

Section 1 – Concept Introduction

Introduction

In this section the concept of the business incubator will be defined and the theoretical constructs which guide them will also be examined.

1A. Definitions

“An incubator is an organization designed to help startup businesses grow and succeed by providing free or low-cost workspace, mentorship, expertise, access to investors, and in some cases, working capital in the form of a loan. You’ll work around other entrepreneurial businesses, often with a similar focus as yours.”

<http://us.accion.org/business-resources/articles-videos/business-incubators-pros-and-cons>

“What is an Incubator – Incubates an idea so it can be eventually transformed into a business model. Incubators provide counselling and a shared workspace for flexible periods of time, 1+ years.”

<http://sehub.stanford.edu/accelerator-incubator>

1B. Main Features of an Incubator

“Joining an incubator is almost like joining a college program: You have to apply, be accepted, and then follow a schedule, meeting benchmarks set by the incubator. You’ll also need to commit to a length of time to be a part of the incubator, typically one to two years.”

<http://us.accion.org/business-resources/articles-videos/business-incubators-pros-and-cons>

“Incubator: Example Criteria

- Focus on ecosystem building & exposure to entrepreneurship for early stage entrepreneurs
- Focus on building a strong business foundation to increase odds of survivorship & future investment for promising concept to pilot stage companies
- Focus on introducing the realities of entrepreneurship, provide support to a broad range of companies, and “weed out” sooner those entrepreneurs and early stage companies that our bound to fail
- Focus on providing general exposure to a range of peers & mentors

- Enterprise support in concept through post-pilot phase (e.g. \$100,000 in revenue or less)”

<https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/ANDE%20I-DEV%20INCUBATOR%20REPORT%2011-21-14%20FINAL%20FOR%20DISTRIBUTION.pdf>

“

- No specific time frame; loose structure
- Generally access to: counseling, services, space, networks, close mentorship, & likely investors
- Extremely selective application process for the top programs
- Generally ask for a stake in the company, 2-10%
- Depending on the program, one or more team members will relocate to attend the program
- A potential Demo Day where start-ups pitch ideas to investors and media”

<http://sehub.stanford.edu/accelerator-incubator>

1C. Theoretical Underpinnings

Structural Support Theory

“The structural support theory proposes that new ventures can be helped to overcome the liabilities of newness and smallness if their infrastructure and overhead costs can be reduced. Structural support could be in the form of either the basic support such as office space, communication infrastructure, and managerial assistance or technology support by way of access to laboratory, equipment, research facilities, expert staff, and so on.”

<https://iimb.ac.in/research/sites/default/files/WP%20No.%20358.pdf>

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Cluster Theory

“Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs such as components, machinery, and services, and providers of specialized infrastructure.”

“Being part of a cluster allows companies to operate more productively in sourcing inputs; accessing information, technology, and needed institutions; coordinating with related companies; and measuring and motivating improvement.”

<https://hbr.org/1998/11/clusters-and-the-new-economics-of-competition>

Social Network Theory

“Incubator-incubation researchers have utilized social network theory to investigate the impact of internal and external network connections on incubatee development and growth... and view incubation as a system for increasing client firms' network density.”

[A mechanisms-driven theory of business incubation](#)

Junaid Ahmad, Ali. *International Journal of Entrepreneurial Behaviour & Research*; Bradford 20.4 (2014): 375-405. (Paid Content – ProQuest ABI/INFORM Global)

New Venture Creation Theory

“Campbell et al. ... draw on the new venture creation and entrepreneurial process literature and generally view incubation as a rational process that awards legitimacy, opens network access and heightens community support for entrepreneurs.”

[A mechanisms-driven theory of business incubation](#)

Junaid Ahmad, Ali. *International Journal of Entrepreneurial Behaviour & Research*; Bradford 20.4 (2014): 375-405. (Paid Content – ProQuest ABI/INFORM Global)

Resource Based View (RBV)

“A number of researchers... by drawing from the RBV of the firm (Penrose, 1959), view incubation as a mechanism of awarding a stock of tangible and in-tangible resources to client firms that results in, in addition to other benefits, client firm growth. Resources here are not just tangible resources, but other intangibles including proximity to markets, sources of knowledge (universities) and clustering effects similar to that of a Community of Practice. The impact of these resources on the client firm, it is argued, results in access to new knowledge, expertise and networks, ultimately leading to growth.”

[A mechanisms-driven theory of business incubation](#)

Junaid Ahmad, Ali. *International Journal of Entrepreneurial Behaviour & Research*; Bradford 20.4 (2014): 375-405. (Paid Content – ProQuest ABI/INFORM Global)

Dyadic Theory

“Researchers...suggest that incubators and entrepreneurs operate in an inter-dependent "co-production dyad" where business assistance is co-produced between the IM as the regular producer and the incubator company as the consumer producer. Viewed through the lens of dyadic theory,

incubation would be a process of co-producing developmental assistance in independent incubator-client dyads.”

[A mechanisms-driven theory of business incubation](#)

Junaid Ahmad, Ali. *International Journal of Entrepreneurial Behaviour & Research*; Bradford 20.4 (2014): 375-405. (Paid Content – ProQuest ABI/INFORM Global)

Real Options Theory

“Hackett and Dilts (2004b, 2008), who use real options theory derived from the domain of finance and investments to suggest that incubatee selection is the creation of an option whilst subsequent resource infusions and monitoring and assistance are option exercises. In the domain on non-financial investments, the real options methodology was initially proposed for the evaluation of technological assets, such as R&D, typically a very structured and rationalized activity.”

[A mechanisms-driven theory of business incubation](#)

Junaid Ahmad, Ali. *International Journal of Entrepreneurial Behaviour & Research*; Bradford 20.4 (2014): 375-405. (Paid Content – ProQuest ABI/INFORM Global)

Section 2 – Perspectives and Strategy

Introduction

In this section, aspects of the history of the business are highlighted along with significant features of their clientele, operational design and perceived weaknesses of the concept.

2A. Rationale for Business Incubators

“The first business incubator in the U.S. opened in 1959 and is still operating. In the last couple of years, we have seen a renaissance in the incubator business. Pioneered by [YCombinator](#), Silicon Valley’s flagship incubator led by Paul Graham, incubators have come back with a vengeance. YCombinator has seen some significant successes, including Airbnb, Dropbox, and Heroku. It has fueled a bit of an incubator bubble, I must admit. Incubators are now a global phenomenon, and there isn’t a major city in the world where an incubator isn’t cropping up.

For incubators to live up to their full economic potential, they need to overcome two pitfalls: they need to provide real value, not just office space, and they need to measure success in more than just outside funding.”

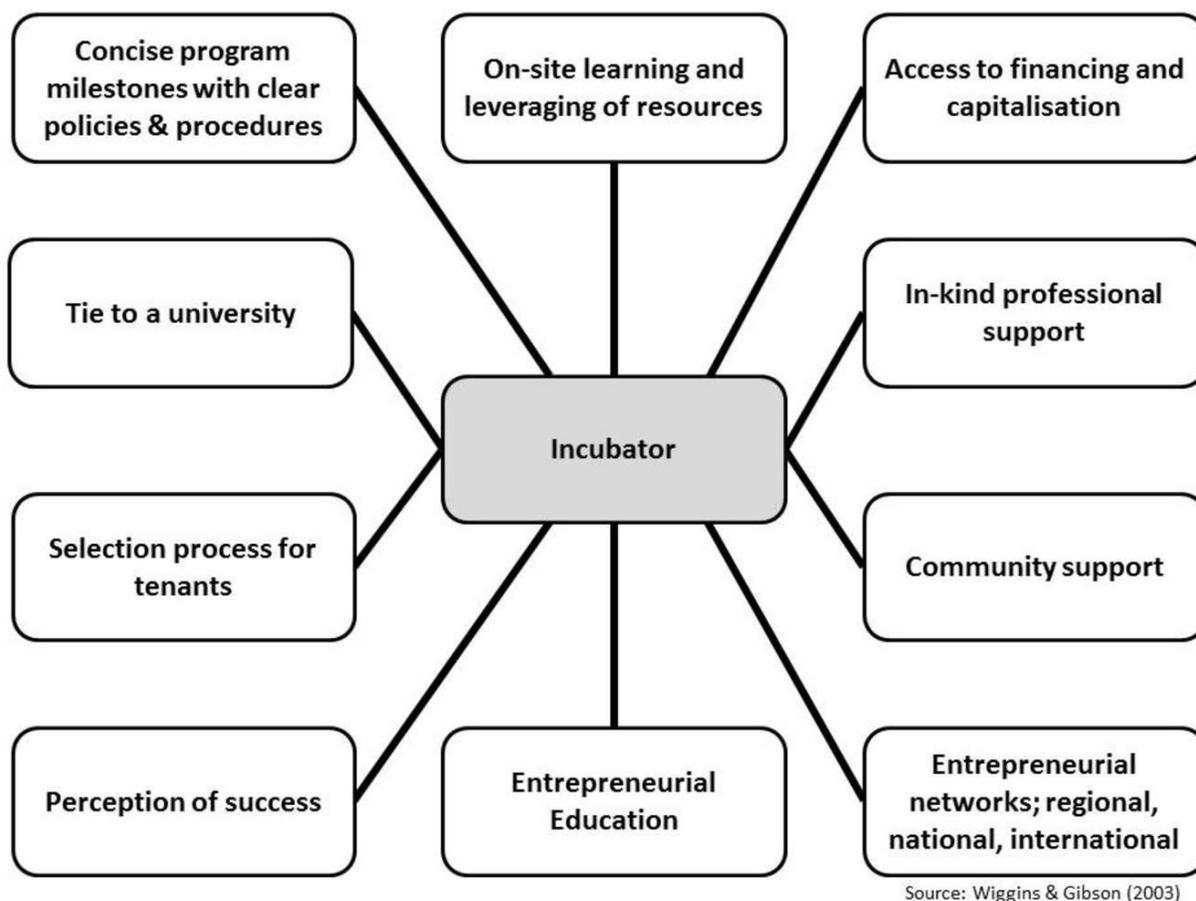
<https://hbr.org/2013/08/the-problems-with-incubators-a>

“Business incubators, as economic tools, have become increasingly common in the last decade and a half for stimulating local development. Incubators provide facilities and services (for example, business planning and legal, accounting, and marketing support) to catalyze small-business growth. In fact, incubated companies have a dramatically higher rate of survival than an average spinout does.

Small business incubation is now an entrenched and accepted economic development tool used in both urban and rural areas throughout the United States. Incubators are now used to promote the growth of entrepreneurial ventures of every imaginable type.”

<http://www.iphandbook.org/handbook/ch13/p06/>

Visual Representation of the Value/Unique Selling Point of Business Incubator Membership



<https://www.smartcompany.com.au/startupsmart/advice/business-planning/business-incubators-and-start-up-accelerators-valuable-assets-or-a-waste-of-time-and-money/>

2B. Types of Business Incubators

“We map business incubators into four categories: Business Innovation Centres (BICs), University Business Incubators (UBIs), Independent Private Incubators (IPIs), and Corporate Private Incubators (CPIs).”

https://www.researchgate.net/publication/245131448_Business_Incubators_and_New_Venture_Creation_An_Assessment_of_Incubating_Models

“An incubator with walls is a business incubation program with a multitenant business incubator facility and on-site management. Although an incubator with walls offers entrepreneurs space in which to operate their businesses, the focus of the program remains on the business assistance services provided to the start-ups, not on the building itself.

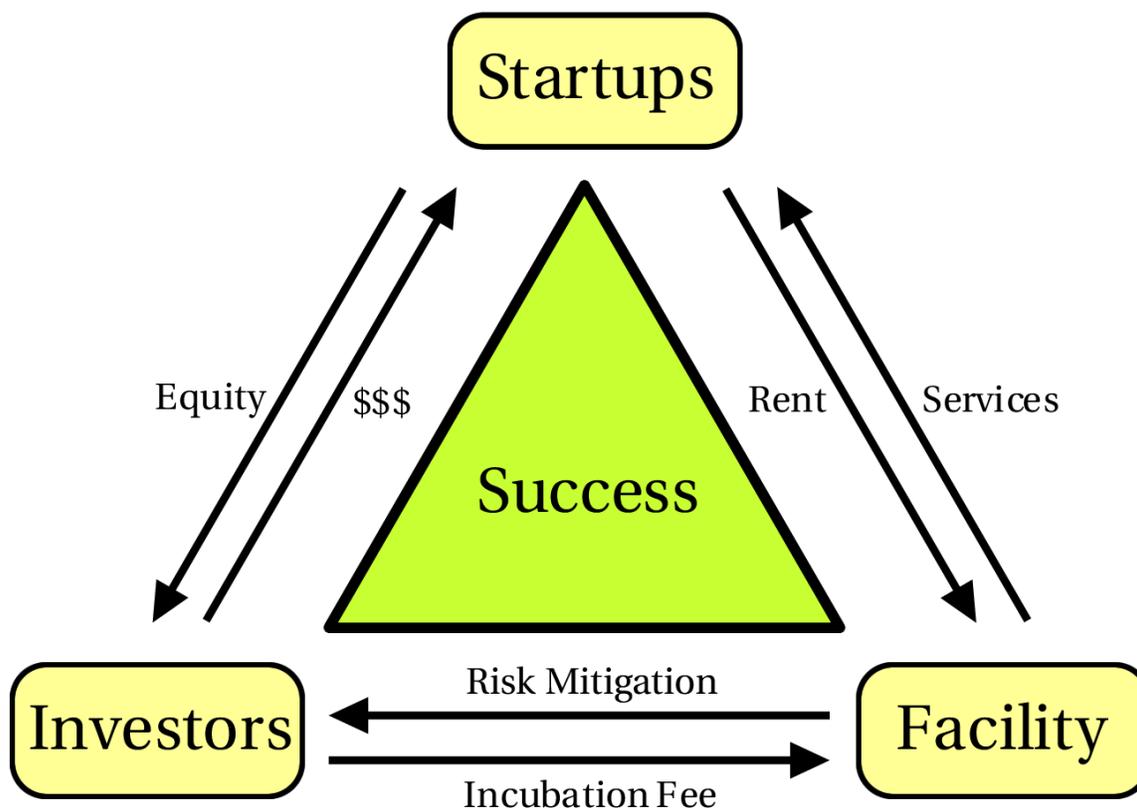
Incubators without walls and virtual business incubators are synonymous terms. Essentially, they are business incubators that do not offer on-site space for clients, although they may have a central office to coordinate services, house the management staff, meet with clients, and perhaps even provide conference rooms for clients.

Recently, a new form of business incubation program has emerged, which focuses on helping foreign firms enter the U.S. market. These international business incubators provide the same set of entrepreneurial services as a typical incubator, but they concentrate on providing a “soft landing” for international firms that want to access U.S. markets, partner with U.S. firms, or access other resources.

The business incubation industry has inspired the development of the “business accelerator.” While no definitive definition of business accelerator exists in the literature, it may be broadly defined either as: (1) a late-stage incubation program, assisting entrepreneurial firms that are more mature and ready for external financing; or (2) a facility that houses a modified business incubation program designed for incubator graduates as they ease into the market.”

http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

A Model for a Sustainable Business Incubator



<http://timreview.ca/article/395>

2C. Types of Business Incubator Tenants

“A typology of incubator companies based on the dimensions of maturity and readiness: (1) anchor tenants: entities that have a reason to be in the incubator, pay their bills reliably and therefore support the financial needs of the incubator and neither need nor want coproduction input from the incubator manager; examples include accounting and law firms, economic development agencies, university technology transfer offices and so forth; (2) long shots: companies that have substantial need for co-production but are not ready to engage; they benefit from the supportive environment offered by an incubator and need time to mature; (3) up-and-comers: companies with

significant resource gaps that can be addressed through co-production; these companies are run by entrepreneurs, who are aware of the gaps, recognize the potential for coproduction to help them resolve the gaps and are willing to engage; (4) superstars: companies that have matured beyond up-and-comer status and require minimal coproduction input from the incubator manager, even though their readiness to engage remains high; for the most part, they are capable of addressing crises and sustaining their development without the involvement of the incubator manager; they are likely to graduate from the incubator in the near term, but while still in the incubator, act as role models for up-and-comers and long shots.”

[Business Incubators: Effective Infrastructures or Waste of Public Money?](#)

[Looking for a Theoretical Framework, Guidelines and Criteria](#)

[Tavoletti, Ernesto. Journal of the Knowledge Economy; New York 4.4 \(Dec 2013\): 423-443. \(Paid Content – ProQuest ABI/INFORM Global\)](#)

2D. Criticisms of the Business Incubator Concept

“Despite increasing numbers, diffusion and popularity of BIs and related associations, not to speak of related literature, public funding, public policy and promotion, ‘empirical research evidence clearly suggests that they tend to fail in supporting entrepreneurship, innovation, and regional development and, therefore, they do not fulfil their expected role as policy instrument’ ([48], p. 460). There is plenty of literature and data claiming the positive contribution of BIs, with specific reference to the number of companies and jobs created [34, 25], but most of the time such claims from incubators’ associations are not

methodologically sound evaluations of effectiveness because they just measure intended effects and do not compare them with unintended ones [6]: They do not consider that some firms would have grown and would have been funded even outside the incubator; some others moved into the incubator at a later stage of their growth, attracted by cheap office space, facility or public funding.”

[Business Incubators: Effective Infrastructures or Waste of Public Money?](#)

[Looking for a Theoretical Framework, Guidelines and Criteria](#)

[Tavoletti, Ernesto. Journal of the Knowledge Economy; New York 4.4 \(Dec 2013\): 423-443. \(Paid Content – ProQuest ABI/INFORM Global\)](#)

“Contrary findings on the benefit of incubation indicate that firm survival is not improved neither is technology transfer, employment and venturing achieved when firms avail themselves to an incubation program. This evidence is not strong enough to vitiate the argument that business incubation encourages entrepreneurial spirit and significantly contribute to enhancing firm performance both within and without the incubation program. Therefore, following from the empirical review, it can be safely and convincingly submitted that business incubation process indeed contributes to improving the performance of firms right from the time they are domiciled within an incubator to when they successfully graduate from incubation as financially independent and viable entities. This is the contribution that this review adds to the literature on business incubation process and firm performance.”

<https://link.springer.com/article/10.1186/s40497-016-0059-6>

Section 3 – Managing Incubators

Any practitioner in the field of management and organizational development will attest to the numerous documented theories and ideas that provide conceptual frameworks and practical guidance on how best to start, grow and develop entities. In the following section, a number of these theories/recommendations that relate to innovation and business incubators are examined.

Program Design

3A – 1. Internal Corporate Incubators

Internal Corporate Incubators.

“A corporate incubator is an organizational structure companies build outside their existing operational structures to facilitate innovation. It is a strategic investment a company commits to, intended to deliver innovation initiatives that have the possibility to emerge and gain traction in a protected environment, freed from the strategic and operational constraints of the core business. The intention is to provide room for the development of new technology applications, new product or service offerings and new business models which, if successful, will eventually benefit the core business as well — whether as another single-standing business or as a new feature integrated with, or added to, the existing business offerings.”

<http://performance.ey.com/wp-content/uploads/downloads/2015/11/EY-Performance-Innovation-potential.pdf>

“In the most common incubator model, ideas are generated inside the corporation, developed and then spun out. Because the entity that owns the incubator plays such a prominent role in creating the new business, incubators often receive equity ownership stakes similar to those of startup founders. Incubators typically recruit entrepreneurs to take ownership of the startup, although sometimes internal employees spin out along with the new company. Not all internally incubated business concepts are spun out, in which case they are functionally similar to R&D.”

<https://techcrunch.com/2017/04/21/analyzing-the-spectrum-of-corporate-innovation-from-rd-to-vc/>

“Many companies that want to drive innovation within their own four walls launch internal incubators—small startups born within the corporation that combine “intrapreneurial” zeal with an iterative process to conceive and launch new products and services. Companies establish incubators for one reason: to drive breakthrough innovation that results in growth and significant revenue. Incubators cultivate companies’ best bets on their future market viability. As such, incubators are distinct from traditional R&D units that concentrate on incremental innovation.”

<http://www.pwc.com/us/en/advisory-services/img/pwc-incubating-success.pdf>

“As companies grapple with long odds on innovation like these, they are also looking for ways to improve the likelihood of their intrapreneurial success. Internal innovation presents a number of challenges, including but not limited to the inherent risk of promoting new ideas; complacency and attachment to the status quo; and the actual amount of capable people with the time to effectively build new ideas into workable products.

Traditionally, companies have found ways to navigate these challenges internally, in research and development (R&D) divisions like the famed Xerox PARC, founded in 1970, or through programs that encourage employees to dedicate a small percentage of their time to side projects, as 3M began doing in 1948. Many companies, including Google, follow similar models today.”
<https://hbr.org/2013/11/a-new-model-for-innovation-in-big-companies>

“Corporate incubators nearly always focus on sectors relevant to the parent company, and there are many examples of successful corporate incubation programs and startup spin-outs, including:

- McDonald’s spin out of Red Box (acquired by Coinstar for \$150-plus million)
- Google’s spin out of Niantic Labs & Pokémon GO (reportedly worth \$3.5 billion)
- Oracle Labs’s development of the Java programming language
- Amazon’s Lab 126 creation of the Kindle, Echo and Fire products

According to New Markets Advisors, a significant portion of Fortune 500 companies — including Procter & Gamble, IBM, Walgreens and The Hershey Company — have some sort of incubator efforts in at least one business unit. On the other hand, incubation can be difficult. A 2012 study of 300 corporate incubators stated that only half deliver on their strategic goals, and only a quarter deliver on their financial goals.”

<https://techcrunch.com/2017/04/21/analyzing-the-spectrum-of-corporate-innovation-from-rd-to-vc/>

3A – 2 Open Corporate Incubators

“They focus on external ideas and innovators — such as single inventors or start-ups. They screen the environment for promising ideas and high-potential start-up companies with the intention of forging cooperation. An open corporate incubator provides external innovators with space and resources, as

well as access to the host organization's capabilities and experience, in order to speed up business development. Cooperation can have different intensity and formal settings but the general aim is to identify and facilitate external innovators, to join forces, learn and eventually build a successful new business that can, at a later date, be jointly commercialized or integrated into the host organization."

<http://performance.ey.com/wp-content/uploads/downloads/2015/11/EY-Performance-Innovation-potential.pdf>

"Startups are better at detecting and unlocking emerging and latent demand. But they often stumble at scaling their proof of concept, not only because they're often doing it for the first time, but also because the skills necessary for creating are not the same as scaling. Startups must be agile and adapt their value proposition several times until they get it right. According to Forbes, 58% of startups successfully figure out a clear market need for what they have.

In contrast, big companies often end up launching things they can make, not what people want. Successful established companies are focused on increasing scale and are often better at scaling proof of concepts than creating new products from scratch. They have huge advantages in procurement, distribution, and manufacturing, as well as sales and marketing advantages. But they have a challenge not only creating a proof of concept, but leaving it alone until it is ready to scale.

Large companies can assist and gain access to startups' prowess at creating proof of concepts via early-stage funding and later-stage M&A. But ideally these relationships are more than just financial and transactional. That's because capital is abundant, and there are more buyers than sellers; if the first time an established company is made aware of a startup is by receiving a deal book from an investment banker, it's already too late."

[Big Companies Should Collaborate with Startups. Eddie Yoon and Steve Hughes. Harvard Business Review, February 2016.](#)

"In order to investigate how and why large firms and young ventures collaborate, we studied more than 20 collaborative innovation projects involving partnerships between large firms and young ventures based in the Netherlands and the United Kingdom. The projects, which were all product development partnerships, were hosted by four different young ventures and five large firms and involved a range of different types of innovation (process, service, and product innovations) in various industries.

The process leading to a successful asymmetric collaboration between a large firm and a young venture does not easily fit into a generic model. Large firms eager to collaborate with young ventures to improve and accelerate their

innovation processes often overlook the fact that young ventures are rarely skilled at all stages of the innovation process. In order to leverage young ventures' key capabilities most effectively, large firms should consider both the status of the project on which they seek collaboration and the capabilities they seek in a collaboration partner. The proposed Young Venture Collaboration Decision-Making Model focuses attention on these two key considerations to support large firms in developing fruitful asymmetric collaborations with young ventures.”

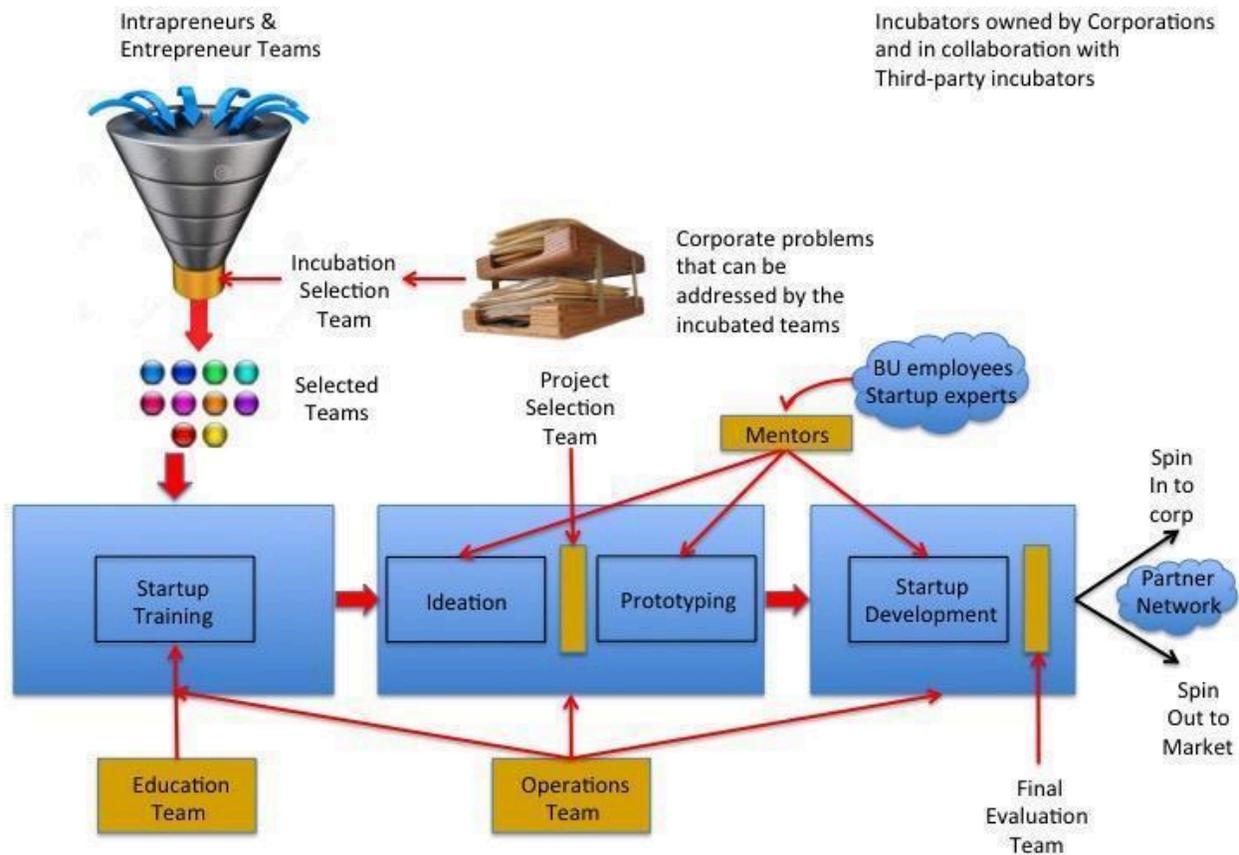
When Should Large Firms Collaborate with Young Ventures? Babke N. Hogenhuis, Ellis A. van den Hende, and Erik Jan Hultink. *Research Technology Management* (Jan/Feb 2016): 39-46.

“More open innovation examples:

- The Audi car manufacturer has launched the *Audi Production Award*. It is a contest that invites the participants to think about the car of the future. The winner receives a trophy as well as 5,000 Euros.
- Procter & Gamble has published the list of technical problems that their team wasn't able to solve or hasn't solved on time on its website. They make a call to all the web surfers who may have the magic solution. Every idea is welcome!
- GE have launched their program *Ecomagination Challenge*. Its goal? To collect ideas from entrepreneurs, students and any other innovative people, regarding problems connected to energy.
- The HP (Hewlett Packard) IT company has created open innovation laboratories for allowing worldwide researchers to work together and for initiating partnerships between the HP teams and external scientists.
- The Danish Lego Company has gone the longest way on the path of open innovation. And this is already happening for many years (MindStorms, Lego Ambassador, Lego Factory and lastly the Lego Cuuso...). It's no surprise then that Lego is often nominated in open innovation studies. In every one of their operations/programs, Lego makes a point of honor by having their fans participate in the evolution of their product lines. Nothing could be more efficient in bonding the Lego community, made out of young and less young people.
- Local Motors is a start-up created in 2007 by a former marine, Jay Rogers. The design of a new car requires years of work and generally costs millions of Euros. To save time and money, Local Motors has decided to use crowdsourcing. Its original approach has allowed this small company to conquer important market shares. The fortunate winners of the industrial design contests could also receive royalties from the car sales.”

<http://www.idexlab.com/blog/open-innovation-examples>

The Corporate Business Incubator



<https://corporate-innovation.co/2014/08/13/using-corporate-incubators-and-accelerators-to-drive-disruptive-innovation/>

3A – 3 Other Business Incubators

“Many incubators target specific industries—such as digital education, green technology, homeland security, fashion and food—and thus offer targeted resources and expertise. It’s important to make sure you have a clear understanding of what an incubator provides before applying.”

<http://us.accion.org/business-resources/articles-videos/business-incubators-pros-and-cons>

“A manufacturing incubation program is designed to assist new enterprises primarily engaged in the manufacturing sector.

A mixed-use incubator (also called general purpose incubator) is a business incubation program that fosters the growth of all kinds of companies; the businesses in a mixed-use incubator are not required to fit into any specialized niche.

A technology incubator is a program that fosters the growth of companies involved in emerging technologies such as software, biotechnology, robotics, or instrumentation.

A service incubation program fosters the development of entrepreneurial firms in the service sector. Firms may range from landscapers, graphic designers, and accountants to Internet-based companies and Web development firms.”
http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

“Although, businesses are more likely to cooperate with customers and suppliers for innovation than with universities, the potential for universities to contribute to business innovation has increased. This reflects changes in the business innovation process towards knowledge intensive activities, the growing dispersion of knowledge among diverse actors and more open innovation systems.”

[The role of proximity in university-business cooperation for innovation](#)
 Hewitt- Dundas, Nola Author Information. *Journal of Technology Transfer*; Indianapolis 38.2 (Apr 2013): 93-115. (Paid Content – ProQuest ABI/INFORM Global)

3A – 4. Length of Programs

Internal Incubators

“Maybe they *won't* hit that objective for four or five years. But the problem is, you won't last that long unless you have an organizational engagement

strategy, and that includes creating some quantifiable value. I tell new innovation leaders they've got eighteen months to get wins on the board...

The reason is the budget cycle. The first three or four months are a honeymoon period. Then people can still say, "Well, they haven't really even been around a year yet." But once you pass that year threshold, everybody's circling and wondering what's going on. And then by the time you get to eighteen months, you're in next year's budget cycle, and the chief financial officer is asking, "Why exactly are we doing this?" You have a target on your back, and you'd better be ready with proof points..."

https://insight.kellogg.northwestern.edu/article/the_first_eighteen_months

Other Business Incubators

"Many incubators require a time commitment of around one to two years, plus adherence to the schedule set by the incubator, which can include many trainings and workshops. Yes, you will learn a lot, but you'll also spend a fair amount of time doing it."

<http://us.accion.org/business-resources/articles-videos/business-incubators-pros-and-cons>

"Incubators do not generally have a strict focus on the amount of time a business will spend in the program. For example, companies at the NYU Poly incubators generally spend 18 months in the program, but other incubators may have a longer time frame."

<http://www.businessnewsdaily.com/4658-business-incubator-accelerator-difference.html>

"The goal of the SPARK Regional Incubator Network is to support companies in a way that will enable the business to graduate from the incubator in two to three years. For this reason, clients begin with a standard, one-year lease. If the business meets their desired milestones, the lease is renewable for one or two additional one-year leases."

<http://www.annarborusa.org/start-here/incubator-network/incubator-faqs>

3A – 5. Location

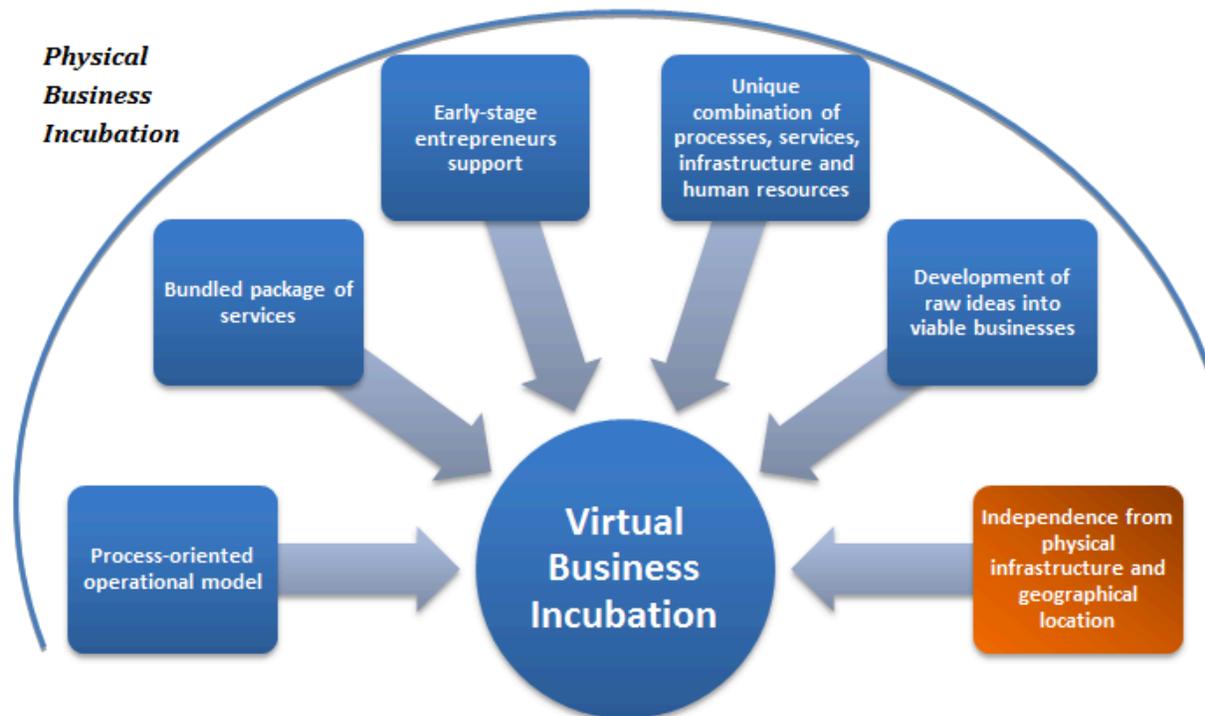
“Virtual incubators may or may not be located in the same geographic area as their client companies, since a virtual presence is what defines an incubator without walls.”

http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

“Entrepreneurs in most industry categories do not change geographic location (remaining geographically close to their incubator organizations). In most technical industries, entrepreneurs usually start businesses related to what they did before. Thus, the researcher argued that because most entrepreneurs do not move to start a business, the possibilities for high-technology start-ups may be very limited in many geographic regions.”

http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

Visual Representation of a Virtual Business Incubator



<http://www.playprelude.com/virtual-incubators-for-enterprise-start-ups/>

“The Campbell, Kendrick and Samuelson model has four basic ‘services’ or value addition activities, foci areas where incubators contribute to firm performance. The value addition activities starts with diagnosis of needs, which is applied to prospective incubatee’s new business proposals. When the diagnosis is successful, the successful companies selected for incubation (called incubator tenants) are monitored. The incubator tenants also enjoy additional value addition activities by way of capital investment and access to expert networks with the prospect of venture capital. The tenants then graduate from the incubation program as successful growth ventures or businesses.”

<https://link.springer.com/article/10.1186/s40497-016-0059-6>

“The Hackett and Dilts model conceives business incubation as the selection of incubatees from pool munificence of prospective candidates who ‘enter’ into the black box of incubation. The incubatees undergo value addition activities in three ways: selection performance (which is also an aspect of selecting prospective incubatees), monitoring and business assistance intensity and resource munificence. The incubatees are then outputted from the ‘black-box’ of incubation as graduated companies having an outcome that is either success or failure. The Hackett and Dilts model has control variables of population size, state of the economy, incubator size, and incubator level of development. In summary, their business incubation process model comprises three fundamental activities: selecting weak but promising firms to be admitted to the incubation program, monitoring and assisting those that would be successful and lastly providing the requisite resources to help them develop and graduate from the incubation program as financially viable and freestanding firms.”

<https://link.springer.com/article/10.1186/s40497-016-0059-6>

“Incubatees value the benefits from the network with other incubatees higher than any other element in the incubator programme, reaffirming the importance of informal elements in support programmes as also suggested by De Faoite et al. (2004). Specifically the incubatees with a predominantly effectual logic value this network. This appears to be in line with Sarasvathy’s (2001) theory on effectuation, where the network of entrepreneurs plays a crucial role, for example in building partnerships. While the survey showed a significant difference between entrepreneurs with effectuation logic and entrepreneurs with causation logic, incubatees with causation logic still rated the incubatee network as a very important element. Likewise, all of our interviews revealed that the incubatees valued the network highly regardless of logic.”

How do entrepreneurs' characteristics influence the benefits from the various elements of a business incubator?

Monsson, Christian Kjær; Jørgensen, Søren Berg. *Journal of Small Business and Enterprise Development*; Bradford23.1 (2016): 224-239.

3B. Talent

3B – 1. Attracting Startups

“In almost all cases, participation in a corporate incubator or accelerator enables entrepreneurs to leverage the parent company’s resources to scale their business, take advantage of new technologies and access competencies such as regulatory and/or scientific expertise that otherwise might be unavailable to independent startups.

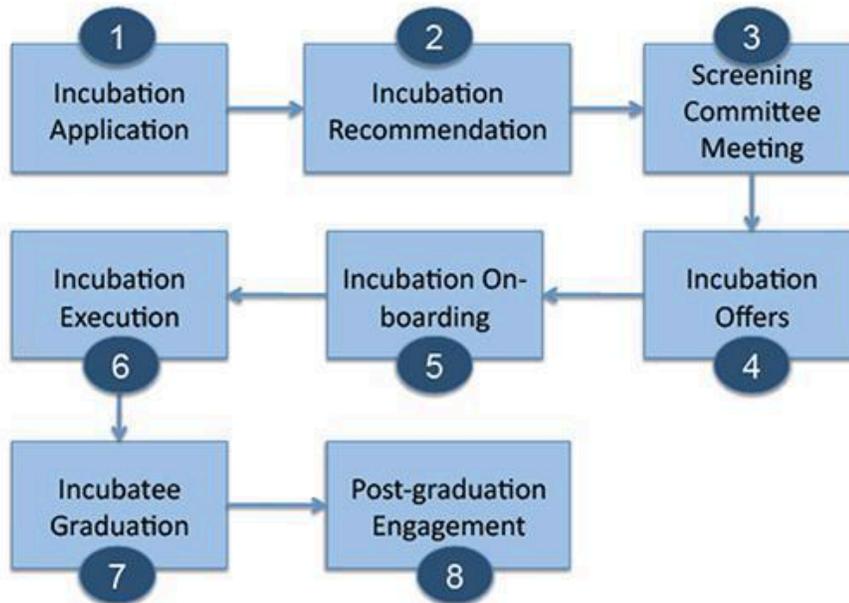
In many instances, involvement with a corporate incubator can also mean sizable financial assistance and professional services (such as legal advice) worth big bucks. For example, companies participating in Blue Startups, an incubator from Honolulu-based Blue Planet Software, receive \$20,000 in cash and a variety of professional services valued at more than \$500,000.

Clearly, it’s important that the program be focused somewhat on the industry you want to enter. Pharmly’s Godfrey says it simply makes “good business sense” to apply for one that is -- at least in some way -- connected to your business. “You’ll get something out of any incubator or accelerator,” she says, “but you’ll get more out of one designed to serve the industry you’re aiming to join.”

<https://www.entrepreneur.com/article/287495>

An Overview of the Business Incubator Process

← What is the application & selection Process ?



<http://dayanandasagar.edu/index.php/innovation/innovation-by-dsi/tbi>

3B – 2. Selecting Startups

“Business incubation is fundamentally about the provision of bespoke, hands-on business support to businesses at a stage of their business life cycle where they are the most vulnerable. Also, crucially, business incubation is a process which selects businesses/business ideas, encourages their development and growth and requires them to graduate or move on.”

<http://www.ukspa.org.uk/sites/default/files/factsheet%201%20-%20A%20Brief%20Introduction%20to%20Business%20Incubation.pdf>

3B – 3 Sector Focus – Food Industry

In 2013, Philadelphia-based research firm Econsult Solutions authored a report on the state of the food incubator industry. The research was primarily conducted to study real estate feasibility in the food business space. What it revealed can be boiled down to a single word: growth.

Earlier this month, in collaboration with American Communities Trust and Urbane Development, Econsult Solutions released a follow-up to its 2013 report, an effort the firm intends to continue every two years. The number of food incubators in the United States has increased by more than half since that first study.

But growth is just one measure. What the industry seems to be missing is a sense of self—in other words, a set of universally accepted metrics by which it can measure its success and failure rates against the business incubation industry as a whole. Here we analyze both reports to map out the lay of the land. Think of us as early explorers, peeking inside an industry that's only beginning to understand itself.

<https://newfoodeconomy.com/incubator-facts-figures/>

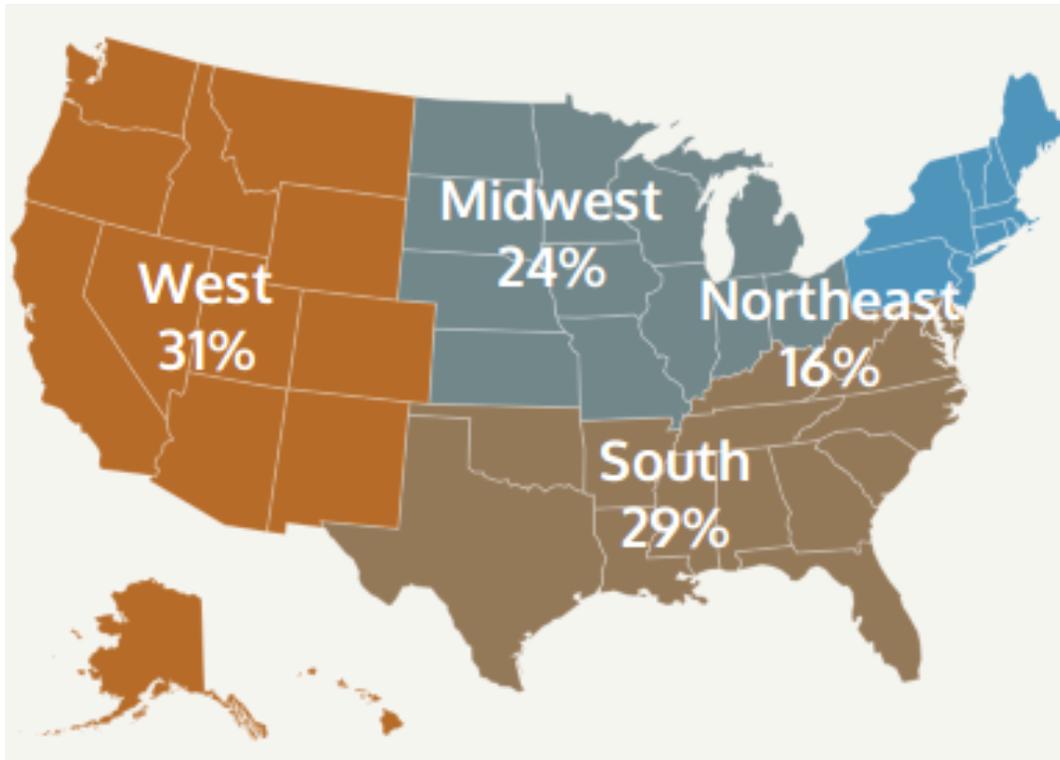
“Hot Bread Kitchen (HBK) Incubates helps startup and growing food businesses in New York City prosper by offering licensed commercial kitchen space and business development support.

If you want to sell food commercially, you must use a licensed commercial kitchen and have your own food business licensing. It's expensive when you're just starting out, so HBK Incubates gives startups an affordable option during that beginning, awkward growth phase.

In addition to production space, HBK Incubates also offers a suite of business development resources to position its member entrepreneurs for growth and sustainability. HBK Incubates offers ongoing workshops, panels and exchanges that provide content on various small business topics like access to capital and marketing. Members are also able to schedule one-on-one financial and business counseling sessions with HBK staff.”

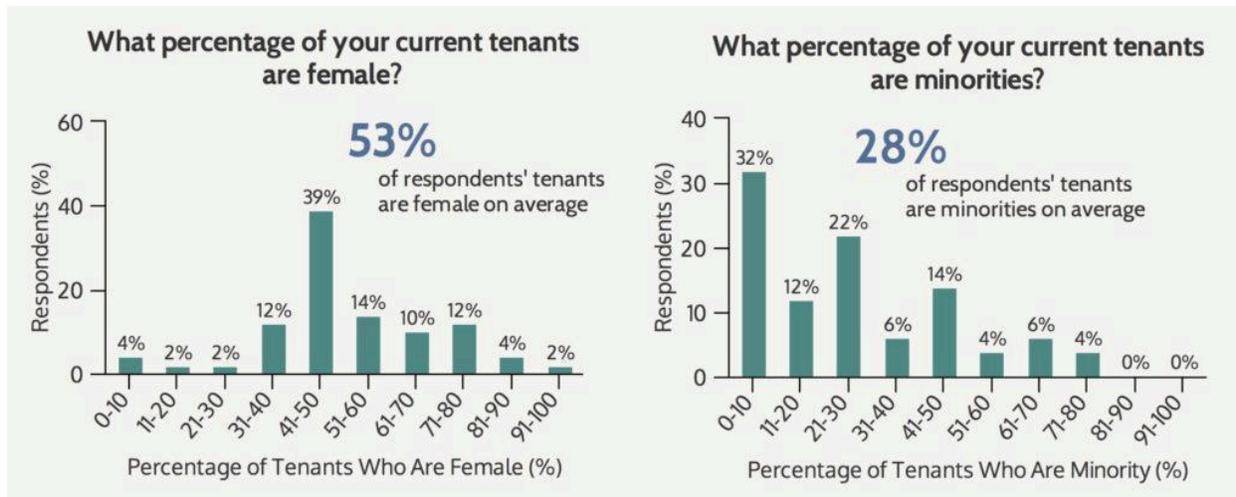
<http://us.accion.org/business-resources/articles-videos/business-incubators-pros-and-cons>

Map of Food Incubators in the USA Based on 2013 Survey Data



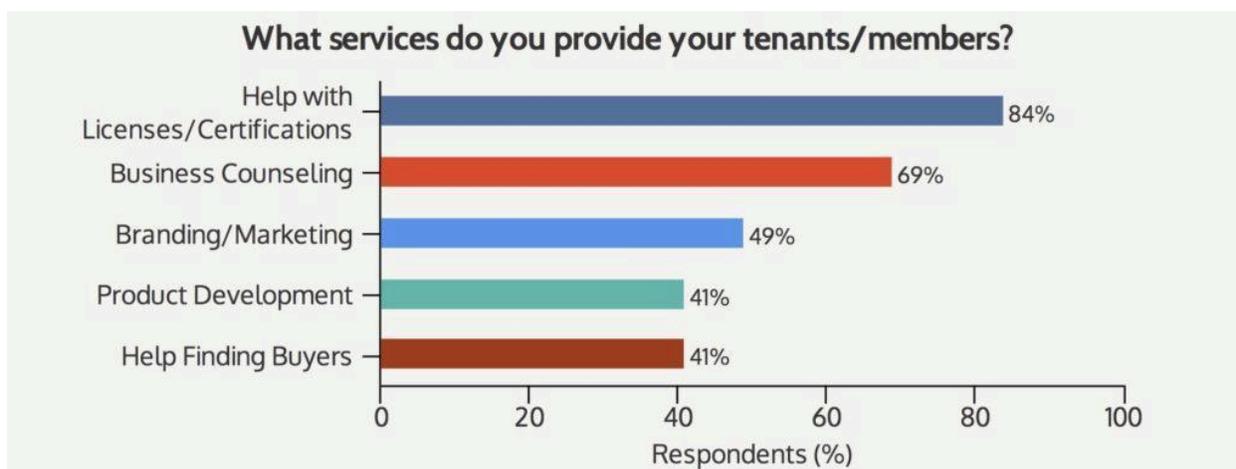
<https://newfoodeconomy.com/wp-content/uploads/2016/03/Screen-Shot-2016-03-11-at-5.30.22-PM.png>

Demographic Characteristics of the Food Incubators' Members



<https://newfoodeconomy.com/wp-content/uploads/2016/03/women-and-minorities-1024x413.jpg>

Services Provided by the Food Incubators to Their Members



<https://newfoodeconomy.com/wp-content/uploads/2016/03/business-services-incubators-1024x384.jpg>

Products Being Made by The Incubators' Members



<https://newfoodeconomy.com/wp-content/uploads/2016/03/products-1024x346.jpg>

3B – 4. Impact of the Experience

“The development of business incubators might lead to the following issues as the strengths of incubators include the following.

Economic Development: Incubators provide psychological support for entrepreneurs, who are far more likely to persist as a result, is of the support lead the incubator's to be a unique place for economic development for create jobs, and diversity of the local economic losses.

Shared Basic Operating Costs: Tenants in a business incubator share a wide range of overhead costs, including the direct and indirect services.

Consulting and Administrative Assistance: Incubator managers and staff members can often provide insightful advice and information on a broad of business plan or any start up document.

A dynamic networking of Entrepreneurs: Many small business owners that have launched successful ventures from incubators cite the presence of fellow entrepreneurs as a key element in their success.

Universality of Incubator Concept: One of the key advantages of incubators is that the concept works in all communities of all shapes, sizes, demographic segments, and industries.

Access to Capital: Many business incubators can provide entrepreneurs with "access to the kind of early-stage capital that emerging companies desperately need.”

Business Incubation as an Economic Development Strategy: A Literature Review. *International Journal of Management* By Al-Mubarak, Hanadi Mubarak; Busler, Michael (Paid Content – ProQuest ABI/INFORM Global)

3C. Post Program Activities and Alumni Support

3C – 1. Support Programs and Corporate Involvement

“Once a business has graduated from a 16-v Incubator, it may apply to move into a Tax-Free NY Area without being required to commit to creating any net new jobs. If you are an incubating business interested in START-UP NY, contact your 16-v Incubator for graduation requirements.”

<https://cdn.esd.ny.gov/BusinessPrograms/Data/StartUpNY/START-UP%20NY16-vGuidanceFAQ.pdf>

“One common complaint of incubator/accelerator alumni is that programs did not provide enough follow on support once the formal program came to an end, as well as when participants were then required to implement and work through the new strategies identified during the program. Several participants said that they struggled to access the resources or ongoing support to translate plans into action. In particular, participants said that an online platform that allowed program alumni to connect, share experiences, and access mentors they had met during the program would be particularly beneficial.

Furthermore, additional live training or online resources were also mentioned as valued additional services. Creating this ongoing value and network for alumni will also increase sense of ongoing involvement and commitment to promoting and further engaging in the incubator/accelerator, for example, in reporting year-over-year financial and growth data that the program can use to promote its long-term value creation for participants. Providing additional

services such as trainings or capital raise support can also serve as a revenue generator for programs. Key areas where alumni suggested a need for additional customized or advanced support include legal services, market penetration strategy, accounting, investor connections or capital raise, and strengthening supply chains for growth.”

<https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/ANDE%20I-DEV%20INCUBATOR%20REPORT%2011-21-14%20FINAL%20FOR%20DISTRIBUTION.pdf>

3C – 2. Startup Integration/ Economic Impact

“First, Incubation, provide mixed support for the entrepreneur from the start-up companies and the start up create jobs inside the incubators. Second Postincubation, relates to the successful graduated companies which each start up companies has been reached the maturity phase then they will leave the incubator and standing free in the local market. Third, Extension phase, the graduated companies will expand in the market with positive impact on the economic development because the outcomes from the incubators included the three factors; entrepreneurship, graduated companies, and job created overall factors lead to economic development and will diversify the economic growth.”

[Business Incubation as an Economic Development Strategy: A Literature Review. *International Journal of Management* By Al-Mubarak, Hanadi Mubarak; Busler, Michael \(Paid Content – ProQuest ABI/INFORM Global\)](#)

“This longitudinal study analyses the development of post-incubation firms. Especially it focuses on the development of ventures which are identified to be the so called gazelles.

The results of this research strengthen the perception that incubators contribute to the performance of their tenants. Incubators may use these results in promoting their activities and selecting their tenants. The results propose that public policy should promote such incubators which are capable to introduce selective process and pick up tenants that have good potential.

Potential incubator tenants may benefit from these results by seeking such incubators which have good results in producing post-incubation gazelles. Researchers should take into account that in order to get reliable results from their growth studies the time span of the studies should be lengthened and the development should be followed during the longer than four year period if the data will be available. Future studies could analyze the connection between selection criteria and performance of post-incubation businesses.”

Post- Incubation Performance – Are the Post-Incubation firms High Impact Firms? Conference Paper · June 2013

https://www.researchgate.net/publication/257314557_Post-_Incubation_Performance_-_Are_the_Post-Incubation_firms_High_Impact_Firms

3D. Governance

3D – 1. Key Performance Indicators

“Measurement clearly is a complex matter; even more so because when evaluating an incubator, one is looking at what comes out of the incubator in the short term; its long term impact on economy and local community; the scale of its output and organizational stability and growth. These are all inter-linked and ignoring one or the other factor could end up being faulty.”

https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/A%20White%20Paper_Metrics%20%20Milestones%20for%20Incubators.pdf

“A best practice incubation program should be operated as a business itself. It has a mission, goals, objectives, strategies, payroll, staff, cash flow, and most other business characteristics. The incubator, therefore, is a business that helps to create and nurture new businesses.”

http://www.edaincubator.org/pdf/Master%20Report_FINALDownloadPDF.pdf

Internal Corporate Incubators

“Staff your incubator with strong “intrapreneurs.”... Because they know how to pitch an idea to executive decision-makers, intrapreneurs can be the key to an

incubator's success. The most successful intrapreneurs combine internal diplomacy with a ruthless pursuit of success."

<http://www.pwc.com/us/en/advisory-services/img/pwc-incubating-success.pdf>

Open Corporate Incubators

"Studies have shown that around 90% of a company's innovation efforts never result in commercialized products or services. This has led to a suspicion that innovation still seems to rely on fairly random incidents, rather than being the result of clearly defined performance measurement procedures.** Other research confirms this, pointing especially to the shortcomings of coordination and underestimation of the complexity that arises in the context of OI processes."

<http://performance.ey.com/2014/05/19/measuring-open-innovation/>

Other Business Incubators

"As Incubators have become more wide-spread, the question of 'what is success' has become very important. Eric Harvit, a Fullbright fellow and incubator researcher in his report, published in 2002 states, "the NBIA claims that 87 percent of firms that 'graduate' from incubators are still in business today. Independent studies done at Purdue University and Ohio University in the mid-1990s found that incubators contributed to both job creation and the survival of new businesses in the United States." (Information pertaining largely to the USA)

https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/A%20White%20Paper_Metrics%20%20Milestones%20for%20Incubators.pdf

"There is no acceptable performance measure in incubation literature...leading to incubator researchers using different performance measures. Furthermore, the definitional challenge of what incubators are has also contributed to compounding the problem of identifying a single acceptable measure of performance in incubation literature. From review of business incubation literature, the following performance indices are used: revenues, finance, venture capital funds, graduation from incubation program, firm survival, networking activity, innovative firms, organizational or firm growth, job creation, sales growth, profitability, patents registered, number of patents application, alliance, technology transfer, employment growth, technology growth or development, research and development productivity, ability to share knowledge and technology and high-tech employment."

<https://journal-jger.springeropen.com/articles/10.1186/s40497-016-0059-6>

“Practices most represented among high-achieving programs are having a written mission statement, selecting clients based on cultural fit, selecting clients based on potential for success, reviewing client needs at entry, showcasing clients to the community and potential funders, and having a robust payment plan for rents and service fees. All of these practices are highly correlated with client success. Conversely, incubation programs with lax or no exit policies typically have less-than-optimal performance.”

http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

“Hackett and Dilts define the outcome of the incubation process as five mutually exclusive outcome states “measured in terms of incubatee growth and financial performance at the time of incubatee exit.” The outcome states are: the incubatee is surviving and growing profitably, the incubatee is surviving and growing and is on a path toward profitability, the incubatee is surviving but is not growing and is not profitable or is only marginally profitable, incubatee operations were terminated while still in the incubator but losses were minimized and incubatee operations were terminated while still in the incubator and the losses were large.

Further research should be conducted to illuminate the blurry aspects reported by few scholars concerning firm participation in an incubation program which they claim does not contribute to firm survival. More comprehensive research studies in this dimension would be helpful. Empirical research would definitely throw more light in this direction. Furthermore, more studies in the area of technology incubators or university incubators not having a significant impact on the transfer of technology would also benefit incubation research.”

<https://link.springer.com/article/10.1186/s40497-016-0059-6>

“Innovation output at incubators differs in terms of both type and quantity. In terms of type, different incubator archetypes produce different types of innovation. Specifically, basic research incubators are the ones producing more product and technological innovations. Private incubators generate more organizational innovations. In terms of quantity, basic research incubators and private incubators score higher in generating all types of innovation. Basic research and private incubators are able to originate a higher number of innovations than university or regional development incubators. Consistent with the literature that suggests that firms emphasizing collaboration and operating in clusters are more likely to be innovative..., basic research and private incubators are, by nature, the archetypes most effective in fostering external relationships.”

[Do different types of incubators produce different types of innovations?](#)

Article · April 2014 The Journal of Technology Transfer (Paid Content – ProQuest ABI/INFORM Global)

“The balanced scorecard is a tool particularly adapted in the context of incubators. It permits a proper measure of the performance and an effective control of these organizations. The principal contribution relies in an equilibrated and global representation of the performance it offers. Incubator managers insisted on a reduction of the risks related to an excessive focusing on the short term economic indicators which may have very twisted effects (e.g. to encourage the creation of non sustainable enterprises). In terms of control, the balanced scorecard has been used as an interactive control system... It brought many team meetings within the incubators by, during which cumulated reflections on the internal practices have been decided. These reflections permitted to identify and modify some practices which seemed weak. Thus, the balanced scorecard has been at the origin of an organizational learning process within the incubators...”

[Professionalization of Incubators: The Balanced Scorecard as a Useful Management Tool](#)

[Bakkali, Chaffik, PhD; Messeghem, Karim; Sammut, Sylvie. ICSB World Conference Proceedings; Washington: 1-4. Washington: International Council for Small Business \(ICSB\). \(2014\) \(Paid Content – ProQuest ABI/INFORM Global\)](#)

[3D – 2. Leadership](#)

Internal Corporate Incubators

“Staff your incubator with strong “intrapreneurs.” This is the inside talent that operates like entrepreneurs within the company...”

<http://www.pwc.com/us/en/advisory-services/img/pwc-incubating-success.pdf>

Open Corporate Incubators

“Thus, the onus is on the CEO and the leadership team to lead from the front by integrating innovation in the strategic goals of the business and to hold the members of the senior teams accountable for results both individually and collectively. This will create a culture that instills innovation into the organisation and its employees.

CEOs set the tone by creating a work environment that is more open to innovation and systematic in its approach. Since good ideas come from many places within the firm’s network of relationships, CEOs also need to create the partnerships and alliances.”

<https://www.pwc.com/gx/en/corporate-strategy-services/assets/ceosurvey-innovation.pdf>

Other Business Incubators

“On average, incubator managers have 8.1 years of experience in the business incubation industry, including 7.5 years at their current position. These averages are skewed higher due to a few long-term managers, some of whom have served more than two decades in their current position. Managers’ average work week is 36.6 hours, during which they spend over half their time delivering client services (37.7%) and developing internal and external networks for the program (18.2%). They also devote 20% of their time to facility management.”

http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

“The incubation managers were reported to have a moderately positive influence both in the survey and in the case studies. Their roles appear to be rather different, but generally they appear to be significant in facilitating access to important actors, assisting with practical advice, or merely taking care of daily business in the incubator programme. Their modest role within the incubator suggests that they are preoccupied with operational tasks at the Growth Factories as suggested by Lewis (2001) rather than having the critical role that was suggested by early research on business incubators. This would also explain why the survey showed no apparent difference in the mean rating of incubation managers across the different categories of entrepreneurs.”

[How do entrepreneurs' characteristics influence the benefits from the various elements of a business incubator?](#)

[Monsson, Christian Kjær; Jørgensen, Søren Berg. Journal of Small Business and Enterprise Development; Bradford23.1 \(2016\): 224-239. \(Paid Content – ProQuest ABI/INFORM Global\)](#)

“The value proposition of an incubator, therefore, is derived from how successfully it can develop a robust and relevant support structure to fulfil these fundamental needs of a startup. The NBIA advises new teams considering setting up incubators “To lay the groundwork for a successful incubation program, incubator developers must first invest time and money in a feasibility study. An effective feasibility study (for the incubator NEN) will help determine whether the proposed project has a solid market, a sound financial base and strong community support – all critical factors in an incubator’s success. Once established, model business incubation programs commit to industry best practices such as structuring for Ver 2 of Recommendations for evolving

National Metrics & Milestones For Business Incubators as made to the Department of Science & Technology (DST) Page 8 of 24 Government of India. April of 2013 financial sustainability, recruiting and appropriately compensating management with company-growing skills, building an effective board of directors, and placing the greatest emphasis on client assistance.”
https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/A%20White%20Paper_Metrics%20%20Milestones%20for%20Incubators.pdf

3D – 3. Risk

“New venture creation and indeed established ventures operate with the intent of being successful but failure is ever present due to the environment ventures operate in... To help venture survival, governments have developed a unique institutional arrangement called business incubation designed to help business survive and grow in the contemporary competitive environment.”
<https://link.springer.com/article/10.1186/s40497-016-0059-6>

“Business incubation is a unique institutional arrangement that is primarily concerned with developing entrepreneurial culture in a community. However, the onus remains on the entrepreneur to make the business survive, as they are prone to be affected by... the ‘incubator syndrome’.”
<https://link.springer.com/article/10.1186/s40497-016-0059-6>

“When you are a new entity within an organization, you’ve got to prove yourself. And proving yourself means having some quantified business value that people can point to. That’s true for innovation groups too, even if they want to believe that their contributions won’t hit the market for four or five years...

I advocate strongly that people trying to do new things need to have an organizational engagement plan. I actually refer to this as the “human plan.””
https://insight.kellogg.northwestern.edu/article/the_first_eighteen_months

“A sample of 371 start-up firms supported by five German publicly funded incubation initiatives is tracked over time and is contrasted with the development of an appropriate control group of 371 comparable start-ups not receiving support by an incubator. We analyze and compare survival rates as well as the evolution of the risk of market exit. We do not observe that firms located in incubators have higher survival chances than comparable firms located outside those incubator organizations...

There exists no standardized incubator organization, that is no two incubators are alike... Evaluation of outcomes suffers from this lack of homogeneity... Incubators are mostly tailored to more or less specific regional circumstances and to characteristics of their target group, and are expected to fulfill different roles in regional innovation systems.”

<https://www.econstor.eu/bitstream/10419/37055/1/626945607.pdf>

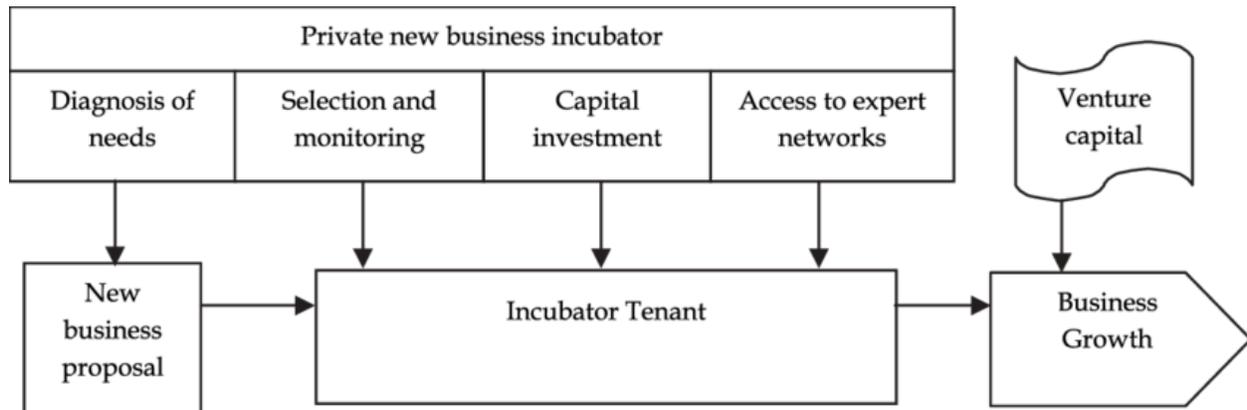
“I would like to present the claim that 90 percent of incubators will fail. By “[failing](#),” I mean they don’t return (or don’t exceed) the money that was put into them. On what basis do I make my claim? Well, the hundreds of incubators are really startups, and the oft-cited rule of thumb is that 9 out of 10 startups fail. Is there any reason why incubators would be different from other startup spaces? Just as we’ve seen with daily deals, mobile apps and games, it’s clear only a few (maybe four or five) will become leaders in the category. The rest will absorb more capital than they can return, shut down, or pivot into something else.”

<https://techcrunch.com/2012/10/14/90-of-incubators-and-accelerators-will-fail-and-why-thats-just-fine-for-america-and-the-world/>

“Many for-profit incubators can provide only limited leadership, guidance, and financing. Indeed, the NBIA estimates that the majority of for-profit incubators fail within two years of opening. For this reason, the NBIA encourages entrepreneurs to carefully research incubators before committing to membership.”

<https://www.inc.com/encyclopedia/national-business-incubation-association-nbia.html>

Campbell, Kendrick & Samuelson's (1985) incubation model



In book: *Entrepreneurship - Creativity and Innovative Business Models*, Chapter: 3, Publisher: InTech, Editors: T. BURGER-HELMCHEN, pp.41-58
Cite this publication

3D – 4. Budget Considerations

“There are 2 kinds of funding organizations that an incubator cares about and will require to build successful relationships with – i) funding institutions that will fund the development of the incubator as an organization e.g. “Your networks are important; in our case at every step we had someone who was willing to take a leap of faith with us to help propel us to the next level” Kunal Upadhyay, CEO, CIIE, IIM A Ver 2 of Recommendations for evolving National Metrics & Milestones For Business Incubators as made to the Department of Science & Technology (DST) Page 9 of 24 Government of India. April of 2013 DST, DBT, SIT, MSME, Corporate sponsors, World bank etc. ii) funding institutions that will help develop ‘Seed fund’ (early stage capital money) for the start-ups incubated at the incubator – DST, TIFAC, banks, angels, VCs...

Sometimes the funding organization for the incubator may also be the host organization for the incubator. Even in such situations, it is imperative that the

incubator treat these relationships separately and seriously and maintains fiscal discipline.”

https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/A%20White%20Paper_Metrics%20%20Milestones%20for%20Incubators.pdf

“A strong correlation exists between the size of a business incubation program’s budget (both revenues and expenditures individually) and program success (i.e., larger budget = greater success)... However, it is also important to look at revenue sources and how the incubator uses its resources. This research found that receiving a large portion of revenues from client rent and service fees is positively correlated with outcome measures, though the effect is only statistically significant for three client firm outcomes. On the expenditure side, the more programs invest in staffing and program delivery – relative to building maintenance or debt servicing – the higher the probability of improved client firm outcomes.

Incubation program budgets range from revenues of \$33,000 with expenses of \$17,000 to \$2.8 million in revenue with expenses of \$2.5 million.”

http://www.edaincubatorool.org/pdf/Master%20Report_FINALDownloadPDF.pdf

Section 4 – Other Resources

In this section are materials that can be explored for further insights on business incubators.

4A. Thought Leaders

David M Dilts, Oregon Health & Science University

David A Lewis, University at Albany

Elsie Harper-Anderson, Virginia Commonwealth University

George Fulton, University of Michigan

Hanadi Mubarak Al-Mubarak, Kuwait University

Lawrence A. Molnar, Economic Growth Institute University of Michigan

Mark Rice, Worcester Polytechnic Institute

Michael Busler, Stockton University

Robert Wolcott, Northwestern University

Sean M Hackett, MDI.Tokyo

Susan Matlock, Former President and CEO of Innovation Depot Inc.

Sramana Mitra, One Million By One Million

Thomas Lyons, Baruch College - CUNY

4B. Research Centers

Institute for Research on Labor, Employment, and the Economy, University of Michigan, Ann Arbor, Michigan

4C. Further Reading

Research Article - Incubation Best Practices That Lead to Successful New Ventures, US Department of Commerce Economic Development Administration

Book - Open Innovation: Academic and Practical Perspectives on the Journey from Idea to Market - Arthur B Markman (Editor)

Synopsis: *Authors explore a variety of new methods for improving idea development and processes, making this book an invaluable resource for readers as they learn how to create a supportive ecosystem for their employees and co-workers.*