

# FOSTERING SCALEUP ECOSYSTEMS FOR REGIONAL ECONOMIC GROWTH

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## INNOVATIONS CASE NARRATIVE: MANIZALES-MAS AND SCALE UP MILWAUKEE

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The search for reliable and replicable strategies to stimulate regional economic prosperity is as old as the field of economic development itself.<sup>1</sup> These strategies have included encouraging direct investment, attracting and retaining business, and developing sector-based cluster strategies.<sup>2</sup> More recently, the role of entrepreneurship has been explicitly recognized, descriptively and prescriptively. Glaeser et al. and others have shown that one

essential element sustained in regional growth is significant concentrations of small and growing indigenous businesses.<sup>3</sup> On the surface, these empirical findings are consistent with the popularization of the entrepreneurship ecosystem metaphor and the subsequent launching by governments and civic organizations of a plethora of startup encouragement programs (e.g., the Startup America Partnership, Startup Chile) as a lead economic development strategy.<sup>4</sup> The startup movement has drawn support from the recurrent observation that startups (i.e., young firms) have produced a disproportionate number of new jobs, despite the fact that research has raised questions about the meaning of these findings and their extrapolation to startup policies.<sup>5</sup>

Despite the amount of investment in and the public visibility of the startup move-

ment, little evidence links the encouragement of startups to indices of economic growth. On the contrary, some indications are that the return on investment for startup encouragement is poor (e.g., Startup New York, Skolkovo Foundation, Startup Chile).<sup>6</sup> Furthermore, there is empirical evidence that can be interpreted as indicating that startup activity is negatively correlated with firm survival, negatively correlated with national competitiveness, and negatively correlated with the proximity of mid-market firms.<sup>7</sup>

In 2010, one of the authors (Isenberg) created the intervention-oriented Babson Entrepreneurship Ecosystem Platform (BEEP), which launches and operates regional economic development projects to explore whether the critical economic development variable of entrepreneurship is how many new firms are started, or how

many firms start new growth. In short, BEEP translates Glaeser et al.'s findings from empirical description to intervention. BEEP's underlying premise is that regional economic growth is positively stimulated by more indigenous companies growing more and more rapidly, and that an "ecosystem" (see explanation in the next section) aligned with this objective is needed to systematize, scale, and sustain the growth. To this end, BEEP has developed concepts and methodologies intended to motivate a broad range of actors to recognize and support new growth, each in ways specific to those stakeholders, and each of which addresses those stakeholders' idiosyncratic needs. BEEP's modus operandi has been to demonstrate the regional economic impact of achieving new growth in a critical mass of regional firms, while simultaneously stimulating the growth-driven engagement of the ecosystem actors.

This article presents the concepts, strategies, and methods of BEEP's projects and illustrates them in two sites, Manizales, Colombia (Manizales-Mas), and Milwaukee, Wisconsin (Scale Up Milwaukee). The use of these sites is potentially significant, in part because methodologies developed and shown to be effective

in these mid-tier regions are believed to be broadly applicable to a wide range of mid-size regional economies—more so, for example, than interventions in New York, Jakarta, or Delhi.

## **CORE CONCEPTS**

BEEP embodies a number of core concepts that guide all projects, including Manizales-Mas and Scale Up Milwaukee:

- **Entrepreneurship.** Various definitions of entrepreneurship conflate entrepreneurship primarily with firm age (young firms are ipso facto considered entrepreneurial), self-employment (firm ownership), financial risk-taking, and innovation (use of novel processes or products, among others). Conversely, the BEEP perspective maintains that, whereas age, ownership, risk-taking, and innovation may be correlated with entrepreneurship in some cases, these factors are not intrinsic to the definition. Rather, the common denominators of entrepreneurship are two necessary and sufficient variables, namely, the creation of extraordinary economic value for customers and the capture of some meaningful portion of that value for the people who drive the value-creation

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## **ABOUT THE AUTHORS**

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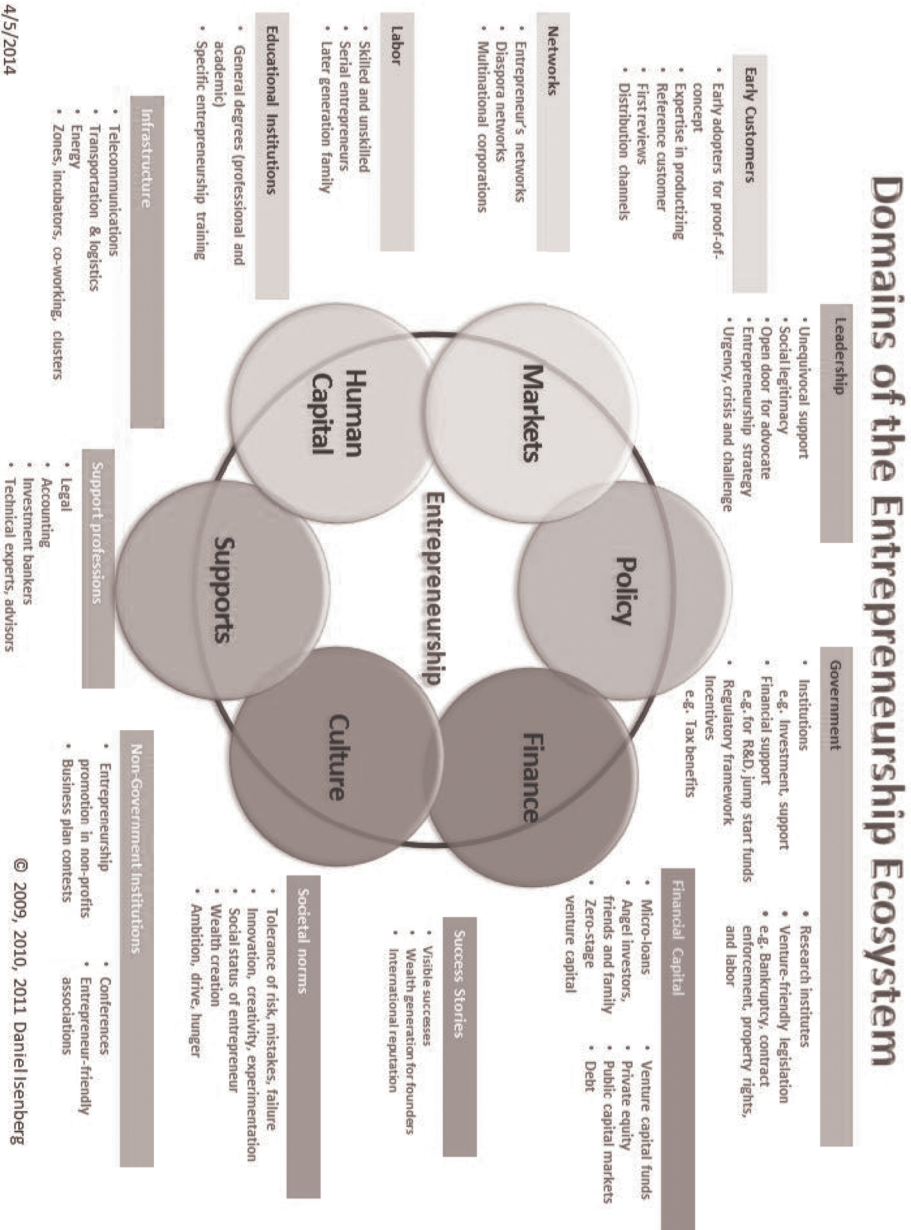
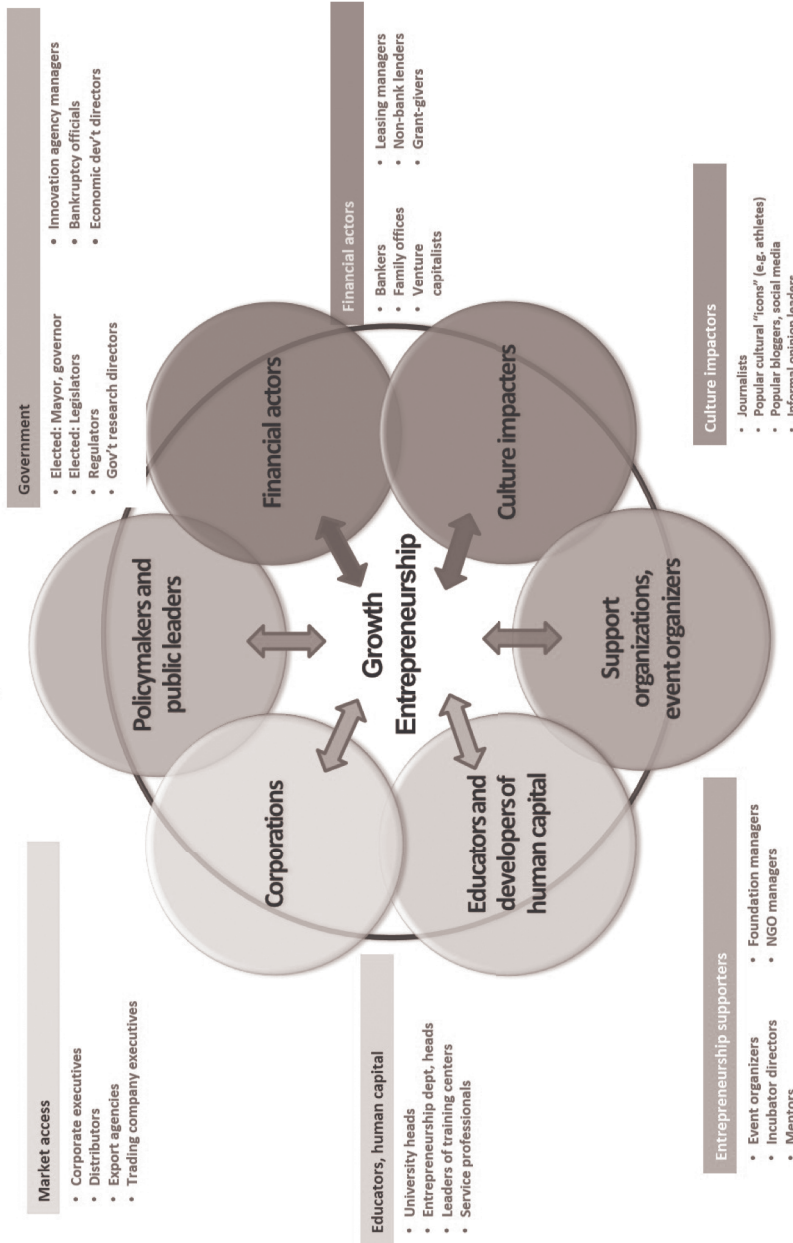


Figure 1. Domains of the Entrepreneurship Ecosystem

# Actors of the Entrepreneurship Ecosystem



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Figure 2. Actors of the Entrepreneurship Ecosystem

process.<sup>8</sup> The practical implication is that BEEP's interventions are indifferent to firm age, ownership, and innovation. There is no claim that this definition of entrepreneurship is "right," only that it is particularly useful for economic development purposes.

- **Scaleup.** Scaleup refers to a company that grows consistently and significantly. Precedent suggests quantifying high-growth firms as having 20 percent growth in revenues or headcount for three years running, after reaching at least ten employees and \$1 million in revenues.<sup>9</sup> BEEP assumes that, while the OECD definition of high-growth firms may serve as a lower-bound proxy for scaleup, more ambitious growth rates are achievable.
- **Entrepreneurship ecosystem.** Since 2010, the term *entrepreneurship ecosystem* has rapidly become an integral part of the entrepreneurship and economic development discussion.<sup>10</sup> Popular use of the ecosystem metaphor typically refers to formal institutions (e.g., incubators, mentoring programs, angel investor networks) whose leaders, members, or charters explicitly intend to foster entrepreneurship. The assumption underlying BEEP programs is that neither intention nor formality are essential ecosystem elements, thus BEEP's usage closely parallels the biological use of the term, in that the critical elements (e.g., social norms that value wealth creation and business success) need not be intentional or formal.<sup>11</sup> The common denominator among entrepreneurship ecosystem elements is how essential they are to increasing the number of companies growing more and more rapidly. Intrinsic to the ecosystem metaphor is that these elements interact in ways that make the "whole" (the ecosystem) self-sustaining. BEEP programs do recognize the role of formal institutions, but again, regardless of their explicit charters. For example, an accessible and well-functioning stock exchange may not intend to foster entrepreneur-

ship per se, but it still may have a strongly facilitative or even causal effect. Figure 1 is a widely cited representation of the abstract elements of the entrepreneurship ecosystem, organized into six comprehensive domains.<sup>12</sup>

- **Stakeholders.** In each domain, individual actors can be identified who have an actual or potential interest in more companies growing more rapidly in their region (Figure 2). Examples include local bankers (finance domain), who directly benefit from growth; executives in large local corporations (markets domain), who benefit from growing companies to partner with or acquire; administrative heads of local universities (human capital domain), who benefit from successfully placing alumni in local jobs or receiving research funding from local corporations; and journalists, who benefit from publishing stories of growth to attract and retain readers.
- **Demonstration effects.** While BEEP programs do not assume that regional stakeholders necessarily have an explicit intention to foster regional scaleups and a regional scaleup ecosystem, they do stand to benefit from regional scaleups. They demonstrate to the stakeholders that scaleup serves their interests and will increase their investment of time, effort, or material resources. Therefore, the tactical objective of many BEEP programs is to foster the demonstration effects of scaleup. Demonstration effects are also important because, as stakeholders invest more, less outside intervention is required. One BEEP principle is to reduce its regional involvement after certain growth thresholds have been achieved in order to ensure that the ecosystem has been strengthened.
- **Spillovers.** One purpose in creating demonstration effects is to increase the probability that stakeholders will spontaneously and increasingly make growth-fostering investments (financial and oth-

erwise) and lead others to make investments that foster regional entrepreneurship, independent of any centrally coordinated or imposed efforts to do so. One BEEP principle is to foster such indirect or higher order “spillover effects” of scaleup entrepreneurship by communicating growth events to stakeholders and other entrepreneurs.

### **MANIZALES<sup>13</sup>**

Manizales, capital of the Colombian state of Caldas, is an urban region of about 400,000 inhabitants located in Colombia’s coffee-growing region. It is roughly equidistant from Bogotá, Cali, and Medellín. Founded in 1849 by pioneers from Antioquia (near Medellín) who trekked through the Andes searching for fertile land, Manizales’ economy prospered from the coffee business until the global coffee cartel collapsed in the 1980s. The founders brought to Manizales values in education, industry, collaboration, and art. In 2010, Manizales was Colombia’s sixth-largest industrial city, producing goods (consumer white goods, clothing, shoes, and agricultural equipment) and services (e.g., one of Latin America’s largest contact centers). Manizales also had 35,000 university students, one of Colombia’s highest concentrations per capita. In 2010, five of the city’s seven universities formed a loose consortium, the Sistema de Universidades de Manizales (SUMA) to facilitate sharing of classes and other resources. The World Bank ranked Manizales highly on “quality of life” and “business friendliness,” and citizens viewed Manizales as a safe enclave, even during Colombia’s worst drug wars.<sup>14</sup>

Despite Manizales’ advantages, job opportunities for college graduates were limited, unemployment was in the high teens, and the city had been plagued by floods, earthquakes, and fires.<sup>15</sup> In 2010, BEEP interviewers repeatedly heard that many students came to Manizales to study and then moved to other larger cities for work. It was

also common to hear stories of people in their fifties returning to Manizales to take advantage of the high quality of life.

### **Manizales-Mas**

In 2010, Manizales began discussions with BEEP about conducting Manizales-Mas, a project to stimulate economic development. Since that time, Manizales-Mas has evolved through roughly four phases, which for convenience we label (1) activating the stakeholders, (2) aligning the leaders, (3) establishing the execution platform and proof-of-concept programs, and (4) systematizing and expanding programs and local capacity.

Activating the stakeholders. Manizales-Mas was conceived during meetings in Boston between representatives of the Luker Foundation and Babson College in late 2009 and early 2010.<sup>16</sup> Created in 1995, Luker is the nonprofit foundation of a fifth-generation family-owned cacao producer, Casa Luker, headquartered in Manizales. In 2009, Luker had concluded that, without economic growth and associated job opportunities, the city would continue to lose its best-educated students. A year-long study resulted in a revised mission that included a strategic plan to combine investment in education with an entrepreneurship intervention to create sustainable job opportunities. Between February and May of the following year, Luker funded BEEP to conduct an activation process. The process consisted of group and individual interviews with more than 120 leaders from government, business, finance, universities, churches, and labor unions. The activation phase culminated in a series of town hall-type workshops, during which hundreds of the city’s leaders heard and debated BEEP’s observations and ideas for developing entrepreneurship in Manizales. Following two large workshops with virtually all the local stakeholders participating, there was wide enthusiasm for implementing a BEEP project in the region. Following the workshops, the

city's public, business, labor, and civic leaders sent a jointly signed official letter to Babson College's president, inviting Babson to partner with the city's institutions to create "fundamental" change. This led to a nonbinding memorandum of understanding between the college and a number of local institutions, including the Luker Foundation, to collaborate in spurring economic growth in Manizales.

A strategic decision was made not to invest resources in diagnosing, measuring, or mapping the entrepreneurship ecosystem of Manizales, despite the existence of well-developed indices and mapping methodologies.<sup>17</sup> The rationale for this is detailed elsewhere, but it includes the time and financial resources that would have been consumed, the omnibus nature of many of the indicators, and the highly complex link between description and prescription in complex social systems.<sup>18</sup> We also believed that the process of implementing certain programs would efficiently yield practical information about the obstacles facing companies with growth ambitions.

**Aligning the leaders.** Over the ensuing almost two years, BEEP and Luker discussed, at times heatedly, a long-term project with the objective of fostering tangible growth in Manizales' economy. The several reasons for the unexpectedly lengthy incubation period included:

- Luker's implementation of BEEP's recommendation to persuade a cross-section of local institutions to collectively fund and oversee Manizales-Mas to ensure a broad commitment to Manizales-Mas's outcomes
- The intrinsically complex nature of impacting a city's entire ecosystem, compounded by the lack of precedent-setting examples to refer to, which led to many different perceptions of the objectives, process, and program
- Differences between BEEP and the local

stakeholders regarding concepts of entrepreneurship, entrepreneurship ecosystem, and methods of measuring impact

- Differences between BEEP and the local stakeholders regarding the degree to which it would be possible to specify actions and measure outcomes during the first 12-month contract period

An example of conceptual differences is that some stakeholders insisted on prioritizing an increase in the number of startups in Manizales, whereas the BEEP professionals insisted that the core objective should be firm growth. An example of differences in programs is that BEEP professionals asserted that it would be more effective to specify the initial months of activity and revise plans for the rest of the year thereafter. The local stakeholders, on the other hand, insisted on specificity throughout the entire 12-month implementation.

In retrospect, one outcome of the lengthy activation and alignment periods was that, when the Babson-Manizales agreement was signed with explicit deliverables and programs, a group of 11 local stakeholders had a strong collective commitment to the success of Manizales-Mas.<sup>19</sup>

During the "aligning the leaders" process, BEEP led intense discussion and debate about the specific objectives. During and as a result of this process, BEEP developed a heuristic in order to focus stakeholders on the purpose of Manizales-Mas: for every 100,000 population, one firm would enter into a significantly more rapid growth trajectory (that is, become a scaleup) every year. This was presented to the leaders not as an end goal but as a proxy for a "tipping point" at which time a virtuous cycle among firm growth, capital deployment, capital formation, and other spillovers would be evidenced.

**Execution platform and proof-of-concept.** The first 12 months of intensive and extensive activity began in June 2012, after which

the consensus was to continue Manizales-Mas, which is still ongoing. With professional guidance from the BEEP team, a platform was established that has grown to include the following elements (see “Exhibit” section for additional details):

- *Project team.* A local project team leader was hired (with BEEP input) by the local stakeholders. The team leader reports administratively to the general manager of Luker and professionally to BEEP. The leader hired and manages a project team consisting of communications and academic coordination directors, an administrative assistant, and several team members assigned on a part-time basis by the stakeholders; full-time coordinators of the Scalerator program and special activities were later added to the team. The purpose of the project team is to support the professional team (Babson) as much as possible in executing all of the Manizales-Mas programs, including pilot programs; to take responsibility for scaling up successful pilots and repeat executions of the Manizales-Mas programs; to initiate new programs that the project team itself could execute, with advice from the professional team; to manage the communications program; to coordinate BEEP contract renewals; and to report to the executive committee.
- *Project software.* A project management software platform consisting of an “industrial strength” application has been implemented and is used by all project team members. The purpose of the project management platform is to ensure coordination, timely execution, and efficient use of resources.<sup>20</sup>
- *Governance—steering committee.* A steering committee was formed that consists of representatives of the 11 stakeholders. The purpose of the steering committee is to negotiate and approve the BEEP contract; to provide input to and approval of the annual project plan; to provide input to and approval of the communications strategy; and to provide ongoing support to the various Manizales-Mas programs (e.g., promotion, participation, guidance). Since the project’s inception, the steering committee composition has changed very little.
- *Governance—executive committee.* Midway through 2013, at BEEP’s suggestion, the steering committee established a four-member executive committee to meet more frequently with the project and professional teams (see details later in this paper). The executive committee has authority to make modifications in the deliverables and can be convened on short notice to provide guidance to the project team.
- *Governance—academic committee.* The steering committee also created an academic committee consisting of an academic coordinator and one representative from each of the five SUMA universities. All representatives are SUMA faculty who teach entrepreneurship. The purpose of the academic committee is to propose and support programs, which are run by BEEP, and to train faculty in teaching entrepreneurship and running nonacademic entrepreneurship programs.
- *Professional team.* Over time, BEEP created a professional team of Babson faculty and program administrators, including a nearly full-time program manager fluent in Spanish, and a nearly full-time project director, who has overall responsibility for executing the BEEP contract and meeting the deliverables.<sup>21</sup> The BEEP professional team consists of approximately ten Babson faculty who are responsible for specific Manizales-Mas programs. The BEEP professional team meets monthly to share updates on Manizales-Mas and to identify and amplify synergies among the programs. In addition, faculty members responsible for different programs meet frequently with the program manager and director to design and execute specific programs. Non-Babson



experts (e.g., the MIT Venture Mentoring Service) have been contracted in the event that, in the judgment of the project director, they could provide more appropriate specific expertise.

Some of the above structures were guided by written policies and procedures, such as a clear delineation of the responsibilities of the project team on the one hand and the steering committee and executive committee on the other.

### **Manizales-Mas Programs**

The core programs of Manizales-Mas commenced in 2012. Unless specified otherwise, the major programs during 2012-2015 are listed in approximate chronological order of their introduction. The programs to train local faculty are specified in the section on systematization and expansion.

**Scalerator program.** The Scalerator (Empresas de Alto Potencial, or High Potential Ventures) program spans six months and has about 15 companies per cohort. Each Scalerator program consists of four components:

- 1 *Seven 1.5-day workshops.* The workshops are conducted by faculty with extensive teaching and practical experience, and they focus primarily on sales and sales management, human resources and leadership, and operational finance.<sup>22</sup> The workshops are highly interactive and focus on the application of all concepts to the specifics of each of the company participants. During the six-month Scalerator program, each company's owners and team prepare and execute a detailed plan to grow their revenues at a much faster rate than the pre-Scalerator era.
- 2 *Peer-to-Peer program.* The Peer-to-Peer program consists of exercises held in between workshops, conducted without faculty by groups of three companies each. The programs are designed to prepare

participants for the upcoming workshop and build a culture of mutual support among Scalerator companies. One of the unintended consequences of the program and other interparticipant activities is that approximately one-third of the participants begin new business relationships with other participants.

- 3 *Mentoring sessions by Scalerator faculty.* Mentoring sessions are held remotely once or twice with each company during the Scalerator program to monitor and assist the companies in developing and executing their accelerated growth plans.
- 4 *Ecosystem "plug-in" programs.* These programs are of two types. One brings local ecosystem stakeholders from each of the six domains—bankers, public officials, educators, government officials, large company executives, support organizations—to observe the Scalerator, meet the participants, and connect them with ecosystem resources. By observing the Scalerator companies, the stakeholders themselves become more clearly focused on growth-related phenomena as they manifest. An example would be a Scalerator visit by the mayor, who might solicit ideas from participants on what the city can do to support and promote company growth. The second type of plug-in program engages the Scalerator participants in non-Scalerator activities, such as large corporation CEO forums, workshops with the banking sector, and the like, which are also part of the entrepreneurship ecosystem platform.

The Scalerator is only for companies that have passed a minimal sales threshold (approximately \$200,000, which is the equivalent of about a \$1,000,000 company in the U.S. in terms of headcount), and a scalable business model. Neither firm sector nor firm age is used in selection. Some of the most rapidly growing participants are companies that may have experienced little or no growth for one or two generations of ownership. Generally speaking, roughly 50

percent of the applicants that pass the revenue threshold and complete an application have been accepted into the Scalerator—therefore it is not highly selective.

The Scalerator has multiple purposes in the context of Manizales-Mas. One is to encourage the non-Scalerator participants to be more growth oriented by showcasing growth events. Most educators, public officials, NGOs, and foundation leaders, although they may espouse economic growth in their regions, do not have a clear concept of what growth looks like on the ground. These grounded “growth events” consist of the myriad short-term precursors or lead indicators of growth, such as new hires, facilities expansions, sales agreements, new financing, export contracts, and the like. Giving leaders examples to refer to when they discuss policies or interventions helps focus their efforts and resources.

A second purpose of the Scalerator program is that it is convenient for explaining one of the effects of Manizales-Mas because it is relatively easy to measure its impact on the participants. The three completed cohorts of Manizales-Mas (as well as the two Scale Up Milwaukee cohorts) have been consistently experiencing new growth (on average 25 percent to 50 percent) with the typically associated new hires within a year of finishing the Scalerator.<sup>23</sup>

**Leadership and policy training.** Daniel Isenberg conducts an annual three-day leadership retreat to align and engage a broader circle of leaders from public, private, educational, and civic institutions. The retreat is also attended by the project team, the steering council, and representatives of the academic committee. Two leadership training programs were held at Babson, with about 25 people attending each one, and one was held offsite in Colombia, with 55 people attending. The highly interactive program consists of case studies, lectures and exercises on entrepreneurship ecosystems and growth, reviews of Manizales-Mas projects, and action-planning exercises and

projects designed to enhance the effectiveness and impact of Manizales-Mas. The leadership programs have significantly influenced the commitment to Manizales-Mas objectives and programs. Non-Manizales national institutions invited non-Manizales national institutions (e.g., national banks, government agencies, NGOs, foundations) have been invited as observers, resulting in increased engagement and even funding from outside of Manizales.

**Communications.** An active communications program was initiated at the beginning of Manizales-Mas with the overarching purpose of catalyzing and maximizing spillover effects from Manizales-Mas and its specific programs to the entrepreneurship ecosystem. For example, Scalerator participants’ specific growth events were communicated through social and other media in order to increase the aspiration levels of a larger number of local entrepreneurs. The initial communications strategy, which remained largely unchanged, was prepared by the project team, communications director, and the BEEP professional team, and presented to the steering committee for discussion and approval. Important components of the Manizales-Mas communications program included the following:

- *Branding.* The project team developed the project name and logo immediately after signing the agreement between Manizales and BEEP. The initial proposal generated a significant amount of controversy within the steering committee because the initial logo (Manizales-Up) reminded some members of the logo of the 1980s radical political party UP. Manizales-Mas (which means Manizales more) was subsequently agreed upon. The suffix “Mas” was subsequently adopted in several of the specific programs (see later section).
- *Celebratory events.* Numerous communitywide events celebrated Manizales-Mas and its achievements throughout the region. These included the launch of

Manizales-Mas in July 2012, for which the mayor closed off a section of the city. A stage was constructed, bands played music, and 3,000 balloons were launched, all of which was covered by regional media. Similar annual events have been held, as well as frequent public lectures and panel discussions on various aspects of entrepreneurship.

- *Social media.* The Manizales-Mas communications program has included active social media campaigns since the project's inception. For example, during an event highlighting the achievements of women entrepreneurs in the region, the event was designated one of the top media trending events in Colombia.
- *Public-sector leader communications.* Numerous videos featuring public leaders have been created and publicized, including a public video address by Colombian president Jose Manuel Santos, in which President Santos labeled Manizales-Mas one of the most important projects in Colombia.<sup>24</sup> Additional communications have been published by various ministers, the mayor, and the head of Colombia's innovation agency.

Although most of the communications are in Spanish, a number of English-language international communications have collectively given Manizales-Mas global visibility. Professor Hugo Kantis visited Manizales-Mas from Argentina for three days as a consultant, and he published a commentary on the project.<sup>25</sup> One of the authors (Isenberg) has mentioned Manizales-Mas in global keynote speeches and articles and blog posts, and has published a case study on Manizales-Mas.

**Financing ecosystem.** Financing programs were introduced in Manizales to enhance the "discovery" process between sources of capital (debt and equity investors) and channels of deployment (entrepreneurial ventures).<sup>26</sup> These programs have taken into account that Colombia does not have a well-

developed financial entrepreneurial ecosystem, and neither private equity nor public capital markets are available to high-growth, relatively small firms, nor would rational equity investors deploy their capital in small, high-growth private firms, due to the lack of markets for the firms' stock. More specifically, five assumptions underlie Manizales-Mas activities in the finance area:

- 1 The sufficient capital in the region could in principle be redeployed to fund most new growth that would be directly and indirectly stimulated by Manizales-Mas.
- 2 This capital had not "discovered" that one productive avenue of capital deployment would be companies that entered into new rapid growth trajectories.
- 3 The discovery process between capital sources and channels of deployment would be more effective and efficient if market forces were first allowed to function in shaping the deal flow, naturally culling out some less viable ventures, and accelerating growth in those companies with viable products and the capacity to execute.
- 4 Those market forces could be accelerated by training entrepreneurs to address investors' needs.
- 5 Following points 3 and 4 above, development of new investment vehicles and deal structures could take advantage of the discovery process while partially compensating for the lack of liquidity of companies' stocks.

Numerous specific programs were implemented to address the above, such as ongoing training on the "sell side," including public training sessions for actual and aspiring entrepreneurs of all ages (including youth). This covered topics such as investment readiness, pitching to investors, and engaging with banks. Additional ongoing training on the "buy side" included training sessions for dozens of bank officers and potential early stage private investors. A

“financial innovations” think tank also convened in Manizales (following several months of interviews and discussions) and was attended by Colombian investors, senior bank executives, the private equity trade association, national foundations, and public-sector representatives. The outcomes from the think tank include a new fund organization by private investors and government lobbying to update regulatory frameworks for private equity.

**Mentoring program.** Since the start of Manizales-Mas, high priority has been placed on creating an effective regional resource to provide growth-aspiring entrepreneurs with mentoring from experienced local business people and professionals. Following training programs with MIT’s Venture Mentoring Service in Cambridge, Massachusetts, and Manizales, mentors (30 were selected out of more than 140 applications) and a local NGO, in close coordination with the Manizales-Mas project team, began to administer Mentor-Mas, while BEEP professionals supplemented the program with ongoing short training sessions. Since its inception, these 30 mentors have held more than 470 sessions with 41 companies. Mentor-Mas has been presented as a best practice by the MIT Venture Mentoring Service. Numerous anecdotes have been reported of mentors having had a large positive impact on companies’ growth, and the national reputation of Mentor-Mas has brought new investors to Manizales, based on the perception that Mentor-Mas improves the attractiveness of potential investments.

University-related entrepreneurship accelerators. By design, university-related, startup-oriented programs in Manizales-Mas followed the demonstration that the Scalerator and other activities could actually stimulate new growth in existing companies. The assumption was that local growth role models would positively impact the demonstration that growth was achievable, and the Scalerator participants themselves could be useful mentors for early-stage

entrepreneurs. ADDventure-Mas, modeled after Babson’s Summer Venture Accelerator and focused on post-idea startups affiliated with SUMA universities, was implemented shortly following the start of the second Scalerator cohort. Startup-Mas was implemented the following year as an even earlier-stage program focusing on opportunity identification.<sup>27</sup> Scalerator participants have played an active role as guest presenters and mentors in both programs, as planned. Following the initial year, BEEP staff handed off leadership of these programs to faculty and staff of the SUMA university entrepreneurship departments or related units.

**Additional programs.** Space constraints prevent description of all the programs and activities of Manizales-Mas beyond a listing. These have included training of SUMA administrators in entrepreneurial thought and action; workshops with large local companies to facilitate their engagement with local entrepreneurs; conferences on women’s entrepreneurship; export delegations to Chile; a “growth survey” assessing hundreds of companies’ perceptions of the region’s conduciveness to growth; advising the mayor on communications infrastructure; and a training program for all major local NGOs and entrepreneurship support organizations. The unifying theme of all of these activities has been to foster more growth in more and more companies by impacting all six domains of the entrepreneurship ecosystem.

### **Systematizing and Expanding Programs**

Since the start of Manizales-Mas, BEEP and the stakeholders have collaborated to build local capacity to implement the Manizales-Mas programs independently of BEEP’s professional team. This has been achieved most notably with Mentor-Mas, ADDventure-Mas, Startup-Mas, and the communications programs. This fourth section describes the main programs designed specifically to create entrepreneurship edu-

cation capacity on the assumption that this is an essential component of systematizing, sustaining, and scaling up Manizales-Mas.

**Program for modules for entrepreneurship educators.** Based on Babson's experience in conducting programs for entrepreneurship educators for more than a decade, BEEP faculty have conducted four individual 2-3-day workshops for entrepreneurship faculty in Manizales, teaching topics such as sales, strategy, marketing, and so on.

**Global affiliates program.** Two cohorts of two and three SUMA faculty selected by the Babson entrepreneurship department have spent a semester each in residence on the Babson campus attending classes, writing cases, meeting with assigned faculty mentors, studying the Babson curriculum, and participating in executive education programs.<sup>28</sup> Participants of completed cohorts have played an active role in Manizales-Mas upon returning to Colombia. They support many of the Manizales-Mas programs by providing professional and academic inputs.

**High-potential professors program.** In the third full year of implementation, Manizales-Mas created a cohort of 11 SUMA entrepreneurship faculty to participate in a specially designed nine-month program consisting of six remote workshops led by BEEP, two on-site workshops, and observation of Scalerator workshops by visiting BEEP faculty.<sup>29</sup> This program was immediately followed by a seminar reflecting on the teaching methods used during the workshop. Each of the SUMA professors conceived of and executed a teaching project that he or she presented to the other program faculty.

### Outcome Measurement

Since the inception of Manizales-Mas in 2010, its stakeholders have invested approximately \$2.4 million, consisting of approximately 80 percent cash payments to Babson and the rest in tangible in-kind payment

(e.g., project team salaries).<sup>30</sup> Has this investment been worthwhile? Although the consensus across a broad spectrum of private and public institutions in Manizales is that it has been essential to the region's revitalization, it is well known that measuring entrepreneurship ecosystems and how they are developing or changing is very complex.<sup>31</sup> Furthermore, there are no accepted standards for such measurement, and it is even more complex to show causality between the interventions and the outcomes.<sup>32</sup> However, some imperfect proxies indicate positive outcomes.

**Social progress.** In September 2015, the Social Progress Imperative released its report of Social Progress Indicators, with specific indicators of cities within Colombia.<sup>33</sup> Porter singled out Manizales in his preface: "The city of Manizales, best known for their coffee and their schools, has recorded higher levels of social progress than the capital city of Bogota, while average income in Bogota is 1.3 times higher. The growing social progress of Manizales is highly correlated with increases in income, reduction of inequality and poverty reduction." The report authors were unaware of Manizales-Mas. Although we cannot attribute causality to Manizales-Mas, the data are consistent with the hypothesis that Manizales-Mas plays a causal role, as the social progress indicators in Manizales have increased since 2010.

**Company growth.** At a more micro level, the performance of all participants in the Scalerator program have been tracked before and after their participation. Qualitative interviews suggest that participants tie growth outcomes to specific lessons and exercises in the program. Nevertheless, whereas we believe Manizales-Mas played some causal role, the data can be accounted for by alternative explanations. Some of the key outcomes for Scalerator participants include the following:

- 55 percent average revenue growth (com-

paring the 12 months pre- and post-participation). The growth rates were 88 percent, 34 percent, and 43 percent for the three cohorts, respectively.

- More than 80 percent experienced new growth
- 703 new jobs created
- About \$3 million of new debt and equity financing
- 1,071 new customers (for non-consumer products and services)
- First-time exporting by five Scalerator participants

**Community and academic engagement.** The Manizales-Mas formal programs appear to have had a broad effect. As of August 2014,

- more than 8,000 people had participated in one or more Manizales-Mas events;
- 66 courses in entrepreneurship and entrepreneurship-related subjects reported significant curriculum changes; and
- 166 video contents had been created, viewed by 14,000 people.

### **Spillover Effects**

Although BEEP projects explicitly attempt to catalyze positive spillover effects (e.g., growth by the Scalerator participants is intended to facilitate growth by nonparticipants), these and other spillover effects in broad regional economic interventions are notoriously difficult to measure.<sup>34</sup> In Manizales-Mas at this point it is only possible to report qualitative, unsystematic evidence. In the case of Manizales-Mas, there have been numerous anecdotal reports of local business owners being inspired by the publicized and otherwise communicated examples of Scalerator participants growing their firms. These growth events are consistently reported in the local media (highly

concentrated in print and radio) and discussed at family and social gatherings. Furthermore, some of the consumer products and service companies themselves are publicly visible, as is their expansion (e.g., in opening new store locations). Although these need to be measured more systematically, dozens of the stakeholders have reported to BEEP that the atmosphere of growth, including aspiration levels, have changed more broadly in the city. The Social Progress Index findings are consistent with this belief.

### **Scale Up Milwaukee**

Before presenting some practical conclusions from the BEEP projects, it is potentially informative to briefly compare the experience from Scale Up Milwaukee, a BEEP-affiliated project that completed its proof-of-concept phase in late 2015. Although Scale Up Milwaukee has had less time to develop than Manizales-Mas, it is particularly interesting to compare them because of their similar assumptions, programs, and structure, and their very different environments. Compared with Manizales, Milwaukee is an advanced economy. It has about three times the metropolitan population and about 20 times the economic activity, with easy access to export markets via O'Hare airport and a long legacy of manufacturing and business excellence. The Milwaukee region hosts the headquarters of leading multinational companies, including Manpower, Johnson Controls, Briggs and Stratton, GE Healthcare, Rockwell Automation, Kohl's Department Stores, Northwest Mutual, and other large, if less well known, corporations.

Scale Up Milwaukee was launched with the financial and communications support of the American Express OPEN division, which was the initiator of Small Business Saturday, a highly visible initiative to stimulate sales of small businesses in the United States. Scale Up Milwaukee also has been supported by the Wisconsin Economic

Development Corporation, private foundations, and private individual donors. The primary BEEP partner in Scale Up Milwaukee has been the Greater Milwaukee Committee, a civic organization formed in the late 1940s to initiate projects that contribute to the cultural and economic base of the greater Milwaukee. The committee's membership comprises leaders in business, professional services, labor, education, philanthropy, nonprofit, and community development.

### **Scale Up Milwaukee and Manizales-Mas: Key Similarities and Differences**

Scale Up Milwaukee and Manizales-Mas have the following significant similarities:

- Both have a small, dedicated project team to develop and execute the project programming. Both report to the key execution partner (Luker and the Greater Milwaukee Committee, respectively) administratively, and to the BEEP staff for professional guidance.
- Both have an advisory council with local leaders representing a broad cross-section of sectors volunteering their time and support (the Scale Up Milwaukee "steering council" has neither formal authority nor officially represents the funding stakeholders).
- Both have structures for engaging larger groups of stakeholders through taskforces (in the case of Scale Up Milwaukee) or committees (in the case of the Manizales-Mas academic committee).
- Both have one lead local partner involved in all aspects of formulating, funding, and executing the project. We view these partners as having particular local prominence and influence.
- Both have significant communications campaigns (Manizales-Mas has had a dedicated communications director

throughout the project, whereas Scale Up Milwaukee has had part-time communications support), which have generated significant national and global interest.

- Both have near-identical Scalerator programs with nearly identical faculty, content, and cohort sizes.
- Both have achieved similar outcomes in terms of expanded firm growth, new customer acquisition, job creation, export enhancement, and new investments.

While we view these similarities as greater than the differences, we are aware of the likelihood that these similarities may in part be artifacts of our own views of what interventions are required for regional economic growth. By the same token, the differences between Scale Up Milwaukee and Manizales-Mas may partly reflect the different maturity levels and ages of the projects, rather than intrinsic differences. Nevertheless, some differences between the two projects appear to be substantive:

- Engagement of the larger corporation sector in Scale Up Milwaukee is significantly greater, and it has been fueled by a specially created quarterly forum. This forum allows large corporate CEOs to candidly discuss their growth and innovation strategies, including how to engage with growth-oriented local entrepreneurs. This difference may be due simply to the more extensive presence of large company headquarters in the Milwaukee area.
- The mentoring program in Manizales-Mas has not been replicated in Milwaukee, in part due to funding priorities and in part due to the availability of existing de facto mentoring resources in Milwaukee in the form of professional services firms and peer-to-peer forums.<sup>35</sup>
- Whereas the leadership of Manizales-Mas has participated annually in the three-day leadership training, intensive training for the stakeholders has not occurred in Milwaukee, or it has occurred in 2-3-hour

sessions that are less pedagogical and more practical.

- In Manizales-Mas virtually all of the funding came from local stakeholders for the initial three years, and national funders have joined only as the project has matured. Scale Up Milwaukee was initially funded through national grants (American Express) or state funds (e.g., Wisconsin Economic Development Corporation), and only recently has the level of financial support from local foundations and donors become a significant portion of the budget.
- Scale Up Milwaukee has explicitly adopted and regularly communicates the number of new growth firms targeted by the project. This started out as 60 within five years, which reflects about one per 100,000 population per year. The project team later revised this target to 200 within six years, and this has been communicated as an explicit target. In Manizales-Mas, no explicit target has been set in terms of a number of firms with new growth, although there has been consistent emphasis on measuring the growth of Scalerator and other firms.

## **Conclusions and Key Takeaways:**

### **Principles of Scale Up™**

#### **Ecosystems**

It is useful, at least as a heuristic, to exploit BEEP's five years of experience fostering regional ecosystems for scaleup entrepreneurship to hypothesize about which action prescriptions can be generalized. Of particular interest have been the two longest running projects, Manizales-Mas and Scale Up Milwaukee, because the two regional environments represent a high degree of heterogeneity (cultural, historical, economic, ethnic, geographic, among others).

Assuming that the outcomes and causal paths to the outcomes of Manizales-Mas and Scale Up Milwaukee are meaningful,

particularly in light of the contextual heterogeneity, the overarching takeaway is that there is a significant amount of "design reuse" in scaleup ecosystem projects, including the governance structures, the project team organization, the Scalerator program, and the stakeholder alignment and spillover processes. We offer a few more specific hypothesized principles about which commonalities can be generalized from these two projects to a bigger set of regions and translated into prescriptions.

**Identify a region with a moderately dense metro population.** The BEEP experience suggests hypothetical upper and lower bounds of size. Manizales is close to 0.5 million, and Milwaukee is closer to 1.5 million. While there is no reason to conclude that these by coincidence represent specific lower and upper bounds, the underlying operative factors include the ability of the leaders from the different domains to experience a sense of responsibility for the project's outcomes. In order to agree on and achieve those outcomes, they must be able to meet with each other face to face, for the process of alignment as well as to facilitate spillover effects. However, below a hypothetical lower bound there may not be the critical mass in the region of human, financial, and other resources. Again, as a heuristic, the population bounds are hypothesized to be approximately from a few hundred thousand to 1.5 to 2 million people.<sup>36</sup>

**Within the specified region, identify influencers (formal or informal leaders) in each of the six entrepreneurship ecosystem domains and engage them to secure their alignment with and commitment to a set of objectives.** From the outset in Manizales-Mas, and increasingly in Scale Up Milwaukee, the local business, civic, educational, and public leaders are becoming supportive of and committed to generating new growth in more and more regional companies.

**Set objectives for the number and timeframe of companies to enter into measura-**



**bly more rapid scaleup trajectories.** The BEEP experience suggests that the heuristic of one newly growing company each year per 100,000 population is “directionally correct” enough that the risks of misspecification are likely to be lower than the risks of not having quantifiable objectives at all.<sup>37</sup> Furthermore, the BEEP experience suggests that framing the objectives in terms of firm growth has the practical advantage of focusing the stakeholders’ attention and activities on inducing more rapid growth in more firms.

**Compose funding, at least in significant part, from a cross-section of local funders.** It is BEEP’s experience that, although Luker’s strategic decision to persuade a broad group of local stakeholders to fund Manizales-Mas took a long time to implement, the benefits in terms of those stakeholders’ commitment to the success of Manizales-Mas was crucial in sustaining the effort. In the case of Scale Up Milwaukee, more than half of the initial seed funding was from a nonlocal stakeholder (American Express), which allowed Scale Up Milwaukee’s programming to be launched very quickly. In transitioning from the proof-of-concept phase to scaling up the programming, the large majority of the funding is coming from local and state stakeholders. It is the authors’ impression that, whereas this process has been more difficult than the activating and aligning phases, the process of local fundraising has galvanized a broad cross-section of stakeholders to support and prioritize Scale Up Milwaukee, and to support its objectives privately and publicly.

**Continually escalate and broaden activation and alignment.** The experiences of both Scale Up Milwaukee and Manizales-Mas strongly suggest that the activation and alignment of a broad cross-section of stakeholders is both cause and effect, and although it is convenient to describe the process in linear phases, the reality is that the phases interact in cyclical or spiral fashion. In both projects, many of the current

stakeholders were not stakeholders at the outset, but this is the case, particularly in Scale Up Milwaukee. Rather than view the incomplete initial commitment as a weakness or shortcoming, it is possible that incomplete commitment is natural and should be expected and planned for.<sup>38</sup>

**Generate “quick wins” by focusing on firms with an existing revenue base.** One of the rationales for the Scalerator program is that it can generate relatively rapid demonstration effects, and the rapidity is important to catalyze stakeholders’ spiraling commitment. We believe that the ability to show all of the stakeholders, as well as the entrepreneurs themselves, that (for example) they can have significant new growth events within a few months, and in some cases weeks, provides a unique stimulus for further commitment to invest in growth.

**Communicate from the outset that BEEP will have a time-limited presence and that local stakeholders will eventually develop and execute all of the local programming.** One of BEEP’s strategic objectives is to strengthen the local institutions so they can take over the development and execution of the programs. This principle is important for several reasons, the most obvious of which is perhaps the effective use of finite resources. Perhaps a more subtle reason is to signal to the local economic development agencies that the success of the BEEP project will increase their own success as well.

## **CONCLUSION**

Space prevents the presentation of an exhaustive list of the principles and methodologies that comprise BEEP—the reality of instigating or catalyzing economic change in a region defies simplistic prescription. Nevertheless, the cases and their outcomes presented herein, and the authors’ attempts to codify them, suggest that these methodologies are worthy of further experimentation, discussion, and learning.

**Governance Authorities and Responsibilities in Manizales-Mas<sup>39</sup>**

*Steering Committee (SC)—formal authority*

- Approve continuation or cancelation of Manizales-Mas/Babson contract at end of each contract period
- Approve annual strategic plan for Manizales-Mas
- Approve mission statement and any modifications
- Approve decisionmaking authority of Executive Committee (EC)
- Approve appointment, removal of EC members
- Approve major modifications of the Manizales-Mas plan
- Approve the annual general communications strategy for Manizales-Mas and any major modifications of the communications strategy (execution of the strategy will be led by Babson and the Project Team)
- Provide Project Team with input, feedback, and connections that lead to more efficient execution

*Executive Committee (EC)—formal authority*

- Approve changes in Babson contract deliverables provided that they are consistent with Manizales-Mas strategic plan and mission
- Approve changes in the Project Team leadership
- Regularly communicate Manizales-Mas progress to SC
- Propose the communications strategy to the SC
- Provide Project Team with input, feedback, and connections that lead to more

efficient execution

- Approve the inclusion of new members (funders) of Manizales-Mas with Babson's advice
- Propose changes in budget to SC
- Propose changes in the agreements between stakeholders, as per plan
- Meet every 15 days or as required by stakeholders (Babson, PT leader, or SC members)

*Project Team (PT)—formal authority*

- Execute the strategic plan of Manizales-Mas under the direct supervision of Babson
- Project Team leader will take instructions from Babson; the PT leader will not take instructions from the SC or the EC
- Present regular updates and communicate regularly with the EC and SC
- Upon request of the SC, make reports on the progress of Manizales-Mas
- Any changes in the PT membership, including the PT leader, will be decided on jointly by Babson and the EC

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<sup>1</sup>. We use the term region specifically to refer to a populated area including and adjacent to an urban center of at least 250,000 people, within which it is reasonable to assume there are relatively unrestricted flows of goods, services, and labor. See, e.g., P. Aghion and P. Howitt (2008), *The Economics of Growth*, Cambridge, MA: MIT Press; see also R. Hausmann (2005), "On the Other Hand: High Bandwidth Development

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- <sup>20</sup>. To date, the project team has used Central Desktop (now iMeetCentral).
- <sup>21</sup>. Sofia Stolberg and Daniel Isenberg, respectively.
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- <sup>27</sup>. Led by Babson lecturer Mary Gale
- <sup>28</sup>. Led by Professor Candida Brush
- <sup>29</sup>. Led by Associate Professor Matthew Allen,
- with the support of the authors (Isenberg, Onyemah).
- <sup>30</sup>. Authors' estimate.
- <sup>31</sup>. Based on numerous conversations between the authors and the stakeholders.
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