ESTABLISHMENT OF THE NYC REGIONAL INNOVATION NETWORK

Christina Pellicane and John A. Blaho

CITY UNIVERSITY OF NEW YORK

ABSTRACT

We have created a highly interactive innovation and entrepreneurship consortium of over 25 prominent universities in the Connecticut, New York, New Jersey, and Pennsylvania area that we term the New York City Regional Innovation Network. Our goal is to leverage our seasoned expertise in mentoring and training start-ups and small businesses (or larger businesses interested in creating new divisions) in the hypothesis-driven customer discovery process. We emphasize an experiential learning process combined with an inverted classroom approach, aligning the companies' value propositions with each of their customer segments, which is the basis of the technology product-market fit. Our process enables companies to scale their commercialization model into a sustainable and repeatable business. In the long-term, we hope to provide innovators throughout the United States a structured portal for access to the unique NYC-regional mixture of world-class universities, venture capital and other private investment resources, and the nation's fastest growing technology start-up ecosystem.

Introduction

The overarching goal of the New York City Regional Innovation Network is to coordinate all of the innovation research, education, outreach, and commercial development activities across the CT, NY, NJ, and PA area. Every school in the NYC Regional Innovation Network currently has active entrepreneurship efforts underway at various levels. However, these individual initiatives are being performed only on their campuses and only to serve their own faculty and students. The NYC Regional Innovation Network intends to provide a neutral entity that will work with all of these programs to streamline and coordinate their efforts. Successful strategies will be shared with all network schools, thus increasing efficiency and diminishing redundancy. This paper will begin by addressing the problem that all academic industrialists face: the lack of a proper product-market fit. We will describe how we settled on the customer discovery training model. Next, we will offer best practices for organizing a very large and complex regional consortium. We will describe our management and coordination system and explain how we use it to develop a regional infrastructure that provides innovation research, education, outreach, and commercial development activities across the network. Finally, we will discuss how we are gathering and analyzing data to optimize the way institutions support and foster the national innovation ecosystem.

Background

The creation of the NYC Regional Innovation Network had a definite rationale. It stemmed from the realization that most sponsored research commercialization efforts fail due to the lack of a correct product-market fit. Traditionally, the responsibility to determine this fit

fell on either the university's technology transfer office staff or the members of its entrepreneurial centers. Resolution often required providing time-intensive, one-on-one entrepreneurship training to university faculty and students, followed by educating them on the practical and logistical aspects of new business formation. These activities required an enormous commitment of staff time, which greatly hindered the number of new entrepreneurial projects. The City University of New York (CUNY) was one of the first universities to fully embrace the new National Science Foundation Innovation Corps (NSF I-Corps) program, submitting applications for the first two cohorts held at Stanford University in late 2011 and early 2012. Our recognition of the immediate successes of these early adopter I-Corps teams convinced us to completely embrace the Lean LaunchPad methodology (Reis 2011) for university start-ups. Our desire to scale the process with our collaborators led to the creation of the NYC Regional Innovation Network. This represents a transition of responsibility for identification of the product-market fit from university administrative staff to the basic science and engineering researchers who created the technology--a seismic shift. The network reduces the time to market for commercialization of technologies, due to its quick iterations and hypothesis validation using real-world facts. The goal of the NYC Regional Innovation Network is to become the global leader in technology innovation and entrepreneurial business development.

Establishment of the NYC Regional Innovation Network

Below, we describe the strategies we utilized and the best practices we learned during our development process.

Network School Recruitment

The core of the NYC Regional Innovation Network is an equal collaboration between CUNY, Columbia, and NYU. The plan was to leverage the existing innovation ecosystem present in NYC and its surrounding area to create a cooperative center that would function as part of the national entrepreneurial network. One of the immediate challenges we faced was that the region contains the densest concentration of institutions of higher learning in the US. In addition to major research universities, there are a multitude of four-year and two-year institutions in the area. We initially targeted schools in the four-state area that were ranked in the top 200 for annual extramural funding by the NSF for founding membership in our network. Next, we reached out to our warm contacts at schools that we had established through prior entrepreneurial activities, such as our membership colleagues in existing NSF Industry-University Cooperative Research Centers and statewide economic impact centers located on campuses. Finally, we made cold calls to principal investigators of recently awarded NSF I-Corps at regional schools. In all cases, we described our goals and activities and requested information regarding who was the policy maker for innovation and entrepreneurship at each institution. In this manner, warm contacts and referrals were at the President, Vice President, Executive Director, and Engineering Dean levels. In all cases, our invitation was greeted with enthusiasm and great interest, due to the universal need for an improved technology commercialization strategy. Thus, we were able to get full support for our network at the highest possible levels at all of the schools listed in Figure 1.

NYC Regional Innovation Networking Event

An important milestone in the creation of the NYC Regional Innovation Network was the inaugural networking event. In July 2013, the first annual meeting for all network members was held in NYC. There were 110 attendees from 18 universities, and over 20 industry and government representatives also participated.

These individuals now serve as our campus points of contact at the network schools. At this event, the organizers of the NYC Regional Innovation Network were introduced. An overview of the Lean LaunchPad training process (Blank 2005; Blank and Dorf 2012) was given, including description of the Business Model Canvas (Osterwalder and Pigneur 2010). Dr. Errol Arkilic, former NSF I-Corps Program Director, gave the keynote address and described the genesis and vision of the NSF I-Corps program. Finally, members of former teams trained through the Lean LaunchPad process presented a success story panel discussion. All attendees were provided with templates of what was presented for dissemination at their host schools. To assess the value of the event, attendees completed a detailed survey. Figure 2 shows representative results, suggesting that the event increased awareness. Importantly, the survey confirmed that attendance increased the likelihood of participation in future network activities (Figure 3). Similar meetings in the future will ideally serve as the annual business meeting for NYC Regional Innovation Network, at which the "State of the Network" and all relevant organizational issues will be discussed. The bulk of the meetings will be business presentations by network start-ups. The audience will consist of network peers, members of the investment community, and industrial and governmental representatives. The goal is to increase networking and collaboration between universities by building professional relationships.

Coordination Across the Network

The NYC Regional Innovation Network utilizes several methods to coordinate activities throughout the network.

NYC Regional Innovation Network Website

NYC Regional Innovation Network staff maintain and regularly update an interactive website to ensure an accurate listing of current events and activities across the network. Network members can download resources and apply online for regional activities. In the future, the NYC Regional Innovation Network website will be a major regional resource for the dissemination of information on innovation training research.

NYC Regional Innovation Network eNewsletter

The NYC Regional Innovation Network publishes a monthly newsletter that highlights news and accomplishments across the network. This newsletter will function as an important promotional tool and will facilitate the recruitment of new network schools.

NYC Regional Innovation Network Social Media Tools

The NYC Regional Innovation Network has embraced the use of social media to disseminate and archive its information. Its website was launched October 2013: http://www.nycrin.org. The NYC Regional Innovation Network Twitter account provides real-time updates of activities (@nycrin). Its LinkedIn Group is open and available to anyone for discussion, while its LinkedIn Profile is open to teams that have completed the Lean LaunchPad training. Finally, the NYC Regional Innovation Network uses its Facebook group as a regional resource for archiving informational material.

Moving Forward

Looking ahead, the NYC Regional Innovation Network will focus on three distinct targets. The first is to organize and provide Lean LaunchPad training to university teams from across the network. The technology to be commercialized needs to be at the proof-of-concept stage and may have been supported either extramurally or intramurally. Importantly, it must have been disclosed to their technology transfer office. The NYC Regional Innovation Network staff provides outreach assistance in organizing these types of teams, in particular, by providing potential industrial mentors. Second, we intend to

gather best practices for succeeding in the customer discovery process. Not only do we observe teams from creation to new business organization and beyond, we maintain an open dialogue with them through semi-annual surveys to track their progress and offer assistance as needed or requested. Finally, we disseminate all of the information we have gathered through our digital media resources, including publications such as this.

Conclusions

Based on our experience in establishing the NYC Regional Innovation Network, we conclude the following. (i) It is most important to get full support at the highest possible level when creating a large, multi-university consortium. This executive oversight is essential to eliminate differences between university cultures and to break down silos. In addition, these executive contacts gain a vested interest in the regional training process, since the technologies to be commercialized are assigned to their institutions through their own technology transfer offices. (ii) Off-site networking events are not only very important for the dissemination of information, they also help to create an esprit de corps between peers. Importantly, since attendees are self-selecting as being interested in solving the innovation and entrepreneurship challenge at universities, they become de facto points of contact and evangelists at their schools. (iii) Finally, it is important to fully embrace multiple forms of social media in order to reach all stakeholders in the innovation and entrepreneurship process. Creating and validating a digital infrastructure will be essential for the future dissemination of best practices and lessons learned. We anticipate that this overall process will lead to the research and execution of novel models based on these data, enabling the NYC Regional Innovation Network to impact how entrepreneurship is approached throughout the US and around the world.

References

Blank, S. 2005. *The Four Steps to the Epiphany: Successful Strategies for Products that Win*. Pescadero, CA: K&S Ranch.

Blank, S., and B. Dorf. 2012. *The Startup Owner's Manual*. Pescadero, CA: K&S Ranch.

National Science Foundation. n.d. "NSF Innovation Corps." http://www.nsf.gov/news/special_reports/i-corps.

Osterwalder, A., and Y. Pigneur. 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. New York, NY: John Wiley & Sons, Inc.

Reis, E. 2011. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. New York, NY: Random House.

Acknowledgments

These studies were supported in part by a grant from the National Science Foundation (NSF1305023 to JAB). We thank Richard Sheinaus for expert technical assistance in finalizing the image shown in Figure 1.

Figures

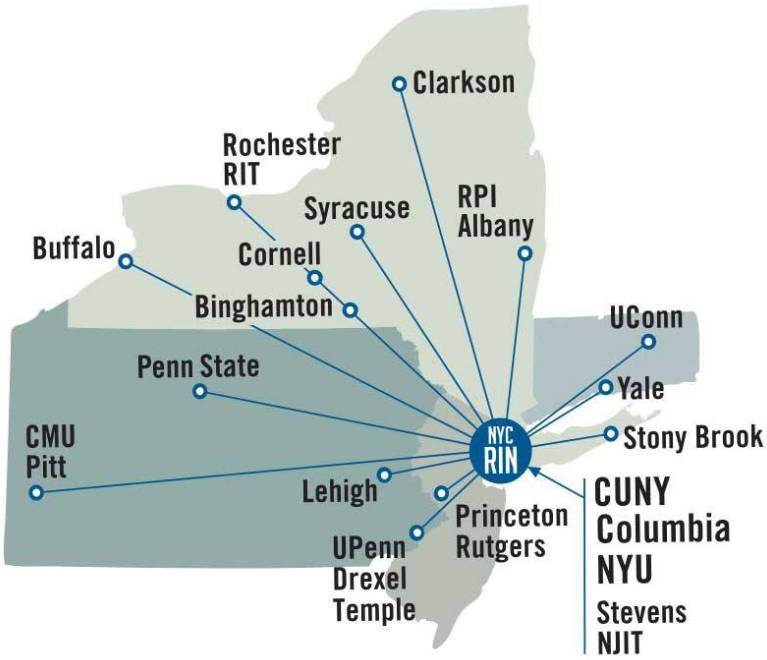

Figure 1. The NYC Regional Innovation Network

The NYC Regional Innovation Network is highly diverse and comprised of 25 initial schools, which were all ranked in the top 200 for NSF funding in 2011. These schools are representative of all organizational types, from major public and private universities to small private technology colleges. All network participants have engineering schools. Fourteen of the schools have affiliated medical schools. CUNY has five large community colleges in its system.

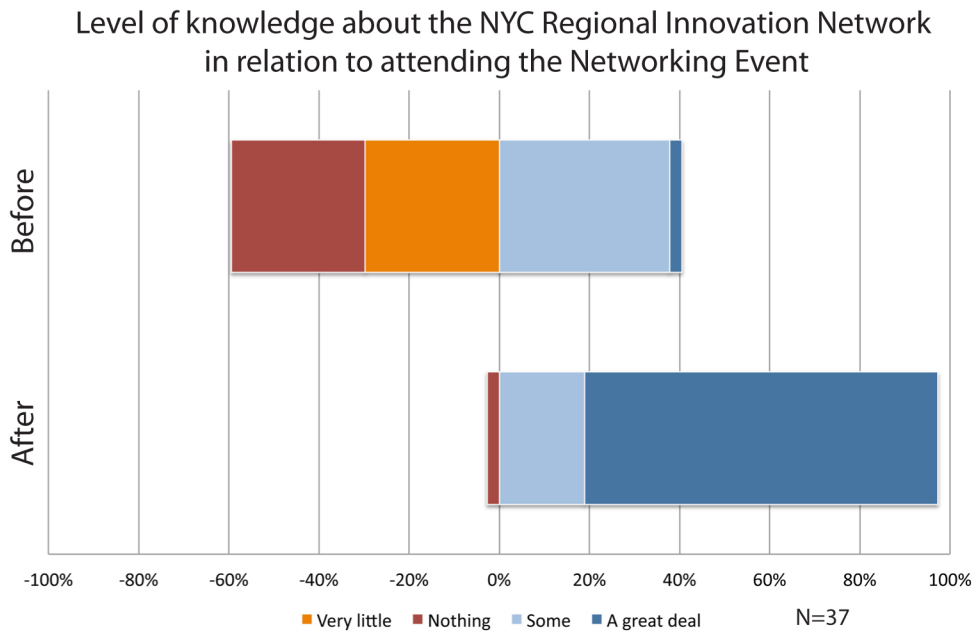

Figure 2. Respondents' level of knowledge (%) about the NYC Regional Innovation Network before (top) and after (bottom) attending the Networking Event. N=37.

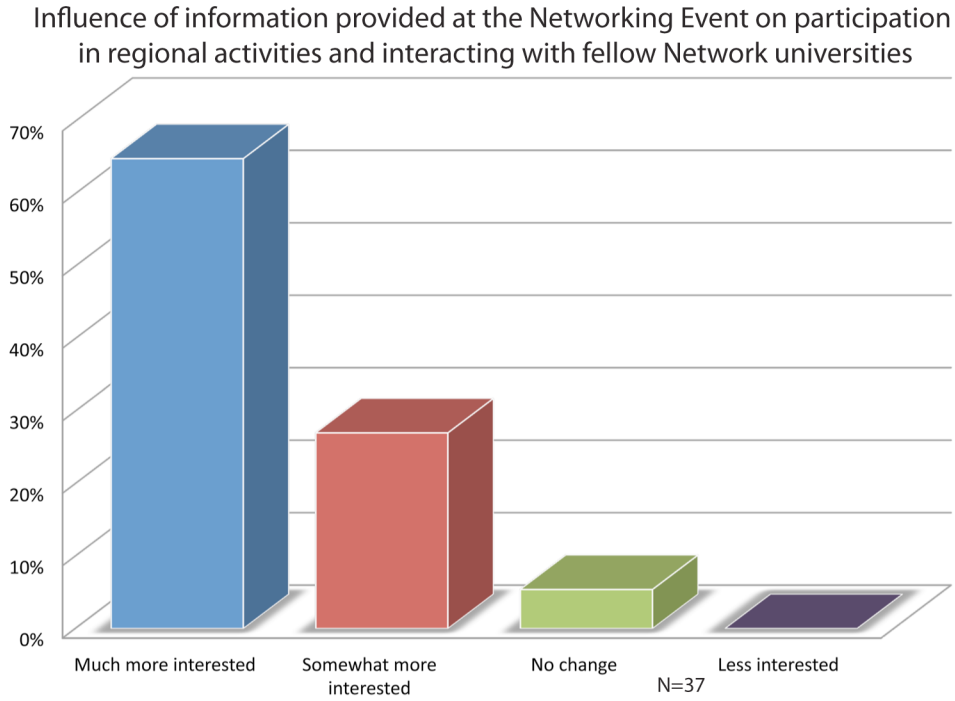

Figure 3. Respondent's level of interest (%) in participating in regional activities and interacting with fellow Network universities based on the information provided at the Networking Event. N=37. Excludes "other" responses.