

As in the other incubators examined, branding plays a key role. The Octantis name provides credibility and opens doors for the tenants. More than interviewed client suggested that the instant credibility of the Octantis name was the most important benefit of association with the organization.

ParqueSoft Centers

The ParqueSoft Centers is a network comprised of 14 incubators scattered across the country and managed from a headquarters building in Cali, Colombia. The founder of ParqueSoft is a highly charismatic individual who utilized his expertise in ICT to establish ParqueSoft for the purpose of providing social development through business creation. There are over 270 businesses in the ParqueSoft network, each of which is an element in of interlocking business entities providing internal (as well as external) consulting, marketing, and training support.

A commission of 20% of each sale by a member company is remitted to the ParqueSoft parent in addition to the grants, in-kind donations and rents and service fees collected. This allows ParqueSoft to pay for advertising, maintenance on its building in Cali, and other overhead expenses. Local universities provide the office space in each location except Cali.

The ParqueSoft brand is known internationally and is associated with high quality services. This allows the start-up companies to obtain larger contracts that are effectively subcontracted to the member companies. The use of cubicles in ParqueSoft buildings provides for more intense networking and interaction by the companies. This builds the ParqueSoft brand, and makes each company seem competitive with larger, more established companies, it should be pointed out that it also diminishes the efforts of the individual companies to establish their own identities and brand equity.

ParqueSoft is largely self-sustaining, though only through seeking grants and contributions in addition to revenues. Its growth to 14 centers proves it is scalable, and it has required very limited public sector support other than real estate.

Summary Observations

In the experience of the team, the key issue with respect to successful operation of the incubator is the ability to pay the rent (or service the debt) on the facility. The real estate constraint is usually the most significant hurdle for the management as it is frequently the largest item in the expense section of the income statement. Four operating models were observed in the five incubators studied. These were:

1. The fully government funded incubator such as **iPark**, which receives all but a fraction of its operating expenses from government grants.
2. The partially funded model, for example **Octantis**, where funds from CORFO and provision of offices and other facilities are provided by the Universidad Adolfo Ibanez.
3. An incubator that derives its operating expenses from a combination of rents and service fees as is the case with **ParqueSoft**, and **SmartXchange**.
4. The private incubator that rents space to companies (and in most cases is an investor in the client as well) as is the case with **Viasphere**.

There are advantages to each model. The first is viewed as a government program to stimulate the development of an entrepreneurial class and it has been successful in the sense that graduates of iPark have already achieved success and returned to invest in other companies. Considering the relative youth of Jordan's efforts to establish a technology economy, this is understandable. The iPark management stated that they prefer to be small and serve only 10-12 companies in order to provide as much personalized attention as possible. The incubator is size-limited, so growth beyond those numbers will be difficult unless a new building is constructed.

The combination of government and university participation is one that, as demonstrated by Octantis, can produce excellent results. Stimulated by the funding of CORFO, and with access to university offices and meeting space, Octantis has been free to allocate resources to business development and innovative means of attracting clients, such as access to US and Spanish markets through its field offices in Miami.

SmartXchange and ParqueSoft have the freedom to carry on a successful program by generating sufficient revenue to meet their needs through commercial rents and fees for services. The additional revenue generated by the combination of SmartXchange's rents from commercial tenants and fees for services make it financially sustainable over the long term. This is an excellent example of an early investment by the public sector that continues to pay for itself in terms of job creation, tax base appreciation, and the other indirect benefits of incubation programs to their public sponsors.

Finally, the great benefit of a private sector incubator is that the investor gains on the appreciation of the real estate, and the equity he holds in the portfolio companies. Real estate in the Former Soviet Union is still reasonably inexpensive (with a few exceptions) and Viasphere International's management apparently realized that an investment would provide an excellent location to incubate companies, take advantage of a skilled workforce, and appreciate in value over the long term. This model gives credence to the notion that it is possible for risk capital investors to participate in an incubation program. While the rate of return is unlikely to be at the level of most venture investments, the ability to be in close proximity to (and control of) the entire portfolio is one most investors appreciate.

Comparisons Based on the ICT Incubator Visits

The economies that support the five incubators that were visited are extremely diverse, ranging from highly advanced (S. Africa, Chile) to mid-sized economies such as Armenia and Colombia to the smallest (Jordan). Yet, all were at least two to three times larger (in terms of GDP per person). The chart below compares them on the basis of several factors.

Comparison of Existing ICT Incubator vs. target incubator countries							
Criterion	Armenia	Chile	Colombia	Jordan	S. Africa*	Tanzania	Senegal
GDP per capita (\$000's)	\$5.8	\$14.3	\$7.4	\$4.7	\$9.7	\$1.3	\$1.8
Mobile usage/100 persons	50%	85%	75%	80%	110%	17%	32%
Internet users	173,000	5,600,000	12,100,000	1,130,000	5,100,000	400,000	820,000
ISPs	26,000	847,000	1,500,000	21,000	1,300,000	24,000	5
Population	2,970,000	16,400,000	45,000,000	6,200,000	48,700,000	40,000,000	12,800,000
Median age (M/F)	31.1	31.1	26.8	23.9	24.2	17.8	18.8
* South Africa is both a target and an existing incubator country.							
Sources: CIA World Fact Book, and various other public information websites for specific countries.							

We note that the degree of mobile penetration, numbers of Internet users, numbers of ISP's and median age of the target countries of Senegal and Tanzania are in significant contrast to the countries that were visited. Clearly this means that the environment and in the target countries will be significantly more challenging and probably require longer development times to reach sustainability, require additional attention from mentors, and probably require much larger financial investment as well.

Design for a Model ICT Incubator

Given the nature of the environment observed and the elements found to be successful in the studied incubators, the following model is proposed:

Real Estate: One model for the sustainable and replicable ICT incubator would be to locate in a building that has been contributed or financed by the government (or some other organization within the public sector). As a matter of practicality, we have not observed any successful incubator models in which the incubator is located in a rental facility wherein the incubator leases from a commercial landlord on a master lease, and then subleases the space to clients who must pay market or above market rents. The most successful incubator observed in this study was SmartXchange in Durban, ZA. This facility is sustainable because the City of Durban paid for the initial lease-out of space, and SmartXchange has been responsible for its costs ever since (with a subsidy by the City). Yet, the financial trend of SmartXchange is toward a cash positive operation in the future. Other successful incubator models include the government providing a building (as is the case with iPark) or universities providing excess space for use in incubation (as has been done in the cases of ParqueSoft and Octantis).

However, the situation changes when soft costs can be covered by an investor for the first several years of operation. Then, financial projections turn positive within a 7-10 year period. This means that with adequate, patient, financing, it would be possible to establish an ICT incubator that could survive and eventually prosper. The bottom line for incubation business planning is that the incubator must have control of the real estate and must not have a large rental (or mortgage) payment that becomes the major element in each month's cash flow planning. The ability of a well-funded parent organization to relieve the financial pressure by covering the soft costs of the incubator while it grows could change the outcome dramatically.

This raises an additional thought: if the IFC or other well-financed organization was truly seeking the opportunity to make a substantial impact with ICT incubation, would it not make sense to take advantage of the economies of scale that might be achieved with the development of a group of ICT incubators, and construct an entire network to serve Sub-Saharan Africa and other target regions? Spreading the expense (and income) over a greater number of sites, could conceivably result in a cashflow-positive operation, and a successful venture. These thoughts are explored more fully in the Network Development Report that is attached.

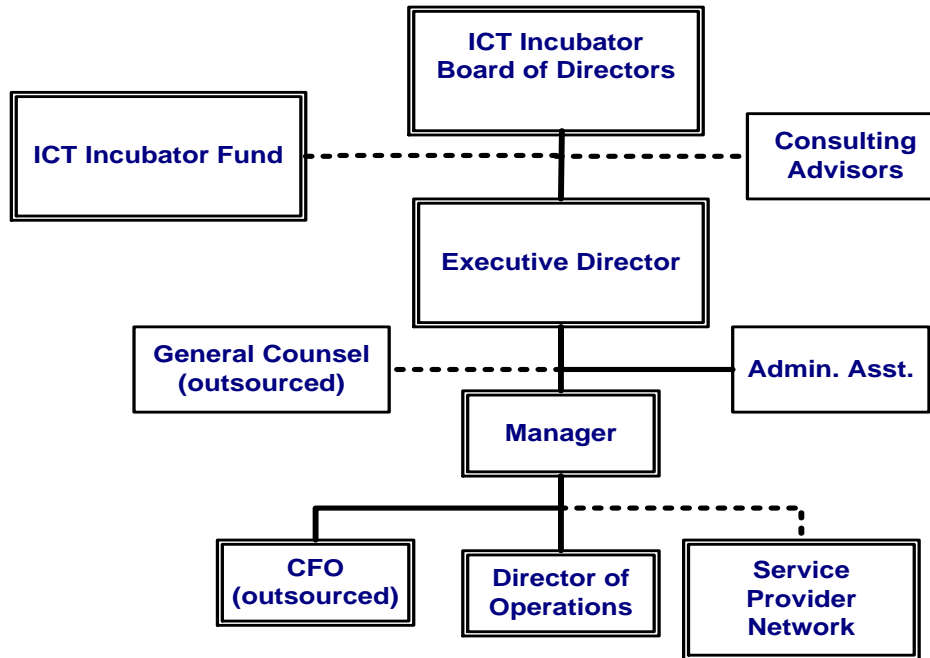
Spaces for ICT incubators tend to be smaller than that required for other kinds of technology. Excepting the occasional call center or other labor-intensive business that requires larger spaces, the typical ICT incubator will most likely require only about 2,000 square meters. In more developed country incubators it would be typical to have substantially more space for financial self-sufficiency, however, if there is no issue regarding a large monthly payment for the space, it may be possible to operate efficiently on the smaller amount. This also presumes the incubator is not providing specialized space such as wet-lab, manufacturing or warehouse space that require special equipment in order to operate.

Layout: The ICT incubator model layout should include spaces such as a break room, and at least one or two conference rooms for clients to meet with their customers, in addition to administrative space. It is very important for clients to have access to well-appointed space to meet with their customers. Companies in the incubator are attempting to give the impression that they are as successful, capable, and well organized as their larger competitors. The brand equity and credibility they gain as members of the incubator organization are squandered if it appears to a potential customer that they are operating on a shoestring budget. Therefore, in order to maximize the benefit of their membership, they should have high quality meeting space available that will make a good impression on their customers.

Numbers of tenants and staffing: It is likely that the model ICT incubator will have upwards of twenty clients in the building, and possibly some virtual tenants as well. The incubators that were studied in this project ranged from as few as seven active clients (iPark) to literally hundreds (considering ParqueSoft's 14 locations). Yet, the typical incubator in almost any venue will have 20 or more tenants. Arriving at this number may take longer than in locations where services are plentiful, and entrepreneurship is a well recognized aspect of the culture. A building of about 2,000 square meters should easily handle twenty client companies. At a minimum, staffing should include a manager who has been trained in incubator operation and has business experience, possibly an administrative assistant, a secretary receptionist, and at least one business counselor. A minimal maintenance staff will probably be required as well, but this will vary by location.

Management a critical element: A key factor in the development of a successful business incubator that was identified in virtually every one of the five incubators reviewed by the team is the presence of a skilled manager who can guide the entrepreneurs through the development process and act as their on-site management counselor. In every one of the five incubators, a strong and committed founder / manager was one of the first qualities identified by those who were interviewed. In the model incubator, an important element in setting up the facility will be the selection and training of the manager. This should be a person with at least some business experience, an ability to analyze the issues facing client company entrepreneurs in developing their businesses, the ability to develop networks that will serve the clients, and an ability to work with stakeholders such that their support for the program is retained. An organization chart for the ICT Incubator Model appears below.

ICT Incubator Organization



Training: As stated by one investor in ICT companies, “we need to teach geeks the elements of business”. The findings of this study indicate that training will be a key element in the operations of the facility. In the ICT incubators observed, the training opportunities may range from comprehensive basic skills training in ICT that allows people with a desire for self-employment to acquire the skills to start an ICT business (as is the case with ParqueSoft). Or, it may be technical skills training by large companies that certify individuals to work on their most advanced equipment or software, as in SmartXchange. Virtually all work in ICT requires at least a modest amount of technical training, and virtually all entrepreneurs can benefit from exposure to the basic skills of managing a technology business. Therefore, the development of training needs, and a plan to meet those needs should be an integral part of the organization’s business plan.