

Good Practice

Before embarking on design, stakeholders need to have objectives in mind and an idea as to what sort of business incubator is appropriate. This may emerge from consideration of readiness, or be the reason why a business incubator is being considered in the first place. Despite differences all incubators share common characteristics and models are best considered in terms of adapting common principles and good practices to a particular culture and situation.

Objective

This article gives an introduction to the types of business incubator that exist globally, noting that incubators will vary between countries and regions depending on the local conditions, culture and the range of other business development services available

Types of Business Incubator

There is a broad spectrum of models of business development through business incubation. However, the vast majority of business incubators fall into two general categories: technology, focusing on commercialization of new technology and technology transfer; or, mixed use servicing a wide range of clients. For example, in the USA and Australia mixed use is still the largest proportion of business incubators (USA 47% as opposed to 37% technology¹ business incubators and in Australia about 80%²).

Either type can be specialized in a particular industry, although possibilities need to be strongly qualified with regard to the critical mass that can be achieved. With a specialized business incubator the pool of possible clients is limited. In large economies such as the USA and in Europe there are many variants of business incubator, but in smaller countries it may be hard to achieve critical mass at a very general business incubation level, let alone for a more specialized variant.

Indeed, rather than specialization, aggregation and convergence of different types of business incubation along with related services may be more applicable.

Incubation first emerged in developed countries in the 1980s, operating alongside many other generic business development services, and evolved with narrow and deep services for a small select group of companies. Subsequently developing countries picked up and ran with the concept, so that today there are more incubators in developing than developed countries. In adapting incubation to these very different environments, models and concepts evolved, encouraged and welcomed by the infoDev incubator initiative and practitioners concerned about making incubation relevant to particular local circumstances. The traditional business incubation found in developed countries is often not relevant.

Hybrid models, combining outreach, virtual and broader services with more traditional incubation, for both new and existing businesses, have emerged in many developing countries, particularly those with smaller economies, limited generic business support

¹ *2002 State of the Business Incubation Industry*, NBIA, 2002

² *National Review of Small Business Incubators*, 1999, Department of Employment Workplace Relations and Small Business. No more recent data is available in Australia and it is estimated that the proportion of mixed use or general purpose incubators in Australia is between 60% and 80% now.

services, weak cultures of entrepreneurship, difficult business environments and limited resources to support innovation. Often a critical mass of demand for intensive narrow and deep incubation does not exist and broader less intensive and more diverse services are needed to extend impact and to develop entrepreneurial and innovative cultures and business environments. These all help firms along the growth path and nurture the demand for more intensive and traditional incubation services.

In large growing economies like China incubation has converged with Technology Parks, cluster development and investment incentives, resulting in new hybrid models suited to the Chinese environment. Even though smaller countries can never have the scale of China the resulting models show the potential of hybrids compared to traditional incubation on its own.

More flexible and adaptive business models have resulted suited to local environments, and often combining outreach, virtual and resident clients. Within the infoDev network in developing countries there are traditional intensive incubators, incubators that develop cooperatives with very poor people, incubators in agricultural value chains that incubate entire village communities, cyber parks, incubators developing socially and environmentally relevant products, incubators that use their position to improve the business environment, incubators to develop the ICT industry and ICT enable other businesses and others offering basic ICT and business services such as embodied in the Busy Internet model, which has more than 1,000 clients a day, to note just some of the variety. It is very clear that what fits one location may not suit another and that incubators need to be developed to suit their particular environments and challenges.

The following typology is representative of others and was used for the Monitoring Evaluation and Impact Assessment of the InfoDev Incubator Initiative in 2007.

Business Incubator Typology and Overview

	Context & Features	Strengths (Broad)	Challenges (Broad)
Mixed Portfolio Business Incubation	<ul style="list-style-type: none"> Targets high-growth firms in a range of sectors May select sectors that align with the overall regional or national competitiveness strategy May exist in environments where there is little entrepreneurial activity 	<ul style="list-style-type: none"> Can align with regional and national strategies, germinate new areas of competitive capacity and provide a locus for innovation in this regard In environments where there is little entrepreneurial activity, may include extensive “pre-incubation” and education activities in order to source entrepreneurs and businesses 	<ul style="list-style-type: none"> Where new competitive sectors are under development, time to achieve impact and scale may be long Where there is little entrepreneurship, attracting clients with high growth potential can be a challenge and may not be possible to operate at the scale necessary to support the incubator’s business model
Technology Business Incubation	<ul style="list-style-type: none"> Targets high-growth technology firms Require foundation of strong technology and human capital infrastructure Where this infrastructure and human capital are weak, may require extensive pre-incubation activities May exist in economies in transition 	<ul style="list-style-type: none"> Can be an economic resource by attracting and developing research, skills and businesses Can develop technology as a new source of competitive capacity 	<ul style="list-style-type: none"> May be challenged to scale businesses beyond seed stage because of lack of financing and difficulties entering international markets
Business Incubation with University Relationships	<ul style="list-style-type: none"> Frequently the university or academic institution has a role as founder and is a source of resources such as research, expertise, space and/or funds Typically targets technology firm, but may work with other sectors 	<ul style="list-style-type: none"> Opportunity to bridge the gap between research and commercialization or technology transfer Access to intellectual property and the potential to develop competitive businesses from it Often provides financial stability for incubators 	<ul style="list-style-type: none"> Can create ‘cultural’ tensions if academics seen as good researchers but poor managers or if the university is seen as too bureaucratic or risk-averse
Agri-Business Incubation	<ul style="list-style-type: none"> Targets firms in the agriculture sector Aim is to commercialize innovative practices or transform sector firms from slow-growth to growth 	<ul style="list-style-type: none"> Can often have significant economic and social impact by improving the livelihoods of communities Can have a agri-technology focus and focus on commercialization 	<ul style="list-style-type: none"> Requires both business and community development skills May be challenging to enter markets beyond local communities
Social Business Incubation	<ul style="list-style-type: none"> Uses entrepreneurship and innovation as a mechanism for social impact Engages entrepreneurs who may be disenfranchised or where illegal economies are prominent May focus on socially valuable products and services 	<ul style="list-style-type: none"> Can be a vehicle for economic impact and social change for individuals, families and communities Effective models and methods evolving rapidly 	<ul style="list-style-type: none"> May require significant investment in human capital and “pre-incubation” activities with no assurance that early stage business incubation can begin The ‘ripple effects’ of social impacts can be difficult to measure

Types of Incubator

	Context & Features	Strengths (Broad)	Challenges (Broad)
Technology Parks	<ul style="list-style-type: none"> ▪ Designed to accelerate growth of relatively mature businesses ▪ Focus on range of technology firms, but may target specific industries ▪ May use incubation as way to source future clients 	<ul style="list-style-type: none"> ▪ Recognized by public and private sectors as a source of economic impact ▪ Can be a focal point for innovation and entrepreneurship, attracting talent, ideas and financial resources 	<ul style="list-style-type: none"> ▪ Discipline required to focus on growth businesses, which means that critical mass to make business model viable may not always be possible ▪ Where businesses are maturing, may be difficult to demonstrate value of incubation beyond cost-effective space and infrastructure provision
Associations and Networks	<ul style="list-style-type: none"> ▪ Targets incubation organizations for membership and collective activities ▪ May be advocates in promoting entrepreneurship and innovation, especially in economies where this is not prevalent ▪ Often play a significant role in learning and training and providing networks for members 	<ul style="list-style-type: none"> ▪ Can be influencers in including the SME sector in national and regional competitive strategies ▪ Can be important for capacity development for both incubators and their clients and with other stakeholders such as policymakers 	<ul style="list-style-type: none"> ▪ In some cases difficulty attracting resources to scale

According to Albert and Gaynor in National Contexts, Incubator Families and Trends in Incubation – Views from Four Countries, there are a series of factors that can impact the type of incubator being planned. Hence, the planning process may require a review of the following:

	Local Economic Development Incubators	Academic and Scientific Incubators	Corporate Incubators	Private Investors' Incubators
Goal	Non-profit	Non-profit	For Profit	For Profit
Main Activity	Mixed-uses	High-Tech	High-Tech	High-Tech
Objectives	<ul style="list-style-type: none"> • Job creation • Reindustrialization revitalization • Economic development • Support to particular target groups or industries • Development of SMEs and clusters 	<ul style="list-style-type: none"> • Commercialization of technologies • Development of entrepreneurial spirit • Civic responsibility • Image • New sources of finance 	<ul style="list-style-type: none"> • Develop entrepreneurial spirit among employees – keep talents • Monitoring - access to new technologies and to new markets • Profits 	<ul style="list-style-type: none"> • Profits by selling stocks from a portfolio of companies allowing risks to be spread • Co-operation between companies within the portfolio
Targets	<ul style="list-style-type: none"> • Small commercial craft or service companies. • In some cases, high-tech companies 	<ul style="list-style-type: none"> • Projects internal to institutions prior to company creation • External projects 	<ul style="list-style-type: none"> • Internal and external projects, generally related to the activity of the company. 	<ul style="list-style-type: none"> • Technological start-ups generally ICT related
Offering	<ul style="list-style-type: none"> • Hosting and shared services • Administrative assistance • Consulting • Eventually: • Coaching –training-networking 	<ul style="list-style-type: none"> • Concept testing • Technical advice and support • Intellectual property advice • Seed capital • Basic management advice 	<ul style="list-style-type: none"> • Financial resources • Prototype and market testing • Access to commercial markets • Eventually: • Long-term strategic 	<ul style="list-style-type: none"> • Management and strategy advice • Supply of one or several types of finance and search for complementary financing • Personal networks

Types of Incubator

	<ul style="list-style-type: none"> • Access to finance 	<ul style="list-style-type: none"> • Eventually: • Access to business angels and venture capitalists • Access to industrial networks • Strategic advice • Coaching • Hosting 	<ul style="list-style-type: none"> • partnerships • Access to multiple competencies 	<ul style="list-style-type: none"> • Eventually: • Hosting and administrative assistance • Legal services, public relations, recruiting, etc
Key Problems	<ul style="list-style-type: none"> • Durability –lack of resources stability • Quality of management and provided-services - dependent on the quality of the manager • Governance, risk of conflicts about the objectives, bureaucratic red tape, time spent in negotiating with the different partners 	<ul style="list-style-type: none"> • Legitimacy inside the institution • Legal status, governance, independence and operational flexibility • Income sources • Management quality • Access to external resources and networks 	<ul style="list-style-type: none"> • Strategic position of the incubator for the corporate structure • Management independence and ability to mobilize internal resources • Durability of the of the incubator's mission • Conflicts about the objectives between the owners / the managers of start-up or the company 	<ul style="list-style-type: none"> • Quality of projects & sourcing • Level and conditions of the incubator payment in comparison with provided services • Valuation of the incubator's participation at entry and at liquidation • Durability of the incubator
Trends	<ul style="list-style-type: none"> • Regular development • Increasing territorial coverage 	<ul style="list-style-type: none"> • Rapid development under the aegis of public programs 	<ul style="list-style-type: none"> • Testing the concept in numerous companies • Likely to develop 	<ul style="list-style-type: none"> • High levels of consolidation and restructuring of the sector • Still looking for a successful model

International Business Incubators

The typologies above do not specifically address International Business Incubators, which help companies from one country enter markets in another and which are emerging around the world. The first was the International Business Incubator in San Jose, now called the US Market Access Centre (www.usmarketaccess.com).

Industry Sector Specialization?

One legitimate fear stakeholders might entertain is that if a business incubator does not focus upon a particular industry sector, focus and valuable industry knowledge may be diluted. Without doubt specialized business incubators can have advantages. Services can be focused on the needs of the industry, industry synergies can be fostered and business incubator management can develop considerable expertise in that industry. For these reasons many practitioners and commentators, typically from large developed and developing economies argue that business incubators should be specialized; assuming there is critical mass in the area of specialization. This argument needs to be considered carefully by business incubator proponents, because specialization will limit the potential market and may result in a business incubator not having adequate critical mass. Sometimes the advantages of non-specialization are overlooked. Cross industry linkages can be capitalized upon (e.g. high tech software developers still need access to a range of services and all businesses need to be ICT enabled to grow) and the target market is larger. Sometimes reality belies the debate. Technology business incubators are appealing icons for development, but often in developing countries incubate many ICT service companies that are more typically found in mixed use business incubators in developed countries; the R&D based technology commercialization companies found in developed country technology business incubators may be non-existent in the country concerned, especially smaller countries without an established industrial base.

Most successful business incubators, whether high tech or general, are not specialized in a particular industry sector. Specialization limits the market being served and increases the risk, at the same time as reducing the potential economies of scale.

More commonly, specialization is not exclusive and is achieved by themes or clusters within the one business incubator. For example, a business incubator may have a range of different clients and 'mini-business incubators' within the overall structure, benefiting from specialization and non-specialization, without limiting the market being served. There are many examples. One is the San Jose Environment and Software business incubators (called Environment and Software Clusters), which are branded separately, but with common management and in the one building. Client industry specific needs can be addressed by using specialized business coaches or staff. Furthermore, business management principles and skills do not vary much between industries.

Broadened Models: Convergence and hybrids

Business incubation is not an isolated concept and has many similarities with Technology, Cyber or Science Parks and industry clusters, in that each involves a 'place', processes and growth companies. The main difference is that business incubation focuses on growth processes for early stage companies, which will graduate (i.e. leave the process) at some point in time, something that makes no sense with clusters or Parks. Moreover, technology business incubators are a common feature in Technology Parks, whereby an incubator 'grows' tenants for the Park, and some clusters have an business incubation component. Where there is limited critical mass, such as in small isolated economies, there are good arguments for them all to be combined, to maximize critical mass and capability, with convergent or hybrid models - perhaps in the form of 'hubs' and 'spokes'. The Innovation Hub in Pretoria, South Africa, is just such an example with a park, cluster and business incubator all together, focusing on regional industry and R&D strengths in ICT, life sciences, and advanced manufacturing and materials.

New convergent or hybrid models takes integration to a new level and is happening in a number of countries; something that is often overlooked with the current typology and compartmentalization of activities. With prevailing typologies, a business incubator is looked at through a business incubation 'lens' and associated good practices, a technology park through a technology park 'lens', and activities that do not fit either are often not seen at all. To properly appreciate and understand the new and emerging hybrid models a new 'lens' is required one that does not miss any of the important elements, which may be concentrated at the margins. The sophistication of practices and thought linked to the current typology can be very useful but at times is akin to trying to look at a tree through a microscope.

Technology Parks (synonyms: Science Park, Research park, Cyber Park, Techno pole) and Industry Clusters may be grouped together with business incubation as 'collaborative networks' involving a 'place' and work with growth companies. At the other end of the spectrum are Business Development Services, which support small enterprises, mostly micro enterprises and family based, and business aspirants, without a focus on growth but serving large numbers of people.

Science Parks and Incubation

Science Park

- Linked with educational or research institutions
- Provides infrastructure and support services for businesses, particularly real estate and office space
- Performs a technology transfer function
- performs an economic development function
- Accommodates large and established businesses
- Often involves business incubation of new companies
- May focus upon a particular industry, often ICT, or be more general in nature

Difference to Incubation

- Business incubation focuses on growing new companies which will leave the business incubation program when ready (graduation).

Clusters and Incubation

Clusters

- Geographic concentration – spatial proximity
 - Specialization around a core activity
 - Multiple Actors, including firms, public authorities, academia, members of the financial sector and collaborative institutions
 - Competition and cooperation
 - Critical mass to achieve the necessary inner dynamics
 - The cluster life cycle with a long term perspective
 - Innovation - technological, commercial or organizational change[1]
- [1] The Cluster Policies White Book, Andersson, Serger, Sorvik & Hansson, IKED, 2004.

Difference to Incubation

- As with Science Parks graduation is not a feature of clusters. Clusters by definition focus upon a particular specialization, often an industry sector or sub-sector.
- Some clusters involve business incubation but it is not as common as with Science Parks

Business Development Services & Incubation

Business Development Services and Advisory Centers

- Generic services for small enterprises and business aspirants typically providing:
- Information
- Training
- Advice
- Most variants rely upon private sector service providers, coordinated by the service.

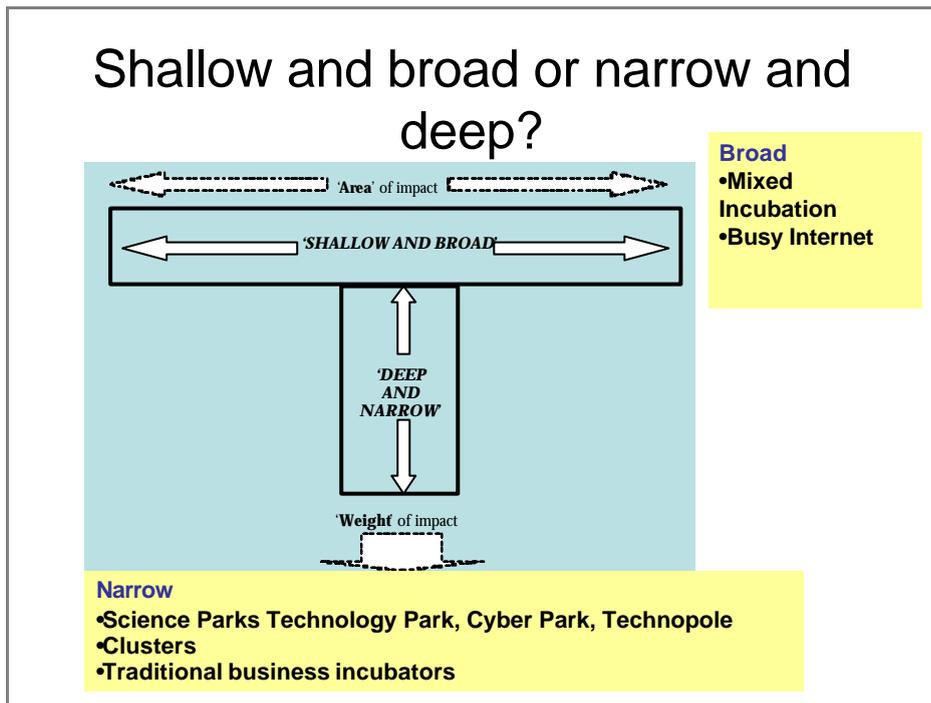
Difference to Incubation

- Business incubation is a more focused, intensive and selective service for the percentage of firms that have growth aspirations and potential. This is only ever a minority of all businesses.

Shallow and broad or narrow and deep?

A useful distinction is that between narrow and deep incubation, with intensive services for a limited number of clients and shallow and broad services incubation, with less intensive services for many clients. The two are not mutually exclusive and some incubators offer shallow and broad services to generate and nurture a limited number of quality clients for intensive incubation.

The distinction is portrayed in the following diagram.



Recognizing that intensive incubation requires a better business environment, the following diagram relates this distinction to the state of the local business environment, for which GNI is only one proxy.

Incubation types and applicability

