Overview - MIT REAP: Achieving Economic Growth Through Innovation-Driven Entrepreneurship

MIT Regional Entrepreneurship Acceleration Program (MIT REAP)
A program of MIT Sloan Office of International Programs supported by the MIT Innovation Initiative, Martin Trust Center for MIT Entrepreneurship, Legatum Center for Entrepreneurship and Development, and MIT Sloan Executive Education
reap.mit.edu

LEGATUM CENTER
FOR DEVELOPMENT & ENTREPRENEURSHIP
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MIT innovation initiative

MIT MANAGEMENT
INTERNATIONAL PROGRAMS

Program Overview

The MIT Regional Entrepreneurship Acceleration Program (MIT REAP) provides opportunities for communities around the world to engage with MIT in an evidence based, practical approach to strengthening innovation driven entrepreneurial (IDE)[1] ecosystems. We achieve this by:

- Translating research and expertise into practical frameworks, approaches, and actions with widespread global application

- Convening stakeholders from around the world to build a community for collaboration and learning focused on IDE

- Educating regional innovation ecosystem leaders through team-based learning to facilitate meaningful social and economic outcomes

- Impact regions through the development of new programmatic and policy interventions that build on strengths and improve weaknesses to support IDEs

MIT REAP is designed for high-level teams selected from regions[2] dedicated to working alongside MIT faculty over a 2-year period to drive innovation-driven entrepreneurship in their city, region or country. Regional teams of 5-8 leaders drawn from 5 stakeholder groups (government, risk capital, universities, entrepreneurs, and corporations) work collectively with one another, with others from their region, with MIT thought leaders and with other teams to build an action-based strategy for change.

This hybrid educational, economic development, and convening program at the Massachusetts Institute of Technology (MIT) ultimately enables regional stakeholders to accelerate[3] economic growth and social progress. At its core, the program draws on MIT research that emphasizes an 'innovation ecosystem'[4] framework focused on the distinct yet interdependent roles of innovative capacity (the ability to develop new technology) and entrepreneurial capacity (the ability to scale startup businesses). It builds on evidence that successful regions link entrepreneurship and innovation to uncover a comparative advantage through innovation-driven entrepreneurship (IDE).
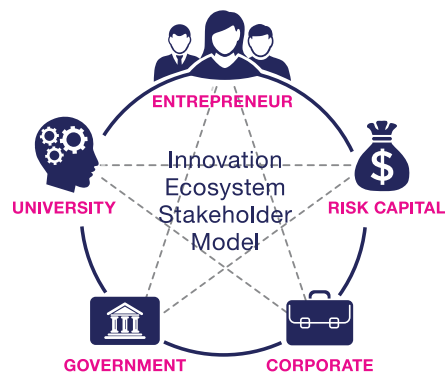
Up to 8 diverse regions comprise a Cohort[5], which engages with MIT faculty (and one another) to leverage MIT expertise and frameworks in an action-based learning program. The program ultimately culminates in the delivery of collective action focused on accelerating innovation-driven entrepreneurship. Teams build their activities in five phases over the course of two years.

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[1] F.Murray, S.Stern, Science 348.6240 (June 2015). http://www.sciencemagazinedigital.org/sciencemagazine/12_june_2015?pg=31#pg31
[2] See here for a innovation podcast by Associate Dean Fiona Murray: http://a16z.com/2014/09/30/a16z-podcast-creating-new-silicon-valleys/ and a recent presentation by Prof. Scott Stern on "Investing in your Regional Comparative Advantage": http://www.slideshare.net/TCINetwork/tci-2014
[3] Innovation-Driven Enterprises (IDEs) pursue global opportunities based on bringing customers new innovations that have clear competitive advantage and high growth potential. By innovation, we mean new-to-the world ideas in the technical, market, or business model domain. IDEs are distinct from SMEs. As noted in Aulet & Murray (2014) A Tale of Two Entrepreneurs "policymakers and pundits who use entrepreneurship as a "catch-all" phase to capture a single economic activity make an important mistake. There are 2 distinct types of entrepreneurship (IDEs and SMEs) with different economic roles, requiring individually tailored policies to support each."
[4] A cohort model typically refers to a group of people who enter and participate in a program together and remain together throughout its duration
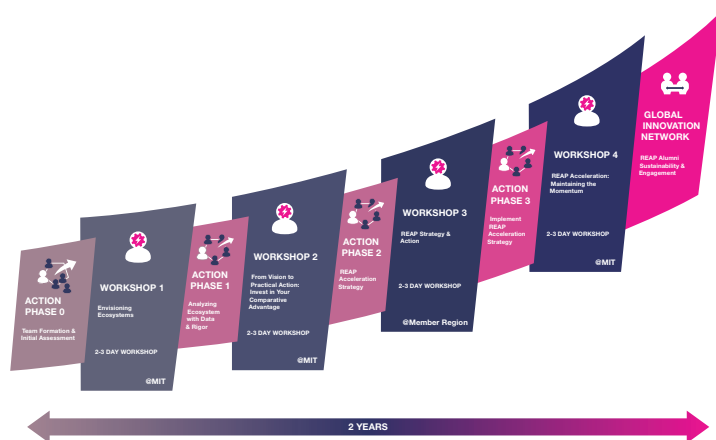
First, they build their team and then undertake a systematic, data-driven, regional assessment to measure their innovation ecosystem's "as-is-state"[6]. They then develop a clear understanding of their potential comparative advantage as an innovation ecosystem. In the later phases, they develop a strategy and build an organization to sustain on-going collective action. Regional leaders, not MIT faculty, determine what their region needs and how best to implement their chosen strategy.

Global in focus, the program is structured to allow MIT faculty and staff to engage deeply with regions worldwide, to share cutting edge research and best practices, and to learn from (and disseminate) lessons learned. Participants 'learn by doing' and benefit greatly from MIT, past Cohort mentorship, and current Cohort community building.

Entering its 5th year, MIT REAP has engaged over 30 regions around the world[7] and is already seeing positive impact. Regional teams have released actionable strategic plans for entrepreneurial

acceleration[8], catalyzed the development of nascent entrepreneurial ecosystems[9], and launched new IDE acceleration programs[10, 11].

Key Characteristics of MIT REAP

MIT REAP's approach is distinctive from traditional executive education and from economic development consulting partnerships on several dimensions. Through the support from the MIT Innovation Initiative (MITii[12]), REAP is also able to leverage MITii's experience in leading innovation and entrepreneurship across broader global communities. It's a team-based, action-learning oriented education program in which teams work with MIT faculty to develop their own insights and plans for change. By working in multi-stakeholder regional teams, regions can focus on collective action and impact rather than the perspective of a single stakeholder. By focusing on action-oriented education, teams come to their own conclusions and are thus highly motivated for change.

MIT REAP builds on MIT's extensive experience as a key stakeholder in a leading innovation ecosystem.   It also builds on its experience and scholarship leading innovation and entrepreneurship for a broader global community. Not only does MIT faculty include world leaders in innovation 'science'[13], the 'practice' side of the program is demonstrated by the ability of MIT's faculty, staff, students and alumni to generate patents and launch sustainable high-growth firms at unprecedented rates[14].Together, MIT REAP builds

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[6]J.Guzman, S.Stern, Science 347.606 (February 2015). http://www.sciencemag.org/content/347/6222/606

[7]Cohort 1 members (2012-2014) included: Scotland (UK), Finland, New Zealand, Andalucía (Spain), Hangzhou (China), Veracruz (Mexico) and Istanbul (Turkey). Cohort 2 members (2014-2016) include: London (UK), Singapore, Seoul (South Korea), Qatar, Moscow (Russia), Morocco, Puerto Rico (USA) and Valencia (Spain). Cohort 3 members (2015-2017) include: Wales (UK), Santiago (Chile), Ashdod (Israel), Al Madinah (Saudi Arabia), Tokyo (Japan), Beijing (China), SW Norway, Bangkok (Thailand) http://reap.mit.edu/#partner-regions

[8]Team Scotland release a report that highlights a strategy to enhance Scotland's systems for supporting entrepreneurial activity, based on results and recommendations of their participation in REAP. See here for a link to the executive summary and full report: http://www.hie.co.uk/business-support/entrepreneurship/mit-reap/default.html

[9]For example, Team Hangzhou champions, Zhang Jie and Fang Yi, were recently celebrated in the following NYT article for playing a lead role in the development of the Hangzhou entrepreneurship ecosystem:

http://dealbook.nytimes.com/2014/09/18/alibaba-with-its-i-p-o-mints-millionaires-and-risk-takers/?_r=1

[10]Team Veracruz launched a successful innovation-driven program to enhance entrepreneurship throughout Veracruz. See here for a link to the iLab website: http://www.ilab.net/

[11]Team Finland launched Finland's Innovative Cities Program to create internationally attractive innovation clusters in Finland based on top-notch talent. See here for more information: https://www.tekes.fi/en/programmes-and-services/tekes-programmes/innovative-cities/

[12] https://innovation.mit.edu/

[13]See here for a selection of innovation-focused MIT faculty and publications: http://reap.mit.edu/resources/

[14]See here for a report on Entrepreneurial Impact of MIT: https://ilp.mit.edu/media/webpublications/pub/literature/Entrepreneurial-Impact-2011.pdf

upon MIT's long tradition of mixing science and practice, which we refer to as "Mens et Manus".

Innovation Practice

Frameworks, data, and insights are shared in an action-based educational context over the course of four faculty-led Workshops delivered during a 2-year period. Each region, led by a team Champion, sends a team of 5-8 senior leaders (representing the five stakeholder groups) to these Workshops (three at MIT, one in-region).

Workshops use lectures and case studies but also ask teams to reflect immediately on the lessons they draw for their own region, receiving immediate feedback from faculty and other teams. This multi-stakeholder team-based learning approach is a driver of change in a safe, neutral environment. Workshops emphasize Cohort-based learning, a structure which facilitates deeper understanding of best practices and translates lessons learned from across regions.

Between each Workshop, teams engage in Action Phases where they position themselves to decide on a strategy and implementation plan. There are several assignments over the course of an Action Phase leading up to the next Workshop. Teams commit to a certain set of deliverables and are accountable not only to MIT faculty but also to their Cohort peers. Teams are in contact with MIT faculty during the Action Phases and the teams are in bi-weekly communication with the MIT REAP Director.

Innovation Science

MIT REAP is founded on MIT's expertise in the 'science of innovation,' i.e. robust evidence-based understanding of the innovation process at the regional level that defines what works, in practice, for accelerating innovation-driven entrepreneurship. These frameworks build upon both the research and practical expertise of MIT's faculty. They enable

participating regions to build their own internal understanding of their innovation ecosystem and to develop and implement strategies customized to their comparative strengths and advantages. Recognizing that each region must follow a strategy that accounts for its unique situation, MIT REAP advises the stakeholder teams but does not instruct a region on how to operate.

At the core of the MIT REAP approach to innovation science is an innovation ecosystem framework that makes a critical distinction between innovation capacity (iCap) and entrepreneurial capacity (eCap). MIT faculty help the teams explore how these capabilities are developed and linked over time.   Building on this framework, MIT REAP provides a clear set of metrics and evaluation methods for regions to develop and measure the initial "as is" state of their innovation ecosystem, as well as the rate at which innovation-driven enterprises are increasing social progress and prosperity (GDP/capita).

MIT REAP has a model of ecosystem change that outlines a set of programmatic and policy interventions (PPIs) [15] for change. During the Workshops, case studies and research analysis provide systematic evidence for when each strategic intervention might work best, as well as the tradeoffs. Program Interventions include prizes, accelerators, entrepreneurship education, and mentoring activity. Formal policies, which MIT research has shown can play an instrumental role in accelerating innovation-driven entrepreneurship, include non-compete agreements, IP policy, etc. MIT REAP helps regions design these elements tailored to their ecosystem as well as monitor and evaluate progress over time.

Advantage of MIT REAP's Approach

The integrated approach of innovation science and innovation practice together helps regions to:

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[15]For example, see here for a recent publication by MIT REAP faculty on Grand Innovation Prizes (GIPs):
http://www.sciencedirect.com/science/article/pii/S004873331200217X

- Understand the current state of their IDE ecosystem - their strengths, weaknesses, and comparative advantage - through the lens of systematic MIT REAP frameworks.

- Develop a customized and actionable strategy to strengthen their comparative advantage and enhance their IDE ecosystem.

- Engage with the local and global thought leaders and doers necessary to ensure successful creation and implementation of their strategy.

- Implement policies and programs for accelerating innovation-driven entrepreneurship and social progress in their region.

MIT REAP provides a platform for sharing this knowledge and experience through engaging a diverse group of MIT faculty, from the economist and policymaker to the entrepreneur[16], each bringing a different set of perspectives and expertise to the table. MIT in turn also utilizes MIT REAP to build out research projects, case studies, and further exploration into innovation and entrepreneurship to create even greater impact. Established through many years of experience of teaching and mentoring students and regional ecosystem leaders, MIT faculty ensure the key characteristics of MIT REAP are integrated by effective learning and implementation of regional IDE strategies. Each program design element may not be unique in isolation, but together they form the foundation of MIT REAP and are core to the success of the program.

ADMISSIONS PROCESS

MIT REAP is currently receiving applications for MIT REAP Cohort 6, running from 2018 to 2020. The first Workshop for Cohort 6 launches October 2018 at MIT.

1. Complete MIT REAP application form (http://reap.mit.edu/apply/), identify a team Champion, and secure funding sources (payment: US $300,000)
2. Receive Admissions decision by MIT REAP committee
3. Champion submits signed Letter of Agreement (LOA) to reserve a spot in the next cohort (upon acceptance)
4. Teams finalize their 5-8 core members. Each team must have at least 1 representative from each of the 5 stakeholder groups (university, corporate, risk capital, entrepreneur, and government)
5. Submit First Tuition Payment

TABLE 1: Summary of Core Design Elements

Emphasis on innovation-driven entrepreneurship (IDE)	✓
Emphasis on systems view (based on MIT framework)	✓
Emphasis on programmatic & policy interventions (PPIs)	✓
Structured 2-year journey that involves elements of education, strategy development & implementation	✓
Action-oriented approach (in line with MIT's mens et manus (mind and hand) approach	✓
Multi-stakeholder team and community engagement	✓
High engagement of MIT faculty with diverse expertise and perspectives	✓
Focus on a region's comparative advantage in innovation viewed globally	✓
Use of cohort model to ensure consistency, collaboration and accountability	✓
Best practice based on rigorous academic research and practical experience or running programs	✓

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[16]See here for a list of core REAP faculty and supporters: http://reap.mit.edu/#our-team