Market Study and Gap Analysis Report
"A Canvas for Innovation" Feasibility Study

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Prepared For

The Innovation Alliance of Baltimore
and
The Abell Foundation

Prepared By

facility LOGIX
BUILDING PERFORMANCE

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Executive Summary

During this initial phase of the study, The Innovation Alliance seeks to evaluate how innovators and entrepreneurs in Baltimore currently interact and collaborate, what existing programs, events and activities work well in supporting this community, and what is missing that might accelerate innovation and entrepreneurship. These responses will be evaluated in the context of a review of "Best Practices" from other markets in an effort to identify how best to bridge any gaps in the Baltimore entrepreneurship ecosystem to achieve a more vibrant, cohesive, collaborative, sustainable ecosystem resulting in employment growth and wealth generation that acts as a catalyzing force to stimulate even greater entrepreneurial activity.

Methodology

Facility Logix employed several methods to evaluate existing market conditions in the city of Baltimore as well as Best Practices nationwide including:

1. Searches of publicly available resources to identify Best Practices
2. Interviews with founders and operators of Best Practices programs as well as influencers within the Baltimore community
3. Personal attendance at StartupWeekend and Startup America Partnership events
4. Observation of Baltimore Tech Facebook discussions
5. Survey of the community of users from the City of Baltimore
6. Town Hall Meeting to invite further dialogue and further drill down on the needs of the Baltimore innovation community
7. Site visits to General Assembly and WeWork

Best Practices Summary

To date we have not discovered a single, individual model that captures all of the required entrepreneurial ecosystem elements in a single destination. CONNECT in San Diego may be the closest thing; however, it does not offer a single point-of-entry and space for the entrepreneur or innovator and the emerging growing company to support the entire range of ecosystem needs.

General Assembly also excels in some areas of the entrepreneurial ecosystem such as collaborative space and educational opportunities, but falls short in other areas such as a continuum of space and program offerings to meet the needs of companies that are beyond the start-up phase. With its strong emphasis on education, GA appears to be less successful or even interested in accelerator programs or in measuring outcomes such as job generation and wealth creation for its clients.

In several communities, there were a number of different programs each addressing some portion of the ecosystem's needs; however, we did not find a single location that serves as a meeting space, community forum, networking venue, mentor and investor destination, co-founder dating place, incubator, accelerator, co-working venue, and educational resource for programs and content ranging from how to develop a business plan, to how to implement Ruby on Rails©, or how to use a Facebook API among many other topics of interest. Similarly, while many note the importance of celebrating entrepreneurial successes and failures (Kaufman Foundation, 2012), few places do it well and often when celebrated, in may be outside the context of where the other ecosystem activities reside. Noted Vivek Sharma (personal communication, 2012), "if someone did celebrate successes and failures well, they could get a lot more out of the community."

Survey Summary

Over fifty percent (50%) of survey respondents identified themselves as idea people, innovators, or entrepreneurs. Many respondents characterized their role in the community as "actively engaged" as mentors, influencers, or connectors. Respondents were drawn from a wide mix of the community including private company representatives, educators, social enterprises, and the arts. Over fifty percent (50%) identified their sector of interest as business services with social/non-profit enterprises and mobile applications, ranking second and third respectively.

Nearly seventy-five percent (75%) of the respondents felt as though the current community "was better than average", with thirty percent (30%) characterizing the community as "vibrant". When asked what makes Baltimore an attractive place to launch and grow a business participants listed connectivity, opportunity, creative environment, and quality of life as the strongest attributes, followed by a "sense of place", a like-minded community of innovators and a "wealth of ideas."

The terminology used to describe what stands-out about Baltimore's innovation community as both an attribute and a challenge illustrates the link between people, place, community, and collaboration as elements that are integral parts of a self-sustaining entrepreneurial ecosystem.

Over 85% of respondents indicated that they would take advantage of a "Hub" if created.

The following characteristics of a proposed "Hub" received strong support:

1. Meeting space – 46% of respondents
2. Mentoring – 42%
3. Educational programs – 41%
4. Space for various activities – 35%

Respondents preferred location was the "East" region described as Harbor East, Fells Point, or the Central Avenue Corridor, followed closely by the "North" region drawing from Station North or the Charles Village area.

Town Hall Summary

Attended by over 130 individuals, participants hailed from a wide diversity of interests including investors, entrepreneurs, attorneys, educators, artists, and real estate. Online chatter during the Town Hall itself was positive with numerous Twitter feeds (hashtag #/IATH) remarking about the "diversity", "inclusiveness", and "energy" of the participants. Utilizing the full two-hours and more, the group engaged in a focused, mediated discussion on three of four topics arising out of the previously conducted survey.

1. What is behind our need to connect?

Noted DeGuzman (2011), "in the focused and random conversations you have with community members your creative thinking is bolstered. It's the economies of scale argument: the power of collective brainpower." The diversity of interests from Town Hall attendees resulted in a wide range of responses to the above question. We chose to consolidate responses and observations into four categories: 1) ideas; 2) resources; 3) space; and 4) learning.

2. Who do we want to connect with and why?

There was a broad range of connections that were sought by Town Hall participants. The inter-relatedness of those connections and the ability to draw from and seek out many different perspectives was an underlying theme of this discussion.

The community wants to connect with these individuals to:

- Find a common platform;
- Keep an eye and ear on the pulse of what is happening;
- Import ideas and people;
- Develop and promote social understanding;
- Receive criticism;
- Interact with "right-brained" people;
- Encourage randomness;
- Leverage connections; and
- To break down "cliques" in the innovation community

3. What's the importance of space and place?

Common themes arising in this discussion centered on flexible, informal spaces with a variety of meeting areas ranging from café/Starbucks-type spaces, to conference rooms and gathering spaces that encourage the cross-pollination of ideas from non-industry-specific users promoting a "student union" feel as well as co-located space for the "grown-ups" to meet. The metaphor of a kitchen was used with informal gathering spaces or "kitchens", while the conference rooms might be the "family room/TV room, den, or living room", followed by the "grown-up" spaces being the "bedrooms". While the house metaphor was used to articulate the relationship between several functions within a single facility, the focus of those functions was understood by all to be business-centered. Having a single "Hub" or space would create an opportunity for the Baltimore innovation and creative community to brand itself.

Statement of Need

Presently the creative, innovation, and entrepreneurial community in the city of Baltimore is fractured as evidenced by the numerous entities with some involvement in the community ranging from the well-regarded Emerging Technology Centers to accelerators like Startup City and co-working venues like the former Beehive Baltimore, or programming and networking events like IgniteBaltimore, createBaltimore, and many others. This lack of cohesive identity has contributed to an inability to realize the potential to develop a sustainable entrepreneurial ecosystem built on the inherent attributes of the City, namely, a dense, walkable urban environment; high quality educational and research institutions; global access through the nearby Baltimore Thurgood Marshall International Airport; world-class arts and culture; a geographic location that is part of the Eastern metropolis ranging from New York City through Washington, DC; a high quality of life; and a well-educated workforce.

As the survey and Town Hall Meeting have evidenced, the Baltimore Innovation community is aspirational, but must overcome challenges if it seeks to create and foster a culture of entrepreneurship that results in a sustainable ecosystem that generates jobs and wealth that continue to reside in the City.

The creation of a single "Hub" to focus such efforts within the City of Baltimore could be the missing piece that enables the City to focus its resources and efforts in building a first of its kind "Hub" that is far more than a place. By removing barriers to community and connectivity,

whether real or perceived, and by promoting inter-disciplinary sharing of ideas, lessons learned, and the opportunity to address the real needs of the innovation and creative community, such a "Hub" could not only fill the gaps identified in the survey but emerge as a new model that measures itself by job generation and wealth creation that is replicable and sustainable in a City where people want to live, work, and play – and remain to encourage the next generation.

Recommendations

Given the high probable likelihood that Baltimore's innovation community would become future users of a proposed innovation "Hub" based on survey responses (85%) and Town Hall Meeting discussions, Facility Logix recommends that the Innovation Alliance, The Abell Foundation, and other leaders move forward with the following:

- Discussions with key stakeholders in the Baltimore business community to include: the Mayor's office; the Baltimore Development Corporation (BDC); the GBTC; TEDCO; the ETC; and others to determine the most beneficial partnership for advancing the "Hub" concept;

- If an opportunity exists to pursue a strong partnership with the ETC, the "Hub" should look to leverage the brand recognition and strong historical track record of the ETC in a converged strategy moving forward resulting in a stronger initial brand for the proposed new organization;

- Further engaging volunteers from the community of users to further develop the design of the proposed "Hub" including actual physical design, as well as components of what the proposed "Hub" offers the community, including the naming of the facility;

- Development of a business plan and model that will address:

    - Development costs to renovate a facility like the "car barn" and surrounding property to accommodate the proposed "Hub";
    - Development timeline to achieve re-development of a facility like the "car barn";
    - Development and testing of an operational business model for the proposed "Hub";
    - Financing requirements as required to support either capital costs and operational needs as identified in the development of the business model;
    - Organizational structure, leadership and staffing plan; and
    - Branding and marketing approach

- Pursue a strategy that allows the proposed "Hub" to forego concentrating on specific technology sectors or business opportunities while maintaining a continually evolving model that is grounded in a socially organized fashion;

- Adopt enough structure and "governance" to ensure that the proposed "Hub" maintains its relevancy and its measurable contribution to Baltimore's economy;

- Design a sustainable revenue model for the proposed "Hub";

- Define and determine the relevancy of measurable outcomes such as new business formation and job creation; and

- Create a model and environment that strives for collaboration not only within the facility but also from among the organizations involved in innovation and entrepreneurship throughout the community.

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Introduction and Background

The role of entrepreneurship in the generation of net new jobs is a topic that has drawn much attention during the economic downturn beginning in 2008. While there are many state-level programs promoting entrepreneurship across the country, including state-supported pre-seed and seed funds, investment tax credits for angels, and state and regional subsidies to support business incubators, there is a sense that these measures may not be having the desired outcomes when measured by employment growth, sales growth, and business survival.

In the fall of 2011, The Innovation Alliance of Baltimore issued a "white paper" describing a perceived need in the Baltimore Innovation Community for a single entry-point and facility for the innovation community in Baltimore. While existing programs like the Emerging Technology Centers (ETC), and others addressed the needs of a portion of the user community, the notion persists that the City was missing the synergistic effects that a fully engaged entrepreneurial ecosystem might offer.

In January of 2012, The Innovation Alliance, Inc., with support from the Abell Foundation commissioned this study to evaluate emerging trends in innovation and entrepreneurship in Baltimore.

During this initial phase of the study, The Innovation Alliance seeks to evaluate how innovators and entrepreneurs in Baltimore currently interact and collaborate, what existing programs, events and activities work well in supporting this community, and what is missing that might accelerate innovation and entrepreneurship. These responses will be evaluated in the context of a review of "Best Practices" from other markets in an effort to identify how best to bridge any gaps in the Baltimore entrepreneurship ecosystem to achieve a more vibrant, cohesive, collaborative, sustainable ecosystem resulting in employment growth and wealth generation that acts as a catalyzing force to stimulate even greater entrepreneurial activity.

Methodology

Best Practices

Prior to initiating our research, Facility Logix felt it was important to define the different types of programs currently in existence in the marketplace because a range of terminology is frequently inter-mixed when discussing different programs which can confound an analysis of what works best and why.

For our purposes we are utilizing the following definitions to distinguish between the three primary types of programs:

- **Incubator** – Business incubation programs are often sponsored by municipal entities and public institutions, such as colleges and universities. Typically incubators offer a facility with ready offices and other defined spaces such as wetlabs for rent at below market rates coupled with programs designed to help incubator clients build and grow their businesses by providing support and other services. According to the National Business Incubation Association (NBIA), there are now over 1000 incubators worldwide. The Emerging Technology Center (ETC) is an example of a traditional business incubator.

- **Accelerator** –Business Accelerators have some similarities to incubators; however, they usually focus on companies with high growth potential that offer products or services with a national or global market. Accelerator programs are frequently funded by venture capital organizations that are looking for the next best business program that affords them an opportunity to invest in a company and continue with a high level of

involvement in the future development of the business. These programs frequently run competitions for firms to be admitted into intensive immersion programs, many of which include a residency requirement, along with an upfront investment by the accelerator in the selected company participants. Usually the only link to a physical location for an accelerator program is the space used to host the competition for entry along with the two to four times per year, ten to fifteen week "boot camp" sessions for winners.

- **Co**-Working Facility – A relatively new type of facility, co-working offers collaborative work-space that is highly flexible and loosely organized with a range of membership options (hourly, daily, weekly, monthly, etc.) coupled with some community space and related activities meant to form a sense of community among co-workers. Some estimates now put the number of co-working facilities at 750, representing a near doubling of the 400 co-working facilities in existence at the end of 2010 (Economist, 2011).

Utilizing publicly available information we identified several active and emerging innovative communities such as Atlanta, Georgia; Austin, Texas; Boston, Massachusetts; Boulder, Colorado; Chicago, Illinois; New York City; Pittsburgh, Pennsylvania; Portland, Oregon; Silicon Valley, California; Seattle, Washington and several others to evaluate highly recognized programs and practices to determine what works and how that might apply to the Baltimore innovation community. We reviewed ranked lists such as those developed by Forbes, TECHCOCKTAIL, and Xconomy to select target programs for evaluation and to line up interviews with program founders and operators when possible. While it would be nearly impossible to evaluate all of the various programs in the marketplace, our analysis includes a range of programs from across the country.

To get a sense of how the community of users interacts we participated in a Start-Up Weekend, held in Seattle in November of 2011 and attended the organizational Town Hall meeting for Start-Up Maryland, part of the Startup America Partnership (www.startupamericapartnership.org) held in Columbia, Maryland on February 10, 2012. The Startup America Partnership is a private organization working to help young companies succeed in order to accelerate job growth in America. According to its website, The Startup America Partnership is "bringing the private sector together to maximize the success of America's entrepreneurs, and augment America's competitiveness in an increasingly global world. Startup America is an independent nonprofit entity (NGO) that was launched at the White House in early 2011. The Ewing Marion Kauffman Foundation and the Case Foundation provided the initial funding for the Startup America Partnership. American Express OPEN, Dell Inc., Intuit Inc., and Microsoft are corporate sponsors."

On February 28th, we visited General Assembly in New York City and met with Vivek Sharma, founder of Movable Ink (http://movableink.com/) followed by a visit to WeWork, a co-working facility business with multiple locations in New York City (http://wework.com/). We were unsuccessful in our attempts to arrange for site visits to 500 Startups and YCombinator, both located in Silicon Valley.

Survey Development, Distribution, and Analysis

A kick-off meeting was held in Baltimore on January 4, 2012 at which the team developed a strategy for identifying the "community of users" whose input we would like to solicit as part of our gap analysis effort. Lists of attendees from events like createBaltimore, IgniteBaltimore, and the Baltimore Tech Facebook page were identified as sources of active community participants among several others. We did not limit or restrict the community of users by technology, role of participant, industry sector or focus, size of enterprise, stage of

enterprise (e.g., ideation, formation, start-up, emergent, etc.), size of market opportunity or any other criteria.

We developed a survey using SurveyMonkey and distributed it to a list of potential respondents drawn as a result of outreach to the following:

Baltimore Tech Facebook Page
bwTech CEO's
*Citybiz*list BALTIMORE
Create Baltimore List
ETC Tenants at Canton and Eastern
Gus Sentementes' Blog
Ignite Baltimore
Johns Hopkins Carey School of Business
Johns Hopkins INNoVATE Students
MD-DC Chapter of Physician Engineers
MICA Entrepreneurship & Business Development Students
UMB/UMCP Smith School of Business
UMBC Alex Brown Center
UMBC Student Entrepreneurship Club
University of Baltimore Entrepreneurship Center

The following email lead-in was used to provide background and to encourage recipients to participate:

> Dear Baltimore Innovation and Entrepreneurship Leader,
>
> Facility Logix is conducting a needs analysis to evaluate emerging trends in innovation and entrepreneurship in Baltimore as part of a study commissioned by the Innovation Alliance with funding from the Abell Foundation. We are doing this so that we can better understand how Baltimore innovators and entrepreneurs collaborate and interact, which activities support this community, and what elements are missing that might accelerate innovation and entrepreneurship so that you can be successful in your efforts. We would appreciate it if you could take part in this assessment as we know that you will provide very valuable input to help shape any future initiatives that arise out of this study.
>
> The data you send us will be completely confidential and will not be shared with anyone else. We will use the data in aggregate form; but, under no circumstances will the specific information you share with us be disclosed further. We expect the results to be available by February 29th, 2012.
>
> We would like to receive the populated surveys by close of business, February 3rd, 2012.
>
> Please find the link to the survey here: https://www.surveymonkey.com/s/N9GSDMK
>
> After collecting responses to this survey, the Innovation Alliance will invite you and others to participate in a town hall meeting to discuss our community's needs face-to-

> face. We will focus on concrete solutions and next steps. We want you to be part of that process.
>
> Many thanks in advance for your input and time.

The survey was launched on Monday, January 23, 2012 allowing two weeks for respondents to participate.

Please refer to Appendix A for the survey questions.

Town Hall Design & Facilitation

Following receipt and initial analysis of the survey responses, Facility Logix secured the assistance of Greg Conderacci of Good Ground Consulting to develop a Town Hall format to engage survey participants and others who may not have participated in the survey, but with an active interest in the innovation and entrepreneurship community to join the discussion and dig deeper into the collective thinking about how to improve Baltimore's innovation community and how a shared space might be best used. Town Hall meeting announcements went out through several channels including *Citybiz*List Baltimore, Gus Sentementes' Blog, the Baltimore Tech Facebook page and several others.

The Town Hall Meeting announcement and EventBrite invite included the following background information:

> "What does Baltimore need to nurture its best and brightest ideas and the entrepreneurs who have them? The overwhelming majority of more than 170 members of Baltimore's innovation community responded to our survey with great ideas, including how a shared space, a hub, might accelerate collaboration. This is your chance to describe in depth your thinking about how to improve Baltimore's innovation community and how such a hub might be used. Join us at The Town Hall to be held at the Mt. Washington Conference Center on Monday, March 12th, from 5:30 to 7:30 pm.
>
> We have room for 150 members of the community to join this discussion, so please register by following this link (http://innovationalliancetownhall.eventbrite.com) as soon as possible.
>
> As promised, in the next few days we will be sharing the results of the Innovation Alliance survey about what we can do to improve Baltimore's innovation community. Some who responded to our survey asked who participated. The survey was distributed to as many lists as we could find, from incubator tenants and graduates, to the GBTC membership, to TEDCO's portfolio companies, to createBaltimore, to posting on the Baltimore Tech Facebook page, in articles in citybizlist and the Sun, to lists we received from MICA, Hopkins and other colleges. We tried to leave no stone unturned in having as many participate as possible. If you didn't have a chance to respond to the survey, we will still want your input, so sign up for the Town Hall.
>
> Some survey responses also asked about the Innovation Alliance itself. Newt Fowler and Jason Pappas formed the Innovation Alliance to study the needs of Baltimore's innovation community with support from the Abell Foundation, and hopefully the Innovation Alliance will facilitate the creation of a hub facility for the innovation community. If at the Town Hall, such a facility makes sense to the community, we are going to ask for volunteers to join the Innovation Alliance to help in the design and use of the hub".

The Town Hall was held at the Mount Washington Conference Center on March 12, 2012 from 5:30-7:30 PM. Greg Conderacci facilitated an active discussion attended by approximately 130 participants. Tables seating 8-10 people were scattered about the room and flip charts with markers were available at each table.

Topics explored were as follows:

1. What's behind our need to connect?
2. Who do we want to connect with and why?
3. What's the importance of space and place?
4. What would make such a space successful?

In addition to recovering the flip charts from each table, Jennifer Fowler and Kelly McKew took notes during the Town Hall.

Facility Logix analyzed the flip charts and the notes taken by Ms. Fowler and Ms. McKew in addition to our own notes.

Best Practices Research

As part of our effort to understand the communication channels used by the Baltimore innovation community Facility Logix tracked various events held in the city during the early part of 2012. From meet-ups and hack-a-thons posted on the Baltimore Node (http://baltimorenode.org), to EvilPlans hosted by the GBTC and ThinkBigBaltimore among others, the observation that there are many avenues by which the community engages without a central entry point was reinforced.

Facility Logix consultant, Janna Jacobson, attended a Startup Weekend (http://startupweekend.org) held in Bellingham, Washington (north of Seattle) in late 2011. Startup Weekends can be held anywhere in the country at any given time. Each weekend is run by an organizer who can be anyone "on the ground" in the region where the weekend will take place. The focus of these weekends is networking and prototype creation. Typical outcome measures indicate that approximately thirty-six percent (36%) of the businesses launched during a single startup weekend remain viable. Roughly half of the attendees are developers, while the remaining attendees are business people with varying backgrounds. At the event Janna attended, the attendees were not particularly diverse as the crowd was predominantly young and male. The weekend was held in a large room with many tables and chairs. A projector, screen, and stage area were available for pitches. Minimal training was provided in advance of the weekend. Mentors were available to attendees during the weekend. Many mentors were venture capitalists in search of ideas or people to invest in. Janna described the energy at the event as "frenetic, positive, fun, intimidating but also supportive and open", followed by "competitive".

Another example of a similar model is Massachusetts Institute of Technology's (MIT) Global Startup Workshop. The MIT Global Startup Workshop is more structured than Startup Weekend, provides education for attendees, is held at different locations worldwide once each year and has a pitch competition that leads to a very modest monetary award, $1,500 for the top vote getter. People attend this workshop for networking and exposure purposes.

Facility Logix attended Startup America Partnership's, (http://startupamericapartnership.org), Startup Maryland Inaugural Town Hall organizing meeting in February. Startup America Partnership was founded to "remind the country of its entrepreneurial roots" and is focused on supporting the growth aspects of small companies, according to Donna Harris, Managing Director of Startup Regions for the Startup America Partnership. The event was attended by

about eighty (80) drawn from a wide variety of interests. Prior to the Town Hall, Startup Maryland conducted a survey that had drawn thirty (30) responses which inquired about:

1. The level of interest in participating in Startup Maryland.
2. What are the obstacles for startups in Maryland and what should form the major objectives for Startup Maryland?
    a. Easier access to tech transfer
    b. Access to partnerships
    c. Making university resources more accessible
    d. Cultivate a system that enables entrepreneurs to become more fundable
    e. Mentorships/access to coaches
    f. Access to technology
    g. Access to early stage and growth capital
    h. Access to talent
    i. Corporate matchmaking
    j. Networking events
3. What effort would you be able to contribute to Startup Maryland?
4. Which of the objectives in question two would you be willing to work on?
5. What stage of growth is your organization in?
6. How do you prefer to communicate?
7. What information do you wish to receive from Startup Maryland?
8. How likely are you to relocate if another region approached you with resources?
9. How satisfied are you with the amount and accessibility of resources in the Mid-Atlantic region?
10. What can initiatives do to improve your experiences and opportunities?

Survey responses indicated a strong desire for coaching and mentoring, and a need for increasing the frequency by which successes and failures are celebrated.

Startup Maryland appears to be part of the Mid-Atlantic regional network that is organizing to promote access to community-driven needs as articulated in survey responses and during organizing events. The umbrella organization, Startup America Partnership, offers discounts for services and supplies to assist eligible high growth companies. Discounts are available through sponsoring partners, American Express, Dell, Intuit, MicroSoft, and RocketGenius.

Incubators

Business incubators entered the market in the 1950's and have frequently been part of economic development programs and/or tied to research universities. The incubator network within the state of Maryland is extensive with incubators tied to research institutions, county and city economic development efforts, and a variety of foci, including life science, information technology, mobile applications and design, and minority businesses.

Facility Logix conducted a study on behalf of the ETC during late 2010 and 2011 that revealed an interesting new trend brought on by the economic downturn coupled with the rising mobility of today's workplace and today's workforce made possible by mobile applications and cloud computing. From interviews conducted with incubator managers across the state Facility Logix learned that the number of Affiliate members (e.g. non-office or tenant clients) was rising. Affiliate members pay monthly fees and are able to access conference rooms, training events, and other incubator resources; however, they are not physically located at the incubator facility. We contacted the National Business Incubator Association (NBIA) to explore whether this trend was occurring elsewhere and were surprised to learn that the organization had only anecdotal evidence that Affiliate memberships were increasing and that, at the time of our conversation, they did not intend to explore the trend further.

The ETC has enjoyed success historically throughout its ten-plus year existence as measured by traditional incubator performance outcomes (Ann Lansinger, 2012):

As of 12/31/11:

- 253 companies assisted, of which 78 are current clients
- 175 companies graduated, of which 80% are still in business
- Over 1,800 jobs have been created at an average salary of $72,000
- Over 200 patents have been issued to ETC companies
- 33% of current ETC companies are minority and/or women owned
- 35 companies have transferred technology from a university or federal lab
- 59% of graduate companies remain in Baltimore City; all graduates are in Maryland

Category	Current Clients	Graduates
Alternative Energy	5	9
Engineering/Product Development	11	23
Information Technology	36	80
Life Sciences	17	38
Strategic Partners	2	12
Technology Services	7	13

The ETC and its companies have been recognized with numerous awards, including NBIA's Incubator Company of the Year for 2011 for Well Doc, NBIA's Incubator Client of the Year for 2009 for CSA Medical, NBIA's Incubator Client of the Year for 2008 for Millennial Media, and many others.

Baltimore's own ETC is representative of Best Practices in business incubation. With the recent launch of the $3.3M Propel Baltimore Fund, sponsored by the Abell Foundation and TEDCO, the ETC is continuing to evolve as a key component of Baltimore's innovation and entrepreneurship community.

In fact, several participants in the Innovation Alliance Survey, conducted as part of this study and discussed later in this report, called out the ETC specifically as the "best of Baltimore's innovation community."

Despite this recognition both nationally and regionally, the ETC continues to explore what the future holds as its leadership is aware that a move away from committing to 45,000+ gross square feet of space may be one of the best strategies to adopt to workplace trends that are moving toward informal spaces and away from traditional offices.

Accelerators

Across the country, the prevalence of accelerators is increasing. This model holds annual or semi-annual competitions, with winners receiving an equity investment with a requirement to attend the accelerator's boot-camp, usually an intensive ten to fifteen week residency where winners receive access to expert mentors, legal resources and office space during the period of the boot-camp itself. Accelerators are usually founded by private venture capital interests. Increasingly accelerators are becoming sector or niche-focused in order to provide more focused mentoring, curriculum, tie-ins to existing corporate landscape, and parallels with specific venture capital interests, notes Casey Allen of Project Skyway in Minnesota (http://www.quora.com/What-is-the-difference-between-startup-incubators-and-accelerators?srid=2A).

We found accelerators in nearly every metropolitan region we explored and it would be nearly impossible to evaluate all such organizations in the context of this report.

TECHNETWORK ranks TechStars, an accelerator based out of Boulder, Colorado and founded in 2006 as the "#1 Accelerator in the World". TechStars' companies get seed funding from seventy-five venture and angel investors from around the world. The organization has locations in Boston, Boulder, New York City, Seattle, and San Antonio. In September 2011, TechStars announced that it would increase the equity investment in each TechStars' company from $18,000 to $100,000. TechStars takes a mentor and community-driven approach to "incubating" startups and supporting founders. The company pairs at least ten (10) mentors in the local technology industry with each startup to give founders access to both seasoned entrepreneurs and venture capitalists. TechStars currently funds about sixty (60) companies annually and counts 120 TechStar alumni companies (http://www.techstars.com).

YCombinator of Palo Alto, California was founded by Paul Graham in 2005. Twice a year YCombinator invests money (recently increased from an average of $18K to $150K in convertible debt) in a large number of startups (most recently 65). The startups can come from anywhere in the world and move to Silicon Valley for three months, during which YCombinator works intensively with them to get the company into the best possible shape and to refine their pitch to investors. Each cycle culminates in Demo Day, when the startups present to a large audience of investors. YCombinator and its alumni network to continue to help founders for the life of their company. Since 2005, YCombinator has funded over 380 startups (http://ycombinator.com).

500 Startups also of Silicon Valley was founded in 2010 by Dave McClure. 500 Startups provides early-stage companies with funding ranging from $10K to $250K via seed investments, from its startup accelerator fund and micro-fund models. 500 Startups has an extensive worldwide mentor network (http://500.co). Facility Logix was unable to secure an interview with Dave McClure of despite several attempts.

The Capital Factory is one of Austin's accelerator entries. Startup companies apply to participate in the program's ten-week extensive, residency boot-camp which recently switched to align with South by Southwest (SXSW) from previously being conducted during the summer months. Demo Days are hosted at the end of the ten-week session where companies deliver presentations to investors. (http://capitalfactory.com).

Excelerate Labs is located in Chicago and is an intensive summer accelerator for startups driven by entrepreneurs and investors. Excelerate is ranked 3rd nationally for accelerators by Forbes.com. Every spring the program selects ten winners out of 100 applicants. The winners then reside in Chicago for the three-month program which culminates in an Investor Demo Day where the companies showcase their progress and plans to more than 500 investors from around the country. Excelerate brings in over 145 mentors over the summer program and invests $25,000 in each company in exchange for 6% of their common stock (http://exceleratelabs.com). Troy Henikoff, an Excelerate founder, has offered to participate in an interview with Facility Logix, but not until mid-April after the program selects its ten winners for 2012.

MassChallenge (MC), founded by John Harthorne, is an independent not-for-profit organization that operates as "the world's largest accelerator and start-up competition", according to the organization's website (http://masschallenge.org). Because of its non-profit status, MassChallenge does not make equity investments in winning companies, but rather, connects those companies to other investors, offers resources, educational programs, and showcases entrepreneurship resources globally.

Facility Logix has participated in meetings at MC. Elevators open into a wide-open, unfinished floor space that has a very techy, industrial look. There are no walls or ceilings. Some work spaces are desks sitting immediately adjacent to one another (two separate companies), while

others are somewhat segregated by modest, relatively short partitions. Walled conference rooms are available in each corner.

While we did not have an opportunity to speak with John Harthorne, he did respond to a list of questions we sent him as highlighted below (personal communication, February 24, 2012):

- 20-25% of finalists come from outside the Boston area;
- MC conducts outreach via speaking engagements at events, social media, and personal meetings;
- While MC plans many activities, there is a self-organizing aspect that bubbles up out of social media and email inquiries that results in identification of topics of interest;
- Despite the wide openness of the floor plan, companies have not expressed concerns about intellectual property-related issues;
- During the first two years finalists have come from high tech 40-45% of the time followed by an even split of roughly 12-15% from energy, social impact, and general/retails sectors respectively;
- The quality of applicants has risen annually as MC's brand power and marketing have improved;
- MC does not take any equity in its firms/finalists despite award prize money of $50,000 to each winner and Harthorne believes this to be a key differentiator between MC and YCombinator or TechStars as some of the highest-quality entrants are not willing to "give away 5-10% equity in return for small money and mentorship";
- MC's model does present challenges for sustainability;
- MC operates on a $1.8M annual budget of which $250,000 (14%) comes from the Commonwealth of Massachusetts. Despite this public contribution, MC does "not promise a certain amount of jobs or pre-specify target metrics, but it does share metrics and the secretary for economic development sits on its Board of Advisors";
- Most of MC's mentors/experts are from the Commonwealth;
- While some companies are lost each year to other states, there is a net gain to the Commonwealth;
- The first class of 111 startups created 500 new jobs and raised over $100M in less than 12 months from joining MC with about 80% in Massachusetts; and finally,
- MC does a lot of outreach across sectors and engages multiple communities in events and activities.

MC is currently entertaining possible expansions into New York City and London according to Scott Kirsner (December, 2011).

Co-Working Facilities

The Cambridge Innovation Center (CIC) is an "instant-on, flexible office" facility according to Dougan Sherwood, a Director at CIC whom we interviewed February 17, 2012. While not a co-working facility it offers many similar features to co-working facilities with plug-and-play office space. CIC is a privately run operation that offers space to clients with a typical profile of one-two employees in startups focused on a "microcosm of MIT" or software, life sciences, and clean technologies. To some degree CIC competes with Dogpatch Labs and MassChallenge as a company cannot physically take part in more than one program at a time. Sherwood does see companies moving regularly between the three models depending on the stage of formation and the startups' needs. Originally, operating more like a co-working facility, CIC offered programs and events for clients; however, they moved away from that model and now are

correcting back to more of a "cruise ship director model", noted Sherwood. Every Thursday night, CIC hosts VentureCafe which draws 50-300 people weekly. See: http://www.cictr.com. Facility Logix has participated in meetings hosted at the CIC. A mix of collaborative spaces and hard-walled offices are available.

Dogpatch Labs, a Polaris Venture Partners co-working company was founded to "connect entrepreneurs and help founders conceive, launch, and grow startups" and has locations in Cambridge, Massachusetts, Palo Alto, California, New York City, and Dublin, Ireland. Dogpatch bills itself as "much more than a physical space" and as "a community of like-minded entrepreneurs who benefit from sharing connection points (http://dogpatchlabs.com)."

The Hub was founded in 2005 in London and now operates 25 Hubs worldwide with another 50 in the planning stages. Current US Hub locations are in the San Francisco Bay Area and Atlanta. The Hub notes that "physical spaces are key to our impact" with other benefits being access to peer-to-peer ecosystem, engineered serendipity, and vibrant communities (http://www.the-hub.net). Educational programs do not appear to be a consistent part of the Hub's model. Facility Logix attempted to schedule an interview with Michelle Morgan of the Hub Atlanta; however we were unsuccessful.

WeWork is a for-profit co-working company founded in New York City in 2009 that now operates out of six buildings, with four in New York City, and one each in San Francisco and Los Angeles (http://wework.com). Facility Logix toured the WeWork facility located in New York City's meatpacking district on February 28, 2012. The facility we toured was located in a five story, ~30,000 gross square foot building and offered 350 "maximum seats". Hard-walled offices were of mixed sizes and accommodated between one and six employees. WeWork describes its offering as "space for grown-ups". Frequently the program hosts social events and seminars on the fifth floor which has a bar area. Each property within a given market has a sector focus (e.g. fashion, art, etc.) with a broad range of industry sectors represented including technology, graphic designers, shoe designers, and LSAT tutors. The program offers month-to-month license agreements rather than leases, and requires a security deposit and license fee. Each building has a manager, a porter and a janitorial service. Rates are published on the company's website.

OpenSpace in Charlottesville, Virginia is a co-working company founded by Jeff Gunter, an entrepreneur, and offers affordable, simple-to-use workspace at a variety of membership rates (http://gettoopenspace.com). Facility Logix has participated in several meetings at OpenSpace. The lay-out is divided into three main sections, the largest being the front co-work area with open tables that can seat between four and six individuals at each table. The middle area serves a dual purpose, to create an access point between the front co-work area and the conference rooms of several sizes to the rear of the middle area, and to offer high round tables which offer additional spaces for one or two individuals. A central stocked kitchen is also provided. OpenSpace plans to open its second facility in 2012.

Hybrid Models

Jumpstart Ohio is a nationally-recognized non-profit accelerating the success of entrepreneurs, their high growth companies, and the ecosystems supporting them according to its website (http://jumpstartinc.org). Jumpstart achieves its objectives by 1) investing in and assisting entrepreneurs in high growth companies in the Greater Cleveland area; by 2) raising funds to support other entrepreneurial organizations and by managing a network of twenty incubators, accelerators, and investors; and by 3) applying the Greater Cleveland success and experience to other regions.

The Plug and Play TechCenter in Silicon Valley connects over 170 investors to startups and is organized into active International, University, and Corporate divisions. Like traditional

incubators, Plug and Play Tech Center offers shared resources including staff to assist client companies, space for startups, and hosts educational sessions for entrepreneurs and the broader community. With three Silicon Valley locations, Plug and Play TechCenter has distinct space offerings out of each location. At the Sunnyvale location cubicles, dry lab, flex space, and office space is available. At the Redwood City campus cubicles, flex space and private office space is available. The Palo Alto location offers only private offices. According to the company's website, the combined facilities are home to 300 startups (http://www.plugandplaytechcenter.com). This model does not provide direct equity investments like accelerator models; however, it does host a SpringExpo where startups present their business concepts and progress to a range of potential investors. The diagram below is representative of Plug and Play TechCenter's approach to fostering collaboration:

It remains unclear whether any of the three locations offers a café environment nor is there an emphasis on serving as a single point-of-entry to the Silicon Valley entrepreneurial and innovation community.

The Innovation Pavilion in Denver, Colorado launched in the fourth quarter of 2011. According to its website, the Innovation Pavilion is loosely based on Silicon Valley's Plug and Play TechCenter and offers both co-working space and traditional incubation space (http://innovationpavilion.com). At 80,000 gross square feet, the project already counts among its tenants the 35-employee firm, BusinessGenetics. This model presently does not include an accelerator program nor does it offer collaborative workspaces.

CONNECT, founded in San Diego in 1985 positions itself as a resource for "all stages of innovation". From our interview with Ruprecht von Buttlar, Vice President of Business Creation and Development, on February 15, 2012, Facility Logix learned that CONNECT was originally formed to diversify the San Diego economy from its reliance on naval operations. Over the years the organization has evolved into an "accelerator and an incubator", noted von Buttlar. CONNECT is a non-profit organization and holds trade association status which grants them the opportunity to advocate politically. Entrepreneurs receive services pro-bono with CONNECT acting as a "neutral, independent broker". Operating revenues are generated through corporate membership fees and sponsors. CONNECT maintains a close association with Tech Coast Angels which provides seed funding at the $500,000 to $1M level. The organization hosts a Venture Roundtable three to four times annually with a focus on a particular technology sector. Presenters must apply and advance through a 3-step selection process. According to

von Buttlar, CONNECT's model has been replicated 57 times worldwide. While the organization launched its mentoring program in 2006, it does not offer physical space for any CONNECT functions, but rather, relies on sponsors to provide space for collaboration, education and interaction (http://www.connect.org).

General Assembly (GA), founded in 2011, is located in New York City and offers educational programming, space and support to facilitate collaborative practices and learning opportunities for the entrepreneurial community (http://generalassemb.ly). Hosted by Vivek Sharma, founder of Movable Ink, we learned that GA offers desks at $300/month and dedicated office space at $600/month; however, the organization's main source of revenue is its educational offerings. The size of the space we toured was 20,000 gross square feet; however, the organization is in the process of expanding to include additional space across the street. Dedicated desks are available for 1-10 people from an individual firm according to Sharma. Once a firm grows beyond that point, as is the case with Movable Ink, there is no option to remain a part of the community, and therefore Movable Ink was planning to move-on to a new location within a month of our visit. Noted Sharma, "GA was 100% sold-out prior to opening."

Some companies come to GA for its educational curriculum and firms located at GA have to deliver one class or presentation a month to the community. Members get discounts to GA educational programs and GA hosts Happy Hours each Friday. The GA space is divided into four main areas, with the main, open collaborative space furnished with a range of tables, couches, benches and other informal meeting areas. There are two separate, dedicated office areas which are walled off from the informal area; however, companies work side-by-side at long tables that might seat an entire individual company or multiple companies. The final type of space is shared and includes conference rooms, bike storage areas, lockers, and a kitchen. Sharma remarked that acoustics is definitely an issue as it can be very difficult to conduct a private conversation in the current environment. Similarly, additional break-out space and more conference rooms would be advantageous as he currently has to "hunt for private space for a call." In many ways GA functions like a "college environment." The single most important feature of the space is the speed and reliability of the Internet connection, which was "awful" according to Sharma when GA opened. Discounts are available to clients through RackSpace, health club memberships, and coffee shops.

Sharma believes that GA could benefit from the following changes:

- Increased number of conference rooms;
- Quieter, private spaces in addition to current offerings;
- Celebration of successes and failures as this is lacking;
- Better use of events to create bonds between companies and encourage socializing; and,
- Strong cell phones signals throughout space as no one uses a traditional phone.

Vivek and Movable Ink will return to GA from time to time following its relocation, in an effort to stay engaged and maintain a high level of quality for the organization. Because GA operates only one facility, there is tremendous press coverage from New York City organizations resulting in greater awareness for participating clients and companies.

Discussion

To date we have not discovered a single, individual model that captures all of the required entrepreneurial ecosystem elements in a single destination. CONNECT in San Diego may be the closest thing; however, it does not offer a single point-of-entry and space for the entrepreneur or innovator and the emerging growing company to support the entire range of ecosystem needs.

General Assembly also excels in some areas of the entrepreneurial ecosystem such as collaborative space and educational opportunities, but falls short in other areas such as a continuum of space and program offerings to meet the needs of companies that are beyond the start-up phase. With its strong emphasis on education, GA appears to be less successful or even interested in accelerator programs or in measuring outcomes such as job generation and wealth creation for its clients.

In several communities, there were a number of different programs each addressing some portion of the ecosystem's needs; however, we did not find a single location that serves as a meeting space, community forum, networking venue, mentor and investor destination, co-founder dating place, incubator, accelerator, co-working venue, and educational resource for programs and content ranging from how to develop a business plan, to how to implement Ruby on Rails©, or how to use a Facebook API among many other topics of interest. Similarly, while many note the importance of celebrating entrepreneurial successes and failures (Kaufman Foundation, 2012), few places do it well and often when celebrated, in may be outside the context of where the other ecosystem activities reside. Noted Vivek Sharma (personal communication, 2012), "if someone did celebrate successes and failures well, they could get a lot more out of the community."

The more fractured or diffuse the overall community is, the harder it becomes for the community to function as just that, a *community*. In our discussion of both the survey results as well as the Town Hall Meeting observations, this theme will re-emerge highlighting the importance of both community and a space for that community to call its own and to in effect, brand itself.

According to Charles Landry, a thought-leader on transforming cities and stirring innovation, the four most important characteristics of "Hub" locations are (Helgeson, 2010):

1. They facilitate a robust talent churn;
2. They offer tangible support for innovative ventures;
3. They provide physical ground to connect across divisions and clusters; and
4. They create an undeniable sense of distinctiveness - an experience that cannot be had somewhere else.

Innovation Community Survey Results

While the survey has remained "live" since its launch back in January, Facility Logix collected and analyzed responses as of February 6th. At that date there were 171 respondents with a 75% completion rate for the survey. Over fifty percent (50%) of the respondents identified themselves as idea people, innovators, or entrepreneurs. Many respondents characterized their role in the community as "actively engaged" as mentors, influencers, or connectors. Respondents were drawn from a wide mix of the community including private company representatives, educators, social enterprises, and the arts. Over fifty percent (50%) identified their sector of interest as business services with social/non-profit enterprises and mobile applications, ranking second and third respectively.

While online connections were the most frequent form of communication through channels such as the Baltimore Tech Facebook page, blogs and Twitter feeds, more standard networking events such as those offered by the Greater Baltimore Technology Committee (GBTC), Ignite, and createBaltimore were also noted with high regularity among respondents.

Specific questions with narrative responses were analyzed utilizing SurveyMonkey's cloud view mapping analysis tool. The larger the font for each word noted in the cloud mapping views

below, the higher the frequency of respondents who utilized that particular word in their response.

"What stands out about Baltimore's current innovation community?"

Nearly seventy-five percent (75%) of the respondents felt as though the current community "was better than average", with thirty percent (30%) characterizing the community as "vibrant". When asked what makes Baltimore an attractive place to launch and grow a business participants listed connectivity, opportunity, creative environment, and quality of life as the strongest attributes, followed by a "sense of place", a like-minded community of innovators and a "wealth of ideas."

What is missing that might accelerate innovation and entrepreneurship in Baltimore?

Interestingly, many of the same words used to describe what stands-out about Baltimore's innovation community are listed as challenges as seen when comparing the above two cloud views. The link between people, place, community, and collaboration are all elements that are integral parts of a self-sustaining entrepreneurial ecosystem.

In the strongest, single response from the entire survey, **over 85% of respondents indicated that they would take advantage of a "Hub" if created.**

The following characteristics of a proposed "Hub" received strong support:

1. Meeting space – 46% of respondents
2. Mentoring – 42%
3. Educational programs – 41%
4. Space for various activities – 35%

Respondents preferred a potential location for a proposed "Hub" in a market we labeled "East" followed closely by a market we labeled "North". See table 1 below for a graphic representation of these responses.

Table 1

We also looked to the community for ideas on which aspects of a proposed "Hub" would contribute to its success: