

MIT Office of Sustainability

In August 2013, MIT's [Office of Sustainability](#) was established as a new entity reporting to the executive vice president and treasurer. The office, led by MIT's first director of sustainability, Julie Newman, was charged with bridging the Institute's administrative, research, and educational units in order to:

- Ensure that MIT's campus growth, development, and renewal reflect the highest commitment to sustainability while demonstrating leading practices and advancing the pursuit of innovation
- Embed the principles of sustainability into all operational functions of the Institute and promote overarching systems that are adaptive to continuous improvement
- Seek shared solutions to common sustainability challenges with the cities of Cambridge and Boston as well as partners beyond
- Establish the campus as a living and learning laboratory for sustainability that brings new knowledge and action to bear

The office began operating with a staff of three: Director Newman, deputy director Steven Lanou (formerly of MIT's Environment, Health, and Safety Headquarters Office), and sustainability projects coordinator Susy Jones (also formerly of the Environment, Health, and Safety Headquarters Office). In fall 2013, office staff launched an intensive planning effort to assess the resources needed to make the new initiative thrive and to develop a campus-wide process for integrating sustainability across MIT's operational and academic departments. This planning phase was informed by a listening tour of MIT's operational and academic units in which the director of sustainability interviewed faculty, staff, and students across the Institute to gain an understanding of their work and to discuss their ideas, visions, and questions around sustainability at MIT.

From fall 2013 to spring 2014, the office continued to refine its administrative structure and future vision, launching an introductory website and moving from its temporary office space in Building 12 to NE49, where the office is now well positioned in a strong collaborative cluster with the Department of Facilities, the Office of the Vice President for Finance, and Campus Planning.

During its first year of operation, the office established several productive partnerships with MIT's academic and administrative departments and with campus initiatives including the MIT Energy Initiative, the Climate CoLab, the Sloan Sustainability Initiative, and the undergraduate and graduate student sustainability clubs. During AY2014, the office employed two students as sustainability fellows to assist in critical data collection and analysis of sustainability metrics. As of July 2014, the office's expanded staff will include a director, a deputy director, three project managers, and a half-time administrative support staff person.

Major Accomplishments

To create a strong foundation for sustainability at MIT, the office is organized around a framework defined according to three major topic areas: Campus and Natural Systems, Living Laboratory, and Community Collaboration. Within those topic areas, the office has set out to reimagine how the Institute:

- Designs, builds, and operates our buildings
- Produces, uses, and distributes energy for campus operations
- Procures food
- Designs and offers mobility solutions to, from, and around the campus
- Acquires, disposes of, and reuses materials while reducing consumption
- Maintains and restores land, water, and air resources
- Ensures campus and natural systems that promote human health and well-being

The Office has embarked on a range of foundational projects, including planning and hosting an international sustainability conference and launching an internal, cross-disciplinary committee to shape MIT's engagement with the city of Cambridge's emerging Net Zero Energy Task Force. General information about the office and highlights of the year are described below.

Campus and Natural Systems

Goals in this area are reducing the environmental impact of our campus operations and protecting and enhancing our surrounding ecosystems.

Along these lines, we chaired MIT's internal net zero energy task force to guide and create a consensus approach for engaging with the Cambridge Net Zero Energy Task Force, which is developing recommendations to the city for moving toward low-energy building development.

In addition, we developed a comprehensive campus greenhouse gas inventory, coordinated a campus-wide sustainability metrics collection initiative, and coordinated campus-wide sustainability activities for Earth Week in April 2014, including a waste audit of Building W20 and an "e-waste" drive at the Stata Center in collaboration with partners from Information Systems and Technology and the Department of Facilities.

Living Laboratory

Living Laboratory faculty, staff, and students work together to apply research on sustainability's most pressing challenges to our own campus.

In professor Christoph Reinhart's spring 2014 course [4.433 Modeling Urban Energy Flows for Sustainable Cities and Neighborhoods](#), students collaborated with the Office of Sustainability to study energy flows in and around groups of buildings and apply their knowledge to developing a "net zero growth concept" for the MIT campus that answers the question of whether future energy growth on campus can be compensated for by realizing energy savings in existing MIT buildings.

In professor John Fernandez's spring course [4.474/4.475 Design for Sustainable Urban Futures](#), students collaborated with the Office of Sustainability to explore the concept of decoupling urban resource consumption from the growth of a city or community and apply this new thinking to the development of a comprehensive material flow analysis of the MIT campus.

We coordinated the development and completion of a summer Undergraduate Research Opportunities Program (UROP) project in collaboration with professor Leon Glicksman. The project's aim was to identify and assess best practices in sustainable laboratory design to inform MIT's capital renewal program.

Community Collaboration

This group's goal is advancing sustainability across local, regional, and global communities to find solutions to shared challenges.

In June, the Office of Sustainability co-planned and hosted the annual International Sustainability Campus Network conference with Harvard University, drawing 120 attendees from 34 countries to explore the theme "Pushing Boundaries: Leveraging Collective Action for Global Impact."

In addition, we continued to represent MIT and build strong local partnerships with the cities of Boston and Cambridge on such groups and committees as the Cambridge Compact for a Sustainable Future, the Cambridge Climate Protection Action Committee, the Cambridge Net Zero Energy Task Force, Kendall Square EcoDistrict, and the Boston Green Ribbon Commission.

The office launched an MIT-wide Cambridge/MIT coordinating committee to align MIT's representation and voice on the city's numerous sustainability-related committees.

Looking Forward

In FY2015, the office will move forward in several key areas to advance MIT's commitment and leadership in sustainability. Examples are as follows.

- Office foundation: developing new models of Institute-wide collaboration, facilitation, and joint problem solving supported by smart office technologies and approaches
- Governance: supporting the creation of the new Institute-wide Campus Sustainability Task Force
- Working groups: launching and managing several Institute-wide working groups to develop recommendations for reshaping our approaches to key operational areas for sustainability, including building design and construction, materials management, laboratory design and practices, student engagement, campus-oriented research and learning models, communication strategies, and data and metrics

- Community collaboration: advancing collaborative activities with the cities of Cambridge and Boston to jointly advance sustainability solutions through the Cambridge Compact for a Sustainable Future, Kendall Square EcoDistrict, the Boston Green Ribbon Commission, and the Cambridge Net Zero Energy Task Force, among others
- Metrics: developing a comprehensive, common set of campus sustainability data and metrics to enable rigorous, fact-based analysis, decision making, and communication
- Outreach: developing and delivering a series of outreach activities and materials that will seek to engage, inform, and activate MIT faculty, students, and staff (as well as broader audiences) in support of a vibrant community that advances sustainability
- Strategic partnerships: expanding local, regional, and global collaborations to learn from, share with, and contribute to leading practices and approaches for sustainability that are replicable and scalable

Julie Newman
Director