15.364 Regional Entrepreneurial Acceleration Leaders (REAL)

MIT: Spring 2018

Have you ever wondered what makes innovation ecosystems like Kendall Square/Greater Boston, Israel or Silicon Valley such a special place for the formation and growth of entrepreneurial firms? Have you asked what other global regions – from Lima to London to Lagos - might learn from their experience to drive entrepreneurship and economic growth?

Have you thought about the strategic actions you and your organization – large corporation, government, not-for-profit – might undertake to access opportunities in a regional innovation ecosystem? And in turn how your organization might contribute effectively to your ecosystem? How might you design effective accelerators, prize competitions, co-working spaces etc.?

These questions are of central importance to those leading innovation in global corporations and in governments. It is also the responsibility of entrepreneurial leaders to understand how to create the conditions for the next generation of entrepreneurs who follow them!

REAL (Regional Entrepreneurial Acceleration Leaders) is a practical MIT course aimed at students wishing a research-based but action-oriented understanding of how to accelerate innovation-driven entrepreneurship (IDE) and build vibrant regional economies. Its starting point is the innovation-driven entrepreneurial ecosystem that has served as the foundation of many successful regions since the first industrial revolution.

The course assesses the innovation and entrepreneurship foundations of these systems. It then takes the perspective of the five critical stakeholders: entrepreneurs, risk capital providers, and universities, as well as policymakers (government) and large corporations. We provide tools for designing key programs and policies e.g. accelerators, prizes, visa policies, tax policies etc. - that can be implemented by stakeholders in regional economies worldwide.

COURSE OBJECTIVES

The emphasis throughout REAL is on theory and practice: theories of innovation-driven entrepreneurial (IDE) growth are used as the basis of practical analyses of specific policies and catalytic programs that can be implemented by corporate leaders, entrepreneurs and investors to enable regional entrepreneurial acceleration.

Our objectives include providing you with:

- An MIT framework to help you analyze innovation ecosystems and their stakeholders, building on economic, political and social theories of how ecosystems accelerate economic prosperity.
- Insights into different regions worldwide both in terms of their current state but also the path dependencies that enable their current success (or failure) through the lens of the MIT framework.
- Detailed tools and metrics to design, implement and measure policies and programs that can be undertaken by a variety of stakeholders to accelerate ecosystem development and drive innovation strategy including accelerators, hackathons and prizes.
- Throughout we will examine regions in the USA, Europe, Asia, Middle East, Africa and South America, and we will cover sectors from IT and media, through clean energy, to the life sciences.

COURSE DESIGN

Seminar Sessions: We will achieve our objectives through a series of weekly interactive seminar-style discussions, in addition to short summary lectures on specific topics. We will also invite key speakers who have extensive experience in building innovation ecosystems from a corporate, entrepreneurial and/or government perspective, as well as leaders of accelerators and prizes.

Final Project: The final project is an opportunity for you to work in small teams to explore a region or policy/program of your choice, and produce a short written analysis (as well as a brief in-class presentation for your classmates). This is a chance to reflect and integrate the class lessons for regional entrepreneurial acceleration in a context of personal interest.

CLASS TIME & LOCATION:

Tuesday: 5:30-8:30 PM *(see below for dates)* e62-262. Dinner will be provided.

NOTE: We will make video-conferencing available to a small number of students.

FACULTY:

Dr. Phil Budden	pbudden@mit.edu
Prof Fiona Murray	fmurray@mit.edu
Carolyn Fu (TA)	cjfu@mit.edu (please address queries to Carolyn)

READINGS:

Course material will also be made available through the **Stellar portal at: XXX**.

MIT students who have added 15.364 to their registration should have automatic access (if not please email our TA). Non-MIT students please contact our assistants, Kim McGrath (mcgrathk@mit.edu) or Stephanie Taverna (staverna@mit.edu), for an @mit.edu Kerberos account.

GRADING:

The class grade has three elements

1. Class participation (30%) – we expect you to <u>participate in class</u> (either in person or remotely). Excused absences are, of course, acceptable for personal or medical emergencies (please let the TA know via email). You should be prepared for discussion, having read the material critically.

2. Reflection Exercises (30%) – Choose **two** sessions in the semester for which to write a 1-2 page reflection on the readings. Use the questions provided as guiding questions for your reflection, and consider how the readings might apply to your region of interest. <u>Please submit your written reflection in *advance* of the relevant class to the TA via Stellar</u>.

3. Final Paper & Presentation (40%) – working in small teams (up to three people), you will develop a <u>research report evaluating the past, current and future potential of a region or policy/program to drive innovation-driven entrepreneurship</u>. In the case of a region, you will analyze the region through the MIT frameworks and make recommendations for its further upgrading. For those exploring a program/policy, please compare its success or failure in at least three or more modes of implementation. Your final paper should be 15 pages - including as much factual detail as possible. You will be asked to make a 10-minute presentation of your findings in class.

COURSE SCHEDULE

DATE	CLASS TOPIC
February 6	**Framework: MIT innovation ecosystem (iEcosystem) Model** MIT model of 'innovation ecosystems'. Innovation-driven enterprises (IDEs vs. SMEs) and role of geography in agglomeration (e.g. from Marshall to Moretti). Analyse through: System, Stakeholders and Strategy. Comparing the challenges and issues for innovation ecosystems in the developed versus the developing world. *Case*: Kendall Square
February 13	**Framework: <u>System</u> - analyzing & measuring innovation ecosystems** Importance of (and differences between) entrepreneurship <u>and</u> innovation, each with its own measurable capacity (I-Cap vs E-Cap). Simple metrics to capture an innovation ecosystem: a dashboard. *Case*: Tokyo
February 20	**NO CLASS**
February 27	**Framework: <u>System</u> – Comparative Advantage** Understanding the role of comparative advantage in opportunities for innovation ecosystem development. Basic approaches to determining comparative advantage and opportunities to intervene. Challenges for building comparative advantage across regions, and the political complexities of the distribution of advantage in the developed and developing world. *Case*: London's Tech City
March 6 (SJ Maxted)	**Framework: <u>Stakeholders</u> - analyzing & engaging them** Stakeholder model. Role of different stakeholders in building and contributing to iEcosystems. Changing role of stakeholders over time – path dependency. Importance of collective impact on stakeholder engagement. Examples from REAP teams with different stakeholder leadership approaches. *Case*: Silicon Valley
March 13	**Framework: <u>Strategy</u> - 'policy & program interventions'** (PPIs) Developing an approach to the design of programmatic interventions. Exploring the range of programs. Defining the elements of program design (using the collective impact approach) as applied to accelerators. We will also explore how to develop effective and useful approaches to program evaluation. *Case*: MassChallenge versus Start-Up Chile
March 20/27	**NO CLASS – SIP WEEK & SPRING BREAK!**

April 3	**Deep Dive: Policies & Programs to build an Entrepreneurial Culture** Evaluation of a range of policies and programs to improve entrepreneurial human capital and build a more entrepreneurial culture. Policies e.g. visa, bankruptcy policy, non-compete agreements, and Programs e.g. hackathons, training and competitions. Approaches to measuring changing entrepreneurial culture. *Case*: Singapore
April 10	**Deep Dive: Policies & Programs to build Innovation Capacity** Evaluation of a range of policies and programs to improve innovative capacity - including human capital and infrastructure. Exploring the role of different universities, and examining the role of international aid in shaping innovation capacity especially in the developing world. *Case*: Ghana
April 17	**NO CLASS – IN HONOUR OF PATRIOTS DAY!**
April 24	**Deep Dive: Policies & Programs to build Risk Capital** Evaluation of a range of policies and programs to improve access and availability of risk capital e.g. Angel investment policy (UK, Lerner) & tax policies for early-stage capital. Alternative stakeholder programs to encourage risk capital development (e.g. government, corporate & university programs). *Case*: Israel & Start-Up Nation
May 1	**Leadership: Ecosystem Orchestration by Large Corporations** Can large corporations <u>lead</u> ecosystem change? Using examples from a variety of different countries – Nokia/Finland, Microsoft/Beijing - we will examine the particular challenged faced by large corporations as they attempt to accelerate entrepreneurship and innovation in ecosystems where they are key anchors. *Case:* Morocco, OCP
May 8 (Georgina Campbell)	**Leadership: Ecosystem acceleration by Entrepreneurs** We will explore the variety of roles that successful entrepreneurs can play in leading and shaping their innovation ecosystems by exploring several cases in the United States and elsewhere. Our focus will be on the opportunities and challenges that entrepreneur-driven ecosystems present, the importance of role-models, responsibilities of successful entrepreneurial leaders, and the role of the diaspora. *Examples:* Boulder, Las Vegas, Lagos
May 15	**Student Presentations** We will use the last session to hear a short 10-15 minute presentation from each of the class teams.