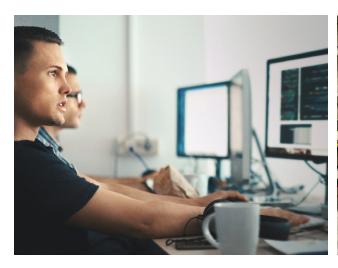


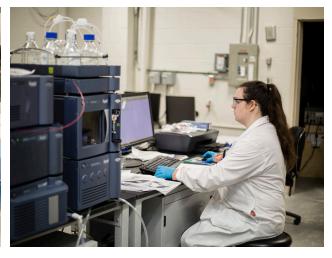




# LAMBTON COLLEGE APPLIED RESEARCH, ENTREPRENEURSHIP & INNOVATION STRATEGIC PLAN 2018-2023









## **VISION**

Lambton College's Applied Research, Entrepreneurship & Innovation department is a global leader for collaborative applied research, development, innovation, education, entrepreneurship and commercialization

## **MISSION**

The mission of Lambton College's Applied Research, Entrepreneurship & Innovation department is to advance knowledge while adopting and nurturing a culture of entrepreneurship and innovation on campus and in the communities we serve. As a department, we strive to educate and train highly qualified professionals to serve emerging industries in our region and around the world. We are committed to generating, disseminating and preserving knowledge, while engaging with our partners to resolve local and global issues. Through excellence in applied research, commercialization and entrepreneurship, we will support and advance domestic and international projects while providing economic, social, environmental and technological advancements.





# **FOCUS THEMES**

The Lambton College Applied Research, Entrepreneurship & Innovation department's Strategic Plan identifies six thematic areas that are designed to facilitate excellence and collaboration both within Lambton College and with partner organizations to address issues of local, national and global importance:

- 1. Promote: Innovation and Healthy Living
- 2. Engage: Community, Students, Industry and Government
- 3. Build: Entrepreneurial Community and Vibrant Societies
- 4. Enable: Technologies for the 21st Century
- 5. Sustain: Environment and Humanity
- 6. Advance: Knowledge and Prosperity















# **RESEARCH AREAS**

#### Category 1: Natural Science and Engineering

- 1. Advanced Manufacturing and Industrial Design
- 2. Instrumentation, Automation and Process Control
- Advanced Materials, Composites, Nano-Materials and Sustainable Materials
- 4. Biotechnology, Biochemicals and Bioprocesses
- 5. Information Technology, Communication, Cyber Security and Digital Technology
- 6. Data Science and Artificial Intelligence
- 7. Water and Wastewater
- 8. Corrosion and Electrochemical Technologies
- 9. Energy Conversion, Storage, Optimization and Management
- 10. Food and Beverages

#### Category 2: Social Science and Humanities

- 1. Community Services
- 2. Social Science and Humanities
- 3. Business Science

#### Category 3: Health

- 1. Health Science
- 2. Fire and Public Safety





# **OBJECTIVES**

This Strategic Plan covers the time period from 2018 - 2023. The Plan sets the following high-level objectives for Lambton College:

**Category 1:** Build and Strengthen Collaborations, Alliances, Relationships and Partnerships

- 1. To foster collaborations and build research partnerships, projects and initiatives nationally and internationally which focus on diverse issue-oriented, industry-focused, and problem-driven research questions.
- 2. To work in partnership with other institutions and organizations where such collaborations can lead to outstanding research, development, new businesses and commercialization.
- 3. To develop proactive strategies to attract diversified funding from external sources.

#### Category 2: Enhance Research Capacity

- 1. To identify areas of research and required infrastructure.
- 2. To acquire and maintain state-of-application infrastructure.
- 3. To contribute to the stability and long-term planning of research centres and other academic structures to advance research and innovation.

#### Category 3: Training of Highly Qualified Professionals

- 1. To ensure, through a commitment to the personal education of each student, a quality of training and experience, which enables students to learn the values, advanced applied skills and intellectual discipline required to succeed in a competitive global job market, while generating a lifelong sense of connection to Lambton College.
- 2. To engage, recruit and retain the best research staff and faculty through research and entrepreneurship activities.

#### Category 4: Emphasize Knowledge Sharing and Mobilization

 To develop Lambton College's capacity to generate, share and mobilize knowledge for the private and public use nationally and globally, ensuring significant contributions to economic growth, industry diversification, environmental impact and healthy living.

#### Category 5: Provide Impact to Community, Canada and the World

- 1. To provide leadership and contribute effectively to the cultural, social and economic life of the Sarnia-Lambton region, Canada and the World.
- 2. To support commercialization and application of proof of concept studies, prototyping and the further development of technologies with strong potential for commercial or social impact.

#### Category 6: Grow and Nurture Entrepreneurial Activities

- To enhance integration of applied research and entrepreneurship across the spectrum of College programs and portfolios by building upon our strengths, highly qualified faculty and students, and our robust capacity and infrastructure to support innovation and entrepreneurship.
- 2. To foster an entrepreneurial mindset across the College and to develop new ways of working to facilitate a dynamic and innovative team of students, faculty and staff.
- 3. To collaborate with partners in the establishment of a shared coworking space and business incubator in downtown Sarnia. The space will be utilized to support entrepreneurs and the development of diverse industry clusters and new startup organizations.



# KEY PERFORMANCE INDICATORS

#### Category 1: Research Development and Operation

- 1. Number of students, faculty and staff involved in projects
- 2. Number of new initiatives for community
- 3. Number of collaborative grant-based and contract projects

#### Category 2: : Research Impact

- 1. Number of new or improved products, technologies or processes
- 2. Number of students hired due to their research experience
- 3. Increased sales and revenues as well as jobs created for partners

#### Category 3: : Knowledge Transfer and Dissemination

- 1. Number of events, conferences, tours and workshops
- 2. Number of publications and conferences attended
- 3. Number of new partnerships

#### Category 4: Entrepreneurial Activities

- 1. Number of new businesses
- 2. Number of youth exposed to entrepreneurial training
- 3. Number of clients/startups assisted



