

Dean, MIT Sloan School of Management

Academic year 2004 was marked by curriculum and program changes that attest to our continued commitment to innovation. In addition, this year marked a large step forward in the assessment of the MIT Sloan brand and the creation of tools to evaluate and strengthen that brand across the global business community. As competition for the best students continues to grow, our investment in showing the world that we are the leader in innovative management theory and practice (our legacy of *mens et manus*) continues to be critical.

Academic Program Updates

MBA Program. The new MBA curriculum, launched in fall 2003, met with great success. While we retained the academic rigor, focus on teamwork, and some core courses, the new curriculum streamlines the core requirements, increases flexibility (so that students can design their program to suit their personal interests and needs), provides an integrated, cross-functional perspective early in the program, and gives students access to cutting-edge faculty research early and often throughout their time on campus. We are also pleased to announce that the MIT Sloan MBA Program had the highest or second-highest student employment rate among top business schools for the third year in a row.

MIT Sloan Fellows Program in Innovation and Global Leadership. With the strategic integration of the MIT Sloan Fellows Program and the MIT Management of Technology Program, the MIT Sloan Fellows Program in Innovation and Global Leadership was launched in June 2004, with a strong and diverse class that reflects the strengths of both parent programs. The 85 fellows in the inaugural class are outstanding mid-career managers who possess 10–25 years of professional experience, represent 22 countries, and come from a wide variety of for-profit and nonprofit industries, organizations, and functional areas. With this class, MIT Sloan has also introduced the flex option, which permits fellows to complete the program in two years, after attending the summer term full time, thus allowing them to maintain a presence in their organizations.

Undergraduate Minor. Next fall will mark a major milestone for MIT Sloan as we debut the new minor in management for undergraduates at MIT. The underlying objective of this six-subject offering is to provide MIT undergraduates with a basic understanding of the economic, managerial, and organizational contexts within which scientific and technical work takes place. Our goal is to begin the preparation of these extraordinary students for leadership roles in a variety of business and other organizations. Surveys lead us to expect that a large fraction of MIT students will take advantage of this opportunity, and we believe this program will have a significant impact beyond MIT. A generous (and anonymous) gift will enable us to expand the MIT Sloan faculty so that the minor can be offered without reducing the teaching resources devoted to our existing programs.

International Programs. MIT Sloan has been a pioneer in transforming management education on a global scale. In the early 1990s we began working with top universities in China, and the success of this model has been key to our success in China and to expanding into different countries. We recently established new collaborations in Korea and Mexico and are hosting a faculty member from Africa. Not only do these collaborations enhance student and faculty knowledge of the global economy, they also promote MIT Sloan throughout the world.

Other Initiatives

Marketing. Over on East Campus, we are giving our publications a more coordinated look that complements our brand identity. The first group of pieces—an MBA Program brochure, the Sloan Fellows Update, and the Executive Education short course calendar—showcase many elements of our new design building blocks. This project is among several initiatives—including a recently redesigned website—we are taking to enhance the image of the School to continue to attract the highest quality students, faculty, and staff.

Alumni Services Enhancements. We are stepping up our communication to keep alumni better informed and connected to the School and to each other. We completely redesigned the alumni website at <http://mitsloan.mit.edu/alumni/> and are launching an all-new, more powerful, and easier to use alumni directory later this fall. In addition, we will debut a new alumni magazine in the spring as part of a revamped alumni communications package that will include periodic print and email updates.

Building Project. The development of our new campus has also been progressing. Moore Ruble Yudell Architects & Planners and Sasaki Associates have finished concept design and schematic design and have worked on integrating the building engineering with architectural design.

Richard Schmalensee
John C. Head III Dean, MIT Sloan School of Management
Professor of Management and Economics

More information about the MIT Sloan School of Management and its programs can be found on the web at <http://mitsloan.mit.edu/>.

Education

The MBA Program

Academic year 2004 posed challenges to the MBA Program Office due to the unexpected increase (9%) in the size of the matriculating class. A total of 354 students joined the MBA Program in the fall; 48 Leaders for Manufacturing (LFM) Program students matriculated in the summer. In addition, for the first time last year, six PhD in chemical

engineering practice (CEP) students joined the first-year class. Despite our limited resources, we successfully launched a new curriculum, designed and executed dual-degree programs with Harvard's Kennedy School of Government and MIT's Biomedical Enterprise Program, successfully placed 90.9% of the graduating class of 2004 (among the highest of any business school), retired and replaced the Career Development Office (CDO) bidding system, and redefined the diversity policy for admissions and financial aid to conform with recent US Supreme Court rulings. It was a good year.

Admissions

The admissions team undertook several initiatives during the academic year to increase the awareness of the MIT Sloan program and to expand the pool of qualified applicants. Some of the year's highlights include the following:

- The admissions team hosted nearly 30 MIT Sloan-on-the-Road recruiting presentations and participated in a series of MBA forums and fairs.
- MIT Sloan hosted and collaborated with 10 schools in a recruiting effort to target undergraduate populations and young professionals (under three years of experience) in Boston, Washington, DC, Chicago, and San Francisco.
- In April 2004, MIT Sloan became the newest member of the Forte Foundation; there are 26 members of the organization and 16 of them are business schools. We created two new half-tuition fellowships (\$18,425 each) to fund two Forte scholars and three more new fellowships (\$5,050 each) for women. The Class of 2006 has 118 women—the highest number ever.
- The MBA Program received 2,728 applications (including MBA and LFM), a 15% decrease from the prior year and consistent (and in several cases less severe) with the trend seen at competitor schools. The rise of European one-year MBA programs and Australian programs, combined with unfriendly US visa policies, may be beginning to make US schools less attractive vis-à-vis our non-US competitors.
- Members of the MBA Admissions Committee interviewed, by invitation only, 923 candidates (36.1% of the MBA applicant pool) during the admissions cycle.
- The admissions team has been an active member in the cross-MIT Sloan marketing initiative to establish compelling messaging and a common look and feel to our web and print materials. We expect this to pay off in the long term by sharpening our image in the marketplace.

Student Affairs

Some of the highlights for the MBA Student Affairs team this year include the following:

- Successfully implementing and providing support for the new curriculum, particularly the first semester experience, including a new First Year Challenge event and the MIT Sloan Innovation Period (SIP)
- Improving our partnership with student leadership (particularly the Senate Executive and Graduate Management Society officers). In contrast to prior years, the MIT alcohol policy was not a major issue

- Increasing a sense of community and engagement of second-year students by adding events designed specifically for them (e.g., 2nd-year Thanksgiving, Commencement C-Function)
- Increasing MIT Sloan pride, the sense of community, and engagement of all students by adding new initiatives (e.g., SIP lobby decoration) and enhancing existing initiatives (expanding the morning coffee, upgrading the Merit Scholarship awards event)

Professional standards continue to be a problem—both inside and outside the classroom. Major efforts are underway to bring this problem under control, including working with the MIT Committee on Discipline and launching the MIT Sloan Professional Standards Review Board.

Career Development Office

The CDO team was highly successful again this year in providing support to MBA students. Some of the highlights include the following:

- Per *The Financial Times*, the Class of 2003 had the highest job acceptance rate (88%) three months after graduation across our seven peer schools
- The Class of 2004 (to date) has a reported 9% increase in the number of students with offers at graduation from the year previous (from 81.9% to 90.9%), putting MIT Sloan at or near the top of the list when compared to peer schools
- Hired a job developer to support the MIT Sloan Career Fair, with 20 companies attending (a 66% increase over 2003)
- Identified and negotiated a contract for a replacement career management system; this system is on target to be launched in fall 2004

Professional standards continue to be a problem in the CDO and during AY2004, seven students lost their on-campus recruiting privileges for professional standards violations.

Priorities

For academic year 2005, the MBA Program is working to:

- Expand our efforts to increase diversity by working with groups such as Forte Foundation to reach out to applicants that do not traditionally apply to MBA programs or apply to MIT Sloan
- Reinforce professional behavior and ethical conduct in the MBA community by working with the central MIT administration, student groups, faculty, and staff to strengthen professional standards
- Continually improve our marketing, selection, and conversion efforts to ensure that the best candidates apply and matriculate at MIT Sloan. Competition for the best students is acute and increasing. As we've improved our marketing and selection processes, we've come to the attention of a higher caliber of prospective student. As a result, we are increasingly in head-to-head competition with the

- likes of Harvard, Stanford, and Wharton—schools with more money for scholarships and larger admissions staff to travel for recruitment.
- Raise (and maintain high) positions in outside media rankings

MIT Sloan Visiting Fellows Program

The MIT Sloan Visiting Fellows Program provides the opportunity to pursue full-time, nondegree studies tailored to individual goals and interests. Each visiting fellow follows a program of study, usually for one or two semesters, that is designed in consultation with a faculty adviser to meet individual professional needs and interests.

Since the MIT Sloan Visiting Fellows Program is small, participants usually have an existing relationship with MIT Sloan through their company, their school, or a member of the MIT Sloan faculty. Enrollment per semester averages between 6 and 10. Four participants were enrolled in fall 2003 and 16 in spring 2004.

Academic year 2004 included both self-sponsored and company-sponsored participants, as well as visiting students from the University of Linköping (Sweden) and the Norwegian University of Sciences and Technology (NTNU).

The participants from NTNU (11 in spring) joined the Management of Technology (MOT) participants in the Seminar in Management of Technology, a required class for both groups. Since the programs use similar selection criteria, the groups were able to form an excellent cohort through this class and benefited greatly from the exchange of cultures and knowledge.

Sponsors of participants included Fuji Xerox Co., Hormel Foods Corporation, NEC Corporation, and Hong Kong Fortune Co.

MIT Laboratory for Financial Engineering

The focus of the MIT Laboratory for Financial Engineering (LFE) is the quantitative analysis of financial markets using state-of-the-art mathematical, statistical, and computational models. The LFE's goals are to spur advances in financial engineering and computational finance and to support curriculum development for financial technology in undergraduate, graduate, and executive educational programs.

The LFE has continued to receive funding support for its activities from Merrill Lynch this year and welcomes State Street Global Advisors as a new donor. These sponsors and donors enable LFE researchers to continue their work in each of the three LFE program areas: Capital Markets, Risk Management, and Financial Technology.

The Capital Markets program area focuses on the mainstream of financial engineering: the pricing and hedging of financial securities, the determinants of capital market equilibrium, and the empirical and econometric analysis of financial market data. LFE projects in this area include traditional topics such as risk/reward relations for stocks and bonds, asset-allocation strategies, tax optimization, the dynamics of trading volume,

derivatives pricing and hedging models, and the impact of transactions costs on portfolio management and trading. However, LFE projects involving nontraditional topics are also supported, such as the foundations of technical analysis, agent-based modeling of financial markets, and social-network-analysis models of global financial crises.

The Risk Management program area focuses on the entire spectrum of issues surrounding the process of rational decisionmaking under risk. This spectrum can be characterized by the “Three P’s of Total Risk Management”: probabilities, prices, and preferences. Probabilities refer to the statistical laws that describe the evolution of market opportunities and business conditions through time; for example, “What is the chance of a 20% decline in the S&P 500 next month?” Prices refer to the economic valuation of these market opportunities and business conditions; for example, “How much will it cost to insure my portfolio against a 20% decline in the S&P 500 next month?” Preferences refer to the ultimate factors that determine how much risk an individual investor or organization is willing to bear; for example, “How much insurance should I buy?” Any complete risk-management protocol must integrate these three P’s into its analysis, and the LFE research projects in this program area will involve all three aspects: statistical models, pricing models, and cognitive and behavioral models.

The Financial Technology program area focuses on various methodological aspects of financial engineering: mathematical, statistical, computational, and visual. Because financial engineering is naturally interdisciplinary, the tools of financial engineering span a wide range, and the opportunities for “intellectual arbitrage” across fields are tremendous. LFE projects in this area will include new methods for nonlinear time series analysis such as wavelet transforms, nonparametric estimation, and support-vector machines; new methods for optimization such as approximate dynamic programming, genetic algorithms, and simulated annealing; computationally intensive methods for Bayesian inference such as Markov Chain Monte Carlo algorithms and Gibbs sampling techniques; computationally intensive methods for quantifying the statistical biases inherent in large-scale data mining such as bootstrap resampling techniques; and new software/hardware platforms for real-time high-bandwidth financial visualization. Research summaries for each of the LFE projects and their corresponding preprints and reprints, along with LFE staff and affiliated faculty, are described in more detail on LFE’s website, <http://lfe.mit.edu/>.

The MIT/Merrill Lynch Partnership has concluded after five successful years of collaboration. However, Merrill Lynch continues to sponsor two important educational programs: a distance-learning initiative for Merrill Lynch executives and the Financial Technology Option (FTO), a graduate minor in financial technology that has been jointly developed by the Sloan School of Management and the Department of Electrical Engineering and Computer Science in the School of Engineering. The distance-learning program involves the electronic delivery of Professor Andrew Lo’s course 15.433 Investments to a select group of Merrill Lynch executives over a 12-week period. This program includes videotaped lectures, lecture notes, an interactive internet platform, office hours by conference call, and group projects developed by teams from across

diverse business units within Merrill Lynch. The MIT FTO program's intent is to provide training in financial engineering for current MIT graduate students from technology fields such as engineering, mathematics, computer science, and media studies. The FTO currently consists of two required finance courses and one elective, offered through Sloan School of Management, and in this third year of the FTO, about 95 students have been enrolled for AY2004, with another 55 likely to continue in AY2005.

Doctoral Program

Goal

The MIT Sloan PhD Program prepares exceptional students for careers in either academic positions involving teaching and research or nonacademic positions requiring advanced research and analytical capabilities. The program is committed to educating scholars who will lead in their fields of research—those with outstanding intellectual skills who will carry forward productive research on the complex organizational, financial, and technological issues that characterize an increasingly competitive and challenging business world. MIT Sloan PhD graduates go on to teach at the world's most prestigious universities.

Admissions

AY2004 admissions showed a drop in applications, consistent with reports from other universities' PhD programs, as well as other MIT graduate departments. We had a total of 594 applicants from 58 countries, 21 percent of those being from China. Processing was accomplished more efficiently than last year, with no increase in staffing levels or loss of quality control (see online application information below).

This admissions season marked the debut of our online-only application, which became available in October 2003. The application update for next year is already available online (as of July 2004), and for this coming application season, we have added the recommendation component to our online system. The launching of our online system took place with the invaluable assistance of ApplyYourself, Inc. Our transition from paper applications to online applications went off without a hitch. The system afforded us a much more efficient way to track applicants' information and to send notifications to the applicant pool.

Fifteen students accepted our offers of admission to join the program in September 2004. Eleven applicants were underrepresented minorities; one was offered admission but declined our offer. Total enrollment for AY2004 was 80 students (59 international and 21 US; 22 women), with one underrepresented minority student in the program.

Student Life

Since the students in our program have very little interaction across their 10 research areas, we have found it important to schedule some social events for all students to

spend time together. Therefore, we try to have at least one lunch and one evening party per term to foster camaraderie and cohesiveness.

Projects

For AY2004, we revamped the program brochure. The finished product has a much better look and flow from that of previous years.

Graduates

A total of 13 students graduated from our program this year, while 2 withdrew. Our 13 PhD graduates took positions at business schools including the University of Chicago, Northeastern, and INSEA–Singapore. A small number of graduates chose to work in industry.

MIT Sloan Fellows Program in Innovation and Global Leadership

This was a year of significant transition for both the MIT Sloan Fellows Program and the MIT Management of Technology (MOT) Program as the two programs prepared to integrate as the MIT Sloan Fellows Program in Innovation and Global Leadership. The integrated and redesigned program was launched as its first class entered on June 1, 2004.

The merger of the two programs came after an extensive review by the MIT Sloan Task Force for Degreed Executive Education, which recommended the integration of the innovation and entrepreneurial focus of the MOT Program with the global leadership emphasis of the MIT Sloan Fellows Program. It is believed that the integrated program, which is designed for high-potential mid-career professionals, will provide a dynamic learning environment as the needs, goals, and challenges of entrepreneurs, technologists, and business and government leaders rapidly intersect.

The redesigned program allows participants a choice of two delivery options: either the traditional one-year, full-time schedule, or a new “flex” schedule that allows the fellows to complete the program in two years, after participating in an intensive 12-week residential summer session. The flex schedule permits participants to maintain a presence in their organizations and seeks to attract local technology companies for whom the one-year residential requirement had previously been an obstacle to their attendance. Participants also have a choice of degrees depending on their course of study: an MBA, a master of science in management, or a master of science in management of technology.

Classes of 2004

The classes of 2004, which included 52 MIT Sloan fellows and 52 MOTs, entered in June 2003 and graduated in June 2004. During the year in their respective programs, they experienced many of the innovations designed for the 2004 launch of the integrated ` ,

including a new summer platform of core courses taught by MIT Sloan faculty, rather than a roster of summer visitors experienced by previous classes.

Highlights of the year included the awarding of the \$50K Entrepreneurship Competition prize to a team on which an MOT student participated, following a long tradition of MOT involvement in the \$50K. Other highlights included the MOT international trip to China, Taiwan, and Hong Kong, and the MIT Sloan fellows international trip to China, Singapore, and India, the culmination of the program year.

Class of 2005

The first class of the MIT Sloan Fellows Program in Innovation and Global Leadership entered June 1, 2004. Widespread marketing efforts throughout the year and careful consideration by the Admissions Committee resulted in a strong and diverse class that reflects the strengths of both parent programs. The 85 new fellows have 10–25 years of professional experience and proven track records of accomplishment and leadership. They represent 22 countries and come from a wide variety of for-profit and nonprofit industries, organizations, and functional areas. Most are organization sponsored, with a significant number of entrepreneurs. There are 14 fellows who have selected the flex option, and they will be completing their program requirements in June 2006 while maintaining a presence in their organizations.

Challenges Ahead

As we continue to build a successful integrated program throughout our inaugural year, key challenges and goals for AY2005 include maintaining the traditionally tight cohort while managing a substantially increased enrollment. The introduction of the flex option will require special attention this year to ensure its success over the two-year degree completion timeframe. The program office is also focused on integrating staff members and responsibilities and on internal marketing of the program within Sloan and MIT. Foremost on the list of goals is increased marketing efforts on a global scale to long-term and new sponsors, potential participants, and the alumni base of both parent programs.

System Design and Management

The mission of the System Design and Management (SDM) Program is to educate future technical leaders in the architecture, engineering, and design of complex products and systems, preparing them for careers as the technically grounded senior managers of their enterprises. SDM intends to set the standards for delivering career-compatible professional education using advanced information and communication technologies. SDM was one of MIT's early entries into the field of distance education and remains the only degree-granting program at MIT that can be earned primarily from a remote location.

The SDM Program is a joint offering of the School of Engineering and the MIT Sloan School of Management, leading to an SM degree in engineering and management. Targeted to professional engineers with three or more years of experience, the program

centers on a 13-course curriculum in systems, engineering, and management, including a project-based thesis. It offers three curriculum options: a 13-month in-residence format; a 24-month distance education for company-sponsored students, requiring one academic semester in residence at MIT; and a 24-month commuter program for local-sponsored students. The program was conceived as an alternative to the MBA for professional engineers, allowing working professionals to pursue a degree without interrupting their careers and relocating themselves and their families.

Denny Mahoney, director of the SDM Fellows Program, is completing his fifth year in that position. Codirectors for the program were David Simchi-Levi, Bill Hanson, and Tom Allen.

Student Statistics

In January 2004, SDM admitted its eighth class, enrolling 37 students. As was done in FY2003, in May 2004 SDM put on an informational evening for local MIT alumni and others interested in SDM as a way to recruit prospective students for SDM in FY2004. This successful event brought in more than 40 prospective students to campus where they heard presentations from several faculty, students, and alumni about the program. The plan is to repeat the event in July 2004.

System design and management admissions statistics

	1997	1998	1999	2000	2001	2002	2003	2004
Admitted	35	58	47	50	37	27	36	37
On-campus	8	16	6	14	8	7	18	27
Self-supported	3	1	2	5	2	1	6	25
Research assistant	3	12	2	4	3	1	10	0
Distance education	27	42	41	36	29	18	17	10
Company-sponsored	29	45	43	41	32	25	20	12

MIT–Industry Partners System Engineering Program

This past year, SDM and its partner program, Leaders for Manufacturing (LFM), along with United Technologies Corporation (UTC), continued with a third year of the MIT–Industry Partners System Engineering Program. This year the program was expanded to include another SDM partner company, ArvinMeritor, which enrolled several students in both the certificate program and the Organizational Leaders Workshop.

To build a systems engineering core competency, this unique program targets three key populations: experts enrolled in the SDM program; experts enrolled in the Systems Engineering Certificate Program; and the organizational leaders of those experts. The

three-year pilot has been very successful, with 56 students completing the certificate program and 100 organizational leaders completing the six days of content in the Manager/Supervisor Workshop. With its active participation in all levels of the program, UTC now has over 200 employees touched by SDM. The next cohort of certificate students for FY05 is expected to reach 40, with students from UTC, ArvinMeritor, Ford, and Raytheon joining the program.

Distance Education Delivery

As MIT's premier degree program offered at a distance, SDM has recognized its leadership role at the Institute regarding the practice of distance education. SDM continues to evaluate its delivery with the goal of increasing the quality of the remote-learning experience while reducing costs, both for MIT and for sponsoring companies. The codirectors recognize the need to bring in more distance education students in the January 2005 cohort to justify the costs of distance education for this program. SDM champions at ArvinMeritor and Ford have volunteered to help market the program. Plans were underway in the summer 2004 to visit companies in the Detroit area with a team led by representatives from these two key SDM partners.

Tom Allen, Bill Hanson, and David Simchi-Levi

Codirectors, Leaders for Manufacturing Program–System Design and Management Program

More information about the System Design and Management Program can be found on the web at <http://sdm.mit.edu/>.

Executive Education

MIT Sloan's Office of Executive Education seeks to build relationships with companies as well as individual executives and provide them with the concepts, tools, and frameworks that will enable them to drive innovation in products, markets, and organizations. This year, Executive Education has worked closely with the MBA Program, as well as other customer-facing units of MIT Sloan, to create a consistent marketing message.

With the assistance of the Committee for Non-Degreed Executive Education, we have identified four major market segments where we are pursuing deep relationships with a few significant players. These segments are life science companies, engineering-based companies, IT-based companies, and financial services companies.

In the engineering-based segment, BP Projects Academy, a multiterm, multiyear initiative in conjunction with the School of Engineering, is an example of this deep relationship wherein MIT Sloan is acknowledged as a key contributor to both organizational learning and business impact at the most senior levels of the

organization. Fifty of the original 100 Major Project Leaders selected by BP completed the one-year program, which combines six weeks of residential classroom learning with action-learning projects supported by faculty mentoring.

In the life science segment, we are in the process of designing and delivering a multiyear custom program for Serono, a Geneva-based biotechnology company. In addition, we conducted focus group research and are in the process of designing a three-week intensive leadership program for life science professionals transitioning to significant management/leadership positions within their organizations.

This year, a fourth successful program was delivered to Merrill Lynch. Using distance-learning technology, Professor Andrew Lo's 15-week investments course was offered to Merrill Lynch investment managers around the world. The program was enhanced with the addition of Professor Deborah Ancona's expertise in X-Teams, combining an emphasis on financial content with the leadership skills required for successful implementation.

Programs focusing on key management issues in information technology were delivered to both GE and Aetna. A two-week Executive Program in the Management of Technology was delivered to 25 Japanese managers from an array of Japanese manufacturing companies.

Driving Strategic Innovation, a one-week open-enrollment program that we offer in partnership with IMD, the leading provider of executive education in Europe, continues to be one of our most successful programs. Overall, we offered an array of 16 two-day and five-day open-enrollment programs for upper-level managers. Heading this list in terms of number of attendees was the popular Entrepreneurship Development Program, which enrolled 150 executives this year.

In AY2004, Executive Education delivered 211 days of instruction to 3,455 managers.

Leaders for Manufacturing

The LFM program is a partnership between MIT and over 25 global manufacturing firms to discover and translate into teaching and practice principles that produce world-class manufacturing and manufacturing leaders. This partnership is motivated by our shared belief that excellence in manufacturing is critical to meeting the economic and social needs of individuals, firms, and society, and that the health of companies operating in global markets is essential to society's well-being.

LFM is a partnership between the School of Engineering, the MIT Sloan School of Management, and leading manufacturers. Launched in 1988 with significant industry funding, the program emphasizes collaboration and knowledge sharing with its partner companies across the entire spectrum of "Big-M" manufacturing enterprise issues. LFM supports students as fellows in the program with a generous fellowship. The largest component of the educational efforts is the Fellows Program, a 24-month dual master's degree (SM in engineering and MBA or SM in management) experience involving a

single integrative research project carried out on site in partner firms. With regard to the School of Engineering, LFM SM students can get degrees in the eight School of Engineering departments, as well as in the Engineering Systems Division.

On the administrative level, LFM and SDM are run as a common enterprise.

Academic Program

Fifty-seven students in the class of 2004 completed the LFM Fellows Program and approximately 80 percent have taken positions in manufacturing/operations firms. Each of the 57 graduates completed an internship at a partner company during the summer and fall of 2003. Internships are focused projects of concern to the partners, accomplished by interns with company support and MIT faculty guidance. Representative projects this past year included the use of modeling and critical operations data to optimize plant performance, projects focused on optimizing supply chains, and various lean manufacturing initiatives. As a one-year project funded by the Cambridge-MIT Institute, five LFM interns completed their internships at companies in the UK. Part of the funding included a follow-up six months after the projects' completion to determine what the return on investment was for these projects. Mary Barton, senior business analyst for MIT's D-Space Project, undertook this review, which will be available in late summer 2004.

Another 48 students (Class of 2005) completed their first year of on-campus studies and started their six-month internships. Forty-eight new students (Class of 2006) were admitted and began an intensive summer session. The Class of 2006 has an average of 4.8 years of work experience. Don Rosenfield continues to serve as the director of the LFM Fellows Program. Codirectors for the program were David Simchi-Levi, Bill Hanson, and Tom Allen.

Research and Knowledge Transfer Program

As part of LFM and SDM's commitment to lifelong learning, an initiative begun in FY2002 was continued to encourage LFM and SDM alumni to stay connected with MIT by sharing relevant information. Paul Gallagher, research associate for LFM and SDM, continued to schedule monthly webcasts presented by MIT faculty and various LFM and SDM alumni. The webcasts, also called "webinars," provide valuable information on the latest trends, cutting-edge developments, and innovative strategies, all of which pertain to manufacturing and/or systems design. The presentations are given in real time, via the internet and telephone, which allows participants to follow along visually and audibly as well as to ask questions. Alumni continue to express a high degree of interest in these virtual knowledge-sharing events, and webinars have evolved into a key tool for alumni engagement.

Also completed was Phase 1 of the LFM-SDM Virtual Community, a portal for LFM-SDM industry partners, alumni, students, faculty, and staff supported by a robust Oracle relational database. The Virtual Community allows LFM-SDM partners to log in remotely and obtain information such as community members' contact information,

research, and work history. A word-searchable thesis repository allows community members to use keywords to search through all 876 theses.

Outreach

LFM continues its leadership role in the National Coalition of Manufacturing Leadership (NCML), a partnership of 15 universities with joint management and engineering manufacturing programs. The NCML met at McGill University in November 2003. This year, programs in the NCML began to tackle the issue of an NCML brand and whether the schools should initiate some joint marketing efforts. The discussion, which is being led by McGill University, will continue through 2004.

Placement

LFM students, sponsored and nonsponsored, continue to be highly sought once they have completed the program. Partner companies as well as other organizations take a special interest in LFM students, as proven by their commitment to speak to the class on various issues during the Pro Seminar session. About 80 percent of each class accepts positions within the manufacturing industry, while the percentage of students accepting positions within partner companies has consistently remained at about 50 percent.

Tom Allen, Bill Hanson, and David Simchi-Levi

Codirectors, Leaders for Manufacturing Program–System Design and Management Program

More information about the Leaders for Manufacturing Program can be found on the web at <http://lfmsdm.mit.edu/lfm/>.

Teaching

Undergraduate Program in Management Science

The MIT Sloan Undergraduate Program ranked second this year in *U.S. News & World Report's* ranking of American undergraduate business programs (maintaining our position from last year). The program ranked first in management information systems, quantitative analysis, and production/operations management.

With over 300 undergraduates, we remain one of the largest undergraduate majors at MIT. We experienced a decline in the number of sophomores declaring a major in management science at the end of spring 2003 (perhaps due to the difficult economy). This is reflected in our enrollment for this year, which decreased from 351 to 306. In spring 2004, the number of sophomores who declared our major increased again, and so we anticipate that enrollment for next year may increase slightly. The percent of our undergraduates who complete two MIT majors has also continued to increase, and we continue to see large numbers of undergraduates from other MIT degree programs

enrolling in our management subjects. As shown in the following chart, prior to this year's decline, enrollment in the program tripled over a 10-year period.



Over the past year, the Undergraduate and Interdepartmental Program Committee has been working on the design for a new minor in management, which has been made possible by a dedicated gift from an anonymous donor. The minor is intended to complement the work of students pursuing undergraduate degrees in other majors by providing an understanding of the managerial dimensions of the scientific and engineering enterprise. If the minor is approved by MIT's Committee on Curricula this coming fall, we plan to introduce it in two phases. The initial phase will begin in fall 2005 and proceed for four academic years, during which time we will accommodate approximately 100 students per year. During this phase, we will carefully monitor additional demand for the minor, along with its pedagogical effectiveness. We are confident that this information will provide the basis for seeking and obtaining the additional funding necessary to open the minor to all interested MIT undergraduates in its second (steady-state) phase.

A total of 108 SB degrees in management science were awarded this year. The most popular concentration was finance (74), followed by information technologies (13), marketing science (9), and operations research (4). Eight of our graduates completed the requirements for two of these concentrations.

Some 51% of our graduates also received SB degrees from other MIT departments, compared with 42% last year and 35% the previous year. Thirty-two also received SB degrees in electrical engineering and computer science, six in economics, three in mathematics, two in biology, and one each in mechanical engineering, architecture, chemistry, physics, chemical engineering, music, and comparative media studies. One student also received both SB and MEng degrees in electrical engineering and computer science. Four students also received an additional advanced degree: Two received MEng degrees in electrical engineering and computer science; one received an MEng degree in civil and environmental engineering; and one received an MEng degree in logistics.

MIT Sloan Undergraduate Advising and Committee Assignments

Faculty serving as undergraduate advisors included professors Thomas Allen, Dan Ariely, Lotte Bailyn, Diane Burton, John Carroll, Chris Dellarocas, Stephen Graves, Benjamin Grosf, Leigh Hafrey, Neal Hartman, Starling Hunter III, Jin Gyo Kim, S. P. Kothari, Jonathan Lewellen, John Little, Stuart Madnick, Stewart Myers, James Orlin, Jun Pan, Nelson Repenning, John Van Maanen, Dimitris Vayanos, Joseph Weber, and Roy Welsch, along with Jeffrey Meldman, director of Undergraduate Programs, Mary Camerlengo, assistant director of Undergraduate Programs, and Stephanie Karkut, assistant director of Undergraduate Programs.

The Undergraduate and Interdepartmental Policy Committee was chaired by Professor Thomas Kochan and included professors Dan Ariely, Erik Brynjolfsson, Stephen Graves, Simon Johnson, S. P. Kothari, John Little, Eric von Hippel, Jeffrey Meldman, and Jiang Wang. Nikhil Gidwani '04, Fahad Kajani '05, and Tony Wu '05 served as student members. Dean Paul Osterman, Mary Camerlengo, and Stephanie Karkut served as ex-officio members.

Research Centers and Groups

The MIT Workplace Center

The MIT Workplace Center was founded in the summer of 2001 and has just been renewed for another three years. It is funded by the Alfred P. Sloan Foundation as part of its Program on Workplaces, Workforce, and Working Families.

The purpose of the center is to work collaboratively with employers and other stakeholders to solve work-family problems and to address what center codirector Lotte Bailyn and her colleagues call the “dual agenda.” That is, the center works to create innovative work designs that will both increase the effective performance of firms and the health and well-being of families and communities. This work is carried out with attention to the current context of a recent economic recession, job insecurity, and increasing time pressures on workers of all kinds, all of which are exacerbating work-family problems.

The center works simultaneously on three levels: the workplace level, the associational level, and the state level. On the workplace level, we conduct research-action projects in a number of specific workplaces, adapting the methodology of Collaborative Interactive Action Research developed in our prior research in order to examine existing assumptions about work practices and lay the groundwork for new workplace policies, practices, and work designs.

On the associational/institutional level, we bring empirically grounded data from our workplace research into discussions with unions, professional associations, industry and trade associations, and other organizations representing workers, employers, and community groups. Our purposes are twofold: to create a greater understanding of work-family issues through public education; and to engage the interest and support of

these associations and institutions in diffusing flexible work practices across the occupations and industries in which they work.

On the state level, we convene multiple private and public sector stakeholders to define and develop broad coordinated approaches to work-family issues in the state of Massachusetts. Through private sector initiatives, public education, and public policy development, we seek to make Massachusetts a model for other states and to demonstrate how work-family policies contribute to the economy and to healthy families and communities. Taken together, work on all three levels constitutes a *model for change* that is grounded in research and based on collaboration with the full set of stakeholders that need to be engaged to achieve changes in workplace practices and policies.

Workplace-Level Projects

In the last three years year, the MIT Workplace Center has delved deeply into research in the health-care sector and has new projects underway in both legal services and high tech.

The work in health care is based in a variety of health-care workplaces—covering acute care, subacute care, and primary care. Researchers are documenting the connections between workplace problems and problems facing health-care workers at home. We hope to show how unresolved work-family issues affect the delivery of health care and how attention to these issues can produce positive results for the quality of patient care and for health-care workers and their families. The following two research-action projects are ongoing.

Work-Family Supports for Geriatric and Palliative Care. Ann Bookman and Mona Harrington are conducting research on the operation of two teams of health-care professionals that specialize in geriatric and palliative care at a large multispecialty practice group. The aim of their project is to trace and document the work and family experiences of different groups of workers who are caring for an increasing population of elderly patients with complex chronic diseases. Intervention projects are being developed in collaboration with the teams and the senior management of the practice group in the following two key areas:

- Work organization, information flow, and integration of services across acute care hospitals, nursing homes, and community-based services and patients homes. Particular attention is being given to the three workforces needed for home care of geriatric and end of life patients: health-care workers, community-based service providers, and family caregivers.
- Work-family issues of patients' family members engaged in decision making and direct care. Interventions are being considered in relationship to the accessibility and affordability of community-based services, as well as the flexibility and leave policies of family members' employers.

Nursing Unit Study on Flexible Work Arrangements. Professor Lotte Bailyn is working with nurses on a surgical ward in one of the large teaching hospitals in Boston to institute a self-scheduling system. The dual agenda goals are to give the nurses more control over their time and hence enable them to better plan the intersection with their personal lives on the one hand and, on the other, to create a better environment for patient care. This intervention is still in process and therefore only interim results can be reported. Recent survey data indicate that 89 percent of the nurses want the experiment to continue and are willing to take the needs of the unit into account. Change requests have dropped and the nurses' perceptions of the fairness of the scheduling system rose, as did their response to the fit of their schedule with personal and family needs. And most interesting, their response to whether their schedule allows them to give good patient care became more positive.

The Center's health-care projects also include the following dissertation research projects.

Physician Careers Study by Forrest Briscoe. Briscoe's dissertation, completed in 2003, documents the career paths of physicians in a prominent HMO over the past 15 years, focusing among other things on work hours, schedules, and transitions into and out of part-time practice. Briscoe's dissertation is based on his longitudinal survey and interviews with physicians at a large-scale medical organization. He found that despite their traditional bias against such large organizations that constrain autonomy, doctors appear to value the organization highly because of the better hours and more predictable schedules available there. His dissertation research has been cosponsored by the Institute for Work and Employment Research at MIT Sloan.

Medical Residents Work Hours Project by Kate Kellogg. Kate Kellogg has conducted an 18-month ethnographic field study for her dissertation, observing the process of change in work hours for surgical residents in a Northeastern teaching hospital. In July 2002, in response to impending legislation limiting resident work hours to 80 hours a week (down from 120 hours), directors in surgery began a process of compliance with the new rules. The impending regulations sparked a strong outcry from surgical residency program directors, attending physicians, and even some of the surgical residents themselves. Kellogg found that the resistance to reduction in work hours was related to work practices, identity, and power issues. Kellogg also identified an "iron man" image of the classical surgeon—a professional identity centered on working long hours and taking sole responsibility for individual patients—and showed how this model is beginning to be challenged.

A number of other professors and doctoral students from the Institute for Work and Employment Research and the Organization Studies group are working with the center on health-care projects and high-tech projects.

Professors John Carroll and Michele Williams are studying the challenges of handing off patients and sharing information that are required to make flexible work schedules for nurses work effectively for patients, the hospitals, and the nurses involved. Our Health Care Advisory Group focused on this as a critical challenge in implementing flexible

schedules in nursing care since some see “patient handoffs” as potentially increasing the risk of errors. They have strongly encouraged development and implementation of this project, which focuses on understanding the role communication plays in facilitating the handoffs that make flexible scheduling possible. It is now in the initial data collection phase in one unit of a large teaching hospital. The results of this phase of the work will be discussed with the Health Care Industry Advisory Group to get their advice on how to carry it to a larger-scale study.

Roberto Fernandez and PhD student Brian Rubineau are working with nursing union leaders and educators to determine how nurses weigh flexibility and other job attributes in choosing among job alternatives. Understanding how flexibility weighs in these decisions is critical to addressing the well-documented nursing shortage and difficulties in recruitment and retention. Data collection will begin on this project this summer and will continue throughout the second phase of our work.

PhD student Kyoung-Hee Yu is studying the role that community and other labor market intermediaries play in addressing the mix of career, job, and family pressures on immigrant nurses’ aides and other paraprofessionals. Immigrants are playing a growing role in the health-care industry, and with this growing role has emerged a host of intermediary organizations that help recruit, train, place, and represent immigrant workers and their families

Given the importance of the high-technology sector in Massachusetts, the center has looked to the state’s leading high-tech employers, and their Center for Quality Management (CQM), as a way to begin research and outreach efforts in this industry. This project is being led by Professor Diane Burton, Professor Thomas Kochan, codirector of the center, Matthew Bidwell, and PhD student Adam Seth Litwin. CQM is interested in working with us to better understand the links between different business and organizational models (strategies and structures) and the formal and informal social model in place in these firms. By the social model they mean the human resource practices, the work and family policies and their use, and the culture and leadership style prevailing in these workplaces. The primary question of interest is what the individual and joint effects are of the different business and social models on organizational performance and on workforce and family outcomes.

State-Level Initiatives and Public Engagement

The Massachusetts Work-Family Council. In July 2002, pursuing the “Call to Action” in the MIT Sloan Work-Family Policy Network Report, work began on the formation of a Massachusetts Work-Family Council. The goal is to institutionalize a holistic approach to the integration of work and family by bringing together the broad range of stakeholders involved in the problem. The first stage of the project was the formation of a consortium of academic centers dealing with work-family and related issues with representatives from Boston College, Brandeis University, Simmons College, the Urban College of Boston, and several centers at the University of Massachusetts/Boston.

The purpose of the council is to promote understanding of work-family issues as matters of public concern and importance, to define the issues as requiring coordinated responses from multiple stakeholders, and to provide an instrument for constructing solutions by bringing together the full range of stakeholders involved in particular conflicts. Depending on need, the council could discuss issues and proposals under consideration in the political process, propose both private sector and public policy initiatives, sponsor educational projects, and disseminate findings from academic research.

As there is no model for such an institution, the process of creation has been experimental at each step. Approximately 100 people are active participants in council events. The process for constructing the council has involved single sector meetings—with representatives from business, labor, professional associations, community groups, and low-income advocacy organizations—as well as cross-sector meetings. By identifying issues of greatest concern, people with conflicting interests in work-family issues have come to recognize the benefits of coordinated solutions. These meetings have provided a forum for the expression of clear differences but also common concerns about basic issues—workplace flexibility, family care, and job and income security.

Recent Workplace Center Activities

During AY2004, the Council Initiative held two major cross-sector workshops: a “Solution-Seeking Workshop,” with a presentation by Paul Harrington of Northeastern University on the state of the Massachusetts workforce, followed by cross-sector solution-seeking dialogues; and a presentation by a panel of state legislators who chair or serve on committees dealing with work-family issues, followed by cross-sector dialogue exploring potential policies relating to family care and workplace flexibility. Currently, there are meetings with state legislators concerning the development of a legislative work-family agenda and exploration of the establishment of the Work-Family Council by legislation.

In May 2004, the MIT Workplace Center also organized and hosted a national conference of work-family scholars affiliated with other MIT Sloan Foundation research centers called

“Changing Structures, Changing Lives: Resolving the Workplace/Workforce Mismatch.” The conference was preceded by a preconference session, “ Changing Careers in the Academy,” attended by representatives of 12 different MIT Sloan-funded projects on change efforts at major universities around the country. The conference was followed by a panel open to the public featuring national work-family experts speaking on the topic “Building Political Will, Changing Public Policy: Is Flexible Work in Our Future?”

The Workplace Center continued its commitment to public education with frequent seminars that are open to the public. These talks and other research are available through the center’s Working Papers Series. There are now 18 working papers and three teaching cases that have been developed, and all are available on the center’s website as well as in hard copy. The center’s website also carries news of new publications, such as Professor Kochan’s report, *Regaining Control of Our Destiny: An Agenda for America’s*

Working Families, and a new book by Ann Bookman, *Starting in Our Own Backyards: How Working Families Can Build Community and Survive the New Economy* (Routledge, 2004).

More information on the goals and activities of the Workplace Center can be found on the web at <http://web.mit.edu/workplacecenter/>.

MIT Entrepreneurship Center

The mission of the MIT Entrepreneurship Center (E-Center) is to train and develop leaders who will make high-tech ventures successful. We offer educational programs to inspire, educate, and coach new generations of entrepreneurs from all parts of MIT to support this mission. MIT's entrepreneurship professors, practitioners, and staff teach more than 20 courses and conduct basic research to enhance our fundamental understanding of the dynamic process of high-tech venture development in the United States and around the world.

The MIT Entrepreneurship Center was launched as an Institute-wide initiative in 1996. At that time, President Vest said, "We must not only be the best. We must also serve as a model for others and ensure that, together, we all make a significant global impact in this vital field."

Our ranks have grown as we continue to recruit world-class educators. In FY2004, we had 15 professors and 15 practitioners teaching our courses. From 1996 to 2004, student enrollment in entrepreneurship courses steadily grew from 288 to over 1,400 students in each of the last four years. We have added at least one or two new courses every year, frequently featuring coteaching with two or more MIT departments and schools. Interest and enrollment by graduate students from across MIT—among them many engineers and scientists—has grown steadily.

Our courses offered in FY2004 included the following:

- 15.968 Building a Biomedical Business
- 15.369 Corporate Entrepreneurship Strategies for Technology and New Business Development
- 15.431 Entrepreneurial Finance
- 15.835 Entrepreneurial Marketing
- 15.390 New Enterprises
- 15.391 Early Stage Capital
- 15.394 Designing and Leading the Entrepreneurial Organization
- 15.396 Technology Sales and Sales Management
- 15.398 Proseminar in New Product and Venture Development
- 15.399 Entrepreneurship Lab
- 15.389 Global Entrepreneurship Lab
- 15.615 Law for the Entrepreneur and Manager
- 15.975 The Nuts and Bolts of Business Plans

- 15.976 Starting and Building a Successful High-Tech Venture
- 15.971/MAS 967 Developmental Entrepreneurship

During FY2003, professors Diane Burton, Fiona Murray, and Antoinette Schoar each launched major multiyear research initiatives. These initiatives made strong progress in FY2004.

Student organizations supported by and housed in the MIT Entrepreneurship Center continued to be recognized as world leaders. The MIT \$50K Entrepreneurship Competition celebrated its 15th anniversary with over 126 business plan entries. Governor Mitt Romney officially declared May 12, 2004, as “Entrepreneurship at MIT Day.” Once again, the student-run MIT Sloan Venture Capital Conference attracted 500 attendees from over 20 countries.

In recognition of their cross-campus initiatives and active student mentoring, Omer Cedar, Othman Laraki, and Hans Tung—all graduate students in the MIT Sloan School of Management—earned the coveted Patrick J. McGovern Jr. ’59 Entrepreneurship Award for outstanding contributions to the entrepreneurial spirit of the Institute, specifically for aiding in the development of a new project course called Innovation Teams (I-Teams).

We continued to engage the members of our alumni community interested in new ventures. The E-Center hosted or cohosted major networking galas in Boston (3), London (2), Cambridge, the UK, Brussels, Madrid, Munich, and Tokyo (1 each). The events drew over 1,000 members of the E-Center’s network, including MIT graduates engaged in entrepreneurial activity.

Our partnership with the University of Cambridge and the Scientific Enterprise Centers (SECs) in the UK continued to expand. Our fourth annual gala dinner was held in London in June with over 450 attendees. Over 35 representatives of UK SECs attended our 7th annual Entrepreneurship Development Program in January.

We completed a one-year pilot program with the Higher Colleges of Technology in the United Arab Emirates. More than 30 MIT Sloan MBAs participated in the HCT–MIT Entrepreneurship Conference in Dubai during March 2004.

Center for Information Systems Research

The Center for Information Systems Research (CISR) has a strong track record of practice-based research on the management of information technology throughout its 30-year history. CISR’s mission is to perform practical empirical research on how firms generate business value from IT. An international mix of sponsoring organizations, representing a broad range of industries, participates in workshops to discuss the research agenda, results, and applications. CISR disseminates this research via electronic research briefings, working papers, research workshops, and executive education.

FY2004 Research Projects

- Business models and IT investments
- Governing IT for different performance goals
- Managing emerging information technologies for new business initiatives
- Infrastructure as variable cost
- Managing IT-related risks
- Assessing the performance of alternative business models
- Managing the next wave of outsourcing
- Managing IT architecture for business value
- Measuring IT-driven risk
- Exploring the role of the IT unit in leading IT-enabled change

Recent Accomplishments

- Number of sponsor organizations has increased from 8 in 2000 to 38 in 2004
- Director Peter Weill and principal research scientist Jeanne Ross coauthored IT Governance: How Top Performers Manage IT Decision Rights for Superior Results, published in May 2004 by the Harvard Business School Press based on CISR research
- CISR's working paper series currently contains 342 papers
- CISR working paper "From Place to Space: Migrating to Profitable Electronic Commerce Business Models," by Peter Weill, Jeanne Ross, and Michael Vitale, is among the top downloads on the Social Science Research Network
- Since 2001, CISR has distributed 35 electronic research briefings (short, sharp summaries of ongoing CISR research)
- Peter Weill is one of five coprincipal investigators on a five-year, \$5 million research project funded by the National Science Foundation
- CISR researchers have presented their work to more than 1,400 senior executives in the MIT Sloan executive education program "IT for the non-IT Executive"
- Current CISR research patrons are the BT Group, Diamond Cluster International, Inc., Gartner, Hewlett-Packard Company, IBM Corporation, Microsoft Corporation, and Tata Consultancy Services–America. CISR sponsors are Aetna Inc., Allmerica Financial Corp., Allstate Insurance Co., AstraZeneca Pharmaceuticals, Banknorth NA, Biogen Idec, Campbell Soup Company, Care USA, Celanese, ChevronTexaco Corp., Det Norske Veritas (Norway), eFunds Corp., EMC Corp., The Gillette Company, Guardian Life Insurance Company of America, Intel Corporation, International Finance Corp., Merck & Co., Merrill Lynch & Co., Inc., MetLife, Mohegan Sun, Motorola, Inc., National Kidney Foundation, Singapore, Nomura Research Institute, Ltd., Pasco County, Florida, Pfizer Inc., PFPC, Inc., Qwest Communications, Raytheon Company, State Street Corporation, and TRW Automotive, Inc.

MIT Center for eBusiness

Since its inception in 1999, the MIT Center for eBusiness has attracted more than \$18 million of funding to MIT Sloan. With this financial support, the center has been able to

finance 46 focused research projects and 26 “vision” research projects. During the past year the center produced three events favorably covered by the national press: the center’s annual conference, the MIT CIO Summit, and the MIT CIO Symposium. In addition to these events, the center hosts research workshops, seminars, and course projects for our corporate sponsors.

The center is organized into five research units called Special Interest Groups that describe the focus of our research and the deep expertise of our faculty and research staff.

1. *Digital Marketing Strategy Group*. Head: Professor Glen L. Urban, MIT Sloan School of Management, Marketing Group. The Digital Marketing Strategy Group studies the potential gains from employing digital technologies to the formulation and execution of (real) marketing strategies.

2. *Digital Productivity Group*. Head: Professor Erik Brynjolfsson, MIT Sloan School of Management. The projects in this group are focused on understanding how business processes, organizational structures, and corporate culture can be reshaped using information and communications technologies to measurably increase business performance.

3. *Financial Services Group*. Coheads: Professor Stuart Madnick, MIT Sloan School of Management, Information Technology Group; Dr. Michael Siegel, MIT Sloan School of Management, Information Technology Group. The projects in this group focus on the effects of continued globalization in financial business and the resultant (major) IT decisions and new technologies that will provide new business opportunities.

4. *Communications Futures Group*. Head: Professor Charles Fine, MIT Sloan School of Management, Operations Group. Communications Futures works at the forefront of defining the roadmap for communications and its impact on adjacent industries. Its mission is to help our industry partners recognize the opportunities and threats from these changes by understanding the drivers and pace of change, building technologies that create discontinuous innovation, and building the enablers for such innovation to be meaningful to our partners.

5. *IT and Software Products and Services Group*. Head: Professor Michael Cusumano, MIT Sloan School of Management, Strategy Group. The primary research focuses on how firms can best balance business models that include both products and services, as well as manage each type of business more efficiently.

Summary of Accomplishments

- Fifty-five Sloan faculty/research staff funded over the life of the center
- More than \$10M direct research funding through FY2004; expect to fund more than \$2M for FY2005

- Forty-six Focused Research projects, matching a single sponsor company with a single faculty member
- Twenty-six Vision Fund Research projects
- More than 100 working papers to date; many more underway
- Over 70 completed MBA student class projects proposed by and involving sponsors
- Have worked with over 45 sponsoring companies
- Very successful series of events, with more than 125 sponsors participating (annual conference) and nearly 500 colleagues from industry and academia (CIO Symposium); annual conference in May with 125 attendees over two days of presentations
- Premier website with extensive “sponsors only” section
- Two monthly e-newsletters for sponsors: “eBusiness News” and “eBusiness Research”; Two similar each month for public
- Weekly Research Lunch Seminars for faculty, researchers, and PhD students; successfully webcast to sponsors for the past year.
- Comprehensive reports and executive summaries of all events and workshops made available on sponsors-only website
- Extensive favorable press coverage in *BusinessWeek*, *Optimize*, *CIO Magazine*, *InformationWeek*, *Financial Times*, *ComputerWorld*, *Computer Weekly*, *Boston Globe*, *CIO Information Network*, and *eWeek*

More information on the MIT Center for eBusiness can be found on the web at <http://ebusiness.mit.edu/>.

MIT Program on the Pharmaceutical Industry

The MIT Program on the Pharmaceutical Industry (POPI) was founded in 1991 as a research and education program for understanding the structure and dynamics of the global pharmaceutical industry, its firms, and their suppliers, customers, and regulators. At POPI, our research and educational programs explore the challenges and opportunities facing the pharmaceutical industry, from discovery and development of new drugs to issues of manufacturing and marketing.

Over our long history, POPI’s contributions have been significant. Our research has helped create a more profound understanding of the dynamics of the pharmaceutical industry, the interplay of health-care policy and drug development, and the criticality of ensuring that innovation thrives to ensure that society continues to reap the benefits of drug therapies. During FY2004, our research has continued to advance knowledge in the areas of drug development for unmet medical needs, the economic evaluation of pharmaceuticals, improved drug manufacturing, the regulatory process, and the impact of technology as a driver of change in the pharmaceutical industry.

Currently, more than 12 MIT faculty and numerous outside collaborators from other universities, industry, and government are participating in the research program. Since POPI’s inception, more than 30 MIT graduate students have completed doctoral work

with support from POPI. More than 20 pharmaceutical, biotechnology, or other health-care firms have contributed funding and/or data for POPI's research educational activities. As of June 30, 2004, more than 100 articles and working papers have reported on research conducted by POPI faculty and students.

POPI faculty continue to work closely with the new Biomedical Enterprise Master's degree curriculum, offered jointly by the MIT Sloan School of Management and the Harvard–MIT Division of Health Sciences and Technology. POPI's academic subject, Principles and Practice of Drug Development, taught jointly by five faculty members, is an integral aspect of the program.

POPI's current research has as its general theme the implications of advancing science and technology in drug development and changing medical practices. To advance our work in this area, we hold focused workshops to outline key questions to be addressed by our research teams. From those workshops, new teams of collaborating researchers will be constituted. They bring together faculty and doctoral students from the multiple disciplines at MIT that have traditionally been a part of our research, along with representatives from industry and government. In December 2003, we held our biennial POPI Symposium on the topic of "The Future of the Pharmaceutical Industry: Pharmacogenomics, Drug Development and the Cost of Health Care."

POPI works closely with the Institute's Computational and Systems Biology Initiative and the Consortium for Advancement of Manufacture of Pharmaceuticals.

More information about the Program on the Pharmaceutical Industry, its research priorities, and proposal review processes can be found on the web at <http://web.mit.edu/popil>.

Center for Energy and Environmental Policy Research

The Center for Energy and Environmental Policy Research (CEEPR) has been the locus of research at MIT on energy economics since the mid-1970s and on environmental economics since the late 1980s. This research draws on resources from MIT Sloan, the Department of Economics, and the Laboratory for Energy and the Environment, and it receives financial support from corporations and government agencies. In conjunction with MIT's Center for Global Change Science, CEEPR cosponsors the Joint Program on the Science and Policy of Global Change, which conducts interdisciplinary research to inform global climate policy.

Activities and Publications

Research activity continued at a high level during AY2004 as a result of grants from 16 corporate sponsors, the Cambridge–MIT Institute (CMI), and the Environmental Protection Agency. Professor Richard Green of the University of Hull (UK) was a visitor at CEEPR during the spring semester as part of CMI collaboration with British

researchers. In addition, Professor Claude Menard of the University of Paris 1 visited for two months during the spring.

The past year was fruitful for publications. Sixteen working papers, two article reprints, and one commissioned paper reporting CEEPR- and CMI-sponsored research were published, distributed, and posted on the CEEPR website. In December 2003 and May 2004, CEEPR convened its usual Energy and Environmental Policy Workshop in Cambridge, Massachusetts, to present research results to corporate and government sponsors and other interested parties. CMI international conferences were held in September 2003 in Cambridge, England, and in June 2004 in Berlin, Germany. Finally, the director and executive director of CEEPR were invited to give numerous lectures and seminar presentations of CEEPR's research concerning electric utility restructuring and emissions trading.

Grants and Research Program

In AY2004, CEEPR sponsored research on the topics of emissions trading, new electricity markets, and the benefits and effectiveness of environmental regulation. Contributions totaling \$596,000 were received from 16 corporate sponsors, and earlier multiyear awards from the US Environmental Protection Agency and the Cambridge-MIT Institute provided another \$274,000 in funding.

During AY2005, CEEPR will continue to focus its research on electric utility restructuring and emissions trading, and we will welcome Tooraj Jamasb and Karsten Neuhoff, both of Cambridge University, as visitors during the summer and the fall semester, respectively.

More information about the Center for Energy and Environmental Policy Research can be found on the web at <http://web.mit.edu/ceep/www/>.

Administration and Services

MIT Sloan Educational Services

MIT Sloan Educational Services (SES) manages the School's academic infrastructure, supporting all MIT Sloan programs, faculty, and students in the educational process. The SES team is responsible for preparing the physical landscape (facilities maintenance and space renovations), the academic foundation (course bulletin updates, course scheduling, course bidding, and student registration), and oversight of information flow (internal publications, liaison with the MIT registrar, grades, and course evaluations).

Administering registration-related services provided to master's-level MIT Sloan students, this past year SES worked with the largest MBA class in MIT Sloan history. We manage the web-based course prioritization (bidding) system used by more than 2,000 students each semester, equitably resolving difficult supply and demand issues in a

department with increasingly popular classes and already high enrollments. SES handles scheduling of the 200 class sections and recitations offered each term; maintains MIT Sloan classrooms and public facilities; and produces web-based and printed resources for the School (including the *PhotoBook*, student biocards, and the weekly *News@MIT Sloan* newsletter).

SES continues its focus on streamlining organizational processes and systems, striving to provide the best possible support to our constituencies. As in previous years, SES continues to refine its analysis of bidding data to assist MIT Sloan's deans and faculty on issues of demand regarding course and section offerings and teaching load plans. Enrollment in MIT Sloan electives remains high and continues to be of great interest to students across all MIT departments. The School continues to explore ways to forecast and meet demand, including additional sections of classes, videotaped sessions, special seminars, and new joint agreements with other MIT departments.

AY2004 brought substantial curricular change to the MBA program, with the classes of 2004 and 2005 operating under different degree requirements. SES registration and audit processes were formidably challenged. In addition, SES was responsible for the creation and administration of scheduling, bidding, and registration-tracking processes for the new Sloan Innovation Period, the one week midterm intersession.

Facilities management remains among the highest of priorities for SES. Staff oversaw the renovation of multiple MIT Sloan spaces, including a facelift to four E51 3rd-floor classrooms and the moves of many faculty and staff. Three additional student study space areas were renovated, especially for students working on team-based projects. Ad hoc room scheduling for student teams, tutorials, clubs, and presentations remains one of SES' greatest challenges, stretching extremely limited space resources that are in high demand by both Sloan and MIT.

Goals for FY2005 include ongoing initiatives to revise the course scheduling process and a data warehouse that incorporates historical teaching data; updating of the hardware and software used in the course evaluation process; design of an MIT Sloan auditing database for student record maintenance; enhanced web accessibility to course information resources; the implementation of a new course prioritization system that includes an enrollment management and tracking system for the Sloan Innovation Period; and continued collaboration with students and faculty to best meet their changing needs.

More information about MIT Sloan Educational Services can be found on the web through the Students tab on the MIT Sloan website at <http://mitsloan.mit.edu/>.

MIT Sloan Management Review

MIT Sloan Management Review (SMR) is a quarterly journal providing senior managers with the best current management theory and practice. Selected submissions from

academia, consulting, and industry are both internally reviewed and peer reviewed and cover a range of management disciplines, with particular focus on corporate strategy, leadership, and management of technology and innovation.

This past year, SMR undertook a major initiative to upgrade its website to support e-commerce in response to customer and market demand. SMR partnered with MIT's Web Communications Services team to develop the e-commerce platform and refine the site's layout. Customers are now able to access and download articles on a 24/7 basis. As a result, SMR has started to see increases in website revenue and customers. The website is <http://web.mit.edu/smr/>.

SMR circulation averaged just over 45,500 for the year, including distribution to MIT Sloan alumni. Subscription marketing efforts for all journals and magazines continue to be challenged by low response rates throughout the industry, but SMR has seen some notable gains from new e-marketing efforts and other marketing tests that will inform next year's efforts.

The journal continues to enjoy a healthy stream of manuscript submissions, of which only 10% are selected for publication. Of the published authors, three out of four were from academic institutions, with the remaining 25% from the worlds of consulting, industry, or professional journalism. Of the academic authors, including a number of MIT Sloan faculty members, 60% were from the top 10-rated US and international business schools. Nonacademic authors were affiliated with McKinsey & Co., Accenture, the Woodside Institute, the Maccoby Group, the American Enterprise Institute, the Center for Creative Leadership, the IBM Institute for Knowledge-Based Management, Design Continuum, and Analog Devices, among others. Of all authors, nearly 40% were affiliated with institutions outside the United States—as compared to 32% last year and only 18% the year before.

This year's Beckhard Prize for most outstanding SMR article on planned change and organizational development was awarded to Sumantra Ghoshal and Lynda Gratton, both of the London Business School, for "Integrating the Enterprise" (fall 2002.)

For the second consecutive year, SMR and PricewaterhouseCoopers joined together to honor the SMR articles that have contributed most significantly to the enhancement and advancement of management practice. First place was awarded to C. K. Prahalad and Venkatram Ramaswamy, both of the University of Michigan, for "The New Frontier of Experience Innovation" (summer 2003.) Runners-up were Robert Kaplan and Robert Kaiser, both of Kaplan DeVries Inc., for "Developing Versatile Leadership" (summer 2003,) and Henry Chesbrough, Harvard Business School, for "The Era of Open Innovation" (spring 2003.)

A number of SMR articles were cited in the press this year. Among them were the following:

- “Strategic Innovation and the Science of Learning” (winter 2004), by Vijay Govindarajan (Tuck School of Business) and Chris Trimble (Tuck), was cited in *The Economist*, April 24, 2004.
- “When CEOs Step Up to Fail” (spring 2004), by Jay Conger (London Business School) and David Nadler (Mercer Delta Consulting), was cited in *The Toronto Globe and Mail*, June 25, 2004.
- “The Emerging Era of Customer Advocacy” (winter 2004), by Glen Urban (MIT Sloan School of Business), was cited in Ontario, Canada’s *National Post*, March 1 and 8, 2004.
- “Managing Organizational Forgetting” (winter 2004), by Pablo Martin de Holan (Instituto de Empresa), Nelson Philips (University of Cambridge), and Thomas B. Lawrence (Simon Fraser University), was cited in the *Financial Times* of London, March 14, 2004, the *Australian Financial Review*, May 14, 2004, and *Business Day* (South Africa), March 23, 2004.
- “The Digital Transformation of Traditional Businesses” (summer 2003), by Angela Andal-Ancion (Ascension, London), Phillip A. Cartwright (BearingPoint, Paris), and George S. Yip (London Business School), was cited in *CFO* magazine, December 22, 2003.
- “A Return to the Power of Ideas” (winter 2004), by Jeffrey A. Sonnenfeld (Yale), was cited in *The Australian*, January 29, 2004.

MIT Sloan Alumni Office

In the fall of 2003, MIT Sloan graduate Sean Brown '94 was named director of the Alumni Office. Upon joining the School, he spearheaded efforts to synthesize the results of 19 qualitative discussion group meetings executive director Margaret Andrews conducted with more than 80 alumni in six cities around the world. The office created a quantitative electronic survey based on these results and shared it via mail and email with the School’s 17,000 addressable alumni, from whom more than 3,400 responses were received (>20 percent response). The survey results helped establish the fact base for the office’s strategy to dramatically increase communication and information sharing with the alumni community, as well as to collaborate more extensively with other programs, centers, and offices within MIT and MIT Sloan. Finally, the office explicitly defined its mission as helping connect alumni to the School and to each other and helping alumni to advance their careers.

Volunteer Support

There are more than 32 regional and international MIT Sloan clubs for which the office provides guidance and logistical support. The office also partners with the MIT Alumni Association to help MIT clubs attract MIT Sloan faculty to speak at their events. The MIT Sloan clubs in Boston, New York, Southern California, and Northern California are the most active; during FY2004, those four clubs organized events involving more than 1,800 participants. In FY2003, nearly 2,000 alumni volunteered on more than 2,700 separate occasions. These alumni were recognized in the fall issue of *ROI*, the MIT Sloan alumni magazine. Alumni volunteered at similar levels in FY2004 and will be recognized in an upcoming message to all alumni.

Reunion 2004

Coinciding with MIT's annual Tech Day celebration, more than 700 alumni and guests from the United States and 22 other countries returned to campus in June, making the MIT Sloan 2004 Reunion the largest in the School's history. The total number of returning classes increased by 10% over the previous year (with the addition of the first 50th reunion class), and alumni participation across the classes increased to a record-breaking 24%. The four-day program included 15 separate events and 11 class-specific dinners. These results were driven by the coordinated efforts of staff and alumni volunteers. Associate director Leanne Schnitzer refined the copy, design, and dissemination of all reunion marketing materials. She also engaged more than 100 active alumni class committee members to maximize overall participation and to ensure the highest quality of relevant programming. Finally, to better convey the richness of the reunion experience while maintaining the privacy of participating alumni, the reunion section of the website was enhanced and made exclusive to alumni. This section now includes multiple streaming videos, extensive pictures of all events (with captions), and a new class/alumni notes web log.

Alumni Events

Assistant director Bernie Lord helps maximize the positive impact of MIT Sloan events on the alumni community by actively managing attendance, content, and event-related communications. His efforts also involve coordinating with other groups, programs, and centers at the School and MIT. During FY2004, the office helped organize 13 events with more than 1,000 participants (including events in the United Kingdom, Brazil, Mexico, and Japan). During the summer of 2004, an additional nine events were organized in North America involving more than 600 attendees.

Alumni Career Development

The office most directly helps alumni advance their careers by providing timely assistance to alumni in transition. Career advisor Ken White '69 provided high-touch one-on-one career counseling to more than 170 alumni during the past year, and he conducted career workshops for more than 120 older alumni (25+ years out) in Washington, DC, and Northern California. Ken also chairs a weekly gathering of Boston alumni currently engaged in the search process. In addition, he has worked to actively increase the number of retained search firms looking to place MIT Sloan alumni with their clients. The career management section of the alumni website was updated to provide a clearer roadmap for identifying which services are best for each individual graduate, including services offered by the MIT Alumni Association. The MIT Sloan Alumni Job Board was launched and recently featured 330 positions posted for MIT Sloan graduates worldwide. In partnership with the MBA Career Development Office, a Career Search Subscription was also made available online; more than 1,100 alumni used this resource to gather detailed information on 189,000 companies.

Student/Alumni Engagement

The office fosters increased interaction between alumni and currently enrolled students through both formal and informal programs. The Alumni Advisor Program, managed by Leanne Schnitzer, pairs individual volunteer alumni advisors with first-year MBA candidates in a mentor/mentee relationship and sponsors receptions that bring the participants together in an informal setting. Last year, 391 alumni volunteered to serve as advisors and 252 students participated in the program. The office staff also actively collaborates with MBA Student Affairs on the Cohort Advisor Program as part of a School-wide team of advisors working with the members of the MBA class of 2006. The office has partnered with MBA Admissions in engaging alumni in referring applicants to the School and in helping encourage admitted students to matriculate. The office also holds several student/alumni transition and introduction sessions, including an office overview during orientation, a first-year welcome back in February, and an alumni orientation (for executive and MBA graduating students) in late April.

Collaboration with Programs and Centers

The office actively collaborates with many programs, centers, and offices at MIT and MIT Sloan. These groups include the MIT Alumni Association, MIT Sloan Executive Education, the MBA Program (including Admissions, Career Development, and Student Affairs), the MIT Entrepreneurship Center, the MIT Leadership Center, the MIT Sloan Office of Communication, and the MIT Sloan Office of Resource Development. This collaboration has resulted in numerous successful joint events, programs, and communications that benefit MIT Sloan alumni.

Communications and Information

The alumni survey results indicated that better and more communication and information were key to helping connect alumni to the School and to each other. Alumni specifically indicated the need for an improved alumni website, alumni/school news, alumni/class notes, and an improved alumni directory. The alumni website was completely redesigned, with the addition of significant exclusive content (including photos, event summaries, lists of volunteers and participants) and more comprehensive information about upcoming events and activities. An electronic alumni newsletter is being designed to better synthesize and disseminate information of concern to or regarding alumni. The office has also embarked on a redesign of the current directory for the MIT Sloan community, with the goal of significantly improving the search capabilities for all MIT Sloan community members while enhancing the integrity of alumni information and maintaining synchronization of that information with the MIT Alumni Association directory.

MIT Sloan Office of Resource Development

In FY2004, the MIT Sloan Office of Resource Development (ORD) continued its twin operations of raising significant levels of capital gifts while building on its Annual Fund income stream of unrestricted (and functionally unrestricted) contributions. At the same

time, the ORD staff conducted an in-depth strategic review to develop reliable qualitative and quantitative ways to identify future prospects to support the School's priorities. It remains clear that for future success, the School must play a central and critical role as it delivers its mission *"to develop principled, innovative leaders who improve the world and to generate ideas that advance management practice."*

Gift History

Representing nearly 10 percent of MIT's \$2.0 billion campaign, contributions to the MIT Sloan School of Management totaled \$186.6 million across the campaign period, as follows:

Fiscal year	New gifts/ New pledges (\$)	Change	
		(\$)	(%)
2004	40,254,192	24,696,025	258
2003	15,558,167	-8,195,723	-35
2002	23,753,890	-697,766	-3
2001	24,451,656	-24,387,307	-50
2000	48,838,963	40,024,457	454
1999	8,814,506	-7,015,500	-44
1998	15,830,006		
Total	186,578,487		

Annual fluctuations are the result of gifts in the \$10–\$25M range that have a huge impact on the year(s) that they come in. There is a base of a reliable—albeit hard-won—gift stream of approximately \$2M from the Annual Fund and \$6–\$8M in capital gifts each year.

Discussion

School Priorities. Throughout the campaign period, the MIT Sloan School of Management's twin development priorities have been the School's new campus and unrestricted gifts. In light of the fact that facilities and unrestricted designations motivate only a small group of top prospects to elevate the School to the top of their philanthropic priorities, MIT Sloan has also developed a set of alternative designations of nearly equal importance to broaden its appeal. The alternatives include support for faculty through career development professorships, students through diversity and PhD fellowships, and programs for exciting and innovative initiatives that help establish the future of the School, such as the MIT Leadership Center, the Entrepreneurship Center, and selected courses like the Global Entrepreneurship Laboratory.

Observations and Future Success. To date, this approach has had the desired impact of appealing to both individuals and organizations, and the resulting new gift and pledge totals throughout the campaign period are testimony to success. However, it is quite

clear that future achievement will require continuing to broaden the School's mission-centric priorities to reach out to a wider range of prospects, outside of School alumni and friends, to develop a constituency among the Institute's alumni and beyond. To that end, the School's role within MIT's overarching mission is key—indeed, management must join science and technology as the third element critical to the Institute's future. While support from individuals dominates the School's annual philanthropic income stream, corporate and foundation support and interest will play a future role. Yet experience reveals that organizations often direct philanthropic support to incremental activity rather than mainstream School priorities and that facilities, in particular, are not among the designations that organizations will support. Therefore, we are aggressively developing corporate and foundation outreach for programmatic support, but we do not anticipate significant support for mainstream priorities such as the building.

Individual Prospect Identification. During FY2004, working internally and with Marts and Lundy, the School's consulting firm, we reviewed the School's existing prospect pool, identifying gaps and geographies that were likely to yield future prospects—particularly New York. We then met with MIT's Central Resource Development research director, Rob Scott, to explore alternatives for identifying new prospects among the School's alumni. Rather than outsource this initiative to suppliers (such as P!N, for example), we discussed ways to accomplish this objective using existing MIT resources. We embarked on developing an internal model and specified independent variables including employer, job title, residential zip code, survey responses on net worth/income, past giving, and so on to identify prospects. Early results are promising indeed, and we are encouraged by the model's fit to existing, known prospects. We are in the midst of fine-tuning the model by adding variables pertaining to pledge/gift payment by stock transfer or charitable gift fund and then applying this to the School's unrated alumni pool. We are pleased that central MIT Resource Development is equally excited about this model development; they plan to develop it for their own use as well.

Annual Fund. In FY2004 we viewed our Annual Fund total of \$1,793,000, on a par with that of FY2003, as particularly noteworthy. We achieved this total despite the fact that nearly 33% of the 2003 total came from a single donor who, due to other philanthropic obligations, elected not to participate in the FY2004 Annual Fund. Our 2004 success is the result of an expanded group of special gift donors who contributed \$5,000–\$100,000, as well as a more compelling outreach, with more effective volunteer efforts, to those alumni who celebrated a reunion. In FY2005, we look forward to continuing our reunion volunteer initiative by creating a Special Gifts Committee. John Nagorniak '70, a member of the DAC, has agreed to chair this group.

Principal and Major Gifts. In FY2004 we supported the continued aggressive travel schedule of Dean Schmalensee, who devoted about 37 days to development, and we also supported President Vest's visits to MIT Sloan alumni. We reached out to MIT Sloan alumni through the Leadership Network, a series of events in selected cities for prospective donors, featuring either the dean or senior faculty. In addition, the director of Principal Gifts and the associate directors of Major Gifts expanded their travel schedules to build relationships in anticipation of the dean's and president's future travel. In FY2005, we anticipate 40 dean's development travel days and plan Leadership

Network events in New York, Boston, London, Houston, Northern California, and Seattle.

Corporate Relations. FY2004 was a transitional year for Corporate Relations, as the current director, Mary Schaefer, accepted the position of executive director of the MIT Leadership Center. During her tenure as corporate relations director, Mary successfully identified from a myriad of sources the key contacts at corporations that had supported MIT Sloan in the past and developed a plan for continued outreach. In June, David Weber accepted the position as director of Corporate Relations and Executive Education Special Projects. In FY2005, Dave's priorities include biopharma outreach, establishment of the MIT Sloan Leaders Speaker Series, and continued corporate relations efforts in a wide variety of areas, particularly those that relate to research funding, career development, executive education, event sponsorship, and unrestricted corporate gifts.

Communications and Stewardship. Working with External Relations, the Office of Resource Development devoted time in the fourth quarter of FY2004 to launching an *Annual Report* to thank volunteers and donors for their support of the School and to explain how their support helps the School achieve its mission. We expect to complete the report and mail it to all alumni to help inspire interest and support in FY2005. We are most pleased to welcome a new associate director of Donor Relations and Stewardship to the ORD as of September 15, 2004.

MIT Sloan Marketing and Communications Office

The Marketing and Communications Office (MCO) is responsible promoting the MIT Sloan brand, as well as protecting its integrity. The office oversees the creation of print and electronic communications, maintains the MIT Sloan website, and is responsible for the proper distribution of the MIT Sloan logo.

This year the MCO oversaw a major initiative aimed at strengthening the MIT Sloan brand and creating a cohesive set of print materials that worked in concert with the newly redesigned website. Partnering with strategic design firm Sametz Blackstone, the branding team oversaw the evolution of design building blocks, publications templates, and a new production process for all communications. New viewbooks for the MBA and Sloan fellows programs, a new annual report, and several ads for Executive Education were the first pieces created under the new system.

The four-year web redesign project was completed with the launch of the new Alumni, News, About MIT Sloan, and Corporate Connection sections, as well as the debut of a compelling and innovative home page. Users can now access—and preview—a wide variety of information by using the unique rollover navigation system. The home page also features the MIT Sloan Spotlight, wherein users can view the latest in School-wide news, faculty and research profiles, and other news features.

The MCO also continues to coordinate the ever-expanding list of business school surveys, as well as the production of the *MIT Sloan Expertise Guide*.