

Lessons from Israeli Innovation  
A joint Wharton – Coller Program  
Global Modular Course (MGMT 893)

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Instructors: David Hsu ([dhsu@wharton.upenn.edu](mailto:dhsu@wharton.upenn.edu)) and David Zvilichovsky ([davidz@post.tau.ac.il](mailto:davidz@post.tau.ac.il))  
Teaching assistant: Oran Barkai ([obarkai@wharton.upenn.edu](mailto:obarkai@wharton.upenn.edu)) and Shlomi Fatal ([fatalshl@gmail.com](mailto:fatalshl@gmail.com))

### **Module Overview**

Individuals and organizations originate, survive, adopt, improve, grow and sustain themselves through innovation in many guises. The cliché, “necessity is the mother of invention” rings true, but it presumes that individuals and organizations know necessity when they see it. Innovators see gaps, inefficiencies, failures, wastes and lost opportunities, but are committed to finding solutions through the creation and application of something new or the synthesis and integration of what is already known. And then experiment. And then commercialize. And then experiment again.

The State of Israel is itself the product of innovation in the face of relentless necessity. Israel is a peculiar mix of scarce physical and natural resources, limited financial reach, and a diverse population disproportionately over-represented across the full range of scientific and artistic talents. Israelis have found ways to innovate in response to necessity across all social and commercial dimensions – not just “high technology.” Finance, media, agriculture, food, wine, healthcare, education, disaster response, military and security strategies are all arenas of innovation; peace will require innovation. The demographics, history and geo-political dynamics of Israel are unique, but there are numerous lessons from the Israeli experience of innovation that can be applied to regional economic growth, human resource development, effective use of capital, management of technological resources, and fostering an innovative culture and organization.

### **Organizing Questions and Approach of the Module**

What are the necessary and sufficient inputs to building an innovation-led economy? What are the binding constraints to entrepreneurial action and the innovative economy, which if loosened, could materially improve society? We will explore these questions through a variety of approaches, emphasizing experiential learning, in an intensive format in Israel. Through site visits, expert panels, and cultural immersion, we will familiarize ourselves with the Tel Aviv and broader Israeli landscape of innovation and entrepreneurship.

### **Agenda Overview**

***Before the module begins.*** An important amount of preparation work will be expected before the class begins. Before class, you will read a set of materials drawn from both academic studies and the popular press which gives a perspective on the key course questions listed above. In addition, you will be placed on a team (see details below) to work on a case study city/region (from around the world, ex-Israel) in which to conduct research and to form tentative hypotheses about possible answers to the course questions. This will result in a 3-5 slide team presentation which you will present to the class on our second day of the module. This will form a strong basis on which to guide our meetings with top entrepreneurial companies and other officials during the class.

***During the module.*** We will start the on-the-ground class by providing an introduction to the local innovation and entrepreneurship landscape and its historical, political and economic context. We will

provide a high-level history of Israel, and explain the current situation. After laying this foundation, we will interact with leading entrepreneurs, investors, and policy-makers to get first-hand insights on their role and their views on the opportunities and challenges ahead. We will use a mix of learning modalities including in-class discussion and group work to contextualize what we learn from our site visits. After these interactions, we will harvest collective insights through facilitated discussions. There will be ample opportunity each day to discuss what we are learning in TLV as compared to our expectations from our pre-work. Through this process, we will be well-prepared for our culminating presentation on our observations on our final day of the module.

### **Preparation & Grading**

You will be evaluated in the module based on a pre-trip assignment and based on your participation and performance during the module. In addition to active participation and engagement in the various activities over the four days, there will be a group presentation on the final day of class and an associated final report. Here is a summary of components of the grading:

- Pre-assignment and day two presentation (25%)
- Attendance and active class participation (30%)
- Day four group presentation (20%)
- Group final report (25%)

Required readings (available, with the exception of the first reading, via Canvas):

- Senor, Dan and Singer, Saul. *Start-up Nation: The Story of Israel's Economic Miracle*. Twelve, New York, 2009.
- M. Porter and S. Stern (2001), Innovation: Location Matters, *MIT Sloan Management Review*, pp. 28-36, Summer 2001.
- "Location Choice for New Ventures: Cities" Harvard Business School Note 9-811-106.
- G. Moore (1999), *Crossing the Chasm*, Harper Business Press. Chapters 1 and 2.
- D. Teece (2000), "Market Entry Strategies for Innovators: Avoiding Pyrrhic Victories," in *Managing Intellectual Capital*, Oxford University Press, pp. 91-113.
- JS. Gans and S. Stern, "The product market and the market for 'ideas': commercialization strategies for technology entrepreneurs," *Research Policy*, 2003.
- M. Marx and DH. Hsu, "Strategic 'switchbacks: dynamic commercialization strategies for technology entrepreneurs," *Research Policy*, 2015.
- A Special Report on Entrepreneurship, *The Economist*, 2009
- Skim Harvard Business School cases and Collier School cases for background material at the firm-level about Israeli companies.

### **Pre-course assignment.**

After reviewing the following list of cities/regions, state your top three in preferred order and upload to Canvas.

*Silicon Valley; New York City; London; Paris; Berlin; Ireland; Stockholm; Dubai; Bangalore; Singapore; Moscow; Seoul; Sydney; Buenos Aires.*

This should be done individually. The teaching team will consider your choices and strive to accommodate your preferences. We will place you in a team of approximately 5, which will mix the Wharton and Collier students onto assigned teams. Your pre-course assignment is to coordinate with your team and conduct research which will culminate in a 8 minute presentation (5 minute presentation, 3 minute Q&A) on the second day of class. You should summarize your key learnings assessing the city/region with regard to its innovation ecosystem. Explain the key success factors and initiatives that allowed each of the following entrepreneurial innovation and/or creative economy hubs to prosper, or alternatively, disappoint in its performance.

As you evaluate each city/region, please consider the role of the following three dimensions as you evaluate your case:

#### **1. Institutional and market infrastructure**

- Legal and institutional environment, including government policy
- Access to financial capital
- Economic environment

#### **2. Human capital and its activation for the innovative/creative industries**

- Education and universities
- Geography
- Culture
- Pioneers and early success stories

#### **3. Quality of global and local linkages**

- Community and links between actors
- Access to local, regional, and global markets
- Social capital

Please conduct research on your case, which may include discussion of firms and economic/business systems. The assigned readings will also be instrumental in developing your presentation. ***Your day two presentation should touch on each of the three factors above, and ideally go into detail about one of the dimensions.***

### **Final group presentation (day 4) and final report.**

Following the site visits to Israeli companies, you will work in your teams to discuss the similarities and differences in the Israeli context which might cause you to amend your conclusions based on your pre-course assignment drawing from a different city/region around the world. Please also make use of the case studies written at the Collier School and Harvard Business School about innovative Israeli companies. On the final day of the class, you will again make an 8 minute presentation in your teams (5 minute of discussion, 3 minute of Q&A) to share your learnings with the class. ***This time, you will focus on one dimension of the above three factors in which to analyze in more depth.*** For example, your team might examine the institutional and market infrastructure in Israel as compared to Dubai, or you may wish to specialize even more, discussing for example the impact of culture in Israel as compared to Seoul.

Finally, after the class, you will synthesize your experience and reflections and submit a *team-based* 7 page document summarizing your main take-aways on the key course questions. In doing so, you will synthesize your learnings of the Israeli ecosystem and compare it to your pre-course assignment city/region. Your report should provide a brief comparison across ecosystem dimensions, a discussion of the most striking differences between the environments, and an analysis of policy and/or business advice you would provide to the Tel-Aviv and Israeli governments, as well as to emergent entrepreneurs.

### **Instructor Biographies**

**David Hsu** is the Richard A. Sapp Professor of Management at the Wharton School, University of Pennsylvania. He holds degrees from Stanford (A.B. in economics and political science), Harvard (master's in public policy), and MIT (Ph.D. in management). Hsu's research interests are in entrepreneurial innovation and management. Within that domain, he has investigated topics such as intellectual property management, start-up innovation, technology commercialization strategy, and venture capital. His research has appeared in leading journals in management and economics. He is past associate and department editor of *Management Science* and is currently on the editorial boards of *Strategic Management Journal* and the *Journal of Business Venturing*. In 2008, Hsu was awarded an Alfred P. Sloan Foundation Industry Studies Fellowship. At Wharton, he teaches courses at the undergraduate and graduate levels in the domains of entrepreneurship and strategy.

**David Zvilichovsky** is a senior faculty member at the Tel Aviv University – Coller School of Management. He holds a Ph.D. in Economics as well as an MSc. in Computer Sciences from the Tel Aviv University and a Bsc. in Computer Sciences, Mathematics and Economics from the Hebrew University of Jerusalem. Zvilichovsky has been involved with the Israeli High Tech industry for over 20 years. He started his career as a software developer for Eshed Robotec and later became the company's head of R&D. David worked with and consulted to some of Israel's leading technology companies including Comverse, Scitex and Electric Fuel. He co-founded IPHighway, a pioneer in the Network QOS space and has been active in numerous financing and M&A transactions pertaining to technology startups including the sale of Ad4Ever to aQuantive (now Microsoft). Over the years David has also been active as a board member and advisor in the areas of Venture Capital, Technology Innovation and Early Stage Ventures and served as a special economic advisor to the national economic council at the Israeli prime minister's office. Dr. Zvilichovsky teaches courses in economics, entrepreneurship, and innovation. His current research interests include: Entrepreneurship, Venture Financing, Crowdfunding, Innovation Strategy, Adoption Externalities and the Internet Economy.

DETAILED AGENDA

*[TO BE UPDATED OVER THE COMING WEEKS]*