MIT International Science & Technology Initiatives
Facts

> Private institution founded in 1861
> 1,738 faculty members
> 76 Nobel Prize winners
> 10,775 employees
> 10,894 students
> Budget: $2.57 billion
> ½ budget for research
> 53% research funded by federal government

MIT: Hand and Mind
teaching and research coupled to address real-world problems
Schools & Departments

School of Engineering
- Aeronautics and Astronautics
- Biological Engineering
- Chemical Engineering
- Civil and Environmental Engineering
- Electrical Engineering and Computer Science
- Engineering Systems Division
- Materials Science and Engineering
- Mechanical Engineering
- Nuclear Engineering
Schools & Departments

School of Science
- Biology
- Brain and Cognitive Sciences
- Chemistry
- Earth, Atmospheric and Planetary Sciences
- Mathematics
- Physics

School of Arch & Planning
- Architecture
- Media Arts and Sciences
- Urban Studies and Planning
Schools & Departments

School of Humanities, Arts and Social Sciences
- Comparative Media Studies
- Humanities
- Linguistics & Philosophy
- Political Science
- Program in Science, Technology and Society

Sloan School of Management
- Management

Whitaker College of Health Sciences and Technology
- Management
Boundary-crossing research

- CSAIL
- MIT Energy Initiative
- Center for Energy and Environmental Policy Research
- Microsystems Technology Labs
- Deshpande Center for Technological Innovation
- Center for Biomedical Engineering
- Media Lab
- MIT Entrepreneurship Center
- Industrial Performance Center
- Center for International Studies
Life at MIT

“Like taking a drink from a fire hose.”

- MIT President Jerome Weisner (1971-1980)
Our mission
Make hands-on international experiences available to every MIT student as a part of a world-class science and technology education.
What MIT-Germany offers

➢ Student internships and research

Intensive, professional all-expenses-paid internships and research for MIT students in leading companies, research labs and universities around the world.

➢ Faculty Seed Funds

To enable MIT faculty to launch cross-border research projects and collaboration.
Each year, **80-100+** MIT students are matched with tailored internships and research opportunities throughout Germany.

- Open to **undergraduates, grad students and recent alumni**
- Open to students from **all disciplines**
- All expenses **paid** (**cost neutral**)  
- MIT-Germany **prepares** students through courses in the language and culture of the host country and develops **intensive training**
The MISTI model

MIT-Germany preparation includes:

- **Language** and **literature** subjects in German
- **Subjects on society, politics and culture**
  - *European Contemporary Politics*
  - *German Culture, Media and Society*
  - *20th and 21st Century German Literature*
  - *Visual Histories: German Cinema 1945 to present*
- **Retreats** and spring training **seminars**
  - **Logistics**: accommodation, health and safety, insurance, flight
  - **Culture**: politics, society, history, workplace in Germany
  - **Leadership**: making the most of an international experience

Hands-on learning combined with in-depth academic preparation
For hosts: access to top MIT talent

MIT-Germany students are:

- **Pre-selected** from the top tier of MIT students (4.0 minimum GPA)
- **Recommended** by their professors
- **Prepared** in the language and culture of the host country
- **Instructed** on living and working in the host country
- **Skilled** in the lab/work setting thanks to previous internships, UROPs and other hands-on MIT opportunities
- **Ready** to hit the ground running
*1. Starting in academic year 2013-2014 the language requirement was changed from 2 semesters of German to 4 semesters for undergraduate students.
MISTI placements by country
data for 2013-2014 academic year

Top destinations:
1. Israel
2. **Germany**
3. China
4. India
5. France
6. Italy
7. Spain
8. Mexico
9. Chile
Automotive internships

Wesley Graybill, Senior in Mathematics
Investigated catching prefetching and hoarding strategies for mobile technologies and efficient data storage for in-car hardware
Manufacturing internships

Aysylu Biktimirova, Junior in Electrical Engineering

“I wrote a fully-automatic wafer engraver reader algorithm to solve a problem in manufacturing. By the end of the summer, my program was running at plants around the world.”
Transportation & logistics internships

Deutsche Bahn
DHL
Lufthansa

Kimberly Dietz, Junior in Mechanical Engineering
Redesigned bicycle carriages for long-distance intercity public train transport
Electronic internships

Jason Bryslawskyj, Senior in Physics
Created two international patents based on magnetic bearing and superconductivity calculations for Siemens large drives in Berlin.
Marie Herring, Sophomore in Chemistry
Created quantity of competitor’s new patented drug on market in order to further refine and test
Management & finance internships

Lars Imsdahl, Senior in Mechanical Engineering
Analyzed data for future expansion of engineering and logistics models throughout Europe
University and Research Partners

In addition to working with corporate partners, MIT-Germany also cooperates with top university and research hosts, including:

- RWTH Aachen University
- Karlsruhe Institute of Technology
- Technical University Munich
- TU Berlin
- Universität Stuttgart
- Ludwig Maximilian University of Munich
- University of Regensburg
- University of Bonn
- University of Konstanz
- Heidelberg University
- University of Freiburg
- Max Planck Institutes
- Fraunhofer Institutes
- ... and many others
MISTI Global Teaching Labs

Students are matched with German high school hosts for three weeks in January. At each location, students prepare tailored courses on science, technology, engineering and math (STEM) subjects that complement the school's curriculum and highlight MIT's hands-on approach to education.

Students prepare for their experience through workshops on effective teaching and classroom techniques, and attend sessions about country-specific politics, culture and society.
MIT-Germany Seed Fund

> Supports budding research collaboration between faculty and research scientists at MIT and in Germany

> Launched in 2011
> Student involvement encouraged
> Open to all disciplines
2013-2014 awarded projects

10 projects submitted

- Brain and Cognitive Sciences
  - Göttingen University Medical School

- Materials Science and Engineering
  - LMU, Munich

- Physics
  - University of Heidelberg

- Chemical Engineering
  - Free University of Berlin
Prof. Michael Cuthbert: grantee 2011-2012

- Analytical Approaches to Large-Scale Databases of Musical Scores
- Text widely searchable online but current architecture is not encoded for symbolic music
- **Impact:**
  - analyzing how music affects the brain
  - examination of machine-based learning and image processing
  - sponsored research at LMU
Partnerships
MIT-Germany Hosts and Partners

Support global education and develop a tailored partnership with MIT

➢ Access MIT talent
  – tailored recruitment
  – info sessions
  – visibility on campus

➢ Open dialogue with MIT innovators
  – workshops
  – meetings
  – seminars
  – seed funds
Workshops & Case Challenges

Explore new ideas in a cross-disciplinary team of industry engineers and MIT students
Recruiting

- MIT Career Fair, European Career Fair
- Industry Assessment Day at MIT
- Targeted recruiting for company-specific opportunities
- Engineering and Management Trainee and rotational programs
Recent Career Success Stories

Jairaj Vora, MechE ‘10
Manufacturing Trainee Program

Natalia Maya, Technology and Policy ‘10
Bayer Technology Services

Adele Schwab, Physics ‘08
Rolls Royce Berlin

Conner Corwin, MBA ‘09
SponsorPay
thank you!