Committed to a Better Campus and Brighter Future.

UNIVERSITY
OF ONTARIO
INSTITUTE OF TECHNOLOGY

Strategic Sustainability Plan| Phase 1

2015-2020

Contents

Executive Summary

"Sustainability implies that the critical activities of a higher education institution are (at a minimum) ecologically sound, socially just, and economically viable, and that they will continue to be so for future generations. A truly sustainable college or university would emphasize these concepts in its curriculum and research, preparing students to contribute as working citizens to an environmentally sound and socially just society. The institution would function as a sustainable community, embodying responsible consumption of food and energy, treating its diverse members with respect, and supporting these values in the surrounding community." Association of University Leaders for a Sustainable Future (www.ulsf.org)

The University Of Ontario Institute Of Technology is committed to ensuring that sustainability is reflected in our policy, planning, and decision making processes. This 5 year Strategic Plan is our strongest commitment to date and will guide further transition to Campus Sustainability.

President's Statement

Intentionally Left Blank

Introduction

The University Of Ontario Institute Of Technology (UOIT) has integrated sustainability throughout its operations since inception. However it is only recently that these long pursued actions were identified as contributing to "sustainability". Since 2002, UOIT has prioritized energy performance and carbon control by incorporating emerging technologies and sustainable design into campus planning. From Borehole Thermal Energy Storage System (BTESS) to simple green roofs, UOIT has fully espoused the principles of environmental stewardship and energy conservation.

In 2009, the University made its commitment to sustainability official by signing the sector-wide Council of Ontario Universities pledge "*Ontario Universities: Committed to a Greener World*" which underlined our responsibility to *"assist in finding solutions to the challenges of environmental sustainability; to share knowledge about sustainability and climate change; and to incorporate, wherever possible, principles of sustainability into our own operations".*

Since 2012, UOIT staff and faculty have contributed to the DC–UOIT Joint Sustainability Committee. To further embed sustainability into the institution's culture, the University officially implemented it's first-ever Sustainability Policy in 2014. This Policy set out the goals we will strive to meet in order to reach the highest possible standards of sustainability in day-to-day activities related to academic pursuits, student and staff engagement, operations, facilities, planning, administration, and community outreach. In that same year, UOIT established a separate sustainability sub-committee to address matters that solely affect the University. This multi-stakeholder committee was established with a broad mission to review where UOIT stood regarding sustainability and to make recommendations for future actions. To ensure a cohesive and structured approach towards campus sustainability, an initial recommendation made by the Committee was to develop a strategic plan that establishes clear targets and goals. This document now marks a major milestone in UOIT's commitment to long-term sustainability by embedding it within the University's Planning Framework.

Process

This Strategic Sustainability Plan builds on the Policy and was developed in order to support the long-term application of sustainability practices which will help us meet our established goals.

UOIT's Sustainability Plan was developed over 4 months by the Office of Campus Infrastructure and Sustainability (OCIS) in collaboration with members of the UOIT Sustainability Committee and has been approved by the University's Senior Leadership Team.

The Plan is a living document that establishes a foundation for integrating accountable sustainability initiatives into UOIT's full range of academic, operational and community activities. As a living document, the Plan will be assessed and revised throughout implementation. The complete Plan has been broken down into two phases. This document addresses Phase 1 and is strategic in nature in terms of laying the ground work for Phase 2, a fully comprehensive plan. The outcomes outlined in Phase 1 reflect the goals established in the Sustainability Policy. The integration of strategies developed in Phase 1 will bridge the gap to Phase 2, which will introduce targets, timelines and implementation processes for those strategies. OCIS and the Sustainability Committee will guide and support this second planning phase.
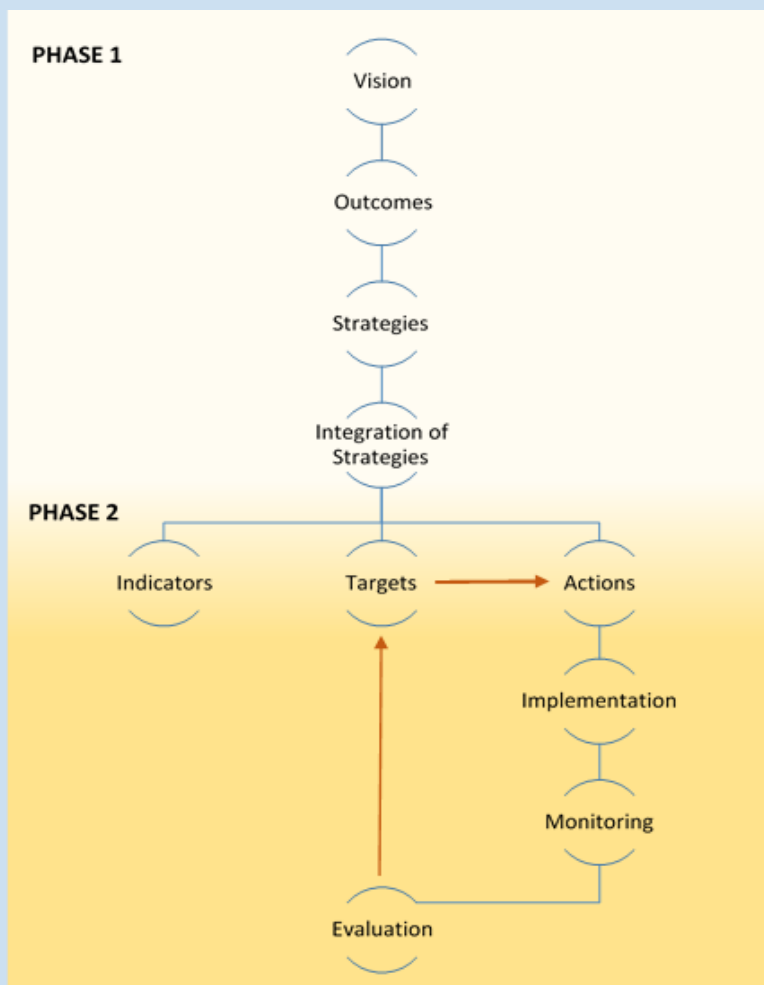
Sustainability Plan Framework

Figure 1 *Visual representation of The University's proposed Sustainability Plan framework. Phase 2 will be developed once the overarching strategies of Phase 1 have been integrated.*

PHASE 1

Vision:
The vision represents the overarching purpose and the starting point for the framework. It sets the destination of what can be achieved through the implementation of sound strategies.

Outcomes:
Outcomes are the goals UOIT is working towards in order to meet its long term vision. Outcomes are defined for specific issue areas that relate to environmental sustainability, infrastructure planning, and culture development.

Strategies:
Key strategies explore and identify the basic approaches or the best practices that can be implemented towards achieving each Outcome.

Integration:
At the integration stage, wheels are set in motion to implement the determined strategies into operations. Integration sets up the building blocks to develop the comprehensive Phase 2 of the plan.

PHASE 2

Indicators, Targets and Actions:
Indicators and targets can be identified for each strategy. These form the quantifiable measurement of University sustainability performance. Specific actions or detailed action plans provide a range of activities that can be implemented to achieve the targets, Outcomes, and vision.

Implementation and Monitoring:
Implementation involves the application of actions that allow change to happen on the ground. Monitoring also begins at this point to track the University's performance in meeting its strategies and targets in working towards achieving the plan's vision.

Evaluation:
Through evaluation, questions are asked in order to determine whether program actions have been successful. For example "Are the actions meeting desired targets? If not, what changes can be made to reach targets?" These changes are addressed in the actions phase, thus creating a loop (see: Figure 1).

Phase 1 | Setting the Plan

UOIT's vision of sustainability has 3 component parts:

> Component 1 – Ensuring Environmental Sustainability
> Component 2 – Applying Best Practices In Infrastructure Planning
> Component 3 – Creating A Culture Through Leadership

The outcomes for each vision component are directly aligned with the goals defined in the UOIT Sustainability Policy. In this Plan, we have identified strategies that when implemented will achieve these outcomes. The illustrative strategies offer foundations upon which future activities related to the outcomes can be built or extended. Successfully implemented strategies will be further refined in Phase 2 through the establishment of indicators, targets and actions (see Figure 1).

As a living document, the Plan is flexible to the exploration of strategies that may not be currently defined.

Vision Component 1 │ Ensure Environmental Sustainability

CONTEXT

UOIT actively reduces the environmental footprint of its operations by optimizing energy and water use, reducing greenhouse gas emissions, and diverting waste from landfills. Through the application of strategies outlined in this Plan, the University will continue to implement initiatives that reduce our ecological impact as we grow within our campus community.

Taking into account the future expansion of the University, an emphasis will be placed on the ability to measure progress and evaluate programs using key sustainability metrics so that we may set targets and address environmental issues in a proactive manner.

OUTCOMES

1   Develop programs and policies that minimize resource and material demands of University activities.

2   Adopt effective waste management strategies that reduce the volume of waste generated and sent to landfill.

3   Identify opportunities to reduce water consumption, implement water conservation measures where possible and establish programs that promote the efficient use of water.

4   Identify opportunities to reduce energy consumption, implement energy conservation measures where possible and establish programs that promote to faculty, staff and students the efficient use of energy.

5   Ensure that University procurement policies and procedures incorporate an assessment of environmental impact of purchases throughout their life-cycle and factor this consideration into the procurement assessment. Encourage the use of producers and suppliers who follow environmentally responsible practices.

OUTCOME 1

Develop programs and policies that minimize resource and material demands of University activities.

STRATEGY 1

Actively evaluate institutional Sustainability Policy as programs are implemented and overarching goals evolve.

STRATEGY 2

Develop effective and accurate material and resource consumption monitoring and reporting programs.

STRATEGY 3

Using monitoring reports to review and establish material and resource consumption targets.

OUTCOME 2

Adopt effective waste management strategies that reduce the volume of waste generated and sent to landfill.

STRATEGY 1

Evaluate feasibility for more effective waste diversion programs, including on-site food waste management options.

STRATEGY 2

Continue to enhance waste and recycling awareness programs to promote initiatives and educate campus users.

OUTCOME 3

Identify opportunities to reduce water consumption, implement water conservation measures where possible and establish programs that promote the efficient use of water.

STRATEGY 1

Improve water use tracking and data management to create an updated baseline for the 2016 year.

STRATEGY 2

Reduce sale of water bottles on campus by working with campus community and contractors, installing additional hydration stations, and providing student body with reusable water bottles.

STRATEGY 3

Devise new approach for the effective management of water collected by existing grey water and stormwater systems.

OUTCOME 4

Identify opportunities to reduce energy consumption, implement energy conservation measures where possible and establish programs that promote the efficient use of energy.

STRATEGY 1

Improve energy use tracking and data management to create an updated baseline for the 2016 year.

STRATEGY 2

Optimize lighting controls and design lighting to be at or below ASHRAE 90.1-2013 power density requirements.

STRATEGY 3

Work with utility companies to determine eligibility of incentives for major energy performance improvement projects.

OUTCOME 5

Ensure that University procurement policies and procedures incorporate an assessment of environmental impact of purchases throughout their life-cycle and factor this consideration into the procurement assessment. Encourage the use of producers and suppliers who follow environmentally responsible practices.

STRATEGY 1

Assess current procurement guidelines and incorporate wherever possible evaluation of the environmental impact of products over their life-cycle.

STRATEGY 2

Procure recycled and/or recyclable materials where possible.

STRATEGY 3

Establish a program for furniture reuse and responsible decommissioning.

STRATEGY 4

Work with Department and Faculty teams to develop recommendations on IT hardware selection and e-waste management.

STRATEGY 5

Develop programs to encourage local food procurement and community involvement.

Vision Component 2 │ Best Practices in Infrastructure Planning

CONTEXT

As a University with a focus on sustainable energy and emerging technologies, we have an obligation and vested interest in exemplifying our commitments to sustainable development through our own infrastructure.

Many of these strategies listed below are already part of UOIT's operations however they have not been formally addressed in a sustainability plan. Further, the new Campus Master Plan developed jointly by UOIT and Durham College incorporates Sustainability in its Principles:

"*Principle 13: Sustainability*
- *Compact development form and infill that use green technologies promote sustainability.*
- *The new features of the campus will be knitted into the surrounding natural environment in terms of both form and function, providing enhanced green infrastructure.*
- *The campus will continue to develop in anticipation of alternative and increasingly sustainable modes of transportation."*

OUTCOMES

1   Promote a healthy and productive learning and research environment by providing students, faculty and staff with safe, functional, and sustainable facilities.

2   Integrate sustainable features into new and existing building design and application.

3   Build and renovate facilities in accordance with energy efficiency and sustainability principles.

4   Use ecological landscaping methods and ensure green space in future building planning.

OUTCOME 1

Promote a healthy and productive environment by providing students, faculty and staff with safe, functional, and sustainable facilities.

STRATEGY 1

Ensure existing buildings and those proposed for future campus expansion incorporate principles of sustainability and safety while meeting user needs.

STRATEGY 2

Encourage user feedback to improve quality of work and study environments.

STRATEGY 3

Continually review space allocation and usage to maximize space utilisation.

OUTCOME 2

Integrate sustainable features into new and existing building design and application.

STRATEGY 1

Identify areas on campus that are suitable for different types of green infrastructure applications and implement feasible projects.

OUTCOME 3

Build and renovate facilities in accordance with energy efficiency and sustainability principles and standards.

STRATEGY 1

Ensure Campus Master Planning takes into consideration ecological issues in future building and land use design.

STRATEGY 2

Investigate green building frameworks and where feasible, implement practical and measurable design, construction, operations, and maintenance solutions.

STRATEGY 3

Monitor building system performance and implement upgrades and retrofits when necessary.

OUTCOME 4

Use ecological landscaping methods.

STRATEGY 1

Incorporate natural landscaping-based standards and specifications into maintenance contract Requests for Proposal.

STRATEGY 2

Explore ecologically beneficial and visually aesthetic features to be incorporated into campus design while maintaining the integrity of the Oshawa Creek watershed and surrounding ecology.

Vision Component 3 │ Creating A Culture Through Leadership

CONTEXT

As a young university, UOIT has the opportunity to effectively shape its culture to a sustainable one through the application of a few guiding principles. These principles involve finding aspects of the existing culture that support sustainable development objectives and integrating new processes into standard operating procedures as well as implementing an engagement strategy that creates a value for participants.

Although the implementation of this Plan will entail new activities, one important purpose is to bring together and make more visible what are now broadly distributed academic, research and other activities already taking place at UOIT. Existing work that addresses "sustainability" now occurs across all Faculties and within many administrative and operational departments.

The integration of new processes is addressed in Vision Components 1 and 2 whereas Component 3 will focus on the broad engagement strategy which involves the participation of students, staff and the community in sustainability education, capacity building, and culture changing programming.

OUTCOMES

1   Share knowledge and engage with students, staff, faculty, and community members to promote eco-literacy and ensure effective participation of the University community in green living practices.

2   Develop a team program in order to build a network of sustainability-focused individuals across the University.

3   Identify and pursue opportunities to incorporate the principles of sustainability and environmental literacy into course curriculum.

4   Ensure representation and active participation by the University on relevant steering committees and associations in order to promote awareness of sustainability issues and determine how they can be addressed.

5   Engage in partnerships with the local community and government organizations for the furtherance of environmental objectives.

6   Communicate with the outside community about the University's environmental performance and activities.

OUTCOME 1

Share knowledge and engage with students, staff, faculty, and community members to promote eco-literacy and ensure effective participation of the University community in green living practices.

STRATEGY 1

Promote sustainable practices and initiatives at internal events and open days as well as through the effective use of social media and website and annual reporting.

STRATEGY 2

Use various outreach strategies such as the Blue Team and the Sustainability Committee to encourage student and staff involvement in sustainability initiatives and events.

STRATEGY 3

Include elements and/or methods of green education about UOIT sustainability initiatives to increase the visibility of the sustainability platform on campus and to encourage student, staff participation in programs.

OUTCOME 2

Develop a team program in order to build a network of sustainability-focused individuals across the University.

STRATEGY 1

Develop a Sustainability Committee made up of Faculty, Staff, and Students to act as a multi-stakeholder advisory body and strengthen the network of sustainability-focused individuals across the University.

STRATEGY 2

Develop a student-led team that creates enhanced opportunities for student involvement in sustainability operations on our campus and engagement in the community.

OUTCOME 3

Identify and pursue opportunities to incorporate the principles of sustainability and environmental literacy into course curriculum.

STRATEGY 1

Investigate the development of a seeding fund for student- designed, sustainability focused projects that meet specific cost-savings criteria and have a positive environmental impact on campus life. Reinvest savings into subsequent projects.

STRATEGY 2

Perform a course audit to classify existing courses as "sustainability focused" and "sustainability related". Make list available for students to access online.

STRATEGY 3

Work with faculties to seek opportunities to incorporate sustainability components into new course design.

OUTCOME 4

Ensure representation and active participation by the University on relevant committees and associations in order to promote awareness of sustainability issues and determine how they can be addressed.

STRATEGY 1

Continue active participation in Joint Sustainability Committee with Durham College and encourage joint initiatives for the benefit of our shared campus.

STRATEGY 2

Continue active participation in Province-wide post-secondary sustainability professionals' board.

OUTCOME 5

Develop partnerships with the local community and government organizations to progress environmental objectives.

STRATEGY 1

Continue active participation in Durham Region and City of Oshawa environmental committees and collaborate on initiatives which are aligned with institutional goals.

STRATEGY 2

Explore additional partnerships with local non-governmental organizations to develop initiatives and provide enriching experiences for students, staff, and community members.

OUTCOME 6

Communicate with the outside community about the University's environmental performance and activities.

STRATEGY 1

Promote sustainable practices and initiatives at external events and open days.

STRATEGY 2

Devise an annual sustainability report that is published online and in any other forms required by accessibility standards.

STRATEGY 3

Work with Communications and Marketing staff on ways to keep the University's Sustainability message front and centre with UOIT and its community.

STRATEGY 4

Ensure that the UOIT sustainability website is regularly updated with sustainability initiatives and achievements and promotes public feedback.

Conclusion

The UOIT Strategic Sustainability Plan Phase 1 identifies strategies for the purpose of reducing environmental impacts throughout operations, applying best practices in infrastructure planning, and shaping the culture within our Campus community.

In order to effectively manage these efforts we will need to evaluate strategies using sustainability metrics and key indicators while adhering to standard reporting guidelines and Government-mandated reporting schedules.

For better tracking of the institution's sustainability performance, a reporting framework has been developed and will begin trial once adequate metric data is obtained. This framework adheres to requirements set out by AASHE's Sustainability Tracking, Assessment and Rating System (STARS) and the Global Reporting Initiative.

As we move forward with the integration of Phase 1 strategies, we aim to improve and streamline data tracking and reporting procedures. The development and integration of monitoring and measuring systems will require participation from multiple stakeholders across UOIT and Durham College (DC) campus operations. The establishment of these systems will be imperative to the success of Phase 2 due to its emphasis on target development and monitoring.

For information on this plan, and other sustainability initiatives for UOIT, please visit The University's sustainability webpage.

*AASHE- Association for the Advancement of Sustainability in Higher Education