Government leaders in countries such as Tunisia and Mauritius, for example, have made the build-out of ICT infrastructure a national priority in recent years. Policymakers in developed countries usually facilitate knowledge-sharing across sectors by creating stronger incentives for commercialization and R&D.

There are then environments where governments are providing cohesive policy, regulatory and legal frameworks that support the SME sector. For example, the investment in new technologies development and R&D activities as well as the involvement in new business sectors have raised some issues to governments in terms of intellectual property rights and the related economic and social implications. Of course, a balance must be reached between the need to encourage research and creation on the one hand and, on the other, the legitimate wish to make innovation and culture freely available to all.

In Tunisia, for example, recent legislation that protects knowledge-based SMEs includes the Telecommunications Code, the Electronic Business and Signature Law, and the Personal Data Protection Law. The Indian government has also focused on the Small Scale Industrial (SSI) sector as a driver of future growth and innovation through the National Science & Technology Entrepreneurship Development Board (NSTEDB), established under the aegis of the Department of Science & Technology to help promote knowledge driven and technology intensive enterprises. The Board has representations from socio-economic and scientific Ministries/Departments and aims to promote and develop high-end entrepreneurship for S&T Manpower, thus converting "job-seekers" into "job-generators" through Science & Technology (S&T) interventions.

Similarly, to overcome the shortage of available financial resources for new start-up companies, governments have contributed with the provision of a variety of financing tools which cover all the phases of the incubation process (loans, guarantee funds, venture capital). Initiatives are also launched to improve the legislative and institutional framework and promote sound and functioning financial markets. However, it is also recommendable that governments pay attention to the financial mismatch that can occur in their countries and that they compound incubators in promoting the investment readiness of their clients by launching adequate training and advisory programs involving both the supply and demand sides.

6. Funding Strategies for Business Incubation and Sustainability

6.1. Sponsorship

Initial funding of the incubator programs is usually provided by public authorities.

There are some examples, especially from developed countries of private enterprises establishing incubators, especially in the ICT industry, often requiring a proportion of the initial share capital in exchange for space in the incubator.

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29 Private establishment of incubators is common in USA, Australia and in many EU countries. The New Zealand case study identified investments of this sort and our Ghana research identified an incubator receiving financial support from Barclay’s Bank.
Some large companies have also established incubators located at their premises where they encourage new starts as a way of building innovation linked to their businesses\textsuperscript{30}. Some large companies have also provided sponsorship to incubators.

In the majority of EU countries, a funding mix based on the matching of national funding – usually up to a maximum of 50\% of the operations – and other sources such as regional/local public and private funding is the most common funding structure\textsuperscript{31}. US incubation programs usually start as local initiatives by economic development agencies. Following the initial preparations, federal agencies are approached. Federal funding is usually limited to preparation and construction costs as well as research grants for client companies and is then compounded with other local/private sources.

Where more than one funding source is required then a structure which enables the funding providers to meet and agree the overall strategy is sensible to avoid problems of overlaps or gaps in the funding provision.

In some context, public authorities have entirely funded the incubation initiatives, primarily where strong social objectives are involved, for example when supporting the participation of socially excluded groups in business formation\textsuperscript{32}. This is quite typical in the Middle East and North Africa, Saudi Arabia and Thailand as well.

When sponsorship is in the form of grant aid from the government, resources can be allocated on the basis of a long-term commitment (10 years and more in the Malaysian case for example).

In this case, interested applicants have to submit their request and negotiate the funding on an annual basis.

Another option is to have grants in successive funding phases (3 to 5 years each on average, New Zealand has annual phases, while South Africa 3 years grants). The end of phases usually coincides with an evaluation exercise.

Grants usually cover the establishment of the incubator (infrastructure) and/or part of its operation (staff, external expertise).

A yearly grant is often provided for covering the costs of the staff (manager and secretary service) and low costs facilities. Sometimes, special provisions are allocated to hire external expertise for ad hoc consultancy to clients. From the case studies this includes grants for services to clients and pre-incubation support (coaching, training programs etc.), finance within a wider grant for R&D (e.g. university/private funded research), sponsorships (e.g. large businesses such as banks, engineering companies, etc. providing financial support) and chargeable consultancy activities of core staff.

\textsuperscript{30} Motorola, Coco Cola (2001), Panasonic (1999), Monsanto (1999), Intelligent Systems (1990), Reuters (2000) have their own in-house business incubators to grow businesses related to their specific needs.

\textsuperscript{31} Centre for strategies and evaluation services

\textsuperscript{32} Malaysia is quite unusual in directly providing 100\% grant funding to the incubators in the country. While incubator rent income was estimated at 14\% of running costs it was unclear how that money was used for additional support services when 100\% funding was being received from Government.
Incubator initiatives are submitted for evaluation to the competent authority and need to include information on the investment.

An individual incubator seeking grant funding must demonstrate that they have a clear strategy and action plan to build a network of key stakeholders to embed the incubator within the necessary commercial and financial networks required for clients to develop their business.

Usually, a feasibility study or business plan is requested including the industry sector chosen based on competitive advantages, annual targets and outputs as well as details on the organization and management of the incubation infrastructure. In some context, information requested on incubators are carefully defined in order to judge the quality of the incubation initiatives and the approval of the investment request leads to the financing but also to the issuing of an official certification. In that sense, the incubator becomes part of a network and is eligible for getting further financing also in terms of grants that its clients can benefit from.

The experience in some developed countries like Finland and Israel shows that part of public sources can be devoted to supporting the development of client projects and is made available in the form of grants or soft loans. The incubator project grants procedure starts when an entrepreneur makes his/her application to an incubator. If the project proposal is accepted, it is submitted to the incubator fund where it is screened again. If the screening is positive, the incubator gets the funding for supporting the project for a fixed period of time (on average for 2 years). The funds usually provide a part of the total budget (it can reaches the 85% of the total); the remaining part should be covered by the entrepreneur. There are usually fixed funding ceilings per project.

The table below summarizes the sponsorship structure in the four case studies analyzed.

<table>
<thead>
<tr>
<th></th>
<th>Brazil</th>
<th>New Zealand</th>
<th>Malaysia</th>
<th>South Africa</th>
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<tbody>
<tr>
<td><strong>Period of grant funding</strong></td>
<td>Varies between different funds &amp; schemes but typically for short periods.</td>
<td>Annual basis (award and renewal based on merit; assessment made on the quality of their operation and impact). By 2014, incubators have to be self-sufficient.</td>
<td>Open-ended long term funding.</td>
<td>3 year grant period but annual adjustment against performance targets.</td>
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<tr>
<td><strong>% of funding provided</strong></td>
<td>It was determined that public authorities and agencies contribute approximately to 35% of the costs of setting up an incubator.</td>
<td><em>Incubator Awards</em> mechanism: annual merit-based grant to approved incubators covering up to 50% of their running costs. There are eligibility criteria for awards.</td>
<td>100% (the Government covers both start-up and running costs + large contribution (almost 50%) to venture capital funds (MAVCAP).</td>
<td>Variable percentages</td>
</tr>
</tbody>
</table>
6.2. Business Models

According to a report commissioned by the European Commission which benchmarked business incubators, incubators are more likely to succeed when supported by a broadly-based partnership of public and private sector sponsors. Particularly in the initial stages, public sector funding is critical to ensure that incubators become operational.

As incubators become established, external support can decline or cease, so that incubators have to identify sustainable, flexible revenue streams for their organizations to survive and perform effectively. Only in very few circumstances are incubators not expected to achieve financial sustainability. This for example happens in Finland where financial sustainability is considered in contrast with the incubators role and where funds are given directly to clients.

Lalkaka and Shaffer (1999) define the concept of financial sustainability as being able to continue to achieve positive cash flows in the future.

There is a view on financial sustainability saying that business incubators are established to mentor and guide start-up companies to a position of health and financial viability so they should themselves be striving to achieve the same. Another view says that government should not fund incubators unless a specific market failure exists.

There are few examples of incubators reaching financial sustainability. In developing economies most of incubators are not in a position to cover all operating costs with earned revenues or return on client investment in the short-term. In Malaysia, incubators are dependent on Government funding and there are few incentives to develop self-sustainable financial models, while in South Africa few steps have been taken in terms of sustainability but there is a wide recognition about its importance and the willingness to make soon progress to implement it.

Looking at global practices, incubators use a mix of the following business models to manage their revenues streams.

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33 Centre for Strategy and Evaluation service (2002)
Apart from the business models identified above, global practices show a great creativeness and a number of interesting initiatives (mainly related to the delivery of paid services) developed by incubators around the world in order to target the financial sustainability issue.
A high-technology incubator in Belo Horizonte (Brazil) plans to develop revenue sources from consulting and other high-value services to clients also outside the incubator to reduce its reliance on rental income.

As per InfoDev reports, Parquesoft in Colombia, for example, negotiates sales on behalf of its entrepreneurs, collecting 10% of fee for the service, and Kharkov Technologies charges a membership fee to new virtual clients. Others are providing services to non-incubating clients such as training or consulting, or as in BusyInternet's case, running ancillary businesses such as an ISP, a bar and a restaurant.

### The case of Biominas in Belo Horizonte

“Biominas, a biotech-focused incubator in Belo Horizonte, provides an example of innovative financing which also contributes to financial support for promising new ventures. The incubator has started a program with the Inter-American Bank (IAB) to finance new companies in Brazil. IAB gives the incubator grant money of $200,000 to $1 million to invest in promising new firms. The program allows the incubator to invest money in its more promising firms with the return on investment reinvested in other companies. This particular incubator had financed 12 companies through the IAB program, and has also started a seed capital program in partnership with FINEP and FAPEMIG (Minas Gerais State Agency for Science and Technology) of R10 million (US$4.382 million) to invest as seed capital in early-stage biotech ventures, with the incubator taking a 25–30 per cent stake in the venture in return for its investment.”

7. **Ownership and Management of Incubators**

In this section we consider the key issue of ownership and management of incubators from the viewpoint of public policy.

In many countries the first wave of incubators have been established and managed by the governments, either nationally or locally. With few exceptions, this ownership pattern has proved dysfunctional.

Publicly owned incubators have generally been too cautious and employed people without sufficient business experience to deliver the level of services required. Managers of public owned incubators tend to be more focused on bureaucratic aspects and devote less time for engagement with clients or tend to link incubator clients with sources of financial assistance and can be less selective in entry procedures. In Malaysia part of the reform process launched since 1999 was aimed at overcoming the lack of experience of part of the incubator managers of public funded incubators, who were considered as bureaucrats with little knowledge in entrepreneurship.

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35 Aruna Chandra “Business incubation in Brazil: creating an environment for new ventures” (Belo Horizonte interview, 2006).