations for various sectors, notably hazardous industries like fire safety, using technologies like virtual reality, augmented reality, and motion capture to boost productivity and safety. The Studio provides access to state-of-the-art technology for creating interactive, gamified training, virtual prototypes, and digital content for industries ranging from healthcare to gaming, helping companies innovate and build workforce skills.

Over the next four years, MRC Studio will focus on advancing immersive training and simulation solutions to support workforce development and technological transformation across key industries. Close collaboration with major energy sector partners—Ontario Power Generation and Bruce Power—will enable co-development of high-fidelity digital twins and real-time immersive experiences tailored to the construction, maintenance, and operation of nuclear and energy facilities. Applied research activities will also involve small- and medium-sized enterprises in the creative sector, supporting asset creation, co-development, and technical integration in gaming and virtual production, and capabilities to support Canada's defence sector will be sharpened. During this time, MRC Studio will commission a virtual production lab, with funding secured from Canada Foundation for Innovation and the Ontario Research Fund. Efforts will also be focused on attaining status as a Technology Access Centre to sustain and grow operations.

As immersive technologies mature and industry demand accelerates, MRC Studio is positioned to lead research, development, and deployment of real-time training systems that are practical, scalable, and grounded in industry need. Through our partnerships, we will contribute to building a digitally skilled workforce, advancing safety and innovation across high-impact sectors, and shaping the future of hybrid training in Canada.







CENTRE FOR
**CYBERSECURITY
INNOVATION**

CENTRE FOR CYBERSECURITY INNOVATION

Established in 2020, the Centre for Cybersecurity Innovation is a hub for applied research and business support, providing companies with expertise, training, and solutions, including risk assessments, workshops, and threat intelligence to build capacity, strengthen their digital defenses, and improve their overall cyber posture against complex threats.

Over the next four years, the Centre for Cybersecurity Innovation will establish itself as Ontario's premier applied research hub and trusted cybersecurity partner. We will strengthen collaboration with government, municipalities, and public agencies, delivering practical frameworks that align with legislation such as Bill 194. We will empower defense industries to meet evolving compliance requirements and provide small and medium-sized enterprises with affordable, enterprise-grade programs.

With a state-of-the-art cybersecurity lab funded by Canada Foundation for Innovation and the Ontario Research Fund, our vision is to be the cornerstone of public sector cybersecurity, offering ready-to-use compliance solutions—including threat and risk assessments, privacy impact assessments, and incident response plans—that enhance resilience and accelerate response to threats. By guiding defense manufacturers on supply chain security and certification and supporting small and medium-sized enterprises with tailored programs such as SOC 2 and ISO 27001, we will shape a secure, compliant, and trusted digital future for Ontario.

AI/HUB

The top of the page features a large, semi-transparent green banner. On the left side of this banner, the text 'AI/HUB' is written in a large, white, sans-serif font. The background of the banner is a blurred photograph of several people, including a man in a white beanie and a woman, who appear to be working together in a studio or office environment. The overall color scheme is green and white.

AI HUB

The AI Hub is a technology studio and applied research centre that helps Canadian companies harness the full potential of artificial intelligence. As the College's first applied research centre, established in 2017, the AI Hub has now achieved status as a Technology Access Centre.

Over the next four years, the AI Hub will advance a multi-sector applied research agenda that helps Canadian organizations adopt, commercialize, and govern artificial intelligence safely and effectively. Grounded in a clear value proposition, we meet companies where they are—AI-curious, AI-enabled, or advanced developers—and translate rapidly evolving technologies into practical, trustworthy solutions with measurable impact. We will expand applied AI research that unlocks value from operational and enterprise data, emphasizing turnkey solutions such as virtual agents, predictive models, and data-structuring tools. This approach supports diverse industries while deepening research in nationally significant sectors including energy, manufacturing, health, supply chain, and professional services.

Safety, governance, privacy, and security will be embedded into every project, reinforcing Canada's leadership in trustworthy AI. By integrating regulatory readiness and risk-aware development, we will help organizations operate confidently in complex environments, including health and dual-use technologies. Co-location with the Centre for Cybersecurity Innovation will strengthen risk mitigation and secure, scalable solutions. We will expand training, workshops, and events to improve AI literacy and leverage DC student talent. Evidence-based programs for executives, technical teams, and students—supported by initiatives such as the AMII Workforce Readiness Consortium—will build sustainable talent pipelines and workforce readiness. Industry collaborations will guide research and commercialization. Investments in GPU servers, high-performance compute, and secure environments will enable advanced model development, responsible experimentation, and production-ready AI solutions.





CENTRE FOR CRAFT BEVERAGE INNOVATION

The Centre for Craft Beverage Innovation (CCBI) was first established in 2018 as the Centre for Craft Brewing Innovation and expanded its mandate to include a multitude of fermented craft beverages, leading to its rebrand in 2025.

Over the next four years, the CCBI will leverage its 50-litre pilot brew line and state-of-the-art brew lab with advanced micro-analytical testing equipment to support craft beverage producers with recipe development, quality control, and innovation in areas like beer, cider, and kombucha. The CCBI will strengthen its brand as the trusted guide for beverage makers seeking scientific, technical, and quality-focused support. Through a balance of multi-year funded projects with recurring fee-for-service offerings, the Centre will establish a strong track record of growth supported by clear revenue pipelines and market-driven programming. By partnering with faculty and complementary applied research centres, and by remaining connected to the beverage innovation community, the Centre will anticipate emerging needs and introduce new services to address sector challenges. Services will span the full lifecycle of beverage development, from concept viability and recipe design to prototyping, testing, and quality management advising.

The CCBI will focus on two client groups: established craft and artisan producers seeking improved quality and consistency, and new entrepreneurs requiring validation, recipe development, prototyping, and technical support. Expertise will deepen in applied beverage science, product innovation, analytical testing, quality management systems, advanced manufacturing technologies, non-alcoholic beverages, and farm-based production—reflecting both current demand and long-term growth opportunities.

CENTRE FOR
**INNOVATION
AND RESEARCH**



PERFORMANCE MEASUREMENT

Progress will be measured through annual performance indicators identified through the departmental business plan as well as funder reporting, and reviewed regularly to ensure alignment with institutional and funder priorities. Results will be shared through annual reports and success stories, reinforcing transparency and accountability.

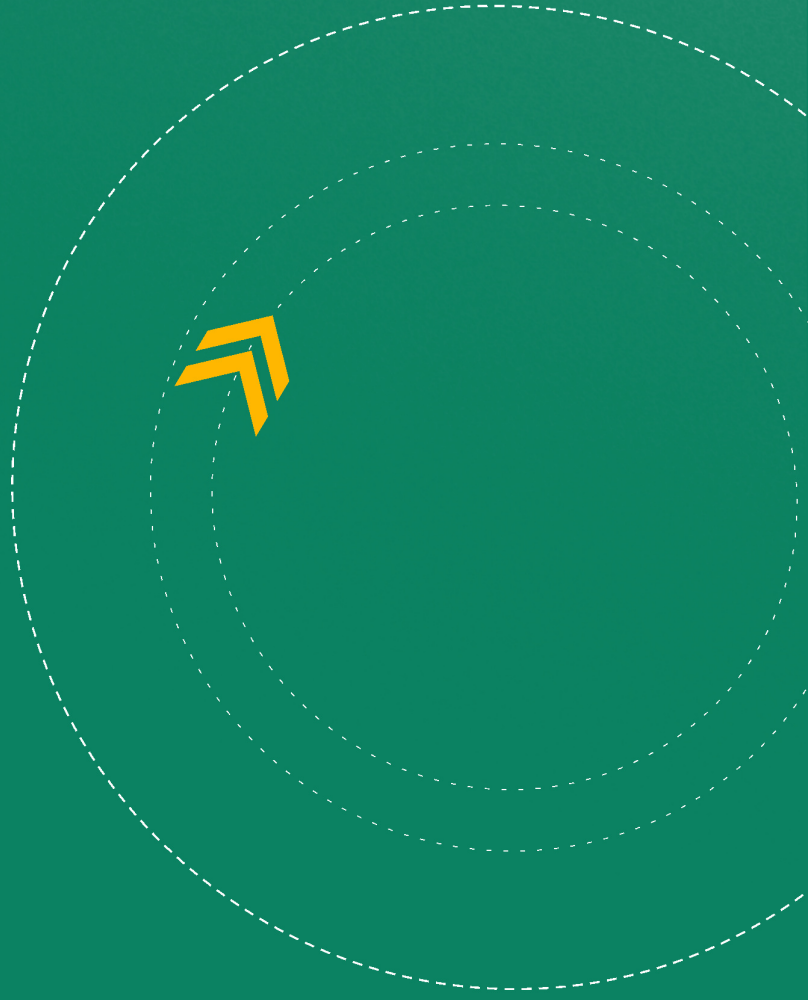
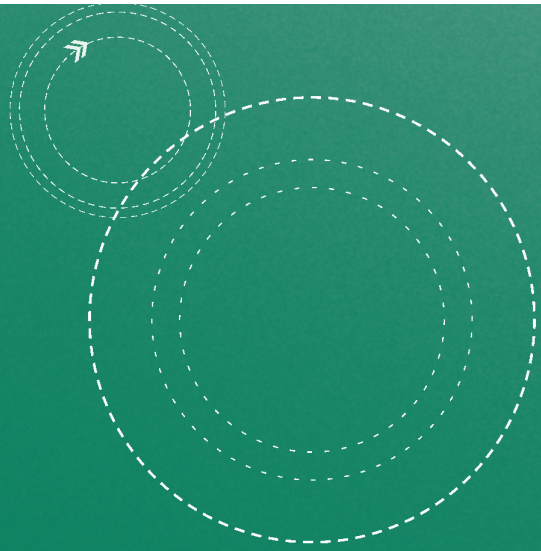


CONCLUSION

DC's Strategic Research Plan (2026–2030) positions the college as a catalyst for innovation, collaboration, and community transformation. By aligning research activities with the college's strategic goals the plan ensures that every initiative delivers real value to students, researchers, industry, and society.

Over the next four years, our research will expand its impact through cross-sector collaboration, sector-relevant innovation, and sustainable growth. Each applied research centre will not only contribute to solving real-world challenges but also operate as a financially resilient, revenue-generating hub of expertise.

DC's commitment to applied research reflects its broader mission: empowering students today to build the solutions of tomorrow. Through this strategy, the College will continue to strengthen its reputation as a trusted partner, a centre of excellence in applied innovation, and a leader in shaping a sustainable and thriving future for all.



INTERESTED IN WORKING WITH US?

Contact us 905.721.2000 x3223 or
appliedresearch@durhamcollege.ca.