

## **Report of the President**

As the nation's economic uncertainty continued, MIT's mission to build a better future through education and research remained steadfast. The multiyear process called "rebalancing" provided a revision to MIT's financial structure, enabling, for the first time in many years, a balanced budget for fiscal year 2008–2009. The success of the Institute-wide rebalancing program averted what would have been more serious effects of the global economic downturn. Throughout the fall semester the Institute began planning for the anticipated consequences of a severe loss in asset value and revenues. The Institute put in place an Institute-wide Planning Task Force to help develop a plan to prepare for a protracted period of financial constraint. MIT continued to advance its education and research mission in several important directions, including the launch of a new Energy Minor for undergraduate students, the continuation of the Campaign for Students to raise needed funds for undergraduate and graduate education, an amplification of research activities, the pursuit of international initiatives, along with many other important Institute advances, such as convening its first Diversity Leadership Congress.

### **Undergraduate and Graduate Education**

#### **Student Enrollment**

The Institute admitted an extremely strong class of 2013. From 15,663 applicants, 1,676 students were admitted. This represents a 17 percent increase in applications from the previous year and an all-time low admission rate of 10.7 percent. The class of 2013 includes 45 percent women and 24 percent underrepresented minorities. Eighty-nine percent of the class graduated in the top 5 percent of their high school classes, 40 percent were valedictorians, and 19 percent are the first generation in their families to attend college.

#### **Financial Aid**

The Institute's founding purpose to provide an education that fosters innovation and discovery among students with the greatest ability requires that its long-standing commitment to meeting the financial needs of its students remains secure. The Institute continued its need-blind admission of undergraduates and increased its financial aid budget by 10 percent. It also launched the public phase of the Campaign for Students in October, after the completion of its two-year nucleus phase. The Campaign will increase support for undergraduate financial aid and graduate fellowships, and for the educational commons and student life. It will conclude in 2011, coincident with MIT's 150th anniversary.

#### **Energy Minor**

The MIT Energy Initiative (MITEI) has powerfully accelerated MIT's energy research agenda, including a set of major policy projects. It also has fueled growing interest in education innovation, leading to the proposal of a new minor in energy that, like [MITEI](#), would reach across all of MIT's five schools. A governance structure for the [energy studies minor](#) was approved at the May 2009 Faculty Meeting. The minor requires six subjects (three subjects plus 24 units) and is designed to complement any undergraduate

major at MIT. It will launch in fall 2009. Students are required to take at least one fundamental subject in each of three domains—scientific foundations, technology and engineering, and social science. The additional 24 units can include additional fundamental subjects or “approved energy electives” from an extensive subject list. The primary academic oversight for the program will be the responsibility of a faculty oversight committee, whose members are drawn from all five Schools. The governance structure reflects the minor’s multidisciplinary, inter-school nature. The resulting Institute-wide character of the minor is an example of the kind of research, policy, and education innovation on which MITEI was founded.

## **Alumni Honors**

The awards earned each year by members of the greater community are far too numerous to list. This year’s highlights include a record number of 18 students received Rhodes, Marshall, or Fulbright honors and the award of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel to MIT alumnus Paul R. Krugman PhD ’77 for “his analysis of trade patterns and location of economic activity.” Professor Krugman was on the MIT faculty from 1980 to 2000. He is currently a professor of economics and international affairs at Princeton University and a columnist at *The New York Times*.

## **Faculty**

As the nation faces continued economic uncertainty, the mission and capacities of MIT are more important than ever. The Institute’s faculty are unquestionably at the helm in fulfilling the Institute’s responsibility to inspire and guide the next generation of leaders in science and technology. This year many long-serving faculty who have made major contributions to research and education chose to move to emeritus status through the Institute’s Faculty Renewal Program. A good many of these faculty members will continue to serve the Institute while making it possible for the Institute to recruit the next generation of faculty. Just as MIT values the intellectual contributions of its senior faculty members, it also values and appreciates their willingness to help the Institute look to the future and renew its ranks.

## **Faculty Honors**

MIT’s faculty accrued many honors this year. Among them, President Barack Obama named Eric Lander a co-chair of the President’s Council of Advisors on Science and Technology (PCAST), a group that assists the president in making science and technology policy decisions. Professor Lander, professor of biology, is the founding director of the Broad Institute of MIT and Harvard and was one of the principal leaders of the Human Genome Project. President Obama has said that he envisions expanding education and research in science, technology, engineering, and mathematics, and accelerating the engine of innovation-based economic growth. The work of PCAST is an important part of this process.

## Diversity Leadership Congress

The Institute's success depends on bringing the best minds to our campus and welcoming them fully into the MIT community. To advance this goal, more than 300 academic, administrative, and student leaders gathered for the [Diversity Leadership Congress](#), a daylong event designed to give participants practical tools and strategies to help foster a culture of inclusion in the student, faculty, and staff communities at MIT. Former Secretary of Labor Alexis Herman, the first African American to lead the US Department of Labor, delivered the keynote address. A panel discussion focused on successful diversity leadership stories, with panelists including Phil Harlow, chief diversity officer at Xerox; Shirley Malcolm, head of the Directorate for Education and Human Resources Programs of the American Association for the Advancement of Science; and Michael Summers, a Howard Hughes Medical Institute biologist at the University of Maryland who has been honored for his contributions in mentoring students from underrepresented groups. The event included break-out sessions in which participants discussed how MIT's leaders could apply the day's information to amplify their efforts. In addition to the onsite attendees, many members of the community participated at remote viewing locations on campus and at Lincoln Laboratory.

## Financial Constraint

The global economic downturn impacted MIT's finances significantly. However, that impact was moderated by the financial restructuring accomplished over the last two years. An Institute-wide rebalancing of the use of funds from the endowment and from the general institute budget, allowed MIT to enter FY09 with a balanced budget. Without these adjustments, the effects of the economic downturn on MIT's financial state would have been far more damaging.

Continued uncertainty about the length and depth of the economic downturn made accurate predictions of economic recovery impossible, prompting the Institute to plan for a protracted period of financial constraint, while maintaining flexibility for a variety of future scenarios. Given the current economic conditions, the Institute anticipated a need to decrease spending by 10 to 15 percent over the next two to three years, starting with a base budget reduction of 5 percent for FY2010. President Hockfield and Provost L. Rafael Reif called on all members of the community to use this challenge to tailor the Institute's financial choices to better position MIT to pursue emerging opportunities. To that end, they designed a broad, deliberate, inclusive process in which all branches of MIT will work together to set priorities and manage the prudent use of the Institute's resources.

Contributing to controlling costs, President Hockfield, the members of Academic Council, the senior administrators, and department heads will forgo salary increases next year. In the same spirit, senior faculty have overwhelmingly requested that the Institute direct available salary funds to those members of the Institute community with lower compensation. Accordingly, a small pool for salary increases will be available for faculty members earning less than \$125,000 a year and for full-time staff earning less than \$75,000 a year. With these salary thresholds, approximately 40 percent of faculty, 50 percent of administrative staff and an overwhelming majority of support staff will be eligible for modest raises for the coming year. To preserve flexibility, even in the face

of financial constraints, the Institute did not impose a blanket hiring freeze; however, hiring has been slowed to reserve hiring for core Institute needs.

### **Institute-wide Planning Task Force**

MIT launched an Institute-wide Planning Task Force to identify strategies for reducing costs while serving the Institute's mission and creating a strong foundation for the future. The Task Force includes nearly 200 faculty, students, and staff. Even as the Task Force carried out its work, all of MIT's units, departments, labs, and centers sought creative and practical ways to sharpen their focus, strengthen the most critical activities, and eliminate those that may have served MIT well in the past but may no longer build momentum for the future. The Institute has encouraged all members of the community to suggest cost-cutting ideas through the new web-based MIT Idea Bank. A final report from the Task Force is due next October. The success of the Institute in these uncertain times will depend on strong distributed leadership.

### **Research Initiatives**

#### **MIT Energy Initiative**

In only two years, the [MIT Energy Initiative](#) has made dramatic headway on the critical matters of energy production and management that face the planet. In its first two years of operation, MITEI attracted more than \$250 million from industry and public partners, as well as from private donors, to fund critical energy research and education. MITEI's research goals are to improve the environmental performance of conventional energy sources and enable a sustainable energy future through transformational technologies. Among its many achievements, MITEI built robust research partnerships and networks with 37 industry and public MITEI members this year. Through the seed fund, MITEI funded 29 novel or early-stage research projects and two planning grants submitted by faculty and senior researchers from across the campus. MITEI supported the Society of Energy Fellows and curriculum development for 10 new and revised undergraduate energy classes. Other achievements included the development of the first energy minor at MIT, the establishment of the Sustainable Energy Revolutions Program that supports renewable low-carbon energy research and related integrated policy studies, and the launch of the Eni-MITEI Solar Frontiers Research Center. There were numerous MITEI energy seminars and colloquia and the publication of several important reports, including a report of the Retrofitting of Coal-Fired Power Plants for CO<sub>2</sub> Emissions Reductions symposium and an update of the MIT 2003 Future of Nuclear Power interdisciplinary study, among many other projects to improve energy and environmental management.

#### **Transportation@MIT**

[Transportation@MIT](#), a two-year pilot program, was launched that will draw on the strengths of the School of Engineering, the School of Architecture and Planning, and the Sloan School of Management. Transportation@MIT will address one of civilization's most pressing challenges: the environmental impact of the world's ever-increasing demand for transportation of people and products. This initiative seeks to transform global transportation systems to meet the economic and environmental mobility needs

of the 21st century. Many MIT faculty members currently work in transportation-related areas, including motor vehicles, urban infrastructure planning, and aviation efficiency, among many others. This initiative will bring together this varied research and create new opportunities for education and innovation.

## International Initiatives

### Global Council

MIT announced the creation of the [MIT Global Council](#) to expand its international planning for education and research. The faculty members of this council will review the Institute's existing efforts in international education and research, and shape a long-range plan for the future. The Global Council will also consider how MIT can create a globally centered program for undergraduates that will distinctively reflect MIT's hands-on, engineering/science-centered education. The faculty of the council will coordinate their work with colleagues from MIT's other international initiatives as they consider the Institute's growing global activities.

### MISTI

Chief among the international programs catering to students is [MISTI](#) (MIT International Science and Technology Initiatives), which celebrated its 25th anniversary this year.

MISTI began with the inception of the MIT-Japan Program, and it currently prepares and sends more than 300 MIT interns to nine countries annually; these countries include China, France, Germany, India, Israel, Italy, Japan, Mexico, and Spain. MISTI anticipates expanding to Brazil, South Africa, and the United Kingdom in the coming years.

The Institute launched the MISTI Global Seed Funds (GSF) this year to help MIT faculty and researchers begin early-stage international collaboration. MISTI GSF includes a general fund for projects in any country and several country-specific funds.

### Singapore-MIT Alliance

The Institute celebrated the 10th anniversary of the [Singapore-MIT Alliance](#) (SMA) this year. SMA provides a venue for developing tools and practices for distance learning between MIT and the National University of Singapore (NUS) and the Nanyang Technological Institute (NTI). Highlighting the 10th anniversary celebration was a new agreement that will provide 100 PhD fellowships at NUS and NTI, thereby creating a catalyst for collaborations with research units at the newly established Singapore-MIT Alliance for Research and Technology (SMART) Center. The SMART Center brings together faculty, researchers, and graduate students from MIT with academic and industry researchers in Singapore and Asia to collaborate in emerging areas of science and technology.

### Campus Development

Over 4,500 members of the MIT community gathered this fall at [Ashdown House](#), Building NW35—the recently completed graduate residence—for a community picnic. The event showcased the Institute's growing northwest graduate community and provided an introduction to its newest residence, which includes the relocated Hulsizer

and Fabayan Rooms, the Crafts Lounge, and the new Ingram music room from the former Ashdown House on Memorial Drive. The new Ashdown House accommodates 500 graduate students and 50 undergraduates, and builds on the strong communities already present in the other northwest-area graduate residences at Sidney-Pacific, the Warehouse, and Edgerton House. The area now provides housing for approximately 492 graduate students, approximately 8 percent of MIT's graduate population.

This year also saw the celebration of the fifth anniversary of the Ray and Maria Stata Center. For over 50 years the fields of computer intelligence and information sciences have been central to the identity of MIT; however, prior to the completion of the Stata Center, electrical engineering, computer science, linguistics, and artificial intelligence were dispersed across the campus. Today, these and other disciplines are united under one roof, including a variety of work and community spaces in the Dreyfoos and Gates Towers that bring faculty and students together in dynamic architectural spaces.

Additional major building projects, including the David H. Koch Institute for Integrative Cancer Research, the extension of the Media Lab as part of the School of Architecture and Planning, the new building for the MIT Sloan School of Management, and the improvements to Vassar Street, continue on schedule. The exterior of the W1 residence hall (formerly Ashdown House) is also under renovation to secure the building's envelope for cost savings and to protect the structure from further deterioration until the Institute can proceed with a full renovation. On the west side of campus, the Institute relocated Resource Development and the Alumni Association to 600 Memorial Drive. This move, which was completed in June, will generate even greater synergy between the two groups.

### Closing Thoughts

Because the global economic downturn will likely continue for some time, it is more important than ever to look beyond the government stimulus funding and invest in the kind of research and innovation that will ultimately spin-off millions of jobs and create a new economy. A recent Kauffman Foundation study titled, [Entrepreneurial Impact: The Role of MIT](#), conducted by Edward B. Roberts and Charles Eesley of the MIT Sloan School of Management reported that 25,800 currently active companies have been founded by currently living MIT graduates. These active companies currently employ 3.3 million people and generate annual world sales of \$2 trillion, producing the equivalent of the eleventh-largest economy in the world. This demonstrates the critical role that universities play in fostering innovation and economic growth. It also shows the potential for technology and innovation to stimulate much-needed recovery in regional and global economies. America must find ways to fund research and development, provide research labs with state-of-the art instrumentation, and deliver education for a new generation of talent. Through bold and visionary investments in science and technology, the nation can surely create a strong and enduring foundation for future economic growth.

**Susan Hockfield  
President**