#### Suite 3

Advanced Incubator Management



## 11 Setting-Up Virtual Services







*info*Dev c/o the World Bank Group 1818 H Street Washington DC 20433 USA

www.idisc.net www.infodev.org/businessincubation

infodev@worldbank.org

## Introduction to the Training Program

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#### INTRODUCTION TO THE TRAINING PROGRAM

This is the trainee manual for Module 11 Part 1 - out of 11 modules in total - of *info*Dev's State-of-the-Art Business Incubation Training Program for Business Incubator Managers in Developing Countries.

*info*Dev (www.infodev.org) is a research, capacity building and advisory services program, coordinated and served by an expert Secretariat hosted by the World Bank Group. It helps developing countries and their international partners use innovation and information and communication technologies (ICT) effectively as tools for poverty reduction and sustainable social and economic development. *info*Dev is a leader in business incubation of technology-enabled enterprises. *info*Dev's global business incubation network reaches close to 300 business incubators, more than 20,000 small and medium enterprises, and has helped create over 200,000 jobs across 87 developing countries.<sup>1</sup>

*info*Dev has found that high quality leadership is a key factor determining the probability of success for an incubator. *info*Dev therefore seeks to increase the capacity of business incubation managers – and their stakeholders – through one-on-one technical assistance, regional and topical peer-topeer networks, the bi-annual Global Forum on Innovation and Entrepreneurship, and its web-based networking and knowledge-sharing tool **www.idisc.net**. This training program was designed in direct response to repeated requests from *info*Dev's technology entrepreneurship community for an indepth business incubation training program relevant to the developing country context.

This training program is the first-of-its-kind, drawing from the lessons, models, and examples in business incubation from across Africa, East Asia and the Pacific, Europe and Central Asia, Latin America & the Caribbean, Middle East & North Africa, and South Asia. More than 30 experts contributed directly to the writing of the training modules, and the materials were tested with more than 300 professionals in developing countries all of whom provided inputs to the final design.

This training program is designed for business incubation managers and other business incubation stakeholders wishing to increase their understanding and know-how of the business incubation process. It consists of 11 training modules ranging from basic introductory topics designed for professionals new to business incubation, to specialized topics such as Technology Commercialization and Virtual Business Incubation Services.

<sup>&</sup>lt;sup>1</sup> Souce: infoDev activities from 2002 to 2009 - http://www.infodev.org/en/Article.473.html

The modules include:

#### SUITE 1 – BUSINESS INCUBATION BASICS

#### Module 1 – Business Incubation Definitions and Principles

This module provides an introduction to business incubation. It introduces key definitions and presents the main principles and good practices of business incubation. It aims to equip current and future incubator managers and policy makers with the knowledge, skills and understanding of the fundamentals of business incubation in order to effectively foster and encourage businesses.

#### Module 2 – Business Incubator Models, Including Success Factors

This module aims to illustrate various business incubator models based on practical examples of incubators from all over the world. The ultimate goal of this module is to empower current and future incubator managers with a thorough understanding of the various business incubator models and their critical success factors as well as to help them identify the best model to adopt for their own incubator to be successful.

#### SUITE 2 – BUSINESS INCUBATOR OPERATIONS

#### Module 3 – Planning an Incubator

This module, which divided in two parts, covers assessing the feasibility and designing the business model for an incubator. The first part is aimed at providing a thorough understanding of developing a feasibility study. This includes the steps to undertake a pre-feasibility study, the components that it should address, as well as how to gauge the market need and decide whether an incubator is the most appropriate solution. The second part of the module focuses on business planning to establish the incubator business model.

#### Module 4 – Marketing and Stakeholder Management

This module is designed to support efficient and effective communication of the incubator with key customers and other stakeholders based on a good understanding of the market place. This is important since it will help the incubator to establish and increase its reputation as a sustainable organization that fulfils its mission.

The first part of the module focuses on identifying, assessing, and reaching customers/ stakeholders, as well as potential ally organizations providing business support services to enterprises; while the second part is dedicated to defining the incubator's value proposition and engaging marketing channels.

#### Module 5 – Financing an Incubator

The first part of this module aims to guide current and future business incubator managers through mastering the incubator's financial data (such as costs and revenues) in order to enable them to identify the financing needs of the organization as well as to explore potential sources of financing.

Building on the first part, the second part of the module is dedicated to demonstrating, to current

and future business incubator managers, how to develop a fundraising strategy and to monitor the financial performance of an incubator.

#### Module 6 – Managing the Incubator

This module provides current and future business incubator managers with an overview of sound management practices for a successful incubator.

The first part addresses the topics of incubator policies and governance and the second part is dedicated to operations and human resources management.

#### Module 7 – Monitoring, Evaluation and Benchmarking

This module aims to provide incubator managers with the required information, skills and insights to develop their own monitoring and evaluation system and to carry out benchmarking activities.

The first part of the module is dedicated to helping the incubator manager understand the added value of monitoring and evaluating the performances of his/her incubator; defining relevant and adequate performance indicators; and exploring how to monitor and evaluate, notably by studying existing tools and methodologies.

The second part focuses on empowering the business incubator manager to use the data collected through monitoring and evaluation activities to compare the business incubator's performance with those of similar organizations.

#### SUITE 3 - ADVANCED INCUBATOR MANAGEMENT

#### Module 8 – Implementing a Mentoring Program

This module provides, in its first part, a conceptual framework for gaining a thorough understanding of the mentoring process and its purposes from three perspectives: that of the business incubator, the mentor, and the mentee.

The second part of the module focuses on how to implement a mentoring program.

#### Module 9 – Deals and Financing for Incubator Clients

This module aims to provide a thorough understanding of the alternative sources of financing for incubator clients by notably describing programs and processes that will enable the incubator manager to assist his/her clients in accessing financing.

The first part focuses on preparing incubatees to engage in the process of accessing financing while developing the capacity of the incubator to assist incubatees in accessing financing. The second part of the training module explores financing from the perspective of both the incubatees and the incubator.

#### Module 10 – Technology Commercialization through Incubation

This module describes technology commercialization divided in two parts. The first relating to

challenges and lessons learned associated with this process as well as how to manage expectations regarding the results of technology commercialization. This part also concerns the role of the incubator in facilitating technology commercialization in the pre-incubation phase.

The second part of this module focuses on the role of the incubator in technology commercialization in both the incubation and the growth phases.

#### Module 11 – Setting Up Virtual Services

The first part of this module provides a conceptual framework for understanding virtual services. It is designed for current and future business incubator managers who are considering virtual incubation either as a stand-alone business model or as part of their overall incubator service portfolio to extend their current service offering.

In its second part, the module aims to guide current and future business incubator managers and help them to decide if virtual incubation is the right solution for their incubator. The module then explores the most common challenges and how to address them.

Figure 1 groups the modules by preferred level of experience and suggested module sequence.

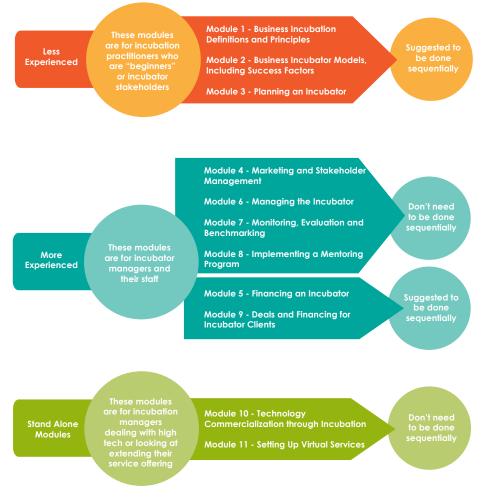


Figure 1 – Module Selection and Sequence



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- Mustapha Mezghani infoDev Regional Facilitator for Africa
- Mark Nielsen Senior Advisor, Business Edge Management Training, SME Management Solutions, International Finance Corporation
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- Tania Saba Mazraani Director, Technology & Health, Berytech, Lebanon
- Jill Sawers infoDev Innovation and Business Incubation Consultant
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## Module Objectives

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Module 11 on "Setting-up Virtual Services" has two overall objectives:

The first objective is to provide a thorough understanding of the fundamentals of virtual incubation. This module is designed for development teams who are considering virtual incubation either as a stand-alone business model or as part of their overall incubator service portfolio. Alternatively it is aimed at existing incubator managers who are considering extending their current service offering to include virtual services or complementing their existing range of virtual services. The module therefore aims to address first and foremost the following questions:

- What is virtual incubation and what are the pros and cons compared with traditional incubation?
- Why should an incubator provide virtual services? And to what type of client?
- What type of services should be delivered virtually?
- How to decide if virtual incubation is the right solution for your incubator?
- What virtual services should be provided and what resources and infrastructure are required to deliver them?

Secondly, the module aims to address, in detail, some of the major tasks and challenges faced in the set-up and delivery of virtual services. At the end of the training, the incubator manager should have completed and take away an action plan to implement virtual services which takes into account all considerations from marketing to operations. Some of the challenges addressed in this regard are:

- The relationship between incubator and client in virtual incubation:
  - o How the relationship differs between traditional and virtual incubation;
  - o Challenges faced including how to develop trust, foster peer learning, how to be proactive as opposed to reactive?; and
  - o Understanding the important role of the 'coach' in adding value to virtual services.

• Assessing when it is best to 'build new virtual services' versus using existing tools and practices and a more detailed analysis on infrastructure challenges and solutions;

- Revenue models for virtual incubation; and
- Adapting incubator monitoring and evaluation procedures for virtual services.

#### TRAINEE TRAINING OBJECTIVES

This module is targeted at trainees who may be a member of an incubator development team, an incubator manager, a member of the incubator board of advisors or a staff member within an incubator. By the end of this training, the trainee will understand:

- The principles of virtual incubation, the different types of incubation services which can be provided and the optimal situation for delivering different types of virtual services;
- How to decide if the provision of virtual incubation services is a good strategy in their operating area and how to generate revenue from virtual services;
- How to assess when it is best to 'build new virtual services' versus using existing tools and practices;
- How to implement different types of virtual incubation services from administration services and facilities to added value services such as online coaching;
- The nature of the relationship between incubator and client in the delivery of virtual services;
- How to adapt monitoring and evaluation procedures to ensure optimal long term use of virtual services; and
- How to put together an action plan to deliver virtual services.

# Introduction to this Module

The traditional view of business incubation has always been strongly focused on facilities such as the provision of office and/or lab space with access to additional central business support facilities. However, for some companies, particularly in the early phase of development, on-site space and facilities may not be required at all. For other types of companies such as high-tech companies operating in an international environment, physical incubation space may be important but access to virtual services may be equally necessary in terms of providing specialist knowledge which may not be available through their local business incubator. Therefore a paradigm shift has to be realized: incubation needs should be considered as a process rather than a place and incubation services, be they physical or virtual, should be tailored to meet client needs at the different stages of their business development.

With this in mind, virtual incubation services may be offered as part of a comprehensive suite of incubation services (which also include physical incubation space) or as a stand-alone solution providing access to incubation services in regions or parts of the community that would be otherwise unable to take advantage physical incubation facilities. In cases where geographical challenges or limited space availability restricts the number of clients that can be physically accommodated, virtual services means incubators can extend their reach to clients who require other types of incubation services. Virtual services are also more relevant in certain societies, for example in male-dominated societies where it may be difficult for women to leave the home to focus on their business projects.

In this module, the term 'virtual services' covers all above scenarios.

In each scenario, the advent of new technologies opens up new fields and networking opportunities. On-line resources and multimedia applications provide huge potential for offering virtual business creation tools and innovation management support, from the delivery of entrepreneurship training (via distance learning tools in remote geographical regions) to online networking forums connecting international high-tech communities. 27



Component 1 (Part 1 Training):

Preparing Incubatees to Engage in the Process of Accessing Financing

#### COMPONENT INDEX

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Section 1.7: Facilities Considerations in the Context of Virtual Incubation

#### COMPONENT OBJECTIVES

This component is designed to ensure that trainer and trainees share a common conceptual framework and terminology regarding virtual services.

At the end of this component, trainees should be able to:

- Communicate effectively with other participants and with the trainer about virtual incubation models and services;
- Communicate effectively with stakeholders about virtual incubation upon return to the incubator; and
- Understand the pros and cons of virtual services and decide whether or not virtual services would be the right choice for their incubator.

## Section 1.1: Definition of Virtual Incubation

#### Section 1.1.1: An Introduction to Virtual Incubation

Scaramuzzi<sup>2</sup> established that virtual incubators are typically hosted by a university or a research center and are characterized by the ability to operate with and without the support of a building infrastructure. Virtual incubators operate as "incubators without a physical presence", serving their clients as a virtual facility or resource with the support of the Internet and provide services within an e-learning methodology.<sup>3</sup>

In the late 1990's, a new trend in virtual incubation emerged whereby 'for-profit' private sector virtual incubators were established by large companies or Venture Capital (VC) companies, with the primary objective of creating a return on investment from the start-ups they coach and finance. Very often, these virtual incubators were sector-oriented and focused on high-tech sectors such as ICT and life sciences. In many cases, their services were entirely virtual and incubation space did not form an essential element of their offering. At the height of their popularity, in 2000, a Harvard Business School survey<sup>4</sup> identified 356 such incubators worldwide, corresponding to approximately 10% of the total global incubator population. The majority of these incubators were located in the US (222) and in countries such as Canada (14), the UK (28), China-Hong Kong (11) and Brazil (10). However, since the 'dot-com' crisis of the early 2000's, VC-led incubators have faced a steep decline and today account for only 6% of incubators in the USA, for example.<sup>5</sup> The Virtual Incubation Company<sup>6</sup> operating in the US is an example of their type of technology venture development incubator.

Outside of the VC-led virtual incubation models, very few not-for-profit examples of truly virtual services exist. A large majority of incubators continue to follow a more traditional route of providing physical incubation space but supplementing their service portfolio with virtual services. A good example of a traditional incubator fully exploiting online possibilities is the TOPICA Business Incubator in Vietnam (formerly known as CRC-TOPIC). TOPICA provide an 'Online Bachelor's Program' to support ventures created by young entrepreneurs and students. Since 2005, it has been incubating 9 start-up businesses, 5 of which have graduated, receiving venture capital investments ranging from \$100,000 to \$800,000 USD. It has also incubated 64 training centers in 64 provinces, 55 of which have become sustainable and have delivered ICT training courses to 82,000 students. More recently, TOPICA have launched an online

<sup>&</sup>lt;sup>2</sup> Source: Scaramuzzi, E. (2002) - Incubators in Developing Countries: Status and Development Perspectives, *info*Dev, The World Bank, Washington, DC

<sup>&</sup>lt;sup>3</sup> Source: Hackett, S.M. & Dilts, D.M. (2004) - A real options-driven theory of business incubation, Journal of Technology Transfer, Vol.29 and Folinas, D., Pastos, P., Manthou, V. and Vlachopoulou, M. (2006) - Virtual Pre-Incubator: a new entrepreneurship approach, International Journal of Enterprise Network Management, Vol.1, Number 1

<sup>&</sup>lt;sup>4</sup> Source: Hansen, Morten T., Berger, Jeffrey and Nohria, Nitin (June 2000) - The State of the Incubator Marketspace, Harvard Business Review

<sup>&</sup>lt;sup>5</sup> Source: Knopp, Linda (2007) - State of the Business Incubation Industry, NBIA Publications, Athens, Ohio

<sup>&</sup>lt;sup>6</sup> http://www.virtual-incubation.com/AffiliatedInvestors.html

mentoring program in cooperation with the popular "Key to Success" weekly game show on Vietnam Television's VTV1. Named "Behave like a Manager", the mentoring program invites viewers to join the online discussion forum, where they can discuss with high profile business leaders how they would behave in the workplace situations the game show describes. They can also view e-learning lectures on management skills and workplace behavior, receive on-the-job assignments and take quizzes. For more information visit their profile on iDISC: http://www.idisc.net/en/Incubator.30.html.

#### Section 1.1.2: Virtual Incubation Terminology

For the purposes of this training module, the following typology is used to define virtual incubation:

Virtual incubation: Refers to on-line business incubation. Sometimes, the term is used to refer to what is called "outreach business incubation".<sup>7</sup> A good example is the for-profit Octantis Incubator in Chile.<sup>8</sup> Octantis is a virtual incubator applying a networking approach for supporting high growth potential companies. Visit their profile on iDISC to learn how they use online tools such as blogging to share experiences between entrepreneurs: http://www.idisc.net/en/Incubator.148.html.

In *info*Dev terminology, a **virtual incubator** implies that all incubation services are delivered electronically. There is no physical incubation space.

**Outreach virtual incubation:** Refers to business incubation with clients who are not located in the incubator<sup>9</sup> and implies that incubation services are delivered to non-resident clients. It combines traditional incubation space and services with virtual services offered to off-site clients. With outreach incubation, there is a very strong physical element to the virtual incubation service. The business incubator manager meets with the client face to face and the business incubation process is facilitated using virtual incubation tools. This can be described as a bundled offering. In this case, a good working relationship can be built between client and incubator and a strong value proposition is built up. The NBIA highlights that more than half of all incubation programs surveyed in 2006 reported that they also served 'affiliate' or virtual clients. In Mexico, there are approximately 450 incubators<sup>10</sup> many of which provide outreach/affiliate programs to non-resident clients. The University of Guadalajara in Mexico has been funded by *info*Dev to develop a virtual program encompassing an online training portal for incubation and innovation, an online knowledge repository and online networking applications. For more information, visit http://www.idisc.net/en/Incubator.56.html.

<sup>&</sup>lt;sup>7</sup> Source: *info*Dev - Business Incubation: Definitions and commonly used terms: http://www.idisc.net/en/Article.38688.html

<sup>&</sup>lt;sup>8</sup> http://www.idisc.net/en/Incubator.148.html

<sup>9</sup> Ibid

<sup>&</sup>lt;sup>10</sup> Source: The Financial Express – Business Incubation Model Spurring Growth Around the World, 04/07/2010

http://www.financialexpress.com/news/business-incubation-model-spurring-growth-around-the-world/418945/

Satellite/networked virtual incubation: Nodes or satellites (i.e. physical premises) are linked to a main incubator, for example a primary physical incubator in one location that delivers virtual incubation services in outreach locations. An important consideration in this respect is the strength of the incubator's brand. Similar to outreach virtual incubation, with satellite or networked virtual incubation, a strong physical presence helps to create a better value proposition. A good example of this type of incubator is Softstart BTI in South Africa. In recent years, they have embarked on a program of developing strong relationships with tertiary institutions through satellite incubation. These include physical "nodes" at tertiary institutions offering limited incubation services, for example mentoring. This satellite program enables the incubator to leverage scarce resources and skills to reach a larger number of clients and to provide entrepreneurs with access to a diverse range of specialists. For more information visit: http://www.idisc.net/en/Incubator.9.html.

In this training manual when the general term 'virtual services' is used, it refers to all definitions of virtual services – virtual, outreach and satellite/networked.

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## Section 1.2: Impact of Virtual Services

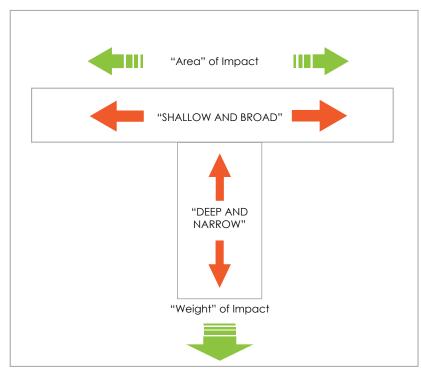


Figure 2 - Desired Impact of an Incubator<sup>11</sup>

As demonstrated by Figure 2, if an incubator is trying to achieve a wide impact across a broad target market, then virtual incubation tools can be useful in activities such as awareness-raising which allow the incubator to reach large segments of their target market. However the level of information or service delivered to such an audience is likely to be quite 'shallow' as it does not take into account the individual needs or circumstances of entrepreneurs. On the other hand, more traditional incubators often reach more limited audiences but provide these audiences with a far more customized and indepth level of service highly personalized to individual needs.

<sup>&</sup>lt;sup>11</sup> Source: Webb, J. (2008) - The future of Incubation: trends and challenges, AABI Conference, Kuala Lumpur

# Section 1.3: Rationale for Development of Virtual Services

#### Section 1.3.1: From an Incubator Perspective

An incubator may envisage setting up virtual services for the following reasons:

- · Limited physical incubation space available,
- To extend the incubator's reach to serve more clients,
- Limited staff to support incubatees on-site,
- To lower capital costs,
- To avoid the 'real estate trap' (only providing rental services) , and/or
- To raise awareness about entrepreneurship in an efficient way.

Some incubators are limited by the size of their physical incubation space. In such cases they often use virtual incubation to provide services to clients who they simply cannot accommodate due to space restrictions.

Others simply want to extend their reach to service more clients and achieve better impact. A virtual incubation offering allows incubators to provide their services offering (and potential revenue base) to non-tenants and possibly to new locations. This can make the incubation offering more relevant to communities which cannot access the physical incubator building.

Some incubators are limited by the number of available personnel. A virtual incubation offering can allow time-consuming business coaching and training services, such as online training on business basics, to be delivered through an on-line platform, thus freeing up the time of staff to focus on areas of greater value-added activity to clients e.g. business plan development. In some cases, virtual training can also save both trainer and trainee valuable travel time through for example the use of online video streaming of training courses. Another reason may be that the incubator's client business requires some kind of specific expertise e.g. a business in Ghana developing a high-tech offering for which it needs medical technology expertise, but the expert may not be located close to the incubator or even in the same country. The business and the expert might conduct exchanges via a video conferencing system when a face-to-face meeting is not feasible.

Setting-up virtual incubators involves lower capital costs. Some incubators suggest using virtual incubation as a testing ground for proving market demand for physical incubation. They give a good feel for the kind of clients in the region e.g. are the clients going to be high-tech or low-tech and where they are going to come from.

Virtual incubators definitely avoid the 'real estate trap' whereby incubators end up concentrating most of their resources on renting real estate and providing few value added services to help companies grow and graduate from the incubator. Virtual incubators focus almost entirely on company support and growth.

Some phases of incubation such as raising entrepreneurship awareness and pre-incubation lend themselves to virtual/outreach incubation.

#### Section 1.3.2: From a Client Perspective

The following factors should be taken into account when assessing which types of clients could benefit from virtual services:

- The stage of enterprise development,
- The sector of industry they operate in, and
- The nature of the industry in which they operate.

Depending on the stage of enterprise development, incubatees may be more or less suited to the use of virtual services:

• Enterprise Conception and Pre-Start UP: This phase of business development is very well suited to the use of virtual incubation tools. Nascent entrepreneurs cannot always afford incubation space on-site or simply do not require it. Virtual incubation can allow the incubator to tailor a service offering, for example a combination of off-site virtual business plan preparation with on-site person-to-person coaching. Virtual tools such as 'JourneyPage'<sup>12</sup> in the U.S. are oriented towards university environments where large numbers of students are encouraged to use virtual tools to explore their business idea. JourneyPage is profiled in more detail in Annex 1. In addition to the JourneyPage, there is an excellent criteria checklist for evaluating ideas which was developed by Princeton Creative Research.<sup>13</sup> This evaluation tool is highlighted further within Section 1.6.7.

Services offered at the conception and pre-start up stages of enterprise development are commonly perceived as the easiest services to be delivered virtually. Services offered at the pre-start-up stage may include for example mentoring new entrepreneurs through online mentoring programs and networking fora involving the owner-managers of established businesses.

<sup>12</sup> http://www.journeypage.com/

<sup>&</sup>lt;sup>13</sup> http://www.entrepreneur.com/encyclopedia/checklists/article81940.html

• Firm Creation: Virtual offerings can enable an incubator to offer a wider range of services to new companies, such as support with business plan development or the generation of extra sales via for example the use of virtual marketplaces such as the West Midlands Collaborative Commerce Marketplace (WMCCM) which is described in more detail in the case studies at the end of this training. Virtual training can also be used to support new businesses in functional areas such as HR and payroll where for example software can be licensed by the incubator to a number of established companies rather than these companies having to enter a more expensive single license agreement. A good virtual/outreach example which is not based around incubator buildings is CMC Tech in Auckland NZ,<sup>14</sup> a joint venture between CMC in India (Tata Group consulting Company) and E-Centre/Massey University incubator in Auckland which takes established NZ companies to the Indian market.

More information and examples of tools which could be used at each stage of the business incubation process are provided in Section 1.6: Principle Components of Virtual Business Planning Tools.

Helping new businesses is a unique advantage of virtual business incubation that can dramatically extend the scope and impact of the incubator. This aspect of virtual services is of particular relevance to many developing countries and may constitute an 'easier' approach than trying to accommodate all new businesses onsite in physical incubator premises.

Other elements may be taken into consideration, such as the industry sector or the nature of the industry the business is operating in.

• Companies from some types of industry sector may prefer not to physically locate in the incubator e.g. manufacturing companies.

• Some types of companies have very specific space requirements which may not be met in an incubation environment e.g. manufacturing or high-tech lab space. Nonetheless such companies at the start-up and growth phase of their development may benefit from virtual incubation services.

#### Section 1.3.3: From a Local Perspective

From a local perspective, virtual incubation services may enable the incubator to tackle the following issues:

- · Geographical fragmentation, and
- Inclusion of disadvantaged groups.

In many areas, for reasons of critical mass, incubator buildings are often located close to a university or to large urban centers. However, good business ideas can come from anywhere. Virtual incubation services allow incubators to extend their incubation programs to remote rural areas often through satellite or networked hubs. The provision of virtual services is subject of course to the availability of ICT infrastructure in these areas. However in areas of poor connectivity, satellite or wireless technologies can be used to establish networking hubs in local communities. The Topic 64 project of the CRC Topic incubator in Vietnam<sup>15</sup> is a good example of the deployment of wireless technology to provide access to rural communities. When the project was launched over 70 percent of the 82 million people in Vietnam lived outside urban communities and only 1.85 percent of its entire population has used the Internet. The Topic 64 project involved the launch of a Training Online Partnership to create (or upgrade) one Community Technology Learning Center in each of Vietnam's 64 provinces so that rural populations could receive ICT training. A more detailed profile of the Topic 64 program is provided in Case Study 3 at the end of the module.

It may not be viable to set up incubators with a specific focus on groups within society such as female entrepreneurs, young entrepreneurs, immigrants or entrepreneurs from deprived or sparsely populated areas, or for practical reasons these groups may not have access to incubation environments. For these groups, virtual incubation programs can be useful tools to extend incubation support to a wider audience.

<sup>&</sup>lt;sup>15</sup> http://www.idisc.net/en/Publication.135.html

# Section 1.4: Pros and Cons of Virtual Incubation in Comparison with Traditional Incubation

#### Section 1.4.1: The Pros of Virtual Incubation

#### The pros of virtual incubation may include the following:

- Setting up virtual incubators involves lower capital costs than setting up a traditional incubator providing residential and shared services incubation space;
- Virtual incubators focus on support services for clients rather than on real estate;
- Virtual incubation is very cost-effective for some phases of incubation such as raising entrepreneurship awareness, pre-incubation, training and networking client companies;
- Virtual incubation is also well suited to technology oriented companies in particular those in the ICT (software, gaming, media etc) sector who are used to communicating electronically. For more traditional business sectors, virtual services can also be used effectively to stimulate business growth through, for example, internationalization;
- Virtual incubation can often reach more clients than physical incubators who are limited to a particular catchment area;
- For traditional incubators, adding a virtual incubator service offering to their existing services allows them to extend their reach and provides an alternative source of revenue than rental income; and
- Virtual incubation facilitates expert input from around the world.

#### Section 1.4.2: The Cons of Virtual Incubation

#### The cons of virtual incubation may include the following:

• With virtual incubation it is more difficult to connect with virtual clients and gain their trust which is essential in really understanding their business and helping them to grow;

• It can be difficult to foster peer learning through virtual incubation. However with the increasing popularity and acceptance of social networking sites this challenge is being addressed to some extent by online communities;

• Revenue generation: it can be difficult to create a stand-alone added value offering out of virtual incubation. Where rent can be charged per square meter, it can be harder to charge for virtual incubation services;

• Virtual business incubators lack 'tangibility' and 'presence'. A physical incubator building is a strong marketing tool for clients and donors to 'Come and visit us and meet our clients...';

 In many countries, funding for incubators from local government is an important source of revenue. Depending on the changing political direction or economic circumstances in a region, incubators may find themselves in or out of favor with their political funders. In terms of long-term stability, it is far more difficult to close down a physical incubator committed to long-term leases and with resident tenants than a virtual incubator; and

• Virtual incubation is not very well-suited to phases of incubation where in-depth person-to-person interaction such as strategic analysis or investor-readiness training is required. Virtual incubation does not lend itself easily to particular industry types such as biotechnology where there may be a long development lifecycle and the need for specific physical support services such as testing labs or equipment.

### Section 1.5: Segmentation of Virtual Services

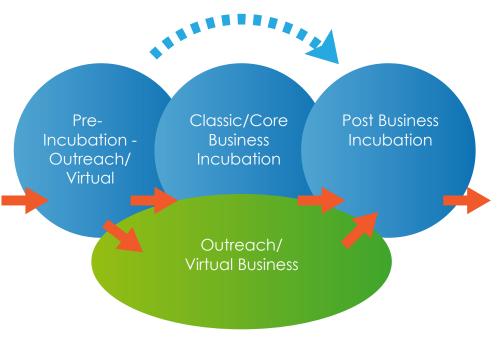


Figure 3 - Segmentation of Virtual Services

As shown in Figure 3, virtual services can be used at all stages of the business incubation process as a stand-alone element or integrated with classical business incubation services. Pre-incubation and post-incubation services are commonly perceived as the two easiest phases of the business incubation process for virtual services. This is because:

- Some clients at an early stage of development cannot afford or simply do not require incubation space on-site. Virtual incubation can allow the incubator to tailor a service offering (e.g. combination of off-site virtual business plan preparation with on-site person-to-person coaching); and
- Post-incubation services may include annual follow up questionnaires or involving graduates in online mentoring programs and networking fora.

#### Section 1.5.1: Administration or 'Virtual Office' Services

Administration services can also be categorized as 'virtual office' services. For start-up clients who cannot afford their own offices or services, such as secretarial or bookkeeping / accounting services, shared access to such services allow companies to benefit from quality services and to create a professional appearance at a much lower cost.

When providing such services incubators should take into account that they provide low added value to clients. There are as many 'virtual office' providers in the marketplace as there are providers of real-estate. For this reason, 'virtual office' facilities are often not provided as a stand-alone package of services by an incubator but as part of an overall service offering including value added services such as business coaching (in a similar way to traditional business incubation.)

One example of a virtual office product is the 'Virtual Incubator' service recently launched by OfficeScape.<sup>16</sup> This service makes it possible for off-site tenants to use all of the incubator's services without having a full-time physical office space at the facility. The service covers technology resources such as communications, data storage, remote software applications and off-site phone answering, as well as mail services, all accessible on a single platform. OfficeScape is currently providing its Virtual Incubator services to a number of incubators in the US but it can be provided worldwide. Another example is the Virtual Business Incubator (VBI) from Kharkov Technologies Incubator in Ukraine (see full description in Component 3 on Overcoming ICT limitations).

Incubators should also be careful of the type of 'virtual' client that is using their name and address. Do these companies fit the general selection criteria of the incubator? Many incubators have invested heavily in marketing and building up their reputation in the region. For this reason, clients (even those using basic virtual services such as the incubator business address) must be carefully vetted. Again, it is recommended that 'virtual office' facilities are not provided as a stand-alone package of services but rather that virtual office clients must participate in a total incubation process thus increasing the chances of success of their business.

<sup>&</sup>lt;sup>16</sup> http://www.officescape.com/WebCenter/publicsite/partners/vopp/virtual\_incubator.aspx

#### Virtual offices services may include services such as:

- Business address
- Company email address
- Meet and greet reception
- Telephone answering
- Voice mail
- Phone and email messaging
- Office box services
- Mail collection, sorting and forwarding
- Photocopying, scanning and other office equipment facilities
- Diary management
- Meeting organization (room booking, projector, lap top, catering)
- Secretarial support, daily rate
- Travel arrangements
- Bespoke stationery
- Bookkeeping and accounting

• IT services such as data storage, website development and maintenance, email set up and management etc.

#### Section 1.5.2: Marketing and Networking Services

In the current global business environment, facilitating networking, both locally and internationally, is becoming an increasingly important 'virtual' service for many incubators. The European business research project, EcoLead<sup>17</sup> predicts that "*In ten years, in response to fast changing market conditions, most enterprises and, specially SMEs, will be part of sustainable collaborative networks that will act as breeding environments for the formation of dynamic virtual organizations.*"

A good example of a virtual marketing and networking service is the West Midlands Collaborative Commerce Marketplace (WCCM) which is coordinated by the University of Warwick in the UK.<sup>18</sup> The

<sup>&</sup>lt;sup>17</sup> http://ecolead.vtt.fi/

<sup>&</sup>lt;sup>18</sup> http://www.wmccm.co.uk/

WMCCM is the UK's most accessible and most popular free tender feed, providing registered SMEs with details of all Public Funded work in the EC and local government. The marketplace helps SMEs to form partnerships online to respond to tender opportunities.

Providing added value networking opportunities through both online and offline methods increases the profile and standing of the incubator with tenant clients, 'virtual' clients and the wider business community. One of the limitations of virtual-only services is the lack of opportunity to meet with other similar businesses and share experiences and knowledge on a one-to-one basis. Peer learning is one of the most valuable aspects of incubation. New entrepreneurs learn primarily from their peers and trusted networks. This is a key challenge for virtual incubation, as trust is only built by face to face contact. Research conducted by Fischer et al (2008)<sup>19</sup> suggest that trust seems to be more pronounced among SMEs, which are characterized by the existence of personal relationships between business partners. Therefore in developing virtual incubation programs, incubators must take into account both the need to build trust between the incubator and entrepreneur and between the entrepreneur and their peers.

A good example of an incubator program which is provided offline but 'outside incubators walls' is the Springboard business growth program in Australia.<sup>20</sup> This tool revolves around peer learning in a facilitated environment and is specifically designed for growth oriented home based and small businesses.

Virtual marketing and networking services should be an integral part of any incubators virtual service offering. Such services may include:

- Promotion of 'virtual clients' through the incubator website and related sites (e.g. relevant clusters and networks in which the incubator is involved regionally, nationally, internationally);
- Access to internal and external networking events. Live/Recorded video-streaming of event content to increase access;
- Opportunities for face-to-face contact, whether social or formal, so that trust can be built, a key to collaborative networks;
- Access to academic network of local universities and elsewhere as part of the business coaching process or online networking communities; and/or
- Access to an approved network of professional service providers and mentors as part of the business coaching process or online networking communities.

<sup>&</sup>lt;sup>19</sup> Source: FP6 SMEs-NET project

<sup>&</sup>lt;sup>20</sup> http://www.springboardbusiness.com.au

#### Section 1.5.3: Business Support and Coaching

Supporting the growth and development of successful new businesses is the core business for most incubators whether physical, virtual or a combination of both. In this domain, new developments in ICT have created many opportunities and immense benefits for both incubators and their clients alike. Virtual incubation has significantly increased the availability, affordability and access of large sectors of the population to incubation training, tools and services. Incubation services and tools now exist for all phases of the innovation process from the development of an innovative culture through tools such as online entrepreneurship training to pre-incubation tools such as idea assessment to online business planning tools and post incubation promotion and sales development. However there is a considerable difference between simply making information available on-line and transferring knowledge to entrepreneurs which results in increased understanding and appropriate actions. Therefore while some virtual incubation services can, in theory, be delivered through on-line tools alone, in most cases incubators choose to deliver added-value through a combination of on-line tools and off-line personto-person coaching. The relationship between the incubator and the client company is at the core of successful incubation. Mutual trust and understanding need to be developed before the incubator coach can select the optimal mix of online and offline tools to guide the clients growth. Directing an entrepreneur to a suite of generic online tools before sitting down and understanding their stage of business and real requirements is a sure-fire way to lose the trust and confidence of an entrepreneur.

Note: In all cases, the provision of adequate on-line and telephone help-desk support services for virtual services should be planned and adequately resourced. The availability of real-time support and guidance from experts both technical and in terms of business coaching is often a key success factor for virtual incubation tools.

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## Section 1.6: Principle Components of Virtual Business Planning Tools

The content of online business planning tools should be structured in a step by step chronological path. The developers of virtual tools should aim to elaborate a user-friendly, simple and intuitive tool in order to facilitate their usability by a wide range of users with varying IT skills. Every tool will have its own interface. This interface will guide the users along a self-guided process that will lead them through the main steps of a business development plan: testing the business idea in the market, developing the business plan and taking the appropriate decisions to ensure business growth. In most tools each of these steps will be structured through a questionnaire. This questionnaire will be composed of questions which aim to guide the entrepreneur in making decisions and planning activities focused on the management of their own company. In some cases these tools are designed for stand-alone use by the entrepreneur but generally where incubators develop their own virtual services, these tools are constructed for use by the client with direction and where required assistance from on-line or off-line coaches. In all cases however, it is recommended to provide a downloadable pdf document explaining

all the steps, FAQ and aims of on-line tools. This PDF should be downloadable before starting to use the tool. More recent technological advances in virtual reality have made interfaces more user friendly and intuitive. The latest trends in technology should be taken into account when developing tools.

Note: An analysis of the type of virtual tools most commonly used in the incubation process is described hereafter followed by a table with examples.

#### Section 1.6.1: Pre-Incubation Virtual Tools

Pre-incubation processes such as the stimulation of an entrepreneurial culture and the initial assessment of business ideas and entrepreneurial skills are well suited to the use of virtual incubation tools. They allow a wide audience to be reached through the provision of high-level information. Statistics from India suggest that out of every 100 ideas which enter the pre-incubation phase, only 3 result in businesses being formed. Therefore virtual tools can provide incubator managers with a cost-effective tool in raising awareness about entrepreneurship and initial screening for ideas which show greater potential.

#### Pre-incubation virtual tools include, for example:

- Tools to assess the strengths and skills of the entrepreneurs themselves,
- Entrepreneurship training, and
- Tools to assessing the initial business idea.

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When to use these tools and what type of tools to use? This very much depends on the impact which the incubator hopes to achieve. For example if the incubator is addressing a large population e.g. university students, it might be appropriate to use an idea check-list tool as a filter to weed out ideas with no market basis. On the other hand if the incubator is addressing a small and pre-qualified population e.g. participants in an 8 week start-your-own-business training course, more than likely these candidates will already have a good idea of their business and market features so use of these types of virtual tools would be redundant. A description of the features of some tools in this area is provided in Table 1.

#### Section 1.6.2: Business Plan Development Virtual Tools

These tools help users to work through and analyze the feasibility of their business projects by allowing them to write their own business plan taking into account the following core issues of a company: marketing plan, production and quality, organization and management, regulatory environment, financial management and analysis. Types of tools include team building and brain-storming/problem-solving tools. Examples of such tools are provided in Table 1.

When to use these tools and what type of tools to use? It is not recommended that a business incubator prepare the business plan for a client. Certainly an incubator can help with directing market research or helping with financial planning but the client always needs to 'own' the business plan. Therefore online business planning tools can provide a very useful framework to help entrepreneurs structure their business plan and it can prompt them to ensure all sections are fully covered.

However, business planning tools should not be used before the entrepreneur has met or spoken with a business incubator coach who will assess factors such as:

- The level of maturity of the business idea and the entrepreneur,
- The entrepreneurs understanding of the business planning process and business basics, and
- The entrepreneurs' ability to use virtual tools.

The needs and capabilities of each entrepreneur will vary and therefore the coach should recommend the use of appropriate business planning tools and agree a follow up plan for monitoring progress and providing direction at regular intervals. The business planning process should not be seen as the end goal of the process but rather a step towards business start-up, growth or development.

#### Section 1.6.3: Virtual Tools for Financing

Finance is a major stumbling block for most start-up companies. Part of the problem arises as entrepreneurs do not always have a financial background and therefore they have difficulty understanding finances and what is required to sustain a business, as well as from the perspective of future investors, where growth capital is required. Virtual tools can be very helpful in providing training on financial terms and requirements but also in providing templates for managing cash flow, planning for growth, business valuation and so on.

When to use these tools and what type of tools to use? As with all virtual services, the incubator coach needs to assess the level of knowledge of the entrepreneur before advising them on which tools to use and when. Some tools such as preparing investor presentations are best combined with practical face-to-face preparations. Others such as preparing detailed cost spreadsheets are best completed by the client when they have time to properly research different costs. Given the challenges faced by many entrepreneurs in this area, intensive business coaching and follow up is recommended at all times.

#### Section 1.6.4: Virtual Tools for Operations

Virtual tools exist to cover all major business operations from marketing to accountancy and bookkeeping. Tools can vary from simple online training explaining what these functions are to online software tools for accounting, Customer Relationship Management (CRM) and Human Resource Management (HRM).

When to use these tools and what type of tools to use? This depends on the complexity of the business operation being established. A very small company might get by with basic training and a simple accounting package. It is always a good idea to have one eye on future business growth trajectories and help the client to pick solutions which are scalable as the business grows.

#### Section 1.6.5: Post-Incubation Support and Monitoring Virtual Tools

Virtual tools can be an effective way of keeping in touch with incubator graduates from simple annual follow up questionnaires to involving graduates in online mentoring programs and networking fora.

When to use these tools and what type of tools to use? It is recommended that all incubators (as a minimum) track graduate progress using tools such as e-questionnaires. It is also highly cost-effective for most incubators to involve graduates in online mentoring or coaching as long as proper training and monitoring can be provided to ensure quality of service. The "E-mentoring Tool Kit" is an example of an online mentoring toolkit which is commonly used in the U.S.<sup>21</sup>

#### Section 1.6.6: Virtual Tools to Support Business Growth

Following their creation, many companies survive but fail to grow. Specific virtual tools have been developed for companies willing and able to grow. Such tools may include information to help entrepreneurs to analyze and diagnose innovation potential and roadblocks, set growth targets and action plans.

When to use these tools and what type of tools to use? Again it is not recommended to use such tools outside of a pre-agreed plan for development and growth between incubator and client. The incubator coach will best understand the capabilities and challenges of their client and be able to recommend an appropriate tool to stimulate growth.

On-line tools could be devoted to specific growth strategies for companies enabling them to continue growing sustainably, such as:

- Access to finance: Understanding investor requirements, preparing investment analysis, preparing investor pitches (although best done offline through investor readiness training).
- Reinforce networking: Virtual marketplaces such as the WMCCM (see case studies) have been designed to match companies with relevant opportunities.
- Internationalization: Virtual services can be used to support internationalization in many different ways, from providing 'soft-landing' facilities in another incubator environment in another country to international 'match-making' databases. In Europe for examples online databases such as IDEAL-IST and Cordis allow companies to showcase their Research and Technological Development (RTD) expertise and to find companies from around the world who they can partner with to apply for European RTD funding.

#### Section 1.6.7: Sector Specific Virtual Tools

It is advisable to structure online tools in such a way that they can be useful for a wide range of sectors. However, if a demand emerges for sector-linked tools or tools with specific features, it is important to partner with a relevant institution that has specific sector-focused know-how and expertise.

For example the ITB Virtual Marketplace for tourism in Asia is operated by ITB in Germany who have been running a similar virtual marketplace for many years. For more information visit: http://www.virtualmarket.itb-asia.com/index.php5?Action=home.

Examples of some virtual business incubation tools and processes covering the different stages of the business incubation process are provided in Table 1. Online tools to support collaborative working are also widely available and can be useful in facilitating collaboration and peer learning between virtual incubatees. These include:

• Twiddla is an online collaboration tool that is easy to use and does not require any downloads. It's like having a whiteboard skin on top of any web page or uploaded image (or nothing at all - you can use it as a blank canvas). Trainees can mark up the whiteboard layer and interact with the web page at the same time - all in real time, with people from all over the world. http://www.twiddla.com/

• dabbleBoard is an interactive whiteboard that will help trainees visualize, explore and communicate ideas. http://www.doodleboard.us/

• Zoho Writer allows collaborative word processing, writing and sharing. http://writer.zoho.com/

PRE-INCUBATION	DESCRIPTION	EXAMPLES
ENTREPRENEURSHIP APTITUDE AND SKILL TESTING <sup>22</sup>	This site provides a range of psychometric tests including Entrepreneurial Potential tests from Saville Consulting Wave®. Expensive but good. A much simpler but free test is available on http://www.bizmove.com/other/quiz.htm	http://www.psychometricassessment.com/ entrepreneurial_potential_assessment.php
	The IFC SME Toolkit offers software, business forms, training, and more to help small businesses in emerging markets grow and succeed. Particular modules exist for helping women in business.	http://www.smetoolkit.org/smetoolkit/en
ENTREPRENEURSHIP TRAINING	My Own Business, Inc. is a nonprofit organization committed to helping people succeed in business. An online training course is presented on this site by successful business owners who point out the common, avoidable mistakes.	http://www.myownbusiness.org/
IDEA ASSESSMENT	Princeton Creative Research has developed an excellent criteria checklist for evaluating ideas that is particularly well-suited to the entrepreneur	http://www.entrepreneur.com/encyclopedia/ checklists/article81940.html
<b>BUSINESS PLANNING</b>	DESCRIPTION	EXAMPLES
INITIAL BUSINESS REVIEW ONLINE BUSINESS PLANNING TOOLS	Gate2Growth (a project funded by the European Commission) provides a comprehensive business planning	
INCORPORATING MARKET ANALYSIS,	tool-kit for start-up businesses. It includes for example:	
OPERATIONAL PLANS, ORGANIZATIONAL PLANS, FINANCIAL AND INVESTMENT	<ul> <li>G2G business plan writing guidelines (free) and online business plan validation tools by experts (fee)</li> <li>Guide to finding venture capital (although more targeted at European countries.</li> </ul>	http://entrepreneurs.gate2finance.com/node/117
PLANNING		
TEAM BUILDING		
	Brainline is an idea-generating process in which creative thinkers from around the world collaborate, cross-	:
	pollinate, and generate ideas online. This powerful, effective, and incredibly efficient process provides the online resources, creative stimulation,	gocreate.com/ brainline
BRAINSTORMING/PROBLEM SOLVING	and global brain power to generate the greatest possible range and diversity, quantity and quality, of original	
	ideas. Each Brainline provides a totally unique dimension of collaboration, control, and creative excitement.	www.BrainReaction.net
	With this tool a brainstorming room is a private space for you to brainstorm online with a team you have	
	invited. Free for 5 users with 1 brainstorming topic. Registration is required.	

<sup>&</sup>lt;sup>22</sup> Note: Module 6 of the current Training Program "Managing the Incubator" dedicates a detailed discussion on entrepreneurship aptitude and skill testing referencing various tools.

FINANCING	DESCRIPTION	EXAMPLES
ON-LINE INVESTOR-READINESS TOOLS AND TRAINING	The Gate2Growth project has developed extensive information and tools on financial	
BUSINESS VALUATION TOOLS	<ul> <li>Guide to financial calculations and valuation principles (free)</li> </ul>	http://entrepreneurs.gate2finance.com/ node/82
PREPARING INVESTOR PRESENTATIONS	<ul> <li>budget templates (rree)</li> <li>Investor-readiness guide to financing innovation (free)</li> </ul>	
POST-INCUBATION SUPPORT AND MONITORING	DESCRIPTION	EXAMPLES
	Doodle is an online poll tool for scheduling an event, selecting options from a list, checking box	http://doodle.com/main.html
ON-LINE MONITORING THROUGH	options and other surveys. It is free of charge, no registration required. Survey Monkey is	http://www.surveymonkey.com/?cmpid=ie:
E-QUESTIONNAIRES OR ONLINE POLLING	a widely known and cost effective tool for online surveys. Brainjuicer is another tool which produces mind mans for survey results	ps:google http://www.hraininicer.com/
	IMP <sup>3</sup> rove - online benchmarking tool and personalized consulting workshops: Benefit from	
	the European Commission's premier online benchmarking tool for small- and medium-sized	
<b>BENCHMARKING SME INNOVATION</b>	enterprises (SMEs). IMP <sup>3</sup> rove <sup>®</sup> can help businesses grow by means of superior Innovation	www.improve-innovation.eu
PERFORMANCE	Management. Besides an online assessment, IMP <sup>3</sup> rove <sup>®</sup> offers a personalized consulting	
	workshop for SMEs. Take advantage of the diverse benefits that $IMP^3rove^{\otimes}$ offers to Innovation	
	Management consultants.	
SUPPORTING BUSINESS GROWTH	DESCRIPTION	EXAMPLES
	There is now a wide range of software available to improve your creativity and structure your	www.cul.co.uk/software/index.htm
ENCOURAGE CREATIVITY	thoughts - much of it is available to download for free e.g. creativity technique - a quick stimulus	www.cui.co.uk/soitware/index.iitiii www.cui.co.uk/creative/ranword htm
	for getting a fresh insight into your problem.	
	Articles, creativity tools, book reviews, link libraries and so on.	internationale com
ASSESS INNOVATION POTENTIAL	The web-based software TriS-IDEAS organizes innovation as a controllable process and helps to	http://is.od/cllalV
	make innovation success predictable and repeatable.	11111-111-111-111-111-11-11-11-11-11-11
ACCESS TO FINANCE	See Gate2Growth toolbox above	
REINFORCE NETWORKING	Cordis partner search open to SMEs and research institutes in all countries interested in	http://cordis.europa.eu/partners-service/
	participating in EO Research and rechnological Develophinent programs.	

EXAMPLES	<ul> <li>http://www.incubator.sh.cn/en/ICshow.</li> <li>asp?mainclassname=International%20Co</li> <li>operation&amp;bigclassname=Softlanding%20</li> <li>Program</li> <li>http://www.aabi.info/incubator.asp</li> <li>www.euroffice-services.eu</li> <li>http://www.cmctec.co.nz</li> </ul>
DESCRIPTION	<ul> <li>Co-incubation<sup>23</sup> <ul> <li>Co-incubation<sup>24</sup></li> <li>E.g. Shanghai Technology Innovation Centre and Montpellier agglomeration international cooperation soft-landing program</li> <li>Soft landings<sup>24</sup></li> <li>Soft landings<sup>24</sup></li> <li>E.g. cross-border interaction between incubators and entrepreneurs within AABI member countries.</li> <li>E.g. EurOffice Services (EOS) link 50 business support organizations over the world to support SMEs in reaching international markets.</li> <li>Technology Transfer</li> <li>E.g. CMC Technology Export Centre, for New Zealand companies looking at taking their business to India</li> </ul> </li> </ul>
SUPPORTING BUSINESS GROWTH	INTERNATIONALIZATION

<u>Table 1 – Virtual Incubation Tools</u>

<sup>&</sup>lt;sup>23</sup> Co-incubation is the provision of soft-landing services to businesses by 2 incubators, within the frame of a formal agreement.

<sup>&</sup>lt;sup>24</sup> Soft landing services refer to business incubation services offered to a business by an incubator which is not its incubator of origin but an incubator located in a market where the business aims to establish itself. 'Co-incubation' is the term used

to refer to soft-landing services that are provided to businesses under the formal agreement between 2 business incubators.

## A COMPREHENSIVE INTRODUCTION TO THE WEB 2.0 TOOLS AVAILABLE TO RAISE THE PROFILE OF INCUBATORS TOWARDS THEIR STAKEHOLDERS AND CLIENTS IN ORDER TO SERVE THEM BETTER

The content of this section has been developed with the strong support from Dr. Mark Bradley, from Aptus Strategy. Please visit Aptus Strategy<sup>25</sup> to find out more about Dr. Bradley and explore the best illustration of most efficient use of web 2.0 tools:

"The term **"Web 2.0"** is commonly associated with web applications that facilitate interactive information sharing, interoperability, user-centered design and collaboration on the World Wide Web. (...) A Web 2.0 site allows its users to interact with other users or to change website content, in contrast to non-interactive websites where users are limited to the passive viewing of information that is provided to them. Although the term suggests a new version of the World Wide Web, it does not refer to an update to any technical specifications, but rather to cumulative changes in the ways software developers and end-users use the Web".<sup>26</sup>

Dr. Bradley identifies Web 2.0 applications as internet based communication tools that enhance communication, create engagement, ensure transparency and build trust in addition to traditional communication tools. Hence, Web 2.0 tools are dedicated to people who recognize the social characteristics of effective communication which responds to the new paradigm that to get the message through, it is crucial to identify and work with the target audience of stakeholders and potential clients that can be referred to the incubator's network.

Many Web 2.0 tools exist; some are more efficient than others and aim to reach different goals. The surveys indicate that web 2.0 tools may generate a different impact for organizations using them.

#### Experience shows that web 2.0 tools mainly impact on:

- Generating exposure for the organization, e.g. the business incubator;
- Increasing traffic/subscribers/opt-in list of clients;
- Enabling new business partnerships; and
- Rising in the popularity of search rankings.

To a less extent, web 2.0 tools can even contribute to generating qualified leads, reduce overall marketing expenses and help close business.

<sup>&</sup>lt;sup>25</sup> http://aptusstrategy.com/

<sup>&</sup>lt;sup>26</sup> Web 2.0 tools definition from wikipedia: http://en.wikipedia.org/wiki/Web\_2.0

Table 2 aims to present the variety of tools available as well as their main features as a starting point for incubator managers to think about the most suitable tools for their incubators.

It is highly advisable for incubator managers to identify which tools are best suited for their incubator bearing in mind the characteristics of its target audience and the goals to be achieved. The experience proves that one tool used at its optimum potential is more efficient and powerful that using many different tools in a superficial manner.

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TOOL	FEATURES	WEBLINK	COMMENTS
You Tube "Broadcast yourself"	YouTube is a video sharing website on which users can upload and share videos. The tool uses Adobe Flash Video technology to display a wide variety of user-generated video content, including movie clips, TV clips, and music videos, as well as amateur content such as video blogging and short original videos. Unregistered users can watch the videos, while registered users are permitted to upload an unlimited number of videos. <sup>27</sup>	www.youtube.com	Videos are the most commonly used Web 2.0 tools and are powerful communication tools. However, when uploading a video on You Tube, it is advisable that the video does not last more than 4 minutes in order to be viewed fully by the target audience. Enabling the recording of the video as a podcast is of great added value (cf. below). Free of charge.
LinkedIn	LinkedIn is a business-oriented social networking site mainly used for professional networking. As of October 2009, LinkedIn had more than 50 million registered users, spanning more than 200 countries and territories worldwide. <sup>28</sup>	www.linkedin.com	LinkedIn is a very good tool to build a database of business contacts. Some argue that the added value of the 'groups' function is debatable. The use of the "groups" function has been to some extent used inappropriately by businesses or individuals to promote products or influence markets. Free of charge.
Facebook helps you "Facebook helps you connect and share with the people in your life."	Facebook is a global social networking website that is operated and privately owned by Facebook, Inc Users can add friends, send messages, and update their personal profiles to notify friends about themselves. Additionally, users can join networks organized by cities, workplaces, schools, and/or regions. The website currently has more than 350 million active users worldwide. <sup>29</sup>	www.facebook.com	Some businesses do not use Facebook, concluding that it might be best suited for family and social purposes. However for some non-profit organizations such as cultural institutions is can be a serious business networking and connectivity tool. It should be noted that Facebook has faced issues of personal data protection: Facebook settled a lawsuit regarding claims over source code and intellectual property. The site has also been involved in controversy over the sale of "fans and friends". Free of charge.

<sup>&</sup>lt;sup>27</sup> Source: http://en.wikipedia.org/wiki/YouTube

<sup>&</sup>lt;sup>28</sup> Source: http://en.wikipedia.org/wiki/LinkedIn

<sup>29</sup> Source: http://en.wikipedia.org/wiki/Facebook

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COMMENTS	Blogs add a tremendous value to a website. Static, websites receive little search engine attention; but those with dynamic content such as found in a blog get indexed all the time and can lead to better search engine recognition. Blogs also allow for comment feedback and dynamic conversations to occur around postings. Blogs can also be used a simple source of industry news postings of interest to a reader. Highly recommended.	Twitter is accessible from smart devices generating instant feedback and real time connectivity. It is a very powerful marketing tool. Free of charge. Highly recommended and a better tool than Facebook for marketing and interaction. Twitter allows for closed groups to be created and is less subject to spam postings.
WEBLINK	Blogs recei dyna blog Universe: www.bloguniverse.com used a rea	Twitt feedt It is a Free Facet Twitt subje
FEATURES	A blog (a contraction of the term "web log") is a type of website, usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse-chronological order. "Blog" can also be used as a verb, meaning to maintain or add content to a blog. Many blogs provide commentary or news on a particular subject; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability for readers to leave comments in an interactive format is an important part of many blogs.	Twitter is a free social networking and micro-blogging service that enables its users to send and read messages known as tweets. Tweets are text-based posts of up to 140 characters (70 in Arabic) displayed on the author's profile page and delivered to the author's subscribers who are known as followers. Senders can restrict delivery to those in their circle of friends or, by default, allow open access. Users can send and receive tweets via the Twitter website, Short Message Service (SMS) or external applications. While the service itself costs nothing to use, accessing it through SMS may incur phone service provider fees. It is sometimes described as the "SMS of the Internet." <sup>31</sup>
TOOL	Blogs	Twitter "Share and discover what's happening right now, anywhere in the world."

<sup>30</sup> Source: http://en.wikipedia.org/wiki/Blog

<sup>31</sup> Source: http://en.wikipedia.org/wiki/Twitter

1001	FEATURES	WEBLINK	COIMIMENTS
Podcasts	A podcast is a series of digital media files (either audio or video) that are released episodically and downloaded through web syndication. The mode of delivery differentiates podcasts from other ways of accessing media files over the Internet: a centrally-maintained web feed on the distributor's server lists all files associated with a given series, and special client software applications known as pod catchers (e.g., iTunes, Zune, Juice, and Winamp) are used that can automatically identify and download new files in the series when they are released, by checking the feed for updates. New files are thus downloaded automatically and stored locally on the user's computer or other device ready for offline use, giving simpler access to episodic content. <sup>32</sup>	Podcasting Tools: www.podcasting-tools. com/blog.htm	Voice is a powerful communication medium that enables to clearly communicate a message. It is a great complement to written communications. A very powerful tool as it can be played anywhere at any time, as well as archived. Free of charge. It takes time to learn how to produce the podcasts but for incubators, podcasts are a very powerful tool for allowing people to listen to seminars. See www.successful-innovation.com as an example of an incubator using these to great effect.
RSS feeds	RSS (most commonly expanded as "Really Simple Syndication") is a family of web feed formats used to publish frequently updated works such as blog entries, news headlines, audio, and video, in a standardized format. An RSS document (which is called a "feed", "web feed", or "channel") includes full or summarized text, plus metadata such as publishing dates and authorship. Web feeds benefit teaders who want to subscribe to timely updates from favored websites or to aggregate feeds from many sites into one place. RSS feeds can be read using software called an "RSS reader", "feed reader", or "aggregator", which can be web-based, desktop-based, or mobile-device-based. A standardized XML file format allows the information to be published once and viewed by many different programs. The user subscribes to a feed by entering into the reader the feed's URI or by clicking an RSS icon in a web browser that initiates the subscription process. The RSS reader checks the user's subscribed feeds regularly for new work, downloads any updates that it finds, and provides a user interface to monitor and read the feeds. <sup>3</sup>	(Standard RSS Symbol)	A unique web 2.0 tool, really simple syndication. A revolution in terms of content delivery and the key to new media distribution. Subscription based. Every website with news or blogs should have an RSS feed. It allows easy subscription to a site's offerings. It is an essential tool.

<sup>&</sup>lt;sup>32</sup> Source: http://en.wikipedia.org/wiki/Podcast

<sup>&</sup>lt;sup>33</sup> Source: http://en.wikipedia.org/wiki/RSS

Suite 3 Advanced Incubator Management

TOOL	FEATURES	WEBLINK	COMMENTS
Cloud computing	Cloud computing is Internet- ("cloud-") based development and use of computer technology ("computing"). In concept, it is a paradigm shift whereby details are abstracted from the users who no longer need knowledge of, expertise in, or control over the technology infrastructure "in the cloud" that supports them. It typically involves the provision of dynamically scalable and often virtualized resources as a service over the Internet. Typical cloud computing providers deliver common business applications online which are accessed from a web browser, while the software and data are stored on the servers. These applications are broadly divided into the following categories: Software as a Service (PaaS), Managed Service Providers (MSP), Service Commerce, and Internet Integration. The name cloud computing was inspired by the cloud symbol		Very powerful and simple collaborative online data sharing by which data can be accessed anywhere. "This is where we are all moving" <sup>35</sup> – Cautious adoption recommended as the tools get better every day. Cloud computing can remove the need to own your own servers – i.e. everything is stored in the cloud. Big cost and efficiency savings. Highly recommended.
Drop box "sync your files online and across computers"	Dropbox is a cloud-based storage application and service operated by Dropbox, Inc. The service enables users to store and sync files online and between computers and share files and folders with others. <sup>36</sup>	www.dropbox.com	It is a cost effective, safely accessed and backed up very powerful cloud storage. Free of charge. Essential tool and also for collaborative sharing of files with anyone anywhere. Simple and effective - Highly recommended.
Google Docs "Create and share your work online"	Google Docs is a free, Web-based word processor, spreadsheet, presentation, and form application offered by Google. It allows users to create and edit documents online while collaborating in real-time with other users. Google Docs combines the features of two services, Writely and Spreadsheets, merged into a single product. <sup>37</sup>	www.google.com/google- d-s/intl/en/tour1.html	Take a tour on the Google Doc demonstration. Free of charge See below

<sup>&</sup>lt;sup>34</sup> Source: http://en.wikipedia.org/wiki/Cloud\_computing

<sup>35</sup> Statement by Dr Mark Bradley

<sup>&</sup>lt;sup>36</sup> Source: http://en.wikipedia.org/wiki/Dropbox\_(storage\_provider)

<sup>&</sup>lt;sup>37</sup> Source: http://en.wikipedia.org/wiki/Google\_Docs

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TOOL	FEATURES	WEBLINK	COMMENTS
Google Apps "Reliable, secure online applications wherever you work"	Google Apps is a service from Google for using custom domain names with several Google products. It features several Web applications with similar functionality to traditional office suites, including: Gmail, Google Calendar, Talk, Docs and Sites. <sup>38</sup>	www.google.com/apps/ intl/en/business/index. html	Google Apps reduces IT costs and empowers today's employees. Gmail, Google Docs, Google Incubators could run their whole operations with Google apps. An incubator can get rid of its Exchange server and save lots of money. Accessible globally. Highly recommended. The Standard Edition is free and offers the same amount of storage as regular Gmail accounts. The Premier Edition, which offers 25 GB of e-mail storage, is 50 USD, 40 EUR, or 33 GBP, per year, per account. The Education Edition, which is free, combines features from the Standard and Premier editions.
	Skype is a software application that allows users to make voice calls over		Considered by many to be one of the most powerful tools
Skype	the Internet. Calls to other users of the service and, in some countries,		to use- the latest version allows desktops to be shared and
"Talk more pay less with	"Talk more pay less with to free-of-charge numbers, are free, while calls to other landlines and	www.skype.com	includes a white board.
unlimited calls"	mobile phones can be made for a fee. Additional features include instant		Highly recommended to communicate as much as possible
	messaging, file transfer and video conferencing. <sup>39</sup>		for free.
E-mail	Electronic mail, often abbreviated as email, or e-mail, is a method of exchanging digital messages. E-mail systems are based on a store-and- forward model in which e-mail computer server systems accept, forward, deliver and store messages on behalf of users, who only need to connect to the e-mail infrastructure, typically an e-mail server, with a network- enabled device (e.g., a personal computer) for the duration of message submission or retrieval. Originally, e-mail was always transmitted directly from one user's device to another's; nowadays this is rarely the case. An electronic mail message consists of two components, the message header, and the message body, which is the email's content. The message header contains control information, including, minimally, an originator's email address and one or more recipient addresses. <sup>40</sup>		Probably the most used of all tools because it is powerful and on the whole highly reliable. Not to be dismissed!

**Table 2 - Web 2.0 Tools Available for Business Incubators** 

<sup>38</sup> Source: http://en.wikipedia.org/wiki/Google\_Apps

<sup>39</sup> Source: http://en.wikipedia.org/wiki/Skype <sup>40</sup> Source: http://en.wikipedia.org/wiki/E-mail

# Section 1.7: Facilities Considerations in the Context of Virtual Incubation

Although virtual incubation implies the delivery of services off-site, many incubators provide a bundled offering where a virtual client has access on a privileged basis to on-site facilities.

#### Such facilities may include:

- Hot-desking i.e. provision of desk space, incorporating telephone access and internet access, in an open-plan environment including sometimes meeting spaces and reception services. Suitable for entrepreneurs at an early stage of development. BusyInternet in Ghana provides a good example of this type of service provision (www.infodev.org/en/Publication.234.html)
- Secure storage
- · Access to specialist facilities such as laboratories or testing facilities
- Conference facilities for 2 to 250 delegates
- Video conferencing
- Library access

Note: Pure virtual incubation is not advisable, i.e. even virtual incubation needs to have some physical inputs – networking between entrepreneurs is critical. Web 2.0 may encourage this but it has to be facilitated by the incubator and a "physical" interaction is necessary to retain motivation, build community and allow trust and sharing between entrepreneurs.

#### COMPONENT CONCLUSIONS

This component provides an understanding of the conceptual framework and terminology related to virtual incubation and helps the trainee to understand the rationale of different stakeholders who may be interested in virtual incubation.

At the end of this component, trainees should have a good understanding of the pros and cons of virtual incubation and should have learned about some virtual incubation tools applicable to different stages of the business incubation process.



# Component 2 (Part 1 Training):

Deciding if Virtual Incubation is the Right Solution for your Incubator

> www.infodev.org www.idisc.net

#### COMPONENT INDEX

Section 2.1: Factors to Take Into Account When Planning Virtual Incubation

Section 2.2: Assessing the Market for Virtual Services

Section 2.3: Assessing What Facilities and Services are Required

Section 2.4: Infrastructure and Operations

Section 2.5: Getting Stakeholders on Board

Section 2.6: Analyzing Cost and Revenue Streams

#### COMPONENT OBJECTIVES

Component 2 will provide trainees with a check-list that they should use to assess if virtual incubation is the right solution for their incubator. At the end of this component, trainees should be able to:

- Assess the demand for virtual incubation services in their operating area; and
- Work out the resources and infrastructure required to deliver them.

# Section 2.1: Factors to Take Into Account When Planning Virtual Incubation

Setting up virtual services might seem like a quick and easy solution at first. However unless the provision of virtual services is properly planned, funded and resourced on an ongoing basis the process could end up becoming counter-productive. Instead of saving staff time, the incubator team could end up under more pressure due to the high level of requests for support from online users. Similarly, without proper support and guidance, virtual clients may end up frustrated and disillusioned with virtual tools and a perfectly valid project idea could be abandoned due to inadequate support. In the latter case, in particular, the reputation of the incubator is undermined rather than enhanced through the provision of virtual services.

To avoid such scenarios developing, the following factors should be taken into account to assess which virtual services are required, by whom, when, how much and most importantly who is going to deliver them and at what ongoing cost:

- Market demand,
- Facilities and Services,
- Infrastructure and Operations,
- Stakeholders, and
- Costs and revenue streams.

Note: Each of these points is addressed in detail in the following sections.

### Section 2.2: Assessing the Market for Virtual Services

Virtual services should be perceived as a long-term investment and integrated as part of the overall strategy of an incubator.

#### Some considerations which should be taken into account when assessing the market:

- Consider the overall size of your current market and the level of geographical disparity. Where are the main population centers? Where are the main universities and/or sources of innovation? How well is this market serviced by the physical incubator? Would virtual incubation services allow you to service new geographical market segments?
- What is the size of the market for virtual services? Where would virtual services be best delivered via outreach centers using distance learning tools or via onlineonly tools? How IT-literate is the marketplace? What is the level and performance of internet coverage and in particular broadband access?
- What are the emerging local business trends? What industry sectors are on the rise? How well are these industries served by the current incubator model? Are these new industries IT-literate? What kinds of virtual incubation services can be delivered to start up companies in these fields?
- Where will the deal-flow for virtual services come from? Consider the size of the market linked to a demand for virtual services represented by the following groups:
  - Pre-incubation and post-incubation clients who may not require physical space
  - Industry sectors not able or willing to avail of physical incubation space e.g. ICT, manufacturing, creative industries.
  - Major population centers or potential sources of innovators outside your incubator. This may include universities or research centers.
  - Marginalized groups (youth, women, disadvantaged areas).
  - Small Office Home Office workers (SOHO/ SOLO: www.soho-solo.com).

Note: For more information on how to conduct a market study please consult Module 3 from the current Training Program dedicated to "Planning an Incubator". The methodology for market research is the same so will not be duplicated here.

# Section 2.3: Assessing What Facilities and Services are Required

The level of virtual services to be offered and the investment in facilities required will depend largely on the model of virtual incubation you are considering and the needs of the targeted clients. For example, using the virtual incubation typology introduced in Section 1.1:

• Virtual incubator – All incubation services are delivered electronically. No physical incubation space.

• Outreach incubator virtual incubation model – A combination of traditional incubation space and services with virtual services offered to both on-site tenants and off-site clients.

• Satellite or networked virtual incubation – Primary physical incubator in one location that delivers virtual incubation services in outreach locations. An important consideration in this respect is the strength of your incubator brand – if your brand is not very well established in another area it may be prudent to partner with an existing well established entrepreneurship centre in the area as a distributor for your virtual incubation services. If your brand is very strong or you wish to build your brand profile in another area, it is worth considering developing a new outreach centre yourself.

Taking into account the market profile and demand, what type of virtual service model would work best in your area?

Now you need to decide what's the optimal portfolio of virtual services to be delivered, based on market demand. Services could include the following:

- Administration or 'Virtual Office' services;
- Marketing and Networking support;
- Business Support and value-added coaching:
  - o Pre-incubation
  - o Business planning
  - o Start-up support
    - Financing
    - Business operations

Note: A more detailed description of each of these services is provided in Table 1. A more detailed discussion on whether to 'build' or 'buy in' virtual services is discussed in the next component.

- o Post-incubation support and monitoring
- o Sector specific support;
- Facilities e.g. hot-desking

### Section 2.4: Infrastructure and Operations

What infrastructure is required for the different models of virtual incubation? In particular this should be a key consideration when considering delivering outreach virtual incubation services in remote areas. The efficiency of some online tools and networking forums is limited by the infrastructure and speed of the internet connection available locally. If there is a poor level of ICT infrastructure and broadband accessibility in the remote area where the virtual incubation services are planned, the feasibility of providing satellite connectivity and investing in ICT infrastructure in one central location may be explored.

The example of Topic 64, in Vietnam (see Case Study 3 at the end of the module), is a good case which highlights the use of wireless technology to overcome poor connectivity. Alternatively some business incubation tools can be delivered off-line. In this case please refer to the 'Entrepreneurs Comprehensive Diagnosis' tool from Costa Rica.<sup>41</sup> This tool uses a simple Excel sheet to provide a standardized and integrated diagnostic and analysis tool to evaluate an entrepreneur's competences. ICT challenges and solutions are discussed in more detail in the second part of the training module.

The operational requirements for providing the service on a long-term basis should also be taken into account. If the services are to be delivered 100% virtually then a robust back-office system and infrastructure is the primary consideration both when setting up the service and in terms of providing maintenance and upgrades. However if virtual services are going to be provided as part of an outreach program or a combination of online and offline services, 'front-office' facilities may also be required such as specialized computer labs or distance learning facilities.

Staff considerations should also be taken into account. Adequate training should be foreseen and where appropriate IT staff employed for set-up, maintenance and upgrades. On-line and telephone help-desk services are also an important consideration for virtual services and should be adequately resourced. The availability of real-time support and guidance from experts is often a key success factor for virtual incubation tools.

<sup>&</sup>lt;sup>41</sup> http://www.parquetec.org/en/e-zone/about/diagnosis.html

### Section 2.5: Getting Stakeholders on Board

It is important that all stakeholders involved in using, delivering and funding virtual incubation services understand from the outset the opportunities and potential impact which could arise from the development of such services. A SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) is often useful to convey to important stakeholder groups the potential but also the possible limitations of virtual services as described in the pros and cons section of Component 1.

#### Some important questions to consider at stakeholder level:

• Does the board of directors support the development of virtual services? Who are the champions supporting such development?

• Where will the funding come from? What revenues can be generated from virtual services? Is the provision of virtual services sustainable? (Revenue models are discussed in more detail in the Component 3).

• Which clients will generate the deal-flow for virtual services? Who are the potential partners who will develop the market? Can such partners deliver virtual services outside of the incubator? How can such solutions be monitored and quality controlled?

 Accessibility to on-line tools (To whom will access be given? Under what conditions – free access or security protected? Where can access be provided?)

- Costs Will virtual services be set up as a stand-alone business unit or integrated as part of a bundled offering of incubator services?
- What is the availability of human resources particularly for ICT and coaching/training?
- What are the intellectual property considerations where significant investment is made in the development of new tools?

## Section 2.6: Analyzing Costs and Revenue Streams

As with the introduction of any service, financing both short set up costs and long-term maintenance and operation costs are a key consideration. Revenue options and sustainability also need to be addressed from the outset.

Firstly, regarding costs, these are likely to vary considerably depending on the type of virtual incubation model being provided:

- For example the initial set up costs of a 100% virtual incubator should be significantly less than those of a traditional incubator offering incubator space to tenants. However the long term returns from rental income will also be non-existent. Therefore other revenue options need to be explored such as taking equity stakes in client companies (discussed in more detail in Component 3), charging a membership fee and so on.
- For all models, a key consideration in working out costs is to decide whether to develop your own virtual services or to deliver 'off the shelf' solutions. These considerations are addressed in detail in Component 3.
- Finally for satellite or networked virtual incubation, in addition to the set up costs of virtual services, costs related to infrastructure development and operations (distance learning labs) should also be taken into consideration.

As regards income from virtual incubation, the revenue streams for virtual services should also be calculated at this stage but should not be over-estimated. Many 'free' or low cost 'start your own business' solutions are available online (e.g. http://www.myownbusiness.org/ or http://www.smetoolkit.org/smetoolkit/en) so incubators

must focus on adding-value to their virtual service offering so that clients are willing to pay for it. Incubators should pay attention to how they position their virtual offering in the marketplace taking into account competing solutions both online and offline. Many incubators combine their virtual services as part of an overall incubation service offering where customized one-to-one support and guidance from an experienced business mentor is the main added-value component of the service. More discussion on revenue models is presented in Component 3.

Note: Costs versus future revenue streams and the wider benefits of the service should be carefully analyzed at this stage. Module 5 of the current Training Program focuses on "Financing an Incubator" and provides useful pointers on how to analyze costs vs. revenues.

## COMPONENT CONCLUSIONS

This component provides the trainee with a good understanding of the different factors which need to be taken into account when setting up a virtual incubator or in the case of an existing incubator, extending the existing product portfolio to include virtual services.

# **Case Studies**

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# Building Business Success by Bringing Businesses Together

Incubator Name: West Midlands Collaborative Commerce Marketplace Sector: Engineering-based Incubator This Case Study Examines: The West Midlands Collaborative Commerce Marketplace (WMCCM), United Kingdom Date: November 2009

## **PART I**

## SUMMARY

## Problem

Business incubators, as tools for local economical development, face 2 major issues:

- How to attract relevant businesses to carry out their activities in the incubator's operating area and how to meet the needs from and opportunities offered by this environment; and
- How to attract a critical mass of relevant businesses to generate adequate economic activities enabling the businesses to grow and benefit from networking.

#### Solution

An innovative answer to these issues is the creation of "a business ecosystem where the capabilities of individual organizations are showcased and within which virtual enterprise networks involving different businesses can come together in response to specific opportunities" available in their operating area. Hence, creating a marketplace where companies say what they "could do", instead of what they "currently do", helps to raise the visibility of each individual company, so that more business opportunities and partnerships are available to each company but in some cases as part of a virtual network.

## PART II

#### BACKGROUND

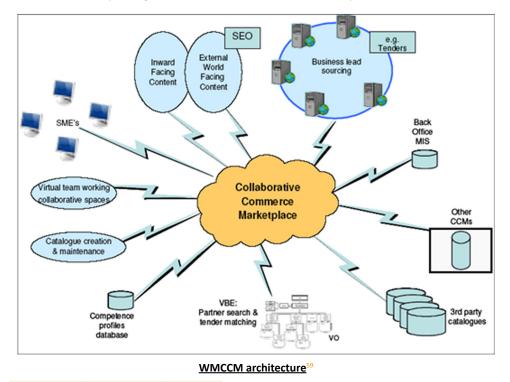
In setting up the West Midlands Collaborative Commerce Marketplace (WMCCM), the team from the Warwick Manufacturing Group at the University of Warwick (UK) aimed to develop a dynamic virtual community based on the business skills and attributes of its members. This virtual community supports SMEs to identify and exploit new business potential, boost innovation, increase their knowledge and move from traditional product areas to new higher profit potential products and services<sup>56</sup>. The

initiators of the WMCCM refer to a "Virtual Enterprise Network" (VEN) enabling the SMEs to:

- Make new offers to their markets collectively which are more valuable (and more profitable) than the sum of their individual offers;
- Have better access through the network to marketing and innovation resources in order to conduct collaborative new product development and/or enhancement in order to develop higher value branded products and services; and
- Share expensive resources and infrastructure with the other network members and hence enjoy both lower costs and better quality of services<sup>57</sup>.

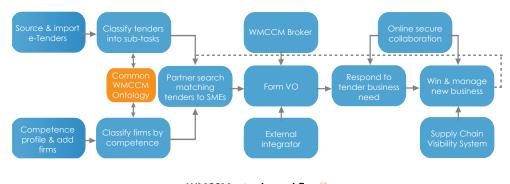
The WMCCM was set up in 2004 thanks to European Fund for Regional Development (ERDF) funding of £250.000 as an "internet enabled business ecosystem focus[ing] on capturing what SMEs can do, providing a feed of demand driven opportunities (tenders), enabling the formation of virtual organizations to address the tender needs and providing on-line collaboration spaces to coordinate the design and delivery of the product or service."<sup>58</sup>

The system architecture for WMCCM is based around the Microsoft.Net Framework and was custom built in order to focus on needs of the regional ecosystem business processes. As WMCCM is a bespoke tool, there are low operating costs, which amount to  $\pm$  10.000 annually.



- 57 Idem
- 58 Idem
- <sup>59</sup> Idem

WMCCM is designed to support SMEs from the competence profiles database to find and win new business opportunities through the key workflow processes that are illustrated in the following figure:



WMCCM e-trade workflow<sup>60</sup>

In more detail, the processes (as illustrated from left to right in the previous figure) are:

• Source and import new business enquires from various e-tender online sources including both public and private sector contracts. Members of the e-marketplace can also generate tenders for their own needs. Tenders are automatically analyzed and classified against a business ontology developed for the system. This classification process identifies the processes, skills, quality standards and geographical requirements for the tender.

• Competence Profiling of SMEs. This is a structured process that impartially measures the capabilities of firms using a formal standardized questionnaire with the objective of generating trust and generating easily comparable information. To enable this process, experts within the Warwick Manufacturing Group (WMG) at the University of Warwick capture competence profiles. A third party independent evaluation is important to build trust between partners .The focus of the questionnaire is on discovering what the firm could do, rather than what they are doing currently. For example, where skills and technology process can be used in different sectors, from automotive to military or in different applications (e.g. a company who manufactured car seat frames for the automotive industry. Key skills and process included the ability to "bend and join" wire precisely. They have now become the World's leading provider of body piercing jewellery (A product that also requires the skills and capability to "bend and join" wire precisely). The profit margins are much higher and they judge the work as strategically more valuable.) The skill profile captures a range of "factors so that firms with similar cultures can be matched together when forming effective collaborations and virtual networks (e.g. if they are located in the same geographical area or have had experience working with the same customer.) A key advantage of the profiles is that they are easily comparable and matcheable, as opposed to websites or brochures.

• The classification of tender requirements and SME capabilities uses a common ontology. Tenders are automatically analyzed and classified against a business ontology developed for the system. This classification process identifies the processes, skills, quality standard and geographical requirements for the tender. SME profiles are also classified using the same set of keywords. Thus, when tender requirements and SME capabilities match, the SME can be automatically alerted by regular email giving details of the tender opportunity.

• How to match tenders to individuals or group of SMEs using WMCCM online Partner Search System. The Partnership Search System is used when a tender requires skills or services which one SME cannot provide independently. It is a two-stage search process. The first stage matches a manufacturing skill or technical factor. For example, skill/capability in laser cutting. The second stage is a preference or knowledge/experience of a sector or market (e.g. the preference to work with a partner with experience in the military sector, within a particular geographic area or with a specific quality standard.) The system scores matching marks for each eligible company and then suggests a "best fit" partnership based on the highest matched scores. This process can be driven by the SMEs or by a specialist business ecosystem broker.

• The results of the partner search suggest an initial "best fit" matching of SMEs who collectively have the potential capability to bid for the tender contract. At this stage the virtual network starts to take shape as members undergo a stage of team-forming through a number of initial face to face meetings. It is important that best practice virtual teaming principles are followed in order to ensure that good team performance is achieved. A number of virtual teaming methodologies can assist in this. The WMCCM broker may appoint an external Integrator who is typically a procurement specialist and can act as bid manager and eventual prime contractor.

• How to respond to a tender (or a business need) and collaborate online in secure project spaces. These can be generated within the portal by SMEs to support low cost and speedy collaboration. The core functionality includes document storage, simple project and task allocation management and discussion forums with associated knowledge management tools. SSL encryption is also available.

• If the bid is successful and the contract awarded, further collaboration tools can be utilized such as the integrated supply chain visibility facility that allows the composite organization to monitor the flow of materials and information between members of the consortium and the customer.

In summary, rather than just measuring current operational capability, Competence Profiling seeks to determine capabilities that can be applied in different applications. SMEs who are Competence Profiled are matched against a dynamic ontology which allows their capabilities to be matched against the tasks of any online tender. This is the matching of needs (tender requests) with resources (the SME's capability) with the purpose of stimulating innovation."<sup>61</sup>

## TIMELINE OF EVENTS

2004: Launch of the WMCCM project.

June 2007: The project had over 4,000 registered SME organizations, covering a broad range of industrial competencies. Over 270 of WMCCM SME members had been Competence Profiled. December 2008: End of EU funding, project becomes self-funding.

#### OUTCOME AND CONCLUSIONS

By adopting an open approach, i.e. to take into consideration the skills and competencies of the businesses to understand what they could do rather than capturing what they currently do, WMCCM enables the SMEs to move into more profitable businesses (e.g. a car seat frames manufacturer became a market leader in jewelry) using their skills and capabilities in more profitable ways. In the event that t one supplier is not capable of providing a specific product or service, WMCCM enables the combination of individual skills from different SMEs to develop together a new product or service.

The impact of the WMCCM project resulted in:

- Over 11,400 active users;
- Over 9,000 active companies;
- A "skills profiled" company attracts between 2-5 times more enquiries for work from Google search;

• Over 70,000 tender business opportunities are published on the WMCCM project website (www.wmccm.co.uk) each year. This is a minimum of €8bn of tenders passing through the website each year and being distributed to SMEs in the West Midlands region in the UK;

• Approximately 1,000 individuals visiting the WMCCM project website each day;

• The reach of the WMCCM website is also highly significant with visitors from 155 countries and territories in the quarter; and

• The WMCCM project website features predominately in search engines for keywords areas such as tenders alerts, tender feeds, West Midlands, and various engineering processes.

The strength of WMCCM is its scalability:

- The WMCCM is run by itself as a self-managed community, which allows the tool to operate efficiently at low costs; and
- The services offered by WMCCM are ideal for start-up businesses which do not have customers yet and need to access markets and promote their offer to potential clients... WMCCM is a very helpful tool to tackle the core needs of new companies striving to develop new business.

A service like WMCCM is promoted as the electronic equivalent of having a road, port or airport in a region. It facilitates the flow of products and services and helps businesses to generate international e-trade.

WMCCM does not offer training, coaching, mentoring, or advice to client companies. WMCCM generates business opportunities for companies encouraging new collaborations, not more competition.

## PART III

#### LINKS

WMCCM: www.wmccm.co.uk

## REFERENCES

The material for this case study was contributed by Dr Jay Bal, one of the initiators of the WMCCM and the author of the "Whitepaper: Breeding demand driven virtual organizations from a Business Ecosystem" from which this case study has been largely inspired.

The information is based on first-hand experience and personal involvement in the development of the afore-mentioned system.

## Contact details:

Dr Jay Bal International Digital laboratory, University of Warwick, Coventry CV4 7AL, UK Jay.Bal@warwick.ac.uk

# Fostering an entrepreneurial culture in a dynamic and ICT enabled community

Incubator Name: BusyInternet

Sector: Mixed-Use Incubator

This Case Study Examines: BusyInternet, Internet centre based incubator in Accra, Ghana Date: December 2009

## PART I

## SUMMARY

## Problem

In many developing countries, the business environment has proved particularly difficult due to major challenges such as poor infrastructure, limited access to electricity and internet broadband access, and a traditional lack of entrepreneurial spirit.

## Solution

When considering business incubation as a solution to overcome these challenges, a traditional incubation approach might not be the best solution to confront the local realities. A new and flexible concept may be needed to meet the commercial and social needs of the targeted area. An innovative approach is needed to create a central business hub as the one concentrated location that naturally makes people with common interests do business together and one that is acknowledged and used by the local community.

## PART II

#### BACKGROUND

BusyInternet was set up in 2001 in Accra, Ghana, by 3 partners:

- Busy International, a limited partnership managed by a Welsh entrepreneur;
- Data Bank, based in Ghana; and
- Fidelity Capital Partners, a Ghana-based Investment fund.

The 3 partners contributed to the establishment of BusyInternet by providing:

• The initial capital of US\$ 1.7 million;

• An innovative concept for implementing a technology oriented initiative aiming to support new and young entrepreneurs;

- The business model for the initiative;
- A thorough knowledge of incubation, entrepreneurship and technology;
- Local ownership; and
- Local connections and networking contacts in order to leverage the resources required.

BusyInternet was first designed as an internet centre with 50 PC's providing direct access to a technology focused forum for young people and entrepreneurs interested in technology related matters and enabling them to find like-minded people, exchange their ideas and experiences and potentially do business together.

However, the Ghanaian market drove the initiators of this philanthropic action to rethink their concept and define a much larger enterprise program offering commercial services which could contribute to the area's social development.

BusyInternet is located in a 14,000 square foot former gas-bottling factory in the centre of Accra where 4 types of services were initially offered to entrepreneurs and young people:

- A large cyber café;
- A conference facility and several meeting rooms;
- A copy centre; and
- Office space available for entrepreneurs and software companies.

The key for success for BusyInternet has always been to find the right balance between social and financial returns, i.e. the offer of commercial services to generate income and profits for the incubator and the offer of an enabling environment for the community benefiting from the incubator's services.

By not receiving any public funding or government support but focusing on being profitable, the model of BusyInternet has proved to be more flexible, capable of evolving and better responding to emerging market needs.

The focus on internet service provision illustrates the concept best:

- On one hand, BusyInternet saw a business opportunity to set up directly the whole broadband internet access service for their clients who pay for this service and hence generate the majority of the incubator's income;
- On the other hand, setting up the broadband internet access also responded to the community's needs.

• In addition to internet service provision, the initial structure and offer has been redeveloped to propose a model that better suits the needs of the targeted clients of the incubator:

• The meetings rooms have been transformed into more ready-to-use fully IT equipped office spaces available on a very flexible renting basis;

• Internet is accessible by both Ethernet cables and wifi, notably in the Laptop Browsing Lounge; and

• The focus is on enabling networking between technology oriented people by providing them with one business environment where they can meet and do business informally together and attend networking events.

## TIMELINE OF EVENTS

2001: Setting-up of Busy Internet

Note: The restructuring of the BusyInternet business model is ongoing.

#### OUTCOME AND CONCLUSIONS

Responding to the changing features of the Ghanaian market, the founders of BusyInternet took an innovative approach to set up an enabling environment bringing together technology oriented companies, young people and entrepreneurs to do business together.

By setting up an internet centre providing office space available on a very flexible basis, the initiators of BusyInternet designed a genuine business incubator providing financial and social returns to the community where it operates.

By supporting more than 1000 people on a daily basis with a stimulating environment, BusyInternet is a local driving force for innovation and entrepreneurship and has become the biggest privately owned and operated ICT centre in Africa.

## PART III

#### LINKS

BusyInternet website: http://www.busyinternet.com

infoDev video on Busy Internet: http://www.idisc.net/en/Article.38728.html

ICT-Enabled Development Case Studies Series: BusyInternet (Accra):

http://www.bridges.org/case\_studies/127

Article: http://www.busyinternet.com/old\_sites/4.0/site/about/press.cfm

## REFERENCES

The material for this case study was contributed by the founder and current Incubator Chief Executive Officer, Mr Mark Davies. The information is based on firsthand experience and personal involvement in the development of the incubator.

**Contact details:** 

mark@esoko.com

## The potential of virtual incubation

Incubator Name: TOPICA, Vietnam Sector: ICT-based Incubator This Case Study Examines: The diverse virtual services offered by TOPICA, Vietnam Date: December 2009

## PART I

## SUMMARY

## Problem

When an incubator is limited in terms of space, 2 critical issues have to be overcome:

- If renting office space to clients is not a possibility to generate income, what are the other sources of income a business incubator should explore?
- What are the ways a business incubator can provide more services to more clients if it cannot physically incubate them?

### Solution

To overcome the challenge of limited space, offering services via virtual means has helped incubators to provide their clients with the support services they require while designing a sustainable business incubation model.

## PART II

#### BACKGROUND

This solution has been illustrated by TOPICA, an online Academy which has been developed progressively through different project stages.

In 2004, thanks to an *info*Dev grant received to carry out the feasibility study, the CRC-TOPIC Technology Business Incubator was set up in Hanoi, Vietnam. Once established, the incubator focused on supporting high growth ICT businesses by providing them with common incubation services.

However, 2 major challenges had to be overcome:

• The space provided by the University of Hanoi was too small; and

• Due to their high growth nature of ICT companies, the tenants faced major cash flow issues preventing them from becoming sustainable and providing the incubator with a sustainable client base.

In 2006, the same team of 12 manager-entrepreneurs who set up the original incubator launched a national project TOPIC 64, aiming at incubating 64 virtual learning centers in 64 Vietnamese provinces. The project was initially supported by Microsoft (Qualcomm, HP and USAID contributed after the initial phase) which provided the provinces with the adequate equipment to train and build ICT capacity of 87.000 people. Although the space and income issues were overcome by this new approach, other issues emerged to deal with:

- The income generated by the fee paid from participating learning centers was too small to be efficiently managed and insufficient to ensure the self-sustainability of the program;
- Major intellectual property rights issues were faced (e.g. brand violation); and
- The added value for the learning centers was not obvious.

Nevertheless, 55 out of the 64 learning centers supported through the TOPIC 64 projects remained sustainable.

Building on the experience of TOPIC 64, the TOPICA Online Academy was launched in 2008 thanks to the financial support of a venture capital and a Vietnamese Foundation. TOPICA offers bachelor's degrees online training in business, accounting and ICT to 1000 students from the Open University of Hanoi.

Although the model seems successful generating \$ 1 million in revenue, employing 140 staff; and with 3000 to 5000 students expected to join the program in 2010; the negative cash flow issues generated by high growth programs is particularly challenging to deal with, especially in turbulent financial times.

## TIMELINE OF EVENTS

2004: CRC-TOPIC incubator established2006: Launch of the national project TOPIC 642008: Launch of the TOPICA Online Academy

#### OUTCOME AND CONCLUSIONS

By adopting an entrepreneurial approach, the TOPICA team adapted its business incubation model to meet the specific challenges they encountered in the development of expansion of virtual services.

As mentioned above, 55 out of the 64 learning centre supported by the TOPIC 64 project became sustainable and almost 15 of them turned themselves into business incubators.

## PART III

## LINKS

CRC- TOPIC website: http://www.topic.edu.vn/english

CRC-TOPIC Business Incubator video: http://www.idisc.net/en/Article.38727.html

CRC-TOPIC Business Incubator presentation: http://www.idisc.net/en/Publication.135.html

Asia Pacific Incubation Network (APIN) – online training course on Marketing for Incubator Managers and Entrepreneurs: http://www.incubationasia.com/newsevent\_details.php?type=news&id=19

## REFERENCES

The material for this case study was contributed by Dr Tuan M. Pham, Director of the TOPICA Online Academy and Dean of the Faculty of Banking and Finance of the Hanoi Open University.

The information is based on firsthand experience and personal involvement in the development of virtual tools.

## Contact details: Dr Tuan M. Pham tuanpm@topica.edu.vn

## TOPICA, Vietnam – TOPIC 64 National Project

#### THE CHALLENGE

Over 70 percent of Vietnam's 82 million people live outside urban communities. At a time when Vietnam plans to reallocate hundreds of millions of dollars to expand information and communications technology industries, only 1.85 percent of its entire population uses the Internet. In rural areas traditionally dependent on agriculture and forestry, access to modern telecommunications remains scarce. Communities with little or no exposure to information and communications technologies (ICT) are not prepared to equip young workers with the technical skills they need to join an increasingly ICT-oriented workforce.

#### RESULTS

- TOPIC 64 trained 5,067 students in the first fifteen learning centers by
- March 2007: 1,723 students received free training.
- 474 ICT instructors have received training through TOPIC 64.
- 12,000 students will receive training in all 64 centers by the end of 2007.
- 70,692 students will receive training at affiliate learning centers in 2007.
- TOPIC 64 enables youth population to compete for better paying jobs across the country.
- By harnessing leading-edge technologies, Vietnam is positioning itself for expanding job creation and a more prosperous future.



#### THE APPROACH

To meet Vietnam's IT goals, the Training Online Partnership in ICT for Community (TOPIC 64) Global Development Alliance seeks to create or upgrade one Community Technology Learning Center in each of Vietnam's 64 provinces. By using Qualcomm's wireless technology to build on Vietnam's fiber backbone, TOPIC 64 connects its learning centers through an extensive wireless network that brings broadband and voice access to the country's rural areas. TOPIC 64 employs Microsoft's Community Learning Curriculum to train students in basic computer skills, Internet skills and digital media, and software program lessons. The training, which includes Windows, the K-12 curriculum, and a range of other applications useful to local citizens, is available in Vietnamese.

TOPIC 64 has also teamed up with other donors to distribute the curriculum to 300 vocational schools.

## PARTNERS

Microsoft, Qualcomm, Electricity of Vietnam, Source: USAID - http://is.gd/cUIGF

# The "Local Entrepreneurial Network" of the VBI of Kharkov Technologies incubator

Incubator Name: Kharkov Technologies, Ukraine Sector: Technology business incubator

This Case Study Examines: The experience of the Kharkov Technologies incubator in Ukraine in setting up virtual services as a new incubation method for supporting new companies. Date: October 2009

## **PART I**

#### SUMMARY

## Problem

One of the major challenges faced by business incubators once set up and running is to have the capacity to evolve on a permanent basis to constantly meet the growing demand and various needs from their current and prospective client companies. To be able to carry on their activities, business incubators have to explore innovative ways of better supporting more companies.

#### Solution

Setting up a virtual incubator through a website may be the solution for a business incubator to provide more services to more companies, especially start-up companies.

## PART II

## BACKGROUND

Kharkov Technologies was established by Ukrainian scientific institutes in 1998 to offer incubation services to entrepreneurs based in Kharkov, notably technology-driven business projects. Kharkov was set-up and hosted within the premises of the founder institutes and aimed to foster technology-oriented entrepreneurship, to support the commercialization of science intensive products and processes and to enhance innovation in Kharkov.

Kharkov Technologies is the only incubator of the Ukrainian Academy of Sciences System. The incubator offers services to newly established small and medium sized technology and science driven enterprises including:

- Fully equipped offices (e.g. computer, access to internet, phone, printer etc.);
- Consultancy support (e.g. development of business plans and innovation projects, securing access to finance etc.);

- Training programs (e.g. innovation management, marketing, financial management etc.);
- Participation in international projects promoting entrepreneurship.

Since its creation, Kharkov Technologies has experienced an ever growing demand from companies to be supported.

#### Setting up new services to support more companies - the feasibility study:

In the early 2000's Kharkov Technologies ran a survey among its current and prospective client base to identify the needs of the companies in order to better support them.

The results of the survey demonstrated that the companies starting up in the Kharkov area could not easily use internet and its many opportunities for their businesses. Companies generally did not have a good working knowledge of internet applications and some had limited access to the internet. Consequently many companies could not easily set up internet websites to disseminate information related to their companies and create more business opportunities.

Kharkov Technologies ran a feasibility study to explore the establishment of a broadband internet system which would cover both the scientific institutes which hosted the physical incubator as well as a virtual incubator (set up as a website) which could better meet clients' needs as indicated in the survey results.

The feasibility study was the basis for the proposal that Kharkov Technologies submitted to *info*Dev in response to the call launched in 2003 which made up to \$ 250.000 available to support the set up a virtual incubator.

#### Setting-up virtual services - the implementation:

Kharkov Technologies was awarded the *info*Dev grant. With the additional support provided by the founders, the scientific institutes, Kharkov Technologies set up a complete internet broadband system for the institutes and the incubator.

In the meantime, Kharkov Technologies started to offer virtual services for free using other servers until their own server was ready. The offering was widely promoted within the area of Kharkov through different marketing channels including brochures, attendance at events, radio broadcasts and so on.

The Virtual Business Incubator (VBI) was set up through a website allowing Kharkov Technologies to meet several needs:

- The website is the tool which teaches entrepreneurs how to use the internet and how to set up their own company website;
- Client companies websites are hosted on the VBI website;
- Client companies are more visible to a wider target audience and hence improve their business activities; and

• The website is the connecting point of the "local business network" of Kharkov, bringing entrepreneurs together and creating more opportunities for them.

## Virtual Business Incubator's structure:

Kharkov Technologies website provides a direct link to the VBI website which is structured as follows:

• The "Management" section gives direct access to send a message to each of the key incubator staff (e.g. the director, the secretary, the business consultants...) in order to ask queries, request meetings, etc.

• The "Client companies" section gives direct access to the client companies' website links.

• The "Showcase" and "Idea Show" sections provide detailed information on the products and processes of the client companies and business projects supported by the incubator.

• The "Education" section provides access to the different distance learning and training services offered by the incubator (e.g. "How to start your own business" training session). The completion of these educational programs gives the entrepreneurs priority access to loan programs.

• The "Library" section provides access to a comprehensive database of books, articles and manuals on key issues faced by entrepreneurs (e.g. assessment and management of innovation risks, drawing up a marketing plan etc.).

• The "Newsroom" section contains information about the Ukrainian business world (e.g. business events, economy-related news, etc.)

• The "Navigator" section provides an exhaustive list of links to relevant stakeholders' websites (e.g. law firms, bank institutions, State institutions and departments and so on).

• The "Forum" section allows entrepreneurs to exchange and communicate with other entrepreneurs, the incubator staff and other relevant parties to maintain the added value of incubation, i.e. constant and informal exchange between entrepreneurs and their business partners.

## TIMELINE OF EVENTS

1998: Setting up of Kharkov Technologies Incubator.

**2003:** Setting up of VBI thanks to an *info*Dev grant and the support of the scientific institutes' founders and host of Kharkov Technologies incubator.

**2005**: *info*Dev Global Forum in India, funding launched to duplicate the Kharkov Technologies virtual experience in the Eastern Europe and Central Asia regional network.

## OUTCOME AND CONCLUSIONS

Six years after the creation of VBI, Kharkov Technologies has achieved the following:

• 60 clients of Kharkov Technologies use VBI on a daily basis (60 visits/day recorded).

• VBI offers access to incubation services at prices which are 20% to 50% lower than market rates.

• A second grant has been awarded to Kharkov Technologies to extend its virtual offering to other incubators in the *info*Dev regional network of Eastern Europe and Central Asia.

## PART III

## LINKS

Kharkov Technologies website: http://www.kt.kharkov.ua/English/

VBI: http://www.kt.kharkov.ua/English/VirtualBizInc.html

infoDev Eastern Europe and Central Asia Network website: http://www.idisc.net/en/Region.3.html

Ecabit website: http://www.ecabit.org/

## REFERENCES

The material for this case study was contributed by Kharkov Technologies Incubator staff.

## Contact details:

Inna Gagauz, Director Tel/fax:+38(057)340-46-01, 758-53-23 E-mail: gagauz@isc.kharkov.com, kt@kt.kharkov.ua

# Creation of a market and needs oriented virtual incubation program

Incubator Name: IPN-INCUBADORA, Portugal

Sector: Generalist incubator

This Case Study Examines: The steps and impact of creation and implementation of a virtual incubation program for the IPN-INCUBADORA incubator in order to overcome space constraints and reduction in revenues

Date: October 2009

## PART I

#### SUMMARY

#### Problem

Acting on the findings of a feasibility study, it was decided to build a new Incubation Centre and develop its technology transfer activities by investing in new labs and supporting new fields of research in the existing labs. However, this development took time and meanwhile the incubator had a regular waiting list of 3-4 companies. Promotional activities were kept at a minimum level during this transition period because no office/lab space available and the incubator was already experiencing a "demand exceeds supply situation" from potential incubatees. Two questions had to be answered:

1. How could the increased deal flow be handled and managed when space was so limited?

2. In what way could virtual incubation be the solution?

#### Solution

The Virtual Incubation program did not solve all space constraints, but it offered an alternative which met the immediate needs of many entrepreneurs and helped the Incubator to address the potential loss of income due to the lack of availability of rental space. It also contributed to an improved business model by reducing the dependency on income from renting space.

## PART II

#### BACKGROUND

The University of Coimbra is one of the oldest universities in Europe, founded in 1290. It is the most important in the Centro Region in Portugal and has around 22,000 students.

Instituto Pedro Nunes (IPN) was created in 1991 as a Technology Transfer Organization (non profit private association) promoted mainly by the UC Faculty of Science and Technology. It provides 3 types of activities:

- Technology Transfer (by means of in-house applied research laboratories and networks of competences)
- Professional Training (management and technologies)
- Business Incubation (science-based and advanced services companies).

The Incubation activities started in 1996. At the end of this year the incubator had 6 companies. In 1997 there were 9; in 1998 12 and in 1999 13. During these years the Incubator started gaining some regional and national recognition and status due to some very successful cases of incubated companies (mainly academic spin-offs). As a result, the flow of applications kept increasing and, in 2000, the Incubator reached a total of 18 incubated start-ups which occupied a total area of 1030 m2, the maximum capacity of the facilities.

In early 2002 some minor modifications were made to the incubator building to create 2 extra spaces for new-arrivals and/or to facilitate the expansion of existing incubatees'. However this did not solve the overall problem of excess demand.

In the summer of 2002, a new "Virtual incubation Program" was launched with two functions:

- Virtual Incubation Start: Aimed at supporting new projects from teaching staff, students and other potential entrepreneurs who had ideas for creating a new knowledge-based business.
- Virtual Incubation Follow-up: Aimed at companies who leave the incubator after the incubation period (3-4 years).

Virtual Incubation provides the same package of services as Physical Incubation except for the office space, so the entrepreneurs/companies in this program (who pay a monthly fee of only 35€ +VAT) can benefit from:

- Support for Business Plan writing and feasibility study;
- mail-box and company address;
- fixed phone number; free access to meeting rooms;
- preferential access to training programs for the entrepreneurs and their staff;
- space in server for web-site hosting and e-mail accounts;
- presence in the IPN web-site with a project/company profile and link to their own web-site;
- free access to the basic technical advice service of the incubator;
- networking and promotion at national and international level
- Important discounts in specialized services provided by the incubator such as: applications for EU and national grants or subsidies programs, accountancy, etc.

Some of the services provided are supported by a web application (myIPN) where the entrepreneurs,

staff and other representatives of the projects or companies incubated (after registration and log-in) can, for example:

- Book meeting rooms and audiovisual equipment;
- Ask for maintenance in their offices or for ICT equipment;
- Receive news and other mailing-list services with important information for their businesses;
- Upload their own news and events on the IPN web-site; and/or

• Fill in the annual financial report of their companies (Balance sheet and Earnings demonstrations) and have feedback in terms of financial and economic indicators in order to evaluate their performance.

## TIMELINE OF EVENTS

The Program started in December 2002 with one company in Virtual Incubation Follow-Up. In 2003 there were 3 projects in Virtual Incubation Start and 6 companies in Virtual Incubation Follow-up.

## OUTCOME AND CONCLUSIONS

The Virtual Incubation Program was very well received by the new entrepreneurs and by the former incubatees. Shortly after the implementation stage, there were 18 projects in Virtual Incubation Start and 9 companies in Virtual Incubation. This corresponds to 1000€ /month extra revenue in Virtual Incubation fees alone allowing IPN to:

- Provide an alternative solution to the constant influx of new applications for physical incubation services;
- Handle the limitation and reduction of space available for incubation since 2002. In 2010 the total space available is around 650 m2, because the new labs have already been accommodated;
- Maintain and even reinforce the positive image of the Incubator as an active organization that is always looking for solutions for entrepreneurs and their incubation needs;
- Give the customers (entrepreneurs) the added value of belonging to the IPN Incubation Program as this adds prestige and credibility to their projects/companies;• U
- Demonstrate to the national authorities that the new Incubator Centre was really needed;

• Outreach to some entrepreneurs projects in cities around Coimbra where no incubation services are available;

• Create a critical mass to hire new staff and develop more income generating services such as: accountancy; feasibility studies; applications to funding schemes; participation in European projects, etc. mainly addressed to the community of Physical and Virtual Incubatees. These specialized services generate between 40 to 60 thousand Euros additionally per year and contribute to the self-sustainability of the incubator;

• Create an important pool of start-up projects ready to enter in the New Incubation Centre as soon it is finished and ready to start;

The Incubator has since grown to 4 full time staff members (compared to 2 in 2002). In 2002, IPN-Incubadora was a department of IPN, but in 2003, a new Institution called IPN-INCUBADORA was created, with 2 associates: IPN and University of Coimbra, and this new institution will run the new Incubation Centre.

A Virtual Incubation program did not solve the space constraints problem of IPN, but it offered an alternative which met the immediate needs of many entrepreneurs. The program helped the incubator to achieve revenue growth, even though there was a lack of additional rental space. It also contributed to an improved business model by reducing the dependency on income from renting space.

## PART III

## LINKS

https://www.ipn.pt/si/event/allNews.do;jsessionid=D6B840E47FF391C9439B6121252F1DB5?theme Id=2

https://www.ipn.pt/si/event/dataNews.do%3Bjsessionid=B770A23A7B40DFFBBD2170FF6475E2D6?e lementId=538

https://www.ipn-incubadora.pt/si/initapplication.do

## REFERENCES

The material for this case study was contributed by Oxford Innovation Ltd. through its Good Practice Handbook for Incubator Managers – Final Report – commissioned by the Gate2Growth incubator Forum

Contact details: www.gate2growth.com

## Netactiva, the virtual incubator of Barcelona Activa

Incubator Name: Netactiva, Spain Sector: Generalist but with a focus on innovative companies This Case Study Examines: Netactiva, an example of virtual incubation Date: January 2010

## **PART I**

## SUMMARY

#### Problem

Public administrations are committed to facilitating the widest possible access to their services across the general population and to serving as many businesses as possible. In the case of Barcelona Activa, the targets for a virtual incubator are potential entrepreneurs and companies. When Barcelona Activa was created as the local development agency of the city council of Barcelona, local authorities realized that there was a need to build a critical mass of people willing to set up a company or to run a company. It was recognized that supporting such company start-ups could contribute significantly to the development of the economy. By broadening its service offering Barcelona Activa could facilitate access to its services from individuals who had limited access to resources (lack of education, limited mobility, lack of time, etc). Consequently, Barcelona Activa sought to overcome the time, space and cost barriers that could prevent 'would-be' entrepreneurs from accessing the skills, resources and education needed to start a company. The solution also had to be affordable in terms of economic resources since it was launched by a public administration.

#### Solution

A blended or hybrid model was developed. This hybrid model could be defined as a combination of on-line and on-site services dedicated to promoting entrepreneurship and business growth. Barcelona Activa's hybrid model consists of a combination of the following resources:

- Flexible personal coaching combined with self-use environments fitted with IT equipment;
- On-line content and tools to support start ups; and
- Executive training for entrepreneurs.

## PART II

## BACKGROUND

#### Origins:

The 1980's was a changing decade for the Spanish state, Catalonia and Barcelona. As well as the shift

in the political framework after the end of the Franco's dictatorship in 1975, the decline of traditional industry sectors such as the textile, food processing, chemicals and machinery sectors caused important economic imbalances. Given this situation local authorities designed a strategy to put Barcelona in the right position to become an important location in terms of innovation and economic growth.

Founding Barcelona Activa in 1986 as the local development agency of the City Council of Barcelona was part of this strategy. The agency had two main areas of action, the first one was devoted to foster entrepreneurship and business growth and the second one was focused on stimulating jobs creation and increasing the quality of the jobs in the city of Barcelona.

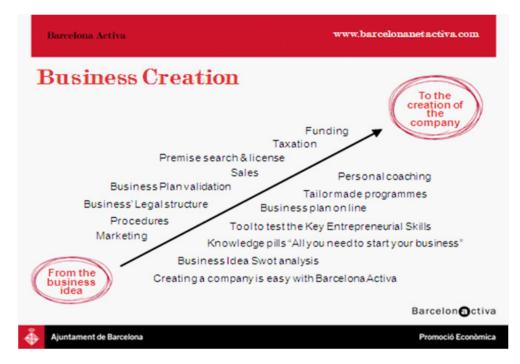
At the end of the eighties, local authorities considered that the city needed amenities to host recently created companies and therefore to reinforce its strategies to foster businesses in the city. This is the reason why in 1988 Barcelona Activa was provided with an incubator that hosted 16 companies at the beginning. At the beginning of 2010, 51 companies were incubated in the incubator premises. In 1995 the Technological Park, focused on technological companies, was founded. In 2010 it hosted 37 companies. Both the Technological Park and the incubator belong to Barcelona Activa and are run and managed by its staff.

#### Barcelonanetactiva

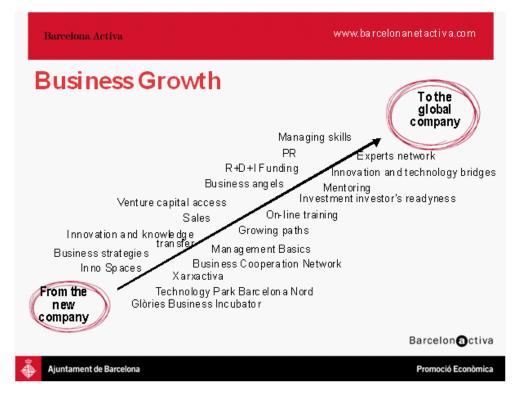
In 1999, after 13 years of experience training entrepreneurs, employees and unemployed workers and coaching business, the virtual incubator was launched. This virtual incubator was created based on the wide experience and background of the physical incubator and on-site training courses which had been comprehensively tested.

A new incubation model was created. The model follows a scheme that leads the entrepreneur from the business idea stage to the business consolidation and growth stage.

## First step: Business creation



## Second step: Business growth



Based on the expertise of Barcelona Activa and as part of a strategy to offer entrepreneurial skills and coaching to as many entrepreneurs as possible (and to overcome the time and spaces barriers involved in setting up a company) the virtual incubator was launched in 1999. New technologies and the internet revolution made it possible to provide efficient virtual services to entrepreneurs.

#### **On-line tools**

A complete set of on-line tools was created from 1999 onwards. These on-line tools are divided into two groups. The first group focuses on business creation and the second one on business development:

Tools for business creation:

**Test idea** (now available in Catalan, Spanish, English, Chinese and Arabic), is aimed at assessing the potential of a business idea in the market. It facilitates the process of maturation of the business idea, explores how it is possible to enrich it and to avoid failure factors.

The evaluation of a business idea is based on three main criteria:

- 1. Profile of the entrepreneur,
- 2. Market in which the company will operate, and
- 3. Features of the business idea.

• Regarding the idea, it is important to assess if it is a mature idea, that has been sufficiently evaluated or if it is an idea which has only recently emerged, for example, because of an urgent need for self-employment.

• Regarding the market, it is important to be aware of all aspects concerning potential competitors, clients and also the level of innovation that the business brings.

• Regarding the entrepreneur, the following features need to be analyzed: Capability, skills, know-how, leadership, enthusiasm, commitment.

As 'Test Idea' is an on-line tool, its goal is to encourage the entrepreneur to think strategically. Strategic thinking is facilitated through a short and simple process, adapted to a wide range of entrepreneurs' profiles. Features include simulations and impressions and the process uses filters to submit appropriate questions. The tool allows good interaction with the user providing constant guidance and feedback. A strategic SWOT is provided as an outcome of the 'Test Idea' process.

Since the entrepreneurial skills are especially significant when analyzing the potential of a company to succeed in the market, part of the 'Test Idea' tool is dedicated to analyzing personality traits such as the background, the skills and the education of the entrepreneur. A questionnaire is sent to the entrepreneur aimed at analyzing all these aspects. Depending on the answers, the tool will provide the user with a complete professional profile focused on the skills needed to run a company.

• The keys to start-up. This tool is devoted to evaluating the entrepreneur's profile. The keys to start up are divided into three steps:

- Definition: The entrepreneur is asked to choose the group that matches his/her chosen area of activity to find out what skill level it will demand from him/her as an entrepreneur.
- Diagnosis: the tool places the entrepreneur in front of ten scenarios and he/she is evaluated on the basis of his/her level of attainment in the skills every entrepreneur should have.
- Analysis: provides the entrepreneur with the results he/she scored according to the answers he/she provided beforehand.

• Online Business Plan to write your business project: this application coaches the entrepreneur in the analysis of the business project by allowing him/her to write his/her own business plan from home or using the ICT resources of an Entrepreneurship Centre. The on-line adviser is an optional role since the tool is designed to work automatically. The entrepreneur is encouraged to think of the final user of their product or service when writing the business plan.

• **Guide to legal entities and procedures:** provides entrepreneurs with the information needed to learn about existing legal entities and decide which entity suits their business project best.

• Guide to raise funds: This guide is divided into four major sections:

1. Funding: financial instruments such as preferential bank loans featuring low interest rates, without fees or guarantees.

2. Public grants and subsidies: most entrepreneurs or new businesses can apply for certain public aids to help them to start-up.

**3**. Contests and awards: innovative business ideas might qualify for contests and awards that reward best business projects.

**4**. Tax incentives: once a business is started, the public administration provides them with some tax incentives that will allow these companies to improve their financial situation.

5. Online business incorporation (48 hours for "PLC express" and 1 week for "standard PLC").

Tools for business growth:

- Strategic Growth Plan: This strategic growth plan is composed of:
  - An analysis and diagnosis of the situation and current management of the company.
  - Identification of opportunities for improvement.
  - Setting growth targets and action plans.
- Entrepreneurs' virtual school: The Virtual School provides Entrepreneurs with thematic advice

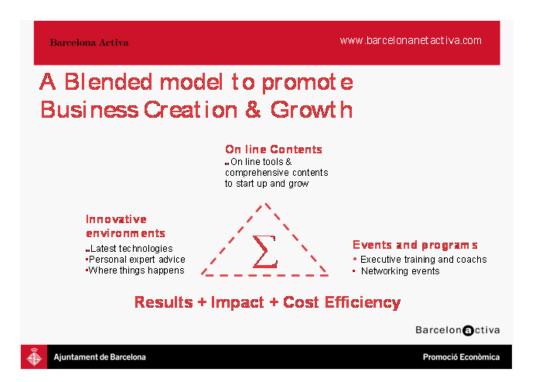
under the supervision of an expert in the field concerned. This tool offers entrepreneurs the possibility to learn, be coached and network with relevant people in their business area. The themes of these virtual areas are specially designed to fulfill the needs of the entrepreneurs: finance for non-financial people, marketing for start–up companies and so on.

• Assessment of investment readiness: This program includes the cycle of seminars called Ready4Growth. These intensive seminars, that normally last two days, provide participants with the tools and contacts that facilitate their access to funding and innovation through private investment.

- Newsletter with key information: distributed periodically.
- Ad-hoc reports: on significant themes for entrepreneurs.
- Business Classifieds on business opportunities.

#### On-site part of the hybrid model:

Even though the virtual tools provide significant help to entrepreneurs to set up and grow their companies, Barcelona Activa nonetheless recommends a hybrid model that combines virtual tools and on-site coaching and assessment.



Therefore, in addition to the on-line tools, the following services, facilities and resources are provided by Barcelona Activa to entrepreneurs:

- Open plan office modules with a wide range of sizes.
- Communal reception facilities and services.
- Fully fitted meeting rooms and training rooms.

Some of the features of the Technology Park are:

- Round-the-clock access, 365 days a year.
- No deadline for the hosting period.
- Technological environment.



Business Support Services are provided to companies that are incubated and also to members of the Barcelona Activa Business Network (this business network is composed of all the companies and entrepreneurs that are, or were, users of any of the services of Barcelona Activa.) These services include:

- Specific on-site business development plans focused on business strategy, funding, internationalization strategy and commercialization strategy.
- Business cooperation network: A space where entrepreneurs can exchange ideas, learn and do business in a setting which fosters networking and cooperation.

## TIMELINE OF EVENTS

1986: Establishment of Barcelona Activa by the City Council of Barcelona. Barcelona Activa was created

as the Barcelona development agency.

1988: Creation of the first physical incubator

1995: Founding of the Technological Park of Barcelona Activa

1999: Launch of Barcelonanetactiva, the virtual incubator of Barcelona Activa.

2003: Launch of the 'Plan Empresa' On Line (Business Plan On-Line)

2006: Launch of the 'Test Idea'

2006: Launch of the 'Keys to Start-up'

2008: Launch of the 'Plan Estratègic de Creixement', the Strategic Growth Plan

## OUTCOME AND CONCLUSIONS

General figures of Barcelona Activa since 1986:

- 14,500 business projects coached
- An estimate of 8,000 Business founded, which have created more than 15,000 jobs
- More than 1.3 million participants in the Agency's programs

#### Some figures from 2008:

- 1,379 business projects coached.
- more than 700 companies created
- 72 companies incubated.
- 700,000€ average turnover of incubated companies at 4th year
- 7350 companies actively supported in their business growth process.

Some figures related to virtual incubator since its creation:

- 1,656,838 visits
- 110,310 different visitors
- 33% recurrent visitors
- 6.5 pages views per visit

## PART III

## LINKS

Barcelona Activa: www.barcelonactiva.cat

Barcelona Net Activa: www.barcelonanetactiva.com

Barcelona Business Growth department: http://www.barcelonactiva.cat/barcelonactiva/cat/emprendre-i-innovar/creixement-empresarial/index.jsp

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The material for this case study was contributed by the Departments of Institutional cooperation and Business Growth of Barcelona Activa.

## Contact details:

elena.delrey@barcelonactiva.cat



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Wikipedia – Dropbox http://en.wikipedia.org/wiki/Dropbox\_(storage\_provider)

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Wikipedia – Google Apps http://en.wikipedia.org/wiki/Google\_Apps

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Wikipedia – Tacit Knowledge http://en.wikipedia.org/wiki/Tacit\_knowledge

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Wikipedia – Youtube http://en.wikipedia.org/wiki/YouTube

Wikipedia – Web 2.0 http://en.wikipedia.org/wiki/Web\_2.0



# Annex 1: Profile of Virtual Incubator Tools

www.infodev.org www.idisc.net

### **Journey Page**

### About JourneyPage (www.journeypage.com)

At its core, JourneyPage is a daily accountability tool that helps entrepreneurs stop procrastinating and achieve more than they ever thought possible with a dedicated coach, exclusive content, and a sophisticated technology back-end.

It is available for individuals starting a business or for licensing by colleges & universities, SBDCs, incubators, economic development organizations, and workforce development agencies. It is a safe, secure solution that's always available. To learn more about licensing, call or email Michael Simmons at 800-930-8021, ext. 704.

### **Benefits for Licensees**

### • College & University Administrators & Faculty

- Build and publicize success stories, which attract donors, receive media attention, and market your program.
- Provide incubator benefits at a fraction of the cost without the need for physical space.
- Facilitate existing mentorship programs
- Build lesson plans around action on student ideas.

### • Economic Development Organizations

- Create jobs and an entrepreneurial climate by retaining & supporting young entrepreneurial talent
- Provide a community benefit that attracts entrepreneurs.

### Small Business Development Centers (SBDCs)

• Supplement 'technical consulting' with 'accountability coaching'.

### • Incubators

- Increase business formation by providing clients with "emotional support" they need to take action.
- Supplement 'technical consulting' with 'accountability coaching'.

### Pricing

### • Individual

- Exclusive Content (\$1.00 upfront and \$9.95/month afterwards)
- Personal Coaching (\$200/month)

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# of Users	Yearly Fee
<=5	\$600
<=10	\$1,150
<=20	\$1,700
<=30	\$2,200
unlimited	\$3,000

• Colleges & Universities, SBDCs, Incubators, Economic Development Organizations, and Workforce Development Agencies:

### How It Works

### Accountability

Every day members log in and mark off their three most important business outcomes for the day.



When marking off results, members choose from one of three options: complete, reset, or delay.





Publicly commit to and receive the support of your Twitter and Facebook network.

Your accountability partner and friends on JourneyPage can see daily progress and provide accountability. They see procrastination and provide targeted coaching.



As members use JourneyPage, their weekly score (outcomes completed/outcomes submitted) is tracked so that others can hold them accountable. Optional email reminders are available.



For more information on JourneyPage visit http://journeypage.com/

# Annex 2: Profile of Incubator Using Virtual Tools

### The Sri Lanka Technology Incubator (SLTI)

**The Entrepreneur Portal:** The Entrepreneur Portal (a future initiative) will allow ConceptNursery (CN) to aggregate and disseminate news that relates to entrepreneurship and emerging technology. One of the biggest problems for budding entrepreneurs in Sri Lanka is that they lack exposure and access to information. The Entrepreneur Portal will help to filter the mass of information available on the Internet and allow visitors to the site to access news and targeted information related to the incubator's areas of interest. The Entrepreneur Portal will be an outreach activity of CN, primarily intended to attract potential Tenants and partners. This portal is currently at the prototype stage and is going through final deployment stage.

**Groupware and messaging platform:** Although CN's activities and focus extends beyond the walls of their current building the need to engage and work closely with resident and virtual tenants, partners and various other stakeholders is still a key activity. A comprehensive CN Messaging and Groupware solution will allow the various stakeholders to communicate and share information more efficiently. In addition to email, calendar and contact management, the online document sharing facility, message board and chat conferencing facilities will allow the CN to facilitate an ongoing dialogue and conduct online mentoring sessions and seminars. The CN Messaging and Groupware solution is primarily intended to increase internal productivity as the incubator broadens its scope and focus.

CN proposes to deploy an online Project Management and Collaboration solution that will dovetail into the CN Messaging and Groupware platform. The Project Management and Collaboration solution will be used for CN's own activities as well as for CN Tenants, resident and virtual, who will manage their technology development process using this tool. The tenants will be able to use this facility to allow their customers, investors and other partners to track progress and monitor developments. The CN Project Management and Collaboration solution is primarily intended to infuse discipline and transparency from the very beginning of the CN Tenant's technology development process. Both these products are currently installed at the premises and going through a testing and fine tuning stage.

**Technology and Investment Exchange Portal:** To further compliment CN's Entrepreneur Portal, CN proposes to develop and deploy an online Technology and Investment Exchange for Tenants and Graduates. This facility will allow current and graduated Tenants, both resident and virtual, to market and deliver themselves, their products and solutions to customers and potential investors who may be anywhere in the world. The CN Technology and Investment Exchange will integrate functionality similar to that found on popular commercial sites like eLance, CDW, Amazon & eVentures. This facility will be used to generate revenue and build credibility that could subsequently be leveraged by the Tenants as they establish themselves in the market. This facility will also be integrated with the three other software modules so as to provide a seamless user experience. This portal is currently at the prototype stage.

**Tenant portal:** CN's growth beyond the confines of the current premises is crucial to its long-term success. It is clear, however, that growth cannot come from investment in brick and mortar incubators. To this end, the incubator has conceived a franchise program and a Virtual Tenant (VT) program. The

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franchise program will be implemented through alliances with Universities and other institutions at the national levels. The VT program however, will aim to provide the relevant services to prospective tenants who will be incubated remotely. This portal is currently at the prototype stage.

http://www.conceptnursery.com/



## Annex 3: Check-list for an Action Plan to Set-up Virtual Incubation Services

www.infodev.org www.idisc.net

### 1. Preparation of Background/Summary

Action	Responsible for completing	Deadline
Why are virtual services being set-up?		
What services are planned?		
How do these services fit within the overall strategy of		
the incubator?		
Summary of the expected costs and impact of such		
services (using input from section 5 of check-list)		

### 2. Preparation of the Marketing Plan

Action	Source of market information	Responsible for completing	Deadline
What are the target market segments for virtual services?			
Quantify the size and growth trends of these target market segments.			
What are the targets for customer acquisition? Over what period?			
How will the market be reached?			
If third party distributors are planned, please provide details of acquisition, contractual and support plans:			

# Competitor Analysis using Extended Marketing Mix

	TYPICAL VARIABLES OF VIRTUAL SERVICES	CUSTOMER NEEDS PROFILE	OTHER OFFERINGS	OUR OFFERING	OUR BEST LEVERAGE AREAS	COST IMPLICATIONS	RESPONSIBLE FOR COMPLETING	DEADLINE
	<ul> <li>Name</li> <li>Branding</li> </ul>							
-	<ul> <li>Bundled or stand-</li> </ul>							
	alone offering							
1 Droduct /	<ul> <li>Online/offline</li> </ul>							
	elements							
	<ul> <li>Features /</li> </ul>							
*	Attributes/Benefits							
	<ul> <li>Help-desk support</li> </ul>							
	<ul> <li>User requirements</li> </ul>							
	(PC/Internet access)							
	<ul> <li>Should virtual</li> </ul>							
5,	services be priced on							
	a stand-alone basis or							
	as part of a package?							
•	<ul> <li>What margin?</li> </ul>							
	<ul> <li>Level of</li> </ul>							
	customization and							
) Drice	impact on pricing							
	<ul> <li>Ongoing</li> </ul>							
_	maintenance and							
5,	support							
	<ul> <li>Terms &amp; Conditions</li> </ul>							
	of Use							
	<ul> <li>Value customer</li> </ul>							
-	places on virtual							
	service							

STRATEGY ELEMENT	TYPICAL VARIABLES OF VIRTUAL SERVICES	CUSTOMER NEEDS PROFILE	OTHER OFFERINGS	OUR OFFERING	OUR BEST LEVERAGE AREAS	COST IMPLICATIONS	RESPONSIBLE FOR COMPLETING	DEADLINE
3. Place Where people can access the services	<ul> <li>Physical Location         <ul> <li>hot-desks/on-site</li> <li>tenants/computer</li> <li>tabss</li> <li>Third party channels</li> <li>other incubators,</li> <li>universities, public</li> <li>bodies</li> <li>Geographic</li> <li>coverage – outreach</li> <li>centers</li> <li>Licensing/</li> <li>distribution</li> <li>agreements</li> <li>Training and</li> <li>support for third</li> </ul> </li> </ul>							
4. Process Without delay	<ul> <li>Business processes compatibility (how to integrate virtual services into overall processes)</li> <li>Client involvement tools to measure usage</li> <li>Responsiveness?</li> <li>Timing?</li> <li>Timing?</li> <li>Ease of access/ convenience</li> <li>Work/information flow?</li> <li>Self-help</li> </ul>							

CUSTOMER NEEDS

DEADLINE	
RESPONSIBLE FOR COMPLETING	
COST IMPLICATIONS	
OUR BEST LEVERAGE AREAS	
OUR OFFERING	
OTHER OFFERINGS	
CUSTOMER NEEDS PROFILE	
TYPICAL VARIABLES CUSTOMER NEEDS OF VIRTUAL SERVICES PROFILE	<ul> <li>Marketing to existing clients</li> <li>Publicity / 3rd party reference?</li> <li>Shows / exhibitions</li> <li>Shows / exhibitions</li> <li>Events</li> <li>Promotions</li> <li>Advertising</li> <li>Public Relations</li> </ul>
STRATEGY ELEMENT	7. Promotion

### 3. Preparation of Operational Plan.

Action	Responsible for completing	Deadline
Detail each of the incubator's major operational		
policies e.g.		
<ul> <li>Selection/graduation policy</li> </ul>		
Service provision		
• HR Policy		
Governance Policy		
For each major operational policy explain where		
virtual services fit into the organizational process?		
Who is responsible? What are the performance and		
evaluation criteria?		

### 4. Preparation of Administration/Organization Plan

Action	Cost implication	Responsible	Deadline
Equipment requirements - on-site and			
off-site if outreach centers are being used			
Staff requirements – at set up and related			
to ongoing service provision.			
Who is responsible for setting up the			
virtual services?			
Who is responsible for			
• Training,			
<ul> <li>Ongoing delivery of services,</li> </ul>			
<ul> <li>Help-desk support,</li> </ul>			
<ul> <li>Monitoring &amp; evaluation,</li> </ul>			
<ul> <li>Upgrades and maintenance?</li> </ul>			
Is there one person responsible for			
the virtual services function or is it			
integrated into individual functions?			
Updating of job descriptions to			
incorporate virtual services			

### 5. Financial and Investment Plan.

Action	Summary of Cost / Revenue implication	Responsible	Deadline
Set up costs related to internal staff, IT consultants, IT development.			
Ongoing license fees, maintenance costs, cost of upgrades and further development.			
Hardware, software and networking costs.			
Outreach centers – building or adaption costs, accessibility (including travel) and equipment costs.			
Sources of investment for virtual services – donor funding, private investment, grants?			
Ongoing revenue streams (should virtual services be priced as part of a bundled offering or as standalone virtual services)? What does the market research tell you about the value which clients associate with virtual services? Are they prepared to pay? How do you work out the cost of a virtual service? What margin can you add?			

### *info*Dev

c/o the World Bank Group 1818 H Street Washington DC 20433 USA

www.idisc.net www.infodev.org/businessincubation

infodev@worldbank.org