Through our collective efforts in education, research, partnerships, and operations, the UBC Sustainability Initiative advances sustainability on our campus and beyond.
An innovative model

Like many universities, UBC has a history of pursuing strong operational sustainability goals and targets.

And like many universities, UBC emphasizes teaching and research on sustainability.

Where UBC demonstrates innovation is in taking a step further. We have committed, at the corporate level, to the deep integration of our operational and academic efforts.

The UBC Sustainability Initiative is the University’s agent in this innovation.

Our goal is to commit, integrate, demonstrate and inspire.
Foundations

Sustainability is one of nine commitment areas in Place and Promise, UBC’s strategic plan that shares the vision of creating “an exceptional learning environment” that “advances a civil and sustainable society.”

In 1997, UBC was the first Canadian university to adopt a sustainable development policy and, a year later, to open a campus sustainability office. UBC pioneered development of green buildings and retrofits of energy and water systems in existing buildings.

UBC has also built a strong academic reputation in sustainability research and teaching.

In 2009, building on these foundations, 350 students, staff and faculty created the Sustainability Academic Strategy. A key recommendation: Establish an integrated function that brings together academic and operational efforts to explore and exemplify sustainability.
In 2010, UBC President Stephen Toope established the UBC Sustainability Initiative (USI), charged with integrating the University’s academic and operational efforts in sustainability.

In 2010, UBC set the most aggressive greenhouse gas emission reduction targets of any of the top 40 universities in the world.

Now all major operational decisions are viewed through a sustainability lens. Faculty members are invited to join key operational committees. A road map of “living laboratory” projects exists to address the targets.
INTEGRATE
Reaching across boundaries
The USI Mandate

The USI strives to deeply integrate operational and academic sustainability and make the campus a kind of societal test bed where we work with public, private and non-governmental partners to prove out the technical, economic and behavioral aspects of sustainability. USI’s two cross-cutting themes are campus as a living lab (internal focus) and the University as an agent of change (external focus).
USI: A Horizontal Governance Structure in UBC’s Vertical World

President and Vice-Chancellor

USI Steering Committee
VP Finance; VP Research + International; Provost + VP Academic; Deans Applied Science + Science; Principal College of Interdisciplinary Studies; Graduate Student Society Representative

Executive Director
UBC Sustainability Initiative

Communications Coordinator
Manager of Communications
Associate Director USI/CIRS
Project Coordinator

Research and Partnerships Office
Research Fellows

Teaching and Learning Office
Teaching and Learning Fellows

Operational Management Group
Campus Sustainability Office

USI Student Sustainability Council
AVP Research and International
Vice Provost and AVP Academic Affairs

USI International Advisory Board on Sustainability
USI Regional Sustainability Council

Projects Manager, 50% USI/CIRS
Administration Manager
CIRS Building Technician

Research and Partnerships Office
Teaching and Learning Office
Operational Management Group
Leveraging what’s come before

The USI is not an operational or academic unit. It does not have teaching or research responsibilities, nor does it manage operational activities. Rather, it is a horizontal governance initiative that cuts across the existing faculties, departments and operating units.

The success of USI depends on the degree to which it can support, facilitate and mobilize activities within those structures.

In August 2011, UBC received a gold rating through STARS (Sustainability Tracking, Assessment and Rating System). The STARS rating speaks to the breadth and depth of UBC’s integrated efforts in teaching and learning, research and partnerships, and campus operations. USI has mobilized existing activities in ways that are exciting, new and note-worthy for those involved.
UBC’s ambition is to transform the curriculum with regard to sustainability.

UBC now offers 483 sustainability related courses and 25 degree programs. We are actively developing learning pathways so that every student, whether studying medieval literature or mechanical engineering, can add sustainability to their program.

In 2011, USI established the Sustainability Education Resource Centre to support both students and faculty in meeting this goal.

The USI Teaching and Learning Fellows program funds faculty who, in the past year, developed learning pathways and sustainability oriented student attributes as well as piloting Sustainability 101, an interdisciplinary course open to all undergraduates.
As a large, research-intensive university with considerable land, assets and utilities, UBC can take action that others cannot by advancing debates, technologies, instruction, and discoveries. Some 304 faculty and 57 departments are engaged in sustainability research.

UBC has established formal strategic partnerships with organizations such as the City of Vancouver, Honeywell, National Research Council, Modern Green Development and our University Neighborhood Association.

Together we view the campus as a sandbox for sustainability.
Cornerstones of the Living Lab

The entire UBC campus is seen as an experiment in sustainability, a 1000-acre sandbox in which 47,000 students, 11,000 faculty and staff, and partners can test, teach, learn, apply and share the outcomes of their inquiries.

The 4 cornerstones of the living laboratory framework:

• Integration with UBC’s core academic mandate—research & teaching,
• Partnerships between the University and private, public and non-governmental sectors,
• Sound financial use of UBC’s infrastructure, and
• The opportunity to transfer the knowledge UBC gains into practical, positive action applicable to the greater community.

Flagship projects include the Bioenergy Research and Demonstration Facility (scheduled to open in fall 2012) and the Centre for Interactive Research on Sustainability.
A proposed approach to future campus projects: The Regenerative Sustainability Gradient

Project A
A proposed approach to future campus projects: The Regenerative Sustainability Gradient

CIRS Time UBC Academic and Community Projects

UBC “Foundational” Projects

Space use efficiency
Distributed Peaking
Continuous Optimization
Waste Heat Recovery (Sinks and Sources)
Smart Energy Systems Integration (Energy Demand and Energy Use Reductions; PEDM; Renewables)

Project B
Project C
Project D
Project E
Project F
Project G

LEED Gold
Sustainability Rating

Time
INSPIRE
A platform for change
The role of the university as an agent of change

“New forms of partnership between the private, public and NGO sectors should be a critical component of the sustainability agenda...identify and flesh out new, more integrated models of interaction...transform the institutional rules and processes that govern the universities’ relationships with the outside world.”

Stephen Toope, Submission to Secretary-General’s Global Colloquium of University Presidents, New York University, 2007

UBC’s partnerships ensure a two-way flow of knowledge that fuels research and innovation, adds value to established sustainability efforts and provides education and employment opportunities for students.

For example, through our Memorandum of Understanding with the City of Vancouver, 10 graduate students work with the City’s Greenest City teams while the University uses city supplied wood waste to help power our new biomass gasification plant.
UBC considers the human dimensions of sustainability on campus as well.

One goal is to convert from a commuter campus to a vibrant, sustainable community where students, faculty, staff and others can live, work and learn.

To that end, UBC tripled transit ridership to campus and took away 50% of surface parking lots and built housing on them.
How do you measure inspiration?

- 110 UBC staff champion sustainability by participating in the award-winning Sustainability Coordinators Program
- 500 students, staff and faculty engage in the SEEDS program, applying the living laboratory concept to campus challenges
- 3,715 people follow the UBC Sustainability Initiative on Twitter
- 29 sustainability student groups on campus
- 7,000 students positively impacted by Sustainability in Rez program
- 11 formal strategic partnerships for sustainability
- 483 courses in which students consider their world through a sustainability lens
- ...and the list goes on
COMMIT, INTEGRATE, DEMONSTRATE, INSPIRE