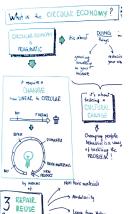
Sustainability Initiative at MIT Sloan 2014–2015 Annual Report























Letter from the Director



Dear Friends.

I am pleased to report on the recent activities of the Sustainability Initiative at MIT Sloan, where we had another remarkably productive year. Twenty-four students from seven MIT programs graduated with the Sustainability Certificate—a record both in number of graduates and program diversity. We are launching a class on sustainability-oriented innovation, and wrote a concept paper on the same theme. We increased our visibility within the wider sustainability community through two major events: The New Metrics of Sustainable Business conference which we co-sponsored: and the seventh-annual MIT Sustainability Summit, which we hosted in collaboration with MIT's new Abdul Latif Jameel World Water and Food Security Lab (J-WAFS). More than 250 business leaders, students, academics, and public officials attended this year's summit, making it our most successful one yet.

Our collaboration with J-WAFS reflects an exciting moment at MIT, as sustainability issues become front and center on the Institute's agenda. We have been active participants in the MIT-wide climate change conversation, including debates about divesting the MIT endowment from fossil fuels. John Sterman, the Faculty Director of the Sustainability Initiative, has joined the faculty council of the MIT Environmental Solutions Initiative, which made its first seed grants this year. We also co-led events with MIT's exciting new Office of Sustainability. To these conversations we bring our experience with deep integration of sustainability into the curriculum and life of MIT Sloan, and our fantastic network of scholars and practitioners who are embedding sustainability into the practice of management.

I delight in seeing these efforts come together. This year my five-year-old son discarded the training wheels on his bicycle, and my one-year-old daughter learned to climb both up and down the stairs. I can't help but see a parallel in the maturation of our initiative, our school, and the wider Institute on these issues of global importance. I also know just how much hard work it has taken and how much there is to come.

Seizing this moment, we have big goals for the coming years. We aim to increase the diversity of participants in our events. classes, and certificate program. We can do this by enhancing our outreach to both MIT Sloan students from different professional backgrounds and to graduate students across the Institute. We strive to develop robust and empowered alumni networks. Finally, we are committed to bringing rigor and clarity to the process of sustainability-oriented innovation through a next generation of management tools. We have bold financial aspirations, too. Today the Sustainability Initiative receives support from the MIT Sloan School of Management via tuition and the Annual Fund, as well as contributions from alumni, corporate and institutional allies, and friends. We are now working to create an even stronger financial foundation by increasing the number of recurring and endowed gifts we receive to ensure a future of impact.

As the Sustainability Initiative enters its tenth year, I thank you—our students and alumni, faculty and research partners, and allies—for your enthusiasm, generosity, and service.

Without you, none of this would be possible.

Jason Jay, Senior Lecturer MIT Sloan Director, Sustainability Initiative at MIT Sloan

Our Mission

The mission of the Sustainability Initiative at MIT Sloan is to build a community of innovators for sustainability with MIT students and alumni, faculty and researchers, and allies in business, government, non-profit, and hybrid organizations. Together, we encourage innovation in products and services, management practices, business models, and supporting market infrastructures that make effective, sustainable use of natural resources and that advance human welfare.



Jason Jay

Senior Lecturer MIT Sloan; Director, Sustainability Initiative at MIT Sloan



Bethany Patten

Associate Director, Sustainability Initiative at MIT Sloan



John Sterman

Jay W. Forrester Professor of Management; Director, MIT System Dynamics Group; Faculty Director, Sustainability Initiative at MIT Sloan

Gloria Clark Program Assistant Karen Horwitz

Strategic Marketing Manager

Christina Ingersoll

Special Projects Manager

MIT Sloan is committed to providing thought leadership and management solutions to the complex environmental, societal, and economic sustainability issues facing our world. Our faculty members address these challenges through their teaching, advising, and research activities, and comprise a rich and growing multidisciplinary community.

Matthew Amengual

Work and Organization Studies

Bruce Arntzen

Center for Transporation and Logistics

William Aulet

Technological Innovation, Entrepreneurship, and Strategic Management

Edgar Blanco

Center for Transportation and Logistics

Joost Bonsen

Program in Media Arts and Sciences

Barbara Dyer

Work and Organization Studies

Steven Eppinger

Operations Management

Charles H. Fine

Operations Management

Stephen Graves

Operations Management

Tim Gutowski

Mechanical Engineering

Leigh Hafrey

Ethics and Managerial Communication

Yasheng Huang

Global Economics and Management

Simon Johnson

Global Economics and Management

Valerie Karplus

Global Economics and Management

David Keith

System Dynamics

Chris Knittel

Applied Economics

Tom Kochan

Work and Organization Studies

Don Lessard

Technological Innovation, Entrepreneurship, and Strategic Management; Global Economics & Management

Thomas Malone

Information Technology

Robert McKersie

Work and Organization Studies

Harvey Michaels

Department of Urban Studies and Planning

Fiona Murray

Technological Innovation, Entrepreneurship, and Strategic Management

Christopher Noe

Accounting

Sinead O'Flanagan

Information Technology

Wanda J. Orlikowski

Information Technology

John Parsons

Finance; Center for Energy and Environmental Policy

Georgia Perakis **Operations Management**

Gita Rao

Finance

John Reilly

Joint Program on the Science and Policy of Global Change

Nelson Repenning

Operations Management, System Dynamics

Roberto Rigobon

Applied Economics

Anjali Sastry

Operations Management, System Dynamics

Otto Scharmer

Work and Organization Studies

Peter Senge

Work and Organization Studies Group, System Dynamics

Jeffrey Shames

Finance

Susan Silbey

Sociology and Anthropology

Scott Stern

Technological Innovation, Entrepreneurship, and Strategic Management

Donald Sull

Technological Innovation. Entrepreneurship, and Strategic Management

Tavneet Suri

Applied Economics

Zevnep Ton

Operations Management

Henry Weil

Technological Innovation, Entrepreneurship, and Strategic Management

Karen Zheng

Operations Management



John Sterman. co-creator of the S-Lab course

Since 2007,

students have taken S-Lab, completing

projects with

companies and organizations.

About the Initiative

The Sustainability Initiative at MIT Sloan started in 2006 with the creation of the Laboratory for Sustainable Business action learning course (S-Lab). Today, the Initiative comprises a broad portfolio of people, programs, and research projects, with four strategic objectives:

- Engage students with rigorous courses and programming related to sustainability, and an in-depth Sustainability Certificate for those who wish to become leaders in the field.
- Fuel alumni innovation by offering professional development and lifelong learning opportunities, including networking, mentoring, and executive education.
- Change the conversation and influence industry and policy by demonstrating the impact of our faculty's research on sustainability, and by promoting the cutting-edge tools they generate.
- **Build an institution** with an international reputation for bringing value to business and society across organizations, markets, and communities.

The Sustainability Initiative underscores MIT's commitment to bring its knowledge to bear on the world's great challenges. It advances MIT Sloan's mission: to develop principled, innovative leaders who improve the world and to generate ideas that advance management practice.

Student Engagement

Student Engagement

Sustainability is embedded in the MIT Sloan student experience—from courses that introduce new concepts, to clubs, conferences, and networking events that provide opportunities for deeper engagement, to a multidisciplinary certificate for those looking to make sustainability a core part of their careers. Our students come from diverse backgrounds and help drive experimentation both in the classroom and in the field.

Sustainability Coursework



2015 graduates took at least one MIT Sloan sustainability class



Graduating students from MIT Sloan's six full-time masters programs

Sustainability Certificate

graduating students received the Sustainability Certificateour largest and most diverse cohort yet.

MIT Sloan

- 14 full-time MBA students
- 2 Sloan Fellows

MIT Sloan and MIT School of Engineering

- 1 Supply Chain Management
- 4 System Design and Management
- 1 Leaders for Global Operations

Department of Urban Studies and Planning

- 1 Masters in City Planning
- 1 Environmental Policy and Planning



We Work Across Boundaries at MIT to Build a Vibrant Student Community



Department & Centers

The Abdul Latif Jameel World Water and Food Security Lab

Climate CoLab

Department of Urban Studies and Planning

MIT Energy Initiative

MIT Innovation Initiative

The MIT Joint Program on the Science and Policy of Global Change

Martin Trust Center for MIT Entrepreneurship



Administrative Offices

MIT Office of Sustainability

MIT Sloan Program Offices including: MBA, Master of Science in Management Studies, Master of Finance, Executive MBA, Sloan Fellows, Leaders for Global Operations

MIT Sloan Admissions

MIT Sloan Career Development

MIT Sloan Educational Services

MIT Sloan External Relations

MIT Sloan Student Life



Student Groups

FossilFree MIT

MIT Energy Club

MIT Waste Alliance

MIT Food and Agriculture Collaborative

MIT Water Club

Net Impact

Sloan Entrepreneurs for International Development

Sloan Women in Management

Sustainability@MIT

AVAILABLE as part of the Sustainability Certificate

"MIT's systems-thinking approach to sustainability complements my program and affords me the flexibility to pursue my specific area of interest: food and agriculture. The Sustainability Initiative also helped me identify and explore new ways to create a sustainable future through leadership, innovation, and collaboration."



Sarah Nolet System Design and Management Fellow '16, Intern, Supply Chain Solutions, Frontier Co-op

Attendance Trends at Sustainability Events

Drawing from more than 12 MIT academic programs, Sustainability Initiative events range from small, spirited gatherings to standing room only presentations from sustainability leaders at innovating organizations such as Deloitte Consulting and The Rocky Mountain Institute.

events in 2014-2015

average event attendance

"The Certificate program fosters a supportive community of MIT alumni passionate about the triple bottom line. I leave MIT Sloan with a global network and the knowledge that together, we can make a difference in the world."



Ethan McCall MBA '15

Highlights from 2014–15

Boosted outreach to applicants and new students by hosting eight orientation events and increasing the visibility of our classes and programming.

Created new programming focused on food and agriculture through a multi-year gift from Alex Borschow MBA '14. This included the creation of a three-day Sloan Innovation Period (SIP) workshop on the issue of reducing and redirecting food waste.

"I arrived at MIT Sloan with the goal of making a career in sustainability. Thanks to the faculty and staff of the Sustainability Initiative, I've had opportunities in and out of the classroom. I did research with a professor on the social and environmental costs of mineral extraction in Bolivia. I learned about sustainable supply chains through an internship in Panama City. And I honed my leadership skills as managing director of the Sustainability Summit. I feel ready to implement change in the professional world."



Drew Morales MBA '15, ESG Analyst, Wellington Management Company

Expanded enrollment in sustainability programs and courses. In 2015, a record number of students participated in S-Lab and 24 students completed the Sustainability Certificate, a 13 percent rise from last year.

Increased experiential learning opportunities through four sustainability-related internships that were funded by a gift from Anna Gabriella C. Antici Carroll SM '92 and D'Arcy Carroll SM '91. We also supported two teams in the Leeds Net Impact Case Competition, a contest focused on solving real world business problems. One team placed second; the other in the top five.

Priorities for 2015–16

Diversify participation in sustainability electives and increase enrollment in the Certificate program by engaging Masters-level students across MIT. We will especially focus on students in the Technology and Policy Program, the System Design and Management program within the Engineering Systems Division, the Department of Urban Studies and Planning, and the Department of Civil and Environmental Engineering.

Enrich curriculum by working with faculty to integrate sustainability-related content into the MBA core. We will also offer new classes including a sustainability-oriented innovation elective.

Forge alliances with companies and organizations that provide internships and professional opportunities for students interested in careers in sustainability.

Develop extracurricular programming and events related to impact investing. This includes supporting student participation in the Morgan Stanley Sustainable Investing Challenge, a competition aimed at developing investment opportunities that seek positive social impact and strong financial returns.

Alumni Innovation

The Sustainability Initiative forms a passionate and engaged alumni community, supported by regional networking events, interest groups, and peer coaching and mentoring opportunities around the world. Our goals are to showcase and promote alumni success, to learn from our alumni, and be helpful in their efforts to promote sustainability-oriented innovation.

Recent Alumni Jobs and Project Vignettes



Founder, Explain the Chain; Adjunct Professor, Bard MBA in Sustainability

"My goal in starting Explain the Chain [an organization that promotes supply chain transparency] is to ignite curiosity in the next generation about where things come from and where they go. Through stories, toys, and games, we seek to engage our future leaders and consumers."



Rvan Sheinbein MBA '14 Energy and Location Strategy, Google

"MIT Sloan taught how to develop successful strategies in unfamiliar places. I put this knowledge to work every day at Google where I lead a team that creates and implements solutions in the area of renewable energy development. It's a challenging problem—in many markets around the world, these projects lack critical regulatory frameworks."



Hilary Fischer-Groban MBA '14 Operations Manager, ABC Carpet &

"Making a positive social and environmental impact is in the DNA of ABC Carpet & Home. As manager of internal operations, I am grateful every day that MIT Sloan provided me with the skills and mindset to help shift the retail paradigm to a more sustainable model."



Number of Cities and Attendees at Alumni-focused Events







Locations Visited Alumni Engaged

Highlights from 2014–15

- Raised the profile of sustainability careers through our new online quarterly newsletter and through 16 alumni interviews published on our website.
- Strengthened our alumni network through events and engagement in cities including Boston, London, Minneapolis, Newport Beach, New York, Philadelphia, San Francisco, São Paulo, Washington, DC, and the island of Kauai.
- Carried out research to identify and target areas of alumni interest.

Priorities for 2015–16

- Foster alumni interest groups in the areas of renewable energy finance, and real estate/place-based sustainability.
- Cultivate regional alumni networks by expanding sustainability-related events to additional cities including Seattle and Portland.
- Partner with the Office of External Relations to stimulate alumni engagement through small format dinners, happy hours, and topic-based presentations.
- Conduct interviews with Sustainability Certificate alumni on their careers and continue to celebrate their professional successes on our website.

Media mentions of student and alumni innovators

Bilikiss Adebiyi MBA '12 CEO, Wecyclers How One Local Entrepreneur Taught Lagos, Nigeria to Embrace Recycling (Fast Company, January 2015)

Robin Chase SM '86 Co-founder and former CEO, Zipcar Disrupted Transport Will Work Better For Us in the End

(Financial Times, March 2015)

(Huffington Post, June 2015)

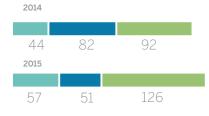
Omar Mitchell MBA '12, Director of Sustainability, National Hockey League

A First-ever Report from the NHL Assesses its Carbon Footprint

(US News & World Report, July 2014)

Bijal Shah MBA '13, Founder and Chief Sari Collector, Lallitara How One Entrepreneur Started Her Eco-Conscious Clothing Line

Sustainability Summit Attendance by Sector



- Academic, NGO, Start up founder, or Government
- Corporate Sector
- Student

"MIT addresses the future of food and farming in a circular economy through innovation grounded in science, engineering, urban design, and business. This year's Sustainability Summit featured provocative discussion from a range of speakers representing these important perspectives."

John H. Lienhard V, Director of the Abdul Latif Jameel World Water and Food Security Laboratory (J-WAFS), which co-sponsored the Sustainability Summit

Climate CoLab Growth

Climate CoLab, a global internet-based community, strives for promising solutions to combat climate change.

website visits

registered members

contests completed in 2014

contests completed in 2015

Changing the Conversation

As one of the world's preeminent research universities, MIT and its five schools—science, engineering, architecture and planning, humanities and social science, and management—are in a unique position to bring business and societal leaders together with academic researchers and students to address challenges in sustainability. We promote this process at our annual Sustainability Summit and through our research in two main areas:

- Hardwiring sustainability: We are designing and deploying a platform of interactive, science-based management tools focused on sustainability.
- **Sustainability-oriented innovation:** We are theorizing, documenting, and accelerating commercially-relevant innovations that lead to an increase in sustainability-based profits and corporate and social change.

Highlights from 2014–15

Raised the profile of quantitative assessments of corporate sustainability strategies by co-sponsoring the New Metrics of Sustainable Business conference in Cambridge. More than 280 practitioners attended the conference, which included MIT Sloan student and faculty research.

Designed a platform—Sustainability Information, Frameworks, and Tools (SIFT) to help make measuring sustainability efforts within organizations both rigorous and simple. We raised \$25,000 from companies to fund this effort and we continue to seek additional sponsorship for development and deployment.

Supported research collaborations across the Institute within the Department of Civil and Environmental Engineering, the Department of Aeronautics and Astronautics, and Computer Science, and the Artificial Intelligence Laboratory.

Wrote a concept paper on sustainability-oriented innovation with input from a global team of scholars and practitioners.

Developed leading-edge courses including a bootstrap class for Sustainability Oriented Innovation. This class, which leveraged sponsored research money, led to the development of sustainability-related case studies and tools.

Priorities for 2015-16

Integrate sustainability into organizations through the new SIFT platform which will launch in beta test mode. We will continue to develop the platform with MIT Sloan-generated tools and content, including system dynamics simulations, while building inventories and reviews of third party tools.

Launch a research study on how organizations around the world can incubate and implement sustainability-oriented innovation. We will continue our push to make MIT a "center of excellence" in this area.

Galvanize action on finding solutions to the world's greatest challenges by supporting MIT's Solve conference, which convenes technologists, philanthropists, business leaders, and policymakers.

Have an impact on sustainability practices by partnering with the Sloan Management Review to create reviews, analysis, and articles focused on sustainability.



Junior Faculty Spotlights



Matt Amengual Assistant Professor of Work and Organization Studies

Recently led a research project on labor and environmental regulations in Argentina. His findings, which revealed that regulations are often enforced by unconventional partnerships, lay the groundwork for strategies to better reward businesses that contribute to sustainable development.



Valerie Karplus

Director of the Tsinghua-MIT Energy Program and Assistant Professor of Global Economics and Management

Conducts research on energy and climate policy. She recently carried out a joint analysis with Tsinghua University on the social and environmental implications of the US-China bilateral climate change deal.

David Keith

Assistant Professor of System Dynamics

Researches the impact of alternative fuels in the transportation industry. He studies decision-making around hybrid vehicle purchases, and, this year, co-developed a management flight simulator that provides members of the automotive industry with an opportunity to think collectively and strategically about alternative fuel vehicles.

Selected Publications on Sustainability at MIT Sloan

Amengual, Matthew 2014

Pathways to Enforcement: **Labor Inspectors Leveraging** Linkages with Society in Argentina

ILR REVIEW 67(1)

Knittel, Christopher 2014

The Consequences of U.S. Fuel **Performance Standards**

NBER REPORTER 2014 (3)

Blanc, Élodie, Kenneth Strzepek, Adam Schlosser, Henry Jacoby, Arthur Gueneau, Charles Fant, Sebastion Rausch, and John Reilly

Modeling US Water Resources Under Climate Change

Kochan, Thomas et al. 2015

CORNELL UNIVERSITY PRESS

Labor Relations in a Globalizing

EARTH'S FUTURE 2(4)

Lee, Matthew and Jason Jay 2015 Strategic Responses to Hybrid Social Ventures

CALIFORNIA MANAGEMENT REVIEW

Karplus, Valerie et. al 2014

Firm-level Determinants of Energy and Carbon Intensity in China

ENERGY POLICY 75

Schmalensee, Richard et al. 2015

The Future of Solar Energy

THE MIT ENERGY INITIATIVE

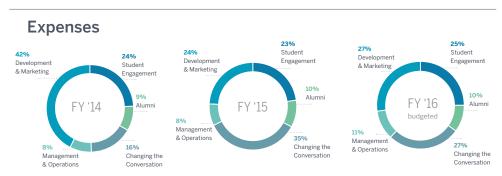
Ton, Zeynep 2014

The Good Jobs Strategy: How the Smartest Companies Invest in Employees to Lower Costs and Boost Profits

HOUGHTON MIFFLIN HARCOURT

Institution Building

Achieving a sustainable future requires long-term commitment and investment. The Sustainability Initiative is hard at work creating that future and we are fortunate to have you—generous alumni, corporate and institutional allies, and friends—in our corner. Your contributions touch the lives of our students, support the unmatched quality of programming we offer, fund pioneering research, and increase the visibility of our brand as an Institute that's making a positive impact in the world.



Revenue



All revenue listed is restricted, meaning that the gifts were given specifically to the Sustainability Initiative, as opposed to the Annual Fund, which can be used throughout the school.

balance over the next three to four years and

Why I Give: John Mazzarino

"My career has been built around real estate, private equity, and venture capital investments in the environmental and sustainability fields. When we began investing in these areas in the late 1980s, many institutional investors saw us as dreamy idealists. Today, most of these same investors recognize the need for and benefits of sustainability strategies and practices.

"With its leading positions in science, engineering, urban planning, and architecture, coupled with the resources of MIT's Real Estate Center and Sloan School, MIT is becoming the go-to place for sustainability theory and practice. As an MIT alumnus, it's incredibly exciting for me to support and encourage this critically important, multi-disciplinary work."

> John Mazzarino is an MIT alumnus (SM '77) and co-founder and Managing Principal of Cherokee Investment Partners, an investment company that seeks to provide superior financial, Environmental, and social returns.

Thank You

We are grateful to the following individuals and organizations, whose generous gifts have helped us to achieve our mission. Gifts over \$1,000 since 2012 are listed in chronological order.

Ms. Lam Yiu Chu Mr. Nathan Dohyoung Kang and Mrs. Huiyoun Yoo Ms. Jian Helen Yang '10

Thomas Haas Foundation

Grantham Foundation for the Protection of the Environment

Mr. Douglas Drane

Mr. Gustavo A. Pierini '87

Mr. Robert G. Ackerley '80

General Motors Foundation Inc.

Ms. Gabrielle B. Tiven '11

Ms. Anna Gabriella C. Antici Carroll '92

Mr. D'Arcy Carroll '91

Boeing Company

Mr. Alexander L. Borschow '14

Mr. Jeremy Matthew Stewart '10

Lockheed Martin

Corporation

Mr. John Mazzarino '77 Goldman-Sonnenfeldt Foundation

Increased external support by 96 percent from last year. In the past fiscal year, the Sustainability Initiative received more than \$342,000, which helped us maintain and expand our programming.

Extended our influence on social and environmental issues outside MIT through our participation in national events and workshops including: Museum of Natural History Living in the Anthropocene symposium; Global Sustainability Summit; Sustainable Brands Conference; Climate Teach-In at University of Massachusetts Lowell; and the Academy of Management. In addition, we created new alliances with the 3M Sustainability Network, Environmental Defense Climate Corps Network, and Network for Business Sustainability.

Deepened ties within MIT by sponsoring and facilitating campus-wide symposia including the Climate Co-Lab Conference and MIT Energy Conference. In addition, John Sterman participated in a dialogue with His Holiness the Dalai Lama at an MIT climate change event.

Priorities for 2015–16

Strengthen fundraising to further develop our programming. Currently, our programming is supported by the MIT Sloan Annual Fund, a general pool that helps pay for new programs and courses. As we transition from receiving support from the Annual Fund, endowed gifts are increasingly important to us. We seek more recurring and one-time gifts to ensure that our growth continues.

Engage industry and the public sector by encouraging the use of our tools, raising the profile of our educational programming, and promoting our students and alumni in professional settings.

Enhance visibility of our ongoing efforts with key constituencies: prospective students and applicants, alumni with the capability to support each other and our efforts, and faculty and staff across the MIT community.

An impression is when a post is Web Stats Impressions = 719.9K visible to a person. July 1, 2014-June 30, 2015 July 1, 2014-June 30, 2015 621 6K website visitors Twitter LinkedIn Facebook

ATTENDING INITIATIVE-LED **EVENTS**

"The thoughtfulness of the Sloan professors, the level of expertise of the visiting practitioners, and the dedication of the students in the Sustainability Initiative exceeded my expectations."



Lea Rutledge MS Environmental Policy and Planning '15

Sustainability Initiative



100 Main Street, E62–362, Cambridge, MA 02142







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Front Cover photo credit: Dheera Venkatraman Front Cover drawing credit: Serena Facchinetti

mitsloan.mit.edu/sustainability