Formation of a Business Incubator

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ABSTRACT

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. This chapter explains what steps to take to set up an incubator, including the basic structure and the kinds of services generally offered. Successful incubator programs are discussed, and a helpful bibliography focused on case studies is provided.

1. INTRODUCTION

An invention sometimes requires the efforts of a spinout enterprise to be commercialized. Without a corporate infrastructure to execute an established commercialization process, an institution, such as a university, may be reluctant to invest in the steps needed to move technology out of the laboratory. In contrast, a spinout may be more favorably positioned to embrace new technologies because of access to capital and grant monies. Philosophically, moreover, a spinout is generally more willing to accept risk than an established concern constrained, perhaps, by shareholder interest. Forming a spinout is a critical option for moving an invention into the marketplace. To succeed, three components must be assembled: capital, organization, and facilities.

This chapter focuses on the last of these. It is intended to provide fundamental background information for use by the technology transfer practitioner and includes information on terminology, incubator formation, and successful incubator programs, as well as a helpful bibliography.

2. INCUBATORS

Smilor and Gill define an incubator as an organization that "*seeks to give form and substance—that is, structure and credibility—to start-up or emerging ventures. Consequently, a new business incubator is a facility for the maintenance of controlled conditions to assist in the cultivation of new companies.*"[1]

Commonly classified by ownership and capital sourcing, there are three types of incubators: public, private, and university. Numerous sets of subclassifications of the latter two types exist, depending on their status as for-profit or nonprofit entities. Other attributes of the business incubator that distinguish it from other commercial enterprises include the range of services, the ease by which tenants can cancel their lease, and the

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reduced (often subsidized) rent during the incubation term.

3. INCUBATION AND ECONOMIC DEVELOPMENT

In the 1980s, small became big in economic development circles. During this period, state and regional economic development strategies shifted from seeking to attract companies from elsewhere (industrial recruitment) to focusing on assistance for the homegrown entrepreneur. This shift in economic development strategy occurred for good reason. Seminal studies by David Birch at M.I.T.[2] showed that almost all job growth in the U.S. economy was attributable to small companies. While the validity of Birch's findings has recently come into question, their impact on policy circles at the time is undeniable. Economic development officials and policy planners sought to create jobs in their states and regions by fostering the growth of small companies.

Small business incubators became a preferred vehicle for providing assistance to new companies. In the 1980s, incubators were referred to as the most potent economic development tool to be introduced in this decade. Only a handful of incubators were present at the beginning of the decade, but the National Business Incubator Association's report in 1992 on the state of the incubation industry illustrates their dramatic growth.[3] Of 147 respondents to the NBIA's survey, only four had opened by 1980, with nearly two-thirds opening between 1988 and 1991. Today, there are more than 500 incubators.

The incubator concept is simple and appealing. An incubator is a multitenant facility providing affordable space and an environment that promotes the growth of small companies. Initially, some incubators provided an inexpensive physical environment to spinouts in what had been old or vacant buildings. Later incubators concentrated on the companies themselves, helping them to grow by creating an entrepreneurial environment. A range of services was developed to assist the small company: shared support services, such as the availability of secretarial help, a receptionist, and access to copiers and professional services, including business planning and legal, accounting, and marketing support. Access to working capital was also arranged through provision of debt financing and equity financing, government grant/loan assistance, and connection to a financial network of angels, bankers, and venture capitalists. Today, however, most incubators prefer the company-centered approach, charging market rates for rent and offering services as the value-added benefit of locating in the incubator. Thus, incubators are probably best defined as programs rather than facilities.

Nonprofit entities operate almost 90% of incubators. Their purpose is to stimulate job growth in various sectors of the local economy. Some incubators, particularly those with ties to higher education, emphasize technology-based development. Communities that lack the critical infrastructure of technology-related business and research-intensive universities may direct incubators to serve developing companies in the manufacturing and service sectors. Incubators have also been used to encourage entrepreneurial activity among disadvantaged populations, including women and minorities. For example, the New Enterprises for Women Building in Greenville, Mississippi, targets assistance to low-income, minority women.

These varied economic development purposes are reflected in the 1991 NBIA survey, which found that the most important objectives of incubators were economic development (91.3%) and economic diversification (60.9%), followed by research commercialization, technology transfer, women/minority opportunities, and neighborhood revitalization, among others. The great variety of the types of companies incubated further confirms the diversity of purpose in business incubation. The most common company types are service (36%), light manufacturing (20%), technology products (15.9%), R&D (10.7%), and wholesaler/distributor (7.8%).

Small business incubators have proven to be effective economic development tools, even though they may not have fulfilled early optimistic expectations for job creation. Their greatest benefit may be enhancing company survival rates. Incubated companies have a dramatically higher rate of survival than the average spinout. Incubator managers report that somewhere between 80 and 90% of companies that have incubated with them are still in existence after five years. This figure vividly contrasts with the Small Business Administration (SBA) statistic that finds that only 50% of start-ups survive their first five years. These figures are less surprising when one considers that nine of ten companies fail because of management deficiencies, and that 90% of these deficiencies could have been foreseen. Job creation statistics are more modest. The average incubator in the 1991 study was four years old and occupied a space of about 20,000 square feet in size. Each incubation facility averaged 12 tenants with 54 employees. Graduate companies (those that relocated from the incubator) provided an average of 85.3 full-time jobs per incubator.

The establishment of new incubators peaked in 1987, and the new wave of economic development initiatives in the1990s focused on helping existing businesses survive and prosper in the face of global competition. 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.

4. PRELIMINARY WORK

4.1 *The feasibility study*

Conducting a feasibility study for a proposed incubator can achieve a number of important objectives and, if properly done, can provide a solid basis for judging the economic and political viability of the proposed project. The feasibility study represents the first in a series of early development phases that, for planning purposes, can be described as follows:

- feasibility: 3 months
- development: 9 months
- renovation: 3-12 months
- early-stage operations (up to anticipated break-even point): 18 months

Meeder[4] suggests a number of reasons why conducting a feasibility study is wise. These include:

- helps to forge a consensus among key organizations and civic leaders
- catalyzes the involvement of organizations that can provide the incubator with a range of resources including facilities, funding, equipment, and human resources
- allows for the completion of plans for both the facilities and the services to be provided
- helps secure funding from government sources at all levels
- educates public and private sector constituencies about business incubation in order to avoid confusion and unwarranted expectations
- provides an occasion to contact successful incubator programs in similar communities to learn their best practice lessons

A feasibility study should also reveal examples of critical errors made with respect to other incubator programs. Such errors might involve facility and site selection, structure of the governing board, funding arrangements, income assumptions, or the nature of the business assistance program.

Meeder suggests that a thorough feasibility study will help avoid the two classic errors of incubator formation: accepting the worst building in town and thinking that the management assistance program will somehow take care of itself. While recommending the use of a consultant, Meeder notes that selecting a consultant without direct incubator experience can result in a study that provides general analysis, but lacks concrete recommendations. Specific recommendations can make the difference in an incubator's long-term success. An adequate feasibility study will answer essential questions about how to proceed in a systematic fashion and how to secure funding during all the phases of incubator development. Indeed, a thorough study by a qualified consultant can and should provide the information necessary to determine whether the project should be pursued.

4.2 *Building support*

A core group committed to starting a business incubator must recognize that its efforts cannot be pursued in a vacuum. The dream of a few must become the dream of many. An incubator represents an important community investment, both practically and symbolically, and requires broad-based community support to be feasible. In *Forging the Incubator,* Meeder suggests that meetings with community leaders can achieve several objectives. Community meetings allow proponents of the incubator to:

- provide information on the business incubation industry
- invite reaction to the prospects for a local business incubator
- solicit referrals to people, companies, organizations, and facilities that can assist the process of feasibility and/or development
- offer the opportunity of direct participation, to seek specific leads to entrepreneur prospects, and/or gather information that had been overlooked

Engaging in this process should clarify the prospects for starting an incubator. The process should help to identify potential sites, funding sources, project champions from key organizations, and sources of assistance and support, both individual and organizational. The process may, however, also uncover serious impediments to realizing the project. Meeder suggests that project supporters make serious efforts to placate opponents; indeed, project supporters should not assume that the project will be successful in the face of persistent opposition. Real estate developers, for example, may resist the project because they believe an incubator will cut into their market. A persuasive argument, in this case, is that the incubator will only incubate companies for a limited period of time and that the incubator should serve to increase both the quantity and quality of companies seeking to rent space. Community consensus building should help locate organizations that will identify with the successes and failures of the proposed incubator. These organizations are known as *stakeholders*.

4.3 *Identifying and securing stakeholders*

A stakeholder is any group or individual who can affect or is affected by achievement of an organization's objectives. While each incubator's circumstances are unique, anticipated stakeholders would likely include local and state governments and a variety of public and private sector organizations (universities, major corporations) interested in fostering new-business development in the region. Stakeholders might also include economic development organizations that could fund the rehabilitation of a facility and/or the operation of the incubator program. The support of these stakeholders is critical to initiating an incubator program. At the same time, potential supporters of the incubator effort understandably have varied motivations and expectations. Their level of understanding of the purposes and methods of business incubation will vary greatly.

Stakeholders need to be identified and then cultivated. The first step is to secure commitment from potential stakeholders who have the strongest interest and who are most likely to provide financial support for the endeavor. Once stakeholders have committed to the project, the organizational structure needs to be formalized. A governing body, typically a board of directors, provides the organizational vehicle for maintaining, building, and strengthening commitment to the incubator program.

One of the board's tasks is getting interested parties to agree to a clear articulation of the mission and goals of the incubator. This articulation of the incubator's goals brings the stakeholders together with a common purpose. Experience has shown that incubators that fail to achieve consensus on mission and goals invite trouble from their board, since members will create their own tacit mission statement and begin to act accordingly.

Incubator managers should seek to expand the number of valid stakeholders. New stakeholders should be welcomed as long as they have something tangible to contribute. On the other hand, allowing tenants to serve on the board can create conflicts of interest, so tenant participation on the board should be evaluated on a cost-benefit basis. Additionally, incubator managers must remain sensitive to external conditions, which may strengthen or weaken the commitment of stakeholders to the incubation enterprise. Finally, by-laws are crucial. They provide an objective means of removing nonparticipatory board members and, at the other extreme, board members who are exerting undue influence.

4.4 *Identifying a market niche*

A business incubator will operate in a particular locale with its own rich history, so it must act with an eye to the regional economy and institutions. To become an accepted part of this complex social fabric, an incubator must establish its distinctiveness and unique purpose. From a business perspective, the incubator needs to identify its market niche. Successful businesses carefully attend to the work of defining the market position of their products and services relative to their competitors, as well as to modifying their market position in response to changing customer preferences.

Developing a market niche for a business incubator requires similar attention to these tasks. An incubator's competitors come from the spheres of real estate and economic development. Within the real estate market, the incubator must distinguish itself from other multiple-tenant properties. For a technology-related incubator, the distinction may be readily apparent, for example, in that incubator facilities may offer wet and dry lab space. Incubators also differ from conventional real estate agents in that they often offer short-term leases and flex-space for a company's expansion. Certainly, rent subsidization can be attractive to cash-poor start-ups. The availability of shared support services is another appealing feature of incubator facilities, although provision of such services by for-profit organizations has become a growth industry.

Economic development programs for small businesses proliferated in the 1980s. These programs have been referred to as "incubators without walls." Well-managed incubators often distinguish themselves by serving as a focal point for access to the broad spectrum of available business services. Incubator managers thus provide the point of contact for entry into various programs. Many efforts to assist small business are, by contrast, programmatic in nature and limited by the scope of their intent. A well-positioned incubator, on the other hand, will help its tenants access the range of existing programs and, in addition, provide access to informal networks for business and financial advice and assistance. For example, a retired executive may agree to help out a struggling firm or a business angel may appear, discretely looking for new investment opportunities.

The incubator program may also delimit itself and define its market by the type of company or client served. While high-tech incubators may limit their scope of service to technology-focused companies, some incubators may be even more targeted (for example, restricting their services to biotech companies). The customer for the incubator should be determined during the feasibility phase, during which new-business registrations, by industry type, are classified and certain industry sectors identified for their spinout potential.

Whatever the mix of services offered and the assessment of the market to be served, the incubator must somehow package its product to effectively position itself.

5. THE FORMATION PROCESS

The basic structure of an incubator facility is determined by owner attributes and regional demographics. The following owner/sponsor classifications can generally be applied:

- private
- local government
- university
- state government
- private nonprofit
- federal government

A typical organizational format includes executive and advisory boards, a CEO or operations manager, and support staff. Selections for board positions and other representative forums may come from the following: private enterprise, educational institutions, government, organized labor, development and investment community, and private citizens.

The role of the manager or chief executive officer of the incubator is both internal and external. This person is chiefly responsible for:

- incubator policy and planning
- marketing and recruitment
- tenant selection and lease negotiation
- facility operations management
- tenant service and administration

The manager has multiple constituent groups representing both the sponsoring (funding) segments and the user (spinout) population. Appropriately selecting advisory board members allows the manager to establish and maintain networks for the dissemination of information and policy to these disparate groups. Table 1 provides typical staffing levels for incubators.

An important function is marketing the incubator, which will be driven, in part, by the results of the market analysis conducted during the feasibility study. The market analysis should consider the following major aspects of the local economy:

- characteristics of large corporations in the area
- level of entrepreneurial activity in the community
- demand for incubator-type space
- small-business support services by industry type, if feasible.

Large corporations can supply an important market for new businesses and are also the chief sources of spinout companies in a region. The number, type, and rate of filing of new-business permits can provide important indicators of potential demand for incubator space. An inventory of available space broken down by type (office, manufacturing, and so on) is essential for determining potential demand.

Market information can also be secured by offering a workshop or seminar that highlights some of the proposed business-service components of the incubator (for example, a workshop on developing an effective business plan or one on the accounting needs of small businesses).

This information can provide the basis for a market strategy that is integrated into the overall incubator budget.

Proactively gathering market information is recommended over a reactive mode, which does not typically serve to effectively market the incubator. A reactive approach is tempting when an incubator manager is stretched thin with other responsibilities. However, a written marketing strategy allows other parties (board of directors, advisory board, related organizations) to assist. As Meeder[6] points out, the most successful sales organizations have a standard sales script or routine with which everyone involved is familiar.

The marketing effort should include typical means of communication, including brochures, newsletters, and press releases about new tenants, tenant successes, and graduations. One of the incubator's sponsoring organizations may be able

Table 1: Typical Incubator Staffing

	Incubator Type		
	Public	University	Private
Median number of administrative staff	1.60	1.90	3.50
Median number of business consulting staff	1.40	2.10	2.10
Ratio of business consultants to firms	0.13	0.12	0.12
Managers with previous business experience	70%	67%	92%
Managers with business consulting duties	73%	67%	93%

Source: National Council for Urban Economic Development[5] to help develop these promotional materials. In addition, the incubator story may be included in the communications of sponsoring organizations. Other organizations may also be interested in co-sponsoring seminars of interest to entrepreneurs.

Such marketing efforts are necessary but not sufficient. Studies have shown that most entrepreneurs learn about the incubator through word of mouth. To market the incubator effectively, it is incumbent on the incubator manager to continue to develop and maintain a network of contacts in real estate, banking, patent law, business and economic development, both formally, through boards of directors and advisors, and informally, through professional organizations and business contacts. Individuals in an incubator's local community are often the first to alert a nascent entrepreneur of the benefits of locating in a small-business incubator.

6. SERVICES

As the incubator concept has evolved, the range of services offered by incubators has greatly expanded. Early incubators provided access to a photocopier and a conference room, clerical support, and perhaps switchboard services. Today, incubators themselves provide, or provide access to, a broad spectrum of office, business consulting, and professional services. The most common in-house and outside services offered are given in Table 2.

In recent years, incubators have greatly expanded the variety of office services they provide. For example, the menu of office services offered by an incubator based in Pennsylvania in operation for three years includes:[8]

- clerical services
- switchboard services
- voice mailbox

Table 2: Typical Incubator Staffing

Services	In-house (percent of total)	Outside (percent of total)
Office services	81	2
Business/strategic planning	65	32
External debt financing	59	7
Government grant/loan assistance	58	28
Training/educational programs	52	29
Financial management	51	36
Sales/marketing	51	37
External equity financing	47	27
Employment assistance	31	41
Lab equipment access	29	24
Bookkeeping	23	30
Government procurement	19	52
R&D/product development	19	43
International trade	14	52
Accounting or tax assistance	8	59
Legal/patent services	6	67

Source: NBIA[7]

- electronic mailbox
- telephone equipment
- FAX service
- postal service
- overnight courier service
- notary services
- photocopier
- VCR/TV equipment
- audio-visual equipment
- conference room
- printing services
- furniture rental
- laser printing/graphics
- auto service discounts
- sports ticket purchasing

Business consulting services may include business plan preparation, financial planning, advertising and marketing, strategic planning, technical and commercial communications, relocation planning, capital development (equity and debt services), business taxes, employee relations, R&D, and government procurement.

Professional services include legal/patent services, accounting, business development (including sales/marketing), and technical/scientific support, among others. Professional services may be provided at special discounts to incubator tenants. Some incubators arrange for new tenants to initially receive some professional services at no cost or at a deep discount. Given that entrepreneurs have no time to spare, professional service providers are often regularly available at an incubator and make themselves available for support and consultation.

In developing the spectrum of services for a new incubator, several options need to be explored. First, there is the essential question of which services will be offered. Next, incubator managers must consider which of these services will be offered in-house. This will depend on internal resources and the external availability of business services. The availability of qualified outside sources will depend on the success of forging informal alliances with a range of service providers in the public and private sectors. For those services offered in-house, the question of cost recovery will need to be addressed. Several services are typically included as a standard feature in a tenant's rental agreement. These most commonly include janitorial service, management assistance, utilities, shared office services, and financing assistance. Other services, such as clerical assistance, are charged back to the company on an at-cost or cost-plus basis. The quality, range, dependability, and accessibility of these services are the value-added features that will provide the strongest lure for attracting entrepreneurs to an incubator. The incubator should solicit feedback from tenants to ascertain whether or not the services are effectively meeting their needs and to determine whether additional services should be added.

7. STRATEGIC PLANNING

While the previous sections have addressed discrete issues related to incubator formation, the need for strategic planning—and the integration of these various elements into a coherent, multi-phased plan—should be apparent. Determinations about one aspect of the plan will affect other aspects. A rather obvious example is the effect that the facility's net available square footage will have on rental income. More subtle considerations might include expectations for the facility's long-term self-sufficiency. Managers should consider whether self-sufficiency can be achieved solely from rental income, through subsidies from sponsoring organizations, or through grants.

Strategic planning compels incubator management to confront tough issues. How will the incubator continue to operate if revenue projections from rental income are not achieved? How will major facility repairs (for example, a ruptured boiler) be paid for? Addressing these worst-case scenarios through strategic planning can provide both a clear course of action if things go as planned and, if they do not, the necessary contingency plans to navigate what may be a difficult beginning.

Strategic planning usefully determines not only *what* will be done but *when* it should be done. The initiation of a new phase of the incubator may or may not be made contingent upon the successful completion of an earlier phase.

Can the operation begin as an "incubator without walls," providing business services before the facility is ready for occupancy? At what point in the development process is the manager hired? The notion that timing is everything is certainly true in strategic planning for an incubator spinout.

8. CASE STUDIES

Detailed case studies in the literature are cited but not restated in this chapter since these studies are generally quite lengthy. Some of the incubators noted below are not in operation today, but the histories may still provide useful information. As a guide to the reader, these studies are classified in outline form to permit selection based on interest.

The first set of examples is facility-based:[9]

- university-related incubator: Renssalaer Polytechnic Institute—The Advanced Technology Development Center
- community-sponsored incubator: The Fulton-Carroll Center for Industry
- corporate/franchise incubators: Control Data Corporation Business and Technology Centers
- private incubator: The Rubicon Group

The second group is objective based:[10]

- promote economic diversification: St. Paul Small Business Incubator
- provide a base for advanced technology development: Ohio University Innovation Center
- opportunities for targeted populations: New Enterprises for Women Building (NEW Building)

In sum, principal factors for successful incubator strategies include:

- Know the community and its strategic strengths and weaknesses.
- Locate entrepreneurial opportunities.
- Design (tenant) selection criteria to match goals and objectives.
- Determine the space and service needs of tenants.
- Locate the facility in a site that can be developed within the cost parameters of target companies.
- Find opportunities to link up with existing sources of business and management services.
- Recruit an entrepreneurial personality to manage the incubator.
- Build an overall environment for entrepreneurship.

9. CONCLUSION

Incubators have been formed to serve entrepreneurs of every ilk; they have been established by a wide variety of sponsors. It is therefore not surprising that their missions, programs, and objectives have differed substantially. Nevertheless, over the past 15 years, examples of best practices have emerged. Some general factors critical to an incubator's success include:[11]

- on-site business expertise
- access to financing and capitalization
- in-kind financial support
- community support
- entrepreneurial networks
- entrepreneurial education
- perception of success
- selection process for tenants
- ties to a university
- concise program milestones with clear policies and procedures

Along a more practical vein, some of the specific practices known to affect the relative success of incubator operations include:[12]

- Incubators with less than 30,000 square feet have generally been unable to reach financial self-sufficiency.
- Incubators without an articulated policy for collecting past-due rent have experienced high levels of bad debt.
- An incubator manager's most effective use of time is to evenly balance attention to tenant services and facility upkeep. Initially, the demands of the facility will predominate. Subsequently, the manager should concentrate on achieving balance

by expanding time spent in the provision of services.

- Terms and conditions of tenant leases are critical for protecting the incubator program.
- The phone system is an essential link for companies and must be structured appropriately.
- The board of directors must be clear about its authority regarding management decisions versus policy decisions.
- The structure of service provision should include ways to increase effectiveness within the budget. Methods include the use of third-party service providers and collecting fees for services.
- Exit policies should encourage, but not mandate, tenant graduation. ■

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2 Birch D. 1979. *The Job Generation Process*. M.I.T. Mimeo of the Program on Neighborhood and Regional Change; Boston. Birch D. 1981. *Choosing a Place to Grow: Business Location Decisions in the 1970s* Mimeo of the Program on Neighborhood and Regional Change. Birch D. 1981. Who Creates Jobs? *Public Interest* Fall. pp. 3-14.

3 NBIA. 1992. *The State of the Business Incubator Industry 1991.* National Business Incubation Association: Athens, Ohio.

4 Meeder RA. 1993. *Forging the Incubator: How to Design and Implement a Feasibility Study for Business Incubation Programs.* National Business Incubation Association: Athens, Ohio.

5 National Council for Urban Economic Development. 1985. *Creating Jobs by Creating New Business—The Role of Business Incubators*. National Council for Urban Economic Development: Washington, DC.

6 See *supra* note 4.

7 See *supra* note 2.

8 See *supra* note 5.

9 Based on selections listed in *supra* note 1.

10 Based on selections listed in *supra* note 2.

11 See *supra* note 1.

12 See *supra* note 5.