



Photo: Courtesy of The Engine

Members of The Engine's Board of Directors and Investment Advisory Committee at The Engine headquarters in Central Square (from left to right): Katie Rae, Robert Kraft, Israel Ruiz, Anantha Chandrakasan, Linda Pizzuti Henry, Amir Nashat, Sue Siegel, David Fialkow, Jeremy Wertheimer, Brad Powell, Felipe Chico, and Jonathan Kraft

# THE ENGINE: UP AND RUNNING

With funding secured and leadership in place, MIT's new accelerator is now focusing on selecting its first investments.

**I**n April 2017, MIT's new startup accelerator **The Engine** closed its first investment fund for more than \$150 million. That sum will support startups developing breakthrough scientific and technological innovations with potential for societal impact.

That was just the latest milestone for The Engine, which combines an accelerator, an open network of technical facilities, and a fund, which together will provide startups with stable financial support and access to costly resources. The initiative will focus on startups developing "tough" technologies — breakthrough ideas that require time to commercialize — in sectors such as robotics, manufacturing, health technology, biotechnology, and energy.

"From the beginning, our vision for The Engine has been to foster the success of 'tough-tech' startups with great potential for positive impact for humanity," MIT President L. Rafael Reif said in April. "By enabling crucial investments in The Engine's first portfolio of companies, the funds announced today will also strengthen the local innovation ecosystem and the regional economy."

Of the total capital raised for the fund — officially named The Engine Accelerator Fund I, L.P. — MIT invested \$25 million. The remainder came from a small group of investors aligned with the fund's mission.

The Engine was unveiled at a high-profile launch event in October 2016. At that time, Reif described the underlying reasons for the initiative: "If we hope for serious solutions to the world's great challenges, we need to make sure the innovators working on those problems see a realistic pathway to the marketplace," he said. "The Engine can provide that pathway by prioritizing breakthrough ideas over early profit, helping to shorten the time it takes these startups to become 'VC-ready,' providing comprehensive support in the meantime, and creating an enthusiastic community of inventors and supporters who share a focus on making a better world."

In February 2017, The Engine named Katie Rae, a veteran technology entrepreneur and investor, as its president and CEO and as managing partner of its first investment fund. The Engine also announced membership of its board of directors and investment advisory committee.

Among The Engine's inaugural board members is Anantha Chandrakasan, head of the Department of Electrical Engineering and Computer Science (EECS) and the Vannevar Bush Professor of Electrical Engineering and Computer Science. Chandrakasan also headed up MIT's Engine Working Groups, which consisted of faculty, postdocs, students, and staff with specialized expertise. The groups were charged with helping guide development of Engine-related policies and procedures in areas such as technology licensing and facilities access, among others.

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Closing The Engine's first fund so soon after its public announcement shows great promise, noted Rae, who previously served as managing director of the popular startup accelerator Techstars Boston. "There is strong interest, and people are bullish on what's coming out of MIT and Boston. We're looking for startups with breakout technologies and great founding teams that want to build their companies in the New England region," she said. With funding secured and leadership established, The Engine is now focusing on selecting its first group of investments.

For more about The Engine, visit [engine.xyz](http://engine.xyz) 

## EECS Introduces New, More Flexible, Undergraduate Curriculum

MIT's Department of Electrical Engineering and Computer Science (EECS) unveiled a new undergraduate curriculum for 2016–17, and the first year has gone very smoothly, says EECS Undergraduate Officer Chris Terman.

The new degree requirements, which apply to students in the Class of 2020 and beyond, are designed to:

- enable majors to engage earlier with core EECS material by cutting back the introductory requirement
- serve students with a broader range of backgrounds by making a smoother introduction to software
- allow more flexibility within the curriculum
- sharpen the specification of Laboratory and Advanced Undergraduate Subjects requirements, and
- improve the major-project experience for students and faculty.

"The new curriculum puts more choice in students' hands, while providing a solid grounding in the essential elements of an education in electrical engineering and computer science," EECS department head Anantha Chandrakasan, the Vannevar Bush Professor of Electrical Engineering and Computer Science, said in announcing the change last year.

Students in the classes of 2017, 2018, and 2019 could choose to continue using the old requirements or switch to the new requirements in fall 2016. Of the 1,580 undergraduate majors and master's of engineering (MEng) students in the department's database, 572 have chosen the new program, and 1,008 have remained in the old program, Terman says: "Upperclassmen are allowed to switch, but, of course, seniors and MEng students who are close to finishing under the old program would probably not find switching to their advantage."

Key changes to the curriculum include reducing the number of introductory subjects and math foundation courses from two each to one each. The new program also adds two elective subjects to the 6-1 (Electrical Science and Engineering) and 6-2 (Electrical Engineering and Computer Science) majors, and one elective subject to the 6-3 (Computer Science and Engineering) major. The 6-7 (Computer Science and Molecular Biology) major requirements were revised to refer to the next generation of software and biology subjects, but the overall scope of the 6-7 major is unchanged, Terman says.

Going forward, two department committees — one for electrical engineering and one for computer science — are considering additional new subjects at the foundation and header levels. "I think we'll see these courses start to appear in the coming academic year," Terman says.

For more information on the new undergraduate curriculum, visit [eecs.mit.edu/curriculum2016](http://eecs.mit.edu/curriculum2016)