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BETWEEN THEORY AND PRACTICE : DELIVERING
ENTREPRENEURSHIP AND INNOVATION SUPPORT SERVICES
AT REGIONAL LEVEL

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Foreword

Entrepreneurship is one of the main drivers of innovation, competitiveness and growth. There is little doubt that entrepreneurship and economic performance are directly and intimately related in terms of job creation, technological progress and productivity gains.

Europe does not fully leverage its entrepreneurial potential when it comes to creativeness and innovation. Indeed, business development and growth have become a major challenge in our ever-changing globalised economy. To help businesspersons take up this challenge, it is essential to create a favourable environment notably for the 23 million SMEs representing 99% of businesses in the EU.

Therefore, the Commission adopted in June 2008 the SBA, including ambitious initiatives to address the difficulties facing SMEs. Valuable contributions to business development and growth include facilitating their access to finance, alleviating the legislative burden and making legislation more efficient – for instance through an “SME test” – and promoting SME access to EU and third markets. However, the Commission cannot act alone. Business success hinges to a large extent on an environment that supports business growth, itself heavily dependent upon cooperation among EU institutions, the Member States, regions and municipalities. It is therefore essential that the SBA be adopted at the highest possible European policy level and then appropriately implemented in the field. To this end, it is important to take clear and coordinated strategic action according to the respective competences of the different decision-making levels in order to meet the specific needs of business managers and developers in a radically changing economy.

To do this, the EU provides SMEs with different specialist support services in the fields of entrepreneurship and innovation. SMEs can find out more about these services through the *Enterprise Europe Network*, a network of more than 550 members covering the entire EU and a number of third countries, offering SMEs advice, expertise and technological or trade partnership opportunities. The members of the network also provide advice on EU policies and the instruments that SMEs may be interested in throughout the different stages of their development, notably by facilitating their access to the single market and their internationalisation. This support may prove decisive namely for innovative start-ups operating in a complex, highly competitive environment.

On behalf of the EU Commission and in my capacity as “SME Representative”, I wish to welcome the initiative taken by EURADA to take stock of all SME support services delivered by public authorities to stimulate entrepreneurship and access to finance and innovation in order to support regional economic development, promote jobs and strengthen growth.

Françoise le Bail
Deputy Director-General "DG Enterprise and Industry" and "SME Envoy"



Introduction

Whether by conviction, due to fashion or under pressure from economic globalisation, all public authorities invest in both physical and intangible support services to promote entrepreneurship and innovation, which have become pillars of their regional development strategies.

In fact, entrepreneurship has become a textbook assignment for all local and regional authorities – though the degree of sophistication of their intervention varies considerably according to their size and financial capacity.

While physical infrastructure and some intangible concepts (incubation, clusters, technological centres, etc.) have become accessible to many territories, outcomes in terms of added value, GDP growth and job creations vary across regions because few are able – or willing – to build the critical mass needed to implement the good governance needed to guarantee an adequate return on investment.

Next to cultural causes relating to risk-taking, the sources of differences between regions include:

1. human resources – through leadership –, governance and entrepreneurial talent;
2. critical mass;
3. access to both seed and growth venture capital;
4. network quality;
5. the perception of market opportunities – and hence of profit – among entrepreneurs and investors;
6. the inefficiency of strategies promoting a multiplication of schemes and a diversity of stakeholders rather than a single, quality integrated approach.

Of course, entrepreneurship and innovation happen spontaneously – although they are sometimes curbed by public constraints. The role of public authorities must therefore consist in stimulating an acceleration of these naturally-occurring phenomena by removing administrative and legal barriers, eliminating the asymmetric information facing business developers and SMEs and lowering transaction costs or promoting/facilitating the anticipation of change.

The aim of the present document is to enumerate the support services deployed by public authorities to stimulate entrepreneurship and improve access to finance and innovation – while underscoring that implementing these by no means guarantees success. Indeed, support service fragmentation and the difficulty of perceiving SME needs both serve to compromise the effectiveness of provision owing to a lack of scheme fluidity and sterile competition due either to manager ego or to the race among managing organisations for operational subsidies – with some even mistaking information dissemination for know-how when it comes to advertising their abilities.

Worth recalling is that strategic success is secured by the fluid and complementary nature of tools rather than their juxtaposition or accumulation “lasagna fashion”!

Moreover, many schemes lack ambition when it comes to the ability to accelerate business growth. Too often incubation is considered an end in itself when its role should be to leverage growth. Its original role was undoubtedly adequate back in the 80s, when the aim was to turn around a socioeconomic fabric that was hit by industrial decline. In a globalised economy however, this role must be reviewed or completed with specific schemes that stimulate the development of “gazelles”, i.e. entrepreneurial growth companies or EGCs.

Therefore, regional innovation strategies have to become “start-ups hub” strategies and public intervention needs to be geared toward competitive innovation, i.e. support services that both help turn knowledge into products and services accepted by the market and ensure that supported companies turn a profit – being the strongest incentive for entrepreneurship.

The present document was developed to demonstrate the relevance of the following points:

- ✓ No public policy can be developed or implemented without considering the regional human and financial capital as well as governance;
- ✓ When granted, public financial support must be completed by advisory services (coaching, mentoring);
- ✓ Public authorities must constantly evaluate the effects of their strategies. To do so, they need to think in terms of the supply chain and regularly scan the latter for weaknesses;
- ✓ The success of any strategy hinges as much – if not more – on a wide diversity of intangible factors (governance, leadership, networking, etc.), on critical mass (available finance, number of companies involved and newly-developed start-ups, added value production, etc.) and on regional intelligence as it does on infrastructure.

The present document therefore posits that regional development rests on the ability to leverage inputs including governance, public policies, the regional, human and financial capital, infrastructure and culture. This ability generally depends on the quality of networks and on the dynamism of intermediary organisations and private investors. The expected outcomes of this regional development process are enhanced revenue (profits, wages, taxes), productivity, entrepreneurship, innovation and knowledge.

In this context, regional development is a set of measures taken by both public and private stakeholders with the aim of reaching a higher rate of economic growth compared to the average of other regions. This growth rate can be measured in new jobs, profits, higher average regional wages and tax income. This in turn requires productivity and competitiveness gains, innovation, business development and improved market access. Sustained investment is needed in fields including education and training, talent attraction and retention, applied research and regional attractiveness. Also needed are quality infrastructure, seed capital and good quality of life. Governance efforts and recognised leadership are essential requirements. This is all facilitated by the availability of social capital and networks, an entrepreneurial culture and positive demographics.

1st Part

BUSINESS SUPPORT SERVICES ARE NOT ALL EQUALLY EFFECTIVE!

INTRODUCTION

Entrepreneurship is at the heart of a growing number of national and regional strategies. Because individual territories have their own culture and no two entrepreneurial projects are alike, support service provision needs to adjust. In other words, generalist services need to exist alongside high value-added services and their provision needs to be segmented to meet the needs of every category of entrepreneurs, of the different stages in the business lifecycle and of the industry in which companies operate.

Worth underscoring is that business development cannot be willed by public policies, even to fight unemployment: it must continue to be a reaction to the perception of potential profit and market opportunities. Therefore, business support services must aim to reduce the entrepreneurial risk, improve market access and speed up business growth.

Thus, all entrepreneurship strategies must seek to address the five challenges below:

- a) understanding business needs and anticipating market failures;
- b) providing a good product mix combining financial and advisory services;
- c) being developed as supply chains geared to help a majority of businesses become global competitors;
- d) evolving toward provision of strong value-added services including in the form of public-private partnerships;
- e) harnessing intangible regional resources, i.e. the regional social and human capital and image.

The segmentation of the "business" clients of regional entrepreneurship strategies can be based on the ten categories of businesses below:

1. newly-developed companies;
2. spin-outs and spin-offs of large businesses, research centres and universities;
3. start-ups (less than five years in existence);
4. locally- or socially-rooted companies (micro-businesses and craft companies);
5. entrepreneurial growth companies;
6. innovative businesses and companies leveraging RTD outcomes;
7. companies in the process of being transferred;
8. subcontractors;
9. companies at risk of bankruptcy;
10. multinationals.

In addition to the specific features of the above typology of businesses, service provision needs to be tailored to the requirements and size of the different industries in which supported companies operate. The segmentation can be the basis of a "balanced portfolio approach".

Generally speaking, businesses may expect public authorities to support them in areas including:

- development and growth;
- production tool and corporate real estate finance;

- access to skilled labour;
- accumulation of own equity;
- intangible finance.

To achieve this, the intervention of public authorities may take the form of direct aid to companies or the financing of intermediary bodies.

The objectives of public authorities in doing so include:

- creating jobs to support overall regional development;
- serving spatial planning aims by maintaining or supporting business activities;
- regional reconversion (rescue, sectoral aid, etc.);
- business activation (innovation, finance, networking, etc.);
- sustainable development.

Worth underscoring is that entrepreneurial dynamism is the main ingredient of so-called “regions of excellence” and that while entrepreneurship support services are all individually useful, they can only deliver their full potential when mainstreamed into a supply chain denoting an integrated public policy.

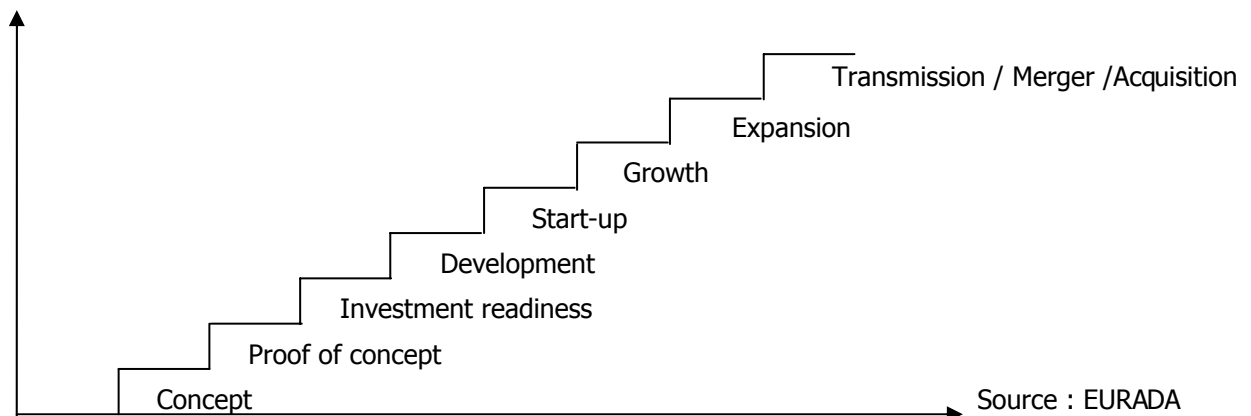
It should be pointed out that the development, consolidation and fast growth of regional businesses are affected by structural and cyclical factors including:

- **Culture:** entrepreneurship and innovation, disposition toward money and success, perception of business inherited from the regional business and industrial history;
- **Framework conditions:** tax environment, bureaucracy, welfare and unemployment benefit systems, stigmatisation of failure, relative quality of advisory services for prospective business developers, nature of support (too often defensive as opposed to proactive or innovative);
- **Prospective business developer psychology:** risk avoidance, talent, creativeness, lifestyle, quality of relations with other business managers;
- **Public SME support schemes:** fragmentation of operators, sclerotic support organisations paralysing schemes by promoting client-centred approaches as opposed to dynamic intermediary bodies that are able to provide high value-added services;
- **Economic cycles:** in times of recession, business developers emerge of necessity; in periods of growth, only the ones who are able to leverage market opportunities do so.

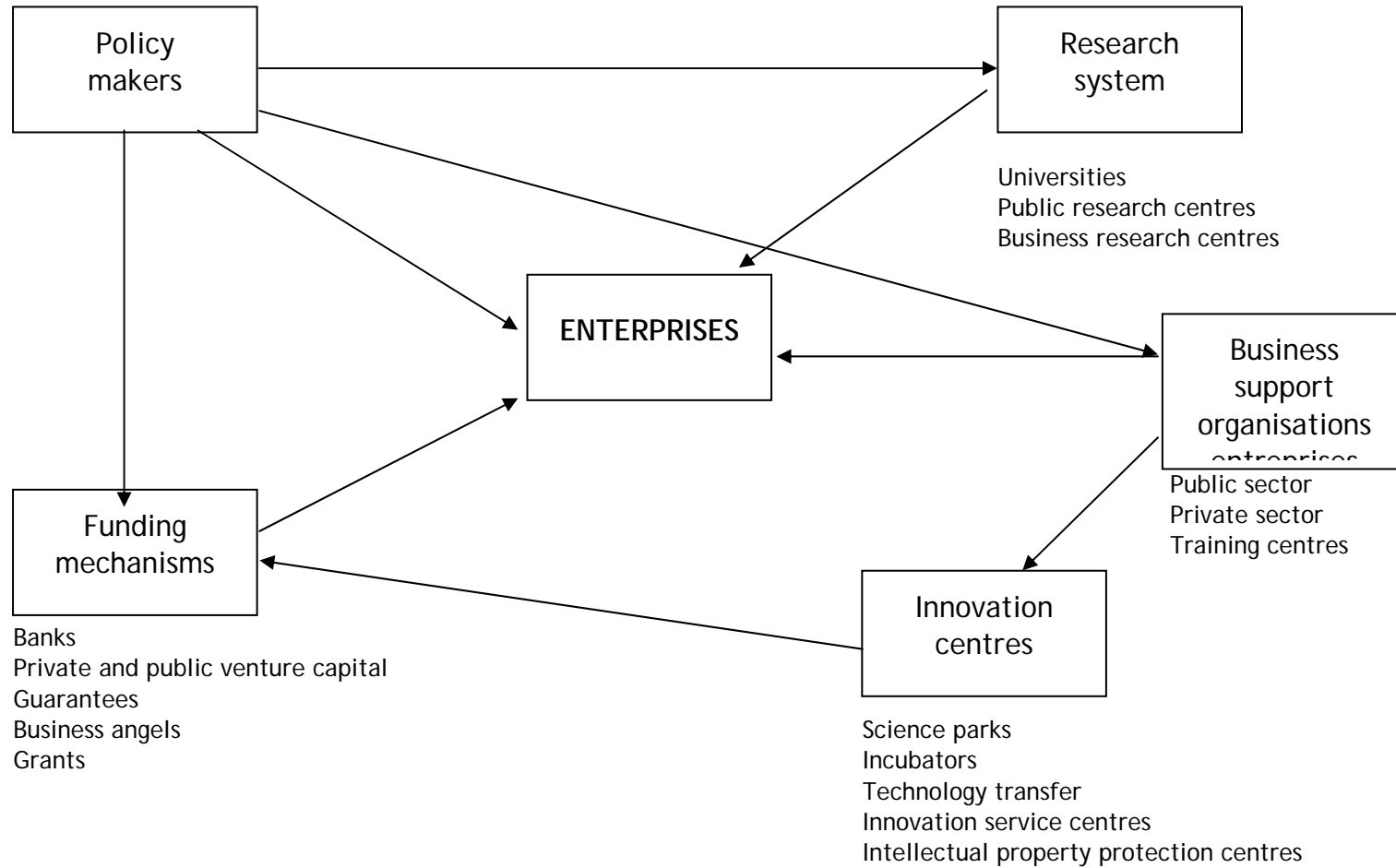
The basic argument made in the present document is illustrated in the four diagrams below, visualising the concepts of:

- entrepreneurship lifecycle;
- entrepreneurship ecosystem;
- regional entrepreneurship supply chain;
- value chain of a “start-up” hub.

Graph 1 Entrepreneurship lifecycle



Graph 2 Entrepreneurship ecosystem



Source : EURADA

Since the mid-90s, the concept of benchmarking has become a standard tool to compare public policies aimed at supporting economic development. Since benchmarking very often appears to be a ranking method rather than a tool to analyse and improve project and programme effectiveness, it is now of interest to understand and compare the value chains of those policies. This way of proceeding also enables to show that it is the integrated approach itself as well as its managers that make the difference rather than individual chain links.

Analysing value chains has the following advantages:

- identifying interactions between service value chain links and their weak links;
- identifying environmental weaknesses as well as key framework conditions of effective public policy delivery;
- understanding delivery mechanisms;
- identifying regional flexibility and governance.

Worth mentioning is that there is a need for any regional value chain analysis to include consideration of the parameters below:

- a) The separate links of individual value chains;
- b) The prerequisites of value chain deployment;
- c) Delivery mechanisms.

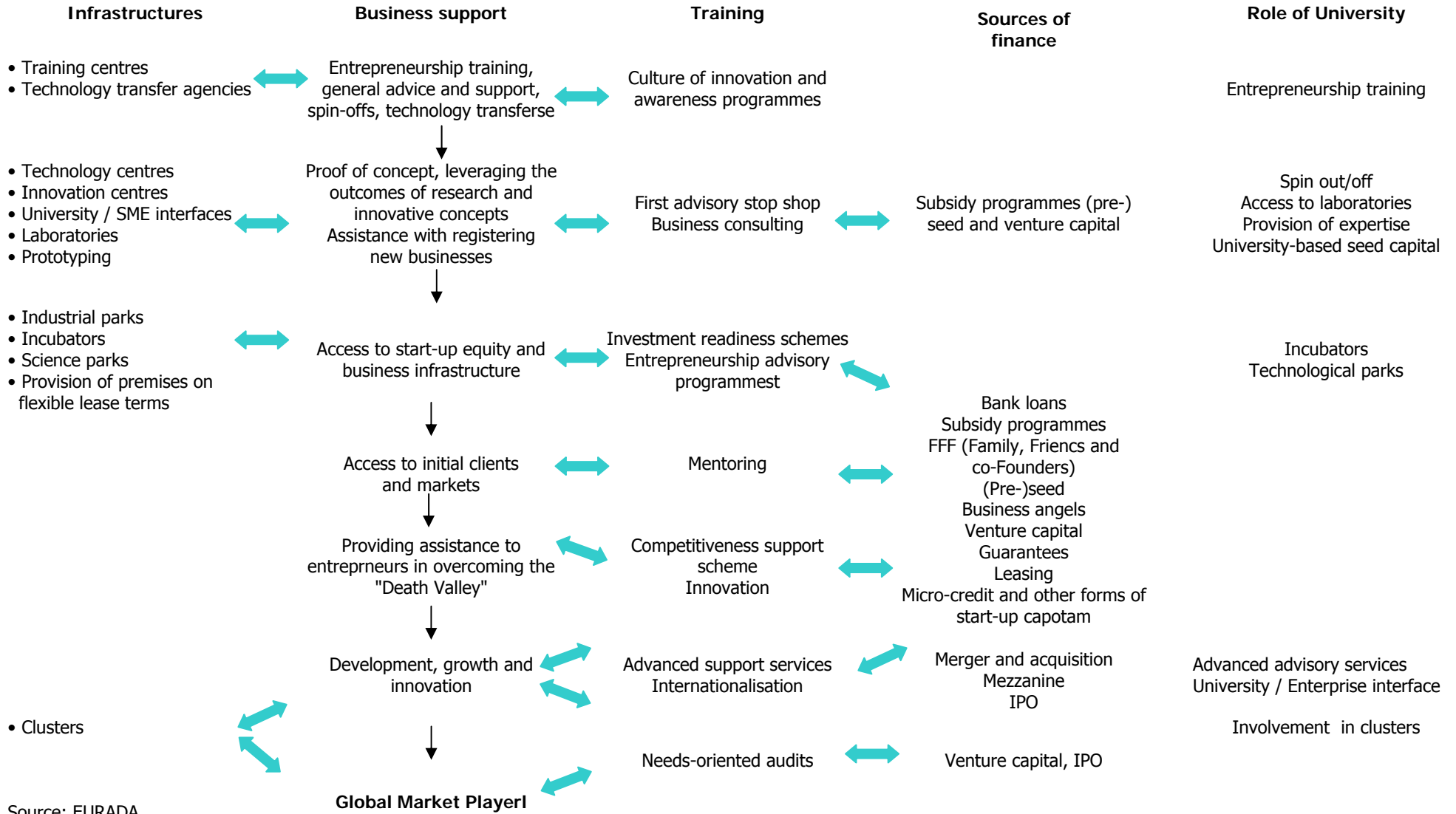
It is often useful to dwell on the prerequisites of value chain deployment. Indeed, it is crucial to ascertain the strengths and weaknesses of public, private and intermediary players, to evaluate their cooperation methods and to jointly work out a set of shared objectives and vision for regional or industrial development.

Below are value chains relating to fostering entrepreneurship on the one hand and "start-up" hubs on the other hand.

Graph 3 Regional Entrepreneurship Supply Chain



Graph 4 Value chain of a "start-up" hub



Source: EURADA

CHAPTER 1 SUPPORT SERVICES AND THE BUSINESS LIFECYCLE

1.1 Awareness

As underscored above in the introduction, entrepreneurial culture levels and business development rates are extremely variable across regions.

In some regions, business development is strong due to market constraints (the “businessman by obligation” syndrome) while it is weak in others due to a negative perception of business or an aversion for risk.

Therefore, action may be needed to stimulate awareness of entrepreneurship among the general population. Worth mentioning among those are for instance:

- business weeks or days;
- business plan or development competitions;
- entrepreneurship fairs;
- awareness campaigns focusing on schools, universities and the general population;
- business transmission fairs;
- university and research centre spin-off schemes;
- entrepreneurship training programmes;
- introduction to entrepreneurship.

The aim of these activities can be to improve the attractiveness of entrepreneurship and make it a possible career path for both the younger and other social segments of the population.

Awareness programmes should enable intermediary organisations to identify people with a latent project and other potential business developers.

We express reservations when it comes to the development of an “entrepreneurship-for-all” policy, for two main reasons:

- a) the stigma associated with being employed-unemployed-entrepreneur-bankrupt;
- b) a majority of micro-business developers – and even human services companies – do not possess adequate managerial skills and are at great risk of bankruptcy in the event of an economic recession.

Specialised sources include:

- ✓ **Business development and business plan competitions:** these provide young entrepreneurs with useful access to both expertise and funding sources. Award-winning business projects win prize-money of up to €15,000 or more in Poitou-Charente (F) and/or a services or equipment package. Some of these competitions are only open to innovative businesses. This is for instance the case of the regional innovation contest of Midi-Pyrénées.
- ✓ **Entrepreneurship training:** its purpose is to improve potential entrepreneurs’ awareness of access to different funding sources. Interesting initiatives include:
 - Solvay School (B) and Aisne Development Agency (F) as well as IRCE (Regional Institute for Business Creation and Development of the Region Provence-Alpes-Côte d’Azur);
 - In Belgium, BEP (the Regional Economic Development Office of the Province of Namur) set up NEC - Namur Entrepreneurship Centre in cooperation with two university departments. NEC’s purpose is to assist would be entrepreneurs by integrating them in a targeted, practical training scheme and providing customised support. Training is provided over five months. The first training session was attended by 20 people.
- ✓ **Entrepreneurship fairs:** A number of countries and regions organise events both to promote entrepreneurship and to access the latest developments in the field of support services for would be entrepreneurs, and possibly on the promotion of family business transmission across generations.

Below is a model flow chart for an entrepreneurship fair introducing a possible itinerary along which visitors are steered in different directions according to their degree of preparedness for entrepreneurship – i.e. mainly whether they have a precise business concept and/or the outlines of a business plan.

1.2 From business concept to development

According to a number of studies, there are more potential than actual business developers. Besides, given the stigma left by bankruptcy, intermediary organisations should introduce advisory and appraisal schemes regarding business development projects to maximise new business consolidation. Such appraisal systems should address both the quality of projects and potential business developers' psychological and managerial abilities.

To help business developers identify precisely the stakes of their projects, regional public authorities may usefully implement services including:

- ✓ entrepreneurship and business development seminars and training;
- ✓ self-evaluation guides;
- ✓ networks of young/potential entrepreneurs;
- ✓ business plan development support;
- ✓ assistance in choosing the right corporate personality;
- ✓ support in identifying any and all subsidies available for the different corporate positions;
- ✓ definition of projected staff skills requirements;
- ✓ provision of coaches and mentors.

When it comes to tech business projects, "proof of concept" support schemes have demonstrated their effectiveness in the regions that have deployed them. The same can be said of "investment readiness", a concept that aims to improve business project packaging for submission to investors.

In a nutshell, the purpose of proof-of-concept support is to enable teams of researchers to make sure that their project – commercialisation of their research outcomes – is solid enough, has outlets on a long term market and is not threatened by intellectual property issues. Enterprise Ireland and Scottish Enterprise emerge as pioneer RDAs in this field in Europe, with the former generally providing €90,000 in aid per project over a period of 18 months.

As for the concept of investment readiness, it aims to enable business managers to better prepare for equity investment by the most suitable kind of venture capitalist in the stock of their company. Worth pointing out is that the expectations of businesspersons and the demands of investors are all too often asymmetrical and that the former are not often aware of the fact that all funding sources are not the same. Indeed, they each meet a specific type of needs and generally correspond to a particular stage in the business lifecycle.

1.3 Development

When potential business developers are identified, an "acting out" phase starts during which business development services have to carefully look for both the qualities required in entrepreneurs and the credibility of their business proposition. At this point, generalist advisory services are useful, including those listed below:

- appraisal of business plan appropriateness;
- support in procuring the administrative documents required to start a company – one-stop shops are particularly useful in this respect;
- assistance in securing public subsidies and reduced social charges for the first jobs created;
- assessment of corporate real estate requirements.

In the case of innovative and entrepreneurial growth business projects, developers need guidance to:

- protect or secure intellectual property – including brands, industrial designs or even trade secrets;
- leverage intellectual property;
- globalise their market approach;
- market their products and services and survey markets;
- financing needs;

- outsourcing of certain roles or services;
- possible growth scenarios (internal, external, franchising, etc.);
- management and staff training needs;
- tutoring, coaching, mentoring;
- prototyping and preproduction.

1.4 Start-up

At start-up, support service needs may take a variety of forms including:

- ✓ incubation in the form of accommodation in a tech-oriented business incubator or nursery;
- ✓ corporate real estate;
- ✓ direct advice or even tutoring;
- ✓ assistance in outsourcing certain non critical positions and selecting consultants;
- ✓ staff recruitment.

The aim of this type of services is to enable new businesses to survive the “death valley” – a life-threatening period occurring three to five years into every company’s existence.

The development stage is often synonymous with the quest for external finance. Funding sources generally belong to five categories:

- loans;
- subsidies;
- venture capital;
- guarantees;
- tax exemptions.

Each of them may exist in different formats – though each has its own specific features (see part 2 “All Money is Not the Same!” below). However, they are all characterised by one shared feature, i.e. the fact that all finance providers will demand guarantees relating to:

- the management team (venture capital);
- the ability to reimburse (loans) or the existence of exit routes (venture capital);
- the growth potential (venture capital) of the business or its ability to create jobs (subsidies);
- the company’s history (loans, subsidies).

1.5 Growth

Clearly, some companies are not meant to grow because their products and services are of strictly regional value – franchising does however mean that the growth potential of companies is not geographically limited – or because their management lacks growth potential (businessman “by obligation” or as a lifestyle choice).

This being said, a majority of businesses have to be motivated by growth, i.e. by product and/or market innovation or diversification. Intermediary bodies can help companies acquire or improve their growth potential. Such support can be provided in one or more of the following forms:

- ✓ detection of latent growth potential, especially through exports or innovation;
- ✓ matching businesses with specialist organisations including consultants and universities;
- ✓ business networking.

These objectives can be pursued using subsidies, advice or vouchers.

Support services must try to reckon with the fact that business growth can take one or more of the following forms:

- product/service innovation through quality, design, marketing and branding, distribution channels, geographical diversification, etc.;
- innovation in the production process;
- innovation in the business model;

- innovation in the RTD and innovation process;
- acquisition of other companies.

Special attention should be focused on detecting gazelles or EGCs (entrepreneurial growth companies).

1.6 Expansion

In a globalised economy resting on knowledge and competition driven by innovation, it has become vital for SMEs to rapidly reach the critical size enabling them to become a leader on their market.

To better define the kinds of support services that need developing in order to support the expansion of EGCs ("gazelles"), it is useful to precisely identify both their characteristics and their needs.

In general, gazelles share the following features:

- strong innovation capacity in terms both of products and process or business model;
- strong market orientation characterised by high-quality products and the ability to quickly meet client needs,
- the ability to motivate staff,
- fluent practice of alliances and partnerships with all links in the corporate value chain (clients, suppliers, subcontractors, experts – including in RTD –, etc.),
- growth through acquisition of other SMEs.

In general, gazelles need to grow their sales fast, preserve their competitive edge – including in the form of different types of intellectual property – and increase their intrinsic value in order to attract venture capitalists. Worth noting is that few public business support schemes are able to meet this category of needs.

1.7 Transmission

When the time comes for managers to retire, business transmission becomes an issue. To ensure a smooth transition while avoiding the loss of jobs and know-how, intermediary organisations can provide support services for both the outgoing and the (potential) incoming entrepreneur. Advice of this kind must be supported with a scheme to match offer and demand (register of transmissible companies, etc.) as well as consultancy services for buyers focusing of the search for finance.

1.8 Improving business survival

The average life-expectancy of businesses is observed at 5 to 7 years. It is therefore advisable to examine the best ways of extending it in order both to preserve jobs and avoid the negative personal and other consequences of bankruptcy – even though the economic theory developed by Schumpeter tends to show that in terms of entrepreneurial dynamism, regions stand to benefit from a cycle of business deconstruction/construction.

With a view to helping businesses survive, government can deploy:

- ✓ Business retention schemes (cf. Point 1.10 below);
- ✓ Methods for early identification of susceptibility to bankruptcy;
- ✓ Business transfer instruments;
- ✓ Business opportunity reviews for micro-businesses and crafts.

1.9 Business internationalisation

Globalisation increasingly requires businesses to go international. Internationalisation activities may address one or more of the following objectives:

- ✓ Boosting sales or market shares;
- ✓ The need to grow fast;
- ✓ The search for opportunities on emerging markets;
- ✓ Cutting input costs;
- ✓ Procuring knowledge to improve innovation;
- ✓ Strategic relocation.

The main tools available to public authorities in stimulating business internationalisation need to include different possible intervention formats including:

- a) Commercial / Financial
 - Plain exporting
 - Agent and distributor
 - Franchising
 - Co-contracting
 - Joint venture
 - Acquisition or participation
 - Merger
- b) Industrial
 - Joint production
 - Subcontracting
 - Joint tendering
 - Licence
 - Technological development
 - Technology transfer
 - Offshoring
 - Outsourcing
- c) Inward investment or strategic delocalisation. The rationale behind doing this might as well be the need to geographically follow a major client or to access cheaper components.
- d) Co-research and co-innovation activities.

Evidently, the first form of internationalisation for many SMEs is making an export sale; subsequently, the enterprise will look into market analysis, looking for an agent and then a distributor, and finally negotiate a partnership agreement. Some enterprises may turn out to have no need to exceed the first step consisting of direct sales.

An intermediation body may offer a vast range of services for promoting the internationalisation of the enterprises. These services generally depend on the intended type of internationalisation. The services may be grouped in six main categories :

1. Information and promotion services

These services cover actions such as internationalisation awareness campaigns, market information (sector or geographic area), organising information and contact missions, organising missions abroad and hosting foreign enterprise missions to the region, setting up systems for assisting in participating in trade fairs or for financing internationalisation activities.

2. Training services

These services cover actions implemented with a small group of enterprises that have the intention and the capacity to internationalise. Very often these will be specific seminars and advice to enterprises, so that they may improve their performance, mainly in the field of the organisation of the enterprise and the flexibility as regards products or production.

Establishing contacts (for instance in exporters' clubs or clusters) between enterprises with established experience in internationalisation and enterprises in the learning stage is an excellent means for stimulating the self-confidence of the exporters.

Placing new graduates in SMEs to help them develop an export strategy can be a very useful tool.

3. Custom-tailored services

These services include the individualised services, amongst which we would like to mention the exchange of enterprise profiles, bilateral contacts between enterprises, granting personal advice or also financial assistance of all kinds (product development, etc...).

The use of export consultants temporarily made available for SMEs is being tested in several countries with success.

After the achievement of certain actions it can reveal useful to ensure an "after-sales service" in order to avoid that the contacts made would not properly be followed-up.

Moreover the placement of young graduates in SMEs in order to help them develop an export strategy can be a valuable training tool for SMEs.

4. Specialist collective services

When the regional productive fabric consists of small enterprises, one should consider grouping the internationalisation assistance services within a specific association, a cluster or an exporters' club. The association or cluster will propose specific export services, while the enterprises will keep their freedom of action at the regional or even national level. Amongst the services to be proposed, one observes most often the understanding of foreign market trends, the trademark or label, the design, the technology, the logistics and the economic intelligence, etc.

More and more regional intermediary bodies have today offices in foreign countries to help their SMEs develop contacts with potential partners.

5. Export Finance Tools

A lot of European SMEs face problems to access finance and so have weak balance sheets. Export or internationalisation activities are often expensive (market research, logistics costs, product redevelopment, marketing, payment delays, exchange risks). In order to help enterprises overcome those challenges, public authorities can offer financial assistance in the form of export credits and/or guarantees.

6. Hands on management

Today, public authorities try to provide added value services also called advanced services. The most efficient way to deliver such support services is to combine training, advice and access to finance.

7. Coaching and mentoring

In order to improve SME awareness of the specifics of foreign markets, some development agencies have set up mentoring schemes involving large companies with international experience.

8. Business hotels

Some organisations (RDAs, incubators, etc.) provide SMEs that want to enter new markets on a trial basis with – often free – temporary (1-3 months) office space and advice, including bilateral appointments with experts (see EOS: <http://www.eurooffice-services.eu>).

Regional business internationalisation strategies systematically need to reckon with the type of companies they target. Indeed, going international requires in-house capacities and abilities that are not necessarily in evidence in all SMEs and companies whose primary market is regional.

1.10 Business retention

Regional business retention strategies can be assigned two different objectives: preventing either the relocation of existing subsidiaries of international companies or the offshoring of activities of regional companies. In both cases, intermediary organisations – e.g. RDAs – need to open secure communication channels with top business managers to guarantee that the competitive advantages that existed at the time they originally located in a region still exist and – should that not no longer be the case – examine with them the kinds of public intervention that could restore these or create new ones.

1.11 Summary of public business support services according to the business lifecycle and the nature of support

	PREDEVELOPMENT	DEVELOPMENT	START-UP	GROWTH	TRANSMISSION
Infrastructure	Pre-incubator	Incubator Nursery	Industrial parks Technological parks Corporate real estate	Technology transfer centre Technical centre	Transmission fairs
Support services	Awareness Proof of concept	Business plan development assistance Generalist services	Advisory services Coaching Training	University/SME interface Audit	Assistance with the valuation and takeover process
Financial services	Seed Capital Repayable short-term loans Subsidies Proof of concept	Loans on trust Subsidies Guarantees Business Angels Corporate Venture	Guarantees Bank loans	Venture capital IPO Profit reinvestment	
Delivery mechanism	One-on-one	Investment readiness Hands-on management	Consultancy vouchers	Audits Clusters Consultancy vouchers Placement of post-graduate students In-service training support	Register of companies
Framework programme	Entrepreneurship	Development support	Development support	Innovation Internationalisation	Takeovers and transmission
Market	Validation Prototyping			Internationalisation	Validation
Qualification	Psychology of entrepreneurship Entrepreneurship training	Job creation subsidies			Management support

Source : EURADA

CHAPTER 2 CHARACTERISING THE LINKS OF THE REGIONAL PUBLIC BUSINESS SUPPORT SERVICES SUPPLY CHAIN

2.1 Context

When it comes to business support services, there is generally speaking a plethora of stakeholders and interventions at both national and regional level. However, this multiplicity does not avoid a structural lack of strong value-added service providers. Indeed, a majority of stakeholders – and even of interventions – target businesses in the early stages of their lifecycle with a range of generalist advisory services which, while admittedly essential to promote incorporation decisions, are inadequate when it comes to enabling fast business growth.

With differences across countries and regions, the stakeholders of the entrepreneurship value chain include:

- ✓ National Ministries of Economic Affairs – and sometimes SMEs – or SME/Business Agencies;
- ✓ The economic services of local and regional authorities;
- ✓ Regional development agencies;
- ✓ Chambers of commerce;
- ✓ Business nurseries;
- ✓ Incubators;
- ✓ Universities and research centres (advisory services and spin-offs/outs);
- ✓ Networks of business angels and other investors;
- ✓ Private consultants;
- ✓ Social economy players;
- ✓ Technological park managers;
- ✓ Trade associations;
- ✓ Professional business advisors (solicitors, accountants, etc.);
- ✓ Cluster and competitiveness centre coordinators;
- ✓ Industrial technical centres;
- ✓ Banks and other financial organisations;
- ✓ Business angels networks.

Among this broad assortment of private, public et semi-public organisations that can provide variable amounts of support to (would-be) entrepreneurs in obtaining useful information to start their business, some use the “touch and go” approach (i.e. they supply basic information to many people) while others provide specialist advisory services and even in some cases match business developers with potential investors. Many have started privileging the “no-wrong-door” approach and network entrepreneurship or innovation stakeholders.

Specialised sources include:

- ✓ **Banks:** they are often the first organisations that entrepreneurs looking for funding to develop their projects turn to. However, bankers more often than never limit their analysis to a credit solution. If the answer is negative, there would be a need for bankers to ensure that business projects are referred to other organisations specialising in SME consulting services and alternative funding sources.
- ✓ **Regional Development Agencies (RDAs):** These can be considered as the regional and local authorities’ “development arm” and they all provide business advice services. Some RDAs act as intermediates between entrepreneurs and investors. In this particular case, they inform themselves of the investors’ requirements beforehand (amounts, preferred sector of activity,...) and hereby reducing the useless steps that the ignorant entrepreneurs would take normally. Other RDAs also manage financial instruments ranging from public grants to sophisticated financial engineering products. The RDA of West Midlands (UK) developed a web portal compiling some 550 different funding sources.
- ✓ **Business angel networks – BANs.** These organisations facilitate the access to equity finance of young innovative enterprises.

- ✓ **Business incubators and nurseries:** in addition to accommodating businesses at suitably competitive rates with assorted secretarial support services, they offer specialised advice (in matters relating to taxes, regulations, intellectual property, technology transfers, etc.), including to companies looking for finance. Sometimes they even manage to raise funding for the companies that they accommodate or have suitable financial instruments available. According to a survey conducted by the Harvard Business Schools (USA) and published in 2000, 40% of incubators operating worldwide have managed to assist tenant SMEs in securing venture capital.
- ✓ **Incubators linked to universities and other higher technical and technology institutes:** e.g. the incubator of Franche-Comté (F) linked to both the Technology University of Belfort Montbéliard and the Ecole Nationale Supérieure de la micromécanique (Higher National School of Micromechanics) in Besançon. The importance of entrepreneurship services provided by universities is illustrated by the fact that 150 to 200 university spin-offs emerged in the UK in both 2001 and 2002¹.
- ✓ **Technology parks:** the organisations managing this type of infrastructure may also contribute relevant information on the types of finance that are suited to the development needs of businesses.
- ✓ **Cluster management organisations, a.k.a. “industrial districts” and “local productive systems”:** they may prove extremely useful for businesses in procuring information or even assistance (general or financial advice). Such organisations exist at regional level in many Member States.
- ✓ **Specialist private consultancy firms as well as accountants, lawyers, etc.** can of course provide invaluable advice when it comes to business development and growth.

While the mobilisation of so many different organisations in support of entrepreneurship is in principle a source of deep satisfaction, schemes can often be seen to proliferate to the detriment of efficiency, which makes it difficult for companies to identify competent interlocutors. Public authorities should hence clearly distinguish between different concepts including one stop shops, single advisory contact points and specialist desks and in any case get as many different stakeholders as possible to cooperate as part of a “no-wrong-door” approach. The ease with which such an approach can be implemented is proportional to the number of intermediary bodies involved that are dependent upon public subsidies, the strength of public governance and acceptance of the latter among the former.

Thanks to NICT, regional public authorities can develop portals aimed at simplifying the identification of available support within a region. The best such portals need to enable business developers to file a single on-line application for support and keep track of its progress through support organisations, thereby implementing the “no wrong door” concept developed in the Appalachians (USA).

Worth mentioning by way of example is the portal of the region of Bourgogne (F)², whose aim is to make life easier for businesses by coordinating the actions of economic development stakeholders and substituting a single, publicly-available on-line file for the different files previously used by different stakeholders. The website (www.jentreprendsenbourgogne.fr) features an information section answering the questions of entrepreneurs or referring them to the stakeholders who are most likely to be able to answer them.

2.2 Intervention by regional/local authorities

Generally speaking, public authorities grant subsidies in support of aims including:

- ✓ business development;
- ✓ economic expansion of regional SMEs;
- ✓ attraction of foreign companies;
- ✓ staff recruitment or training (creation of local jobs);
- ✓ innovation and RTD;
- ✓ networking.

¹ *Cordis Focus n°234*, 1 December 2003

² *Les Echos*, 7 February 2008.

Aid may be provided in the form of subsidies; guarantees; tax relief; access to advice or corporate real estate, R&D or innovation centres or sources of finance; and infrastructure or membership of networks or clusters. It may also stimulate either investment or improved business operation or management.

Worth noting at the level of the 27 Member States of the European Union is that the two main forms of state aid to the private sector are subsidies (51% in 2005) and tax exemptions (40%). Low interest loans (3%), guarantees (3%), tax deferral (2%) and equity investment (1%) only represent a small share of the €65 billion of aid granted in the EU in 2005.

France can be considered a good example of the role of the different levels of government in economic development. Indeed, aid is provided by five different sub-national levels of government. According to a report published in 2007³, economic development aid provided in the region of Aquitaine (pop.: 3,090,000) totalled around €275.4 million in 2006 (i.e. €89.12/inhab./year), breaking down as follows:

- region: €149.3 million, i.e. 54.22%;
 - 5 departments: €93.4 million, i.e. 34.03%;
 - Urban community of Bordeaux: €11.7 million
 - 5 groupings of urban centres: €15.1 million
 - 14 groups of municipalities: €5.6 million, i.e. 2.03%.
- } i.e. 9.73%;

Intervention by departments and other local authorities in the form of economic development aid breaks down into six categories:

1. Notified regional aid schemes;
2. Notified SME schemes;
3. Notified schemes or regulations;
4. Notified R&D schemes;
5. Exemption regulations;
6. Others.

As for regional aid, it takes the following forms:

- Aid to individual companies, i.e.: real estate investment subsidies, tangible investment subsidies, financial restructuring subsidies, management post creation, export subsidies, investment in new operations, Aquitaine consultancy aid fund;
- Support for micro businesses, trade and crafts, i.e.: finance support, consultancy aid, indirect aid (support for technological parks, nurseries, loan-on-trust associations, guarantee funds, etc.);
- Support for research, higher education and technology transfer;
- Support for environment technology;
- Support for farming, agro-food, forests and the sea.

In its inventory of support available in the Walloon Region (B)⁴, IGRETEC groups aid into the nine main categories below:

1. General aid in support of the economic expansion of SMEs (investment premiums, advisory services, management outsourcing, quality premiums);
2. Employment and training aids;
3. Innovation and RTD aids;
4. Tax relief;
5. Export subsidies;
6. Energy savings and environmental aids;
7. Financial support;
8. EU support;
9. IT mainstreaming aids.

³ Aquitaine: economic aid census report.

⁴ Guide to public support in favour of SMEs.

2.3 Typology of business support services

The membership of EURADA have drawn up – as exhaustive as possible – a list of examples of services delivered by RDAs.

1. Reception, basic services and information, guidance
 - First contact point
 - Official registration and documentation
 - Dissemination of publications and information packages
 - Promotional and awareness activities
 - Facility procurement
 - Initial diagnosis
 - Guidance
 - Information about legislation
2. Professional information services
 - Information about markets
 - Information about businesses and financial information
 - Technical information
 - standards and certification
 - patents, intellectual property, brands, geographical origin
 - specific fields
 - Entrepreneurship fair
3. Advice and direct support
 - Advice on business plans
 - Business plan and start-up competitions
 - Activity planning
 - Functional advice
 - Monitoring and support measures
 - Mentoring
 - Consulting
 - Enhancing business relations
 - Bringing in direct experience
 - Proof of concept
4. Training for SMEs
 - SME management
 - Start-up
 - Expansion and development
 - Reconversion training
 - Targeted training
 - Business transfers
 - Staff recruitment
5. Finance
 - Investment readiness
 - Shareholder's equity
 - Loans for specific purposes
 - micro-credits
 - loans with lower interest rates
 - Loan guarantees
 - direct guarantees
 - mutual guarantees
 - Grants and subsidies
 - IPR valorisation
 - Rescue / restructuring grants

6. Business Infrastructure
 - Business incubators
 - Industrial or commercial units
 - Technological parks
 - Telecommunications
 - Logistic, industrial parks and real estate
7. SME-specific strategic measures
 - Conferences and seminars
 - Professional fairs and exhibitions
 - Meet-the-Buyer exhibitions and sub-contracting fairs
 - Trade missions
 - Promotion of networking
 - Development of supply chains
 - Promotion of groupings
8. Innovation and knowledge management
 - Intellectual property (commercial secrets, copyright, industrial design, trade marks, patents)
 - Economic intelligence and market studies
 - Technological watch
 - Technological auditing
 - Technology transfer
 - E-commerce (B2B) and other ICT applications
 - Quality and design management and adaptation to standards
 - Spin-outs and spin-offs
 - Research result commercialisation
 - Aid for inventors
 - Support to prototyping
 - Clusters
 - Networking in the framework of the "open innovation" concept
 - Aid to co-development
9. Advanced financial services
 - Loans without guarantee
 - Matching with business angels
 - Seed capital
 - Venture capital
 - Investment readiness
 - Corporate venturing
 - Reimbursable advance payments for research projects
 - University and research centre spin-off funds
 - Proof of concept
10. Benchmarking
11. Other supports
 - Stimulation of energy savings
 - Adaptation to the environmental rules
 - Inclusion of disadvantaged workers

By analogy with the typology entitled "Major Services Required for the Performance of Enterprises" taken from the European Commission Communication of 4 December 2003 on the competitiveness of the services industry, below is an enumeration of the main support services provided by RDAs and other public intermediary organisations. One finding is that the examples of support services listed in the 11 categories above cover a broader range of intervention fields compared to the eight business functions mentioned in the Commission Communication of 4 December 2003.

Table 1

Position in company	Main Public and Semi-Public Business-Related Services
Administration	<ul style="list-style-type: none"> ✓ Advice for business developers and start-ups ✓ Management consulting ✓ Auditing and strategic advice
Human resources	<ul style="list-style-type: none"> ✓ Business management training ✓ Temporary placement of university students/graduates in SMEs ✓ Observatory on qualifications
Financial intermediation	<ul style="list-style-type: none"> ✓ Regional venture capital funds ✓ Advice on access to funding sources
Productive and technical positions	<ul style="list-style-type: none"> ✓ Technology and technical transfer services ✓ Business networks ✓ Interfaces between universities / research organisations and SMEs ✓ Support services for patenting and quality and design improvement
Information management	<ul style="list-style-type: none"> ✓ Economic intelligence ✓ Awareness of innovation in all its forms (products, processes and business models) ✓ Fostering innovation culture
Marketing and sales	<ul style="list-style-type: none"> ✓ Support for exports ✓ Assistance in the search for partners ✓ Participation in fairs and exhibitions
Transport and logistics	<ul style="list-style-type: none"> ✓ Multimodal transport nodes
Facility management	<ul style="list-style-type: none"> ✓ Incubators ✓ Enterprise real estate, including connection to services of general interest ✓ Technical centres of excellence

2.4 High Value-Added Support Services

In the knowledge-based economy, it is increasingly important to encourage public authorities to invest in the provision of high value-added services and in the reinforcement of specialist organisations.

High value-added services can be grouped into eight broad categories (non-exhaustive list):

- the protection of intellectual property rights;
- accelerated commercialisation of research project outcomes;
- detection of dormant projects in research centres and universities as well as large companies;
- improving the quality of demand for finance emanating from SMEs (via investment readiness schemes, business angels networks, etc.);
- boosting the growth (turnover and employment) of businesses accommodated in incubators;
- ensuring that the staff of university / research centre / business and investor interfaces are themselves genuinely entrepreneurial and/or that their remuneration is performance-based;

- appropriation by subcontractor SMEs of management methods that help reassure large principal contractors (6sigma, LEAN, co-development, etc.);
- creation and management of multisectorial or pluridisciplinary platforms in order to boost innovation and applied research.

It has been established empirically that the life expectancy of businesses that have been accommodated in an incubator or have received some form of advice is dramatically improved compared to businesses that have not benefited from this type of services. Businesspersons therefore need to become aware of the fact that access to finance alone is not adequate to consolidate their business in the long run. Investors are also increasingly sensitive to the quality of human resources available in investee businesses. To remedy any weakness in this field, business finance programmes increasingly include the provision of management or business development consulting services as a (pre)condition of or complement to funding.

This tends to be corroborated by statistical studies. For instance, the 670 businesses that received support in the Limousin (F)⁵ region between 1997 and 2007 grew faster than others. Indeed, three years into public support, 17.5% of aided businesses had hired additional staff (v. 8.6% of other companies) and their turnover had increased by 28.9% (15.4% among other businesses).

2.5 What is the purpose of public support services?

Public intervention on the business services market is justified when it aims to:

- ✓ improve framework conditions;
- ✓ address asymmetric information between SMEs and their institutional and competitive environment;
- ✓ address market failures;
- ✓ improve market solvency;
- ✓ improve the ability of businesses to anticipate or absorb change.

Some organisations – notably Directorate General Competition of the European Union – are of the opinion that the main role of the public sector should be to improve the framework conditions of entrepreneurship and therefore to interfere directly only to address market failures, the latter allegedly existing only in cases of (i) inadequate SME access to (financial, innovation advisory, RTD and other) services; (ii) severe information asymmetry on the market or; (iii) excessively high transaction costs for SMEs.

The issue of limiting public intervention to instances of market failures deserves detailed examination to determine as precisely as possible the kind of private investment that is lacking and the cause(s) of this shortage. For instance, we do not believe in the existence of a market failure in the mere absence of adequate amounts of seed capital finance for start-ups. The unadventurous behaviour of private operators on this market segment is justified by the substantial level of risk involved in investment deals. So in this particular case, what is in evidence is not a market failure but rather a market that operates according to its own specific rules. To tackle the issue, public authorities would be well advised – rather than subsidising businesses directly – to take steps to reduce the inherent risks facing businesses at start-up, for instance by funding programmes addressing investment readiness, proof-of-concept, tax exemption for business angel investments or repayable short-term loans as collateral investment alongside the private sector in venture capital funds. Rather than eliminating market failures, direct aid paid to businesses tends to perpetuate them as grants replace private investors instead of encouraging them to change their approach.

Worth recalling is that what creates jobs are profitable and innovative businesses, not strategies, framework conditions or corporate real estate. Regardless of the motives of their intervention, public authorities should be able to demonstrate:

⁵ *Focal INSEE Limousin* nr 36, March 2007.

- that support service provision is tailored to business requirements;
- that delivery mechanisms bring added value both in view of business requirements and compared to existing schemes;
- that financial resource allocation⁶ is commensurate with market value;
- synergies between the regional human, social and financial capital and infrastructure and potential beneficiaries;
- interactions between the links of the regional supply chain corresponding to the identified failure;
- the quality of the marketing plan and the relevance of the information provided to potential users;
- the criteria used to improve the scheme management and evaluation system in the case of multi-annual programmes.

The objectives of public subsidies can be summarised as follows⁷:

- jobs;
- investment;
- operation;
- R&D;
- training;
- business development;
- environment;
- rescue/turnaround;
- trade and network coordination;
- exports.

The aid can be generalist or targeted on individual industries or on SMEs⁸.

Worth underscoring is that businesses themselves indicate that their ability to grow depends in ascending order of importance on the following factors⁹:

- access to public and semi-public subsidies;
- innovating and commercialising their RTD outcomes;
- taking on board new technology and other practices;
- maximising the cost of capital;
- access to capital;
- conquering markets or shortening product and service time-to-market;
- marketing their products and services;
- attracting skilled labour;
- improving their management.

Bearing these factors in mind, public intervention should systematically combine financial assistance with non-financial support, the latter in the form of diagnostics and advisory and staff training services.

The table below seeks to illustrate how this recommendation can be applied to the three main business functions: innovation, production and sales.

⁶ Some EU programmes cofinance only 8-10 projects out of more than 200 replies to individual calls for projects.

⁷ See *Rapport sur les aides publiques aux entreprises – Mission d'audit de modernisation* ("Report on public business subsidies – Modernisation Audit Mission"), January 2007.

⁸ In France, SME aid reportedly accounts for only 10% of total public financial support for business.

⁹ Source: *Enquête CROCIS* ("CROCIS Survey"), Ile-de-France 2003.

Table 2 Matrix of key business functions and public policy instruments

	Key manufacturing business functions	Collateral functions	Public policy instruments
I N N O V A T I O N	Market studies		Economic intelligence
	In-house research		Grants and loans
		Contracted research	Grants and loans
		IP protection	Advisory services
		Exploitation of research outcomes	Grants and loans
	Imitation		Economic intelligence
	Innovation		Grants and loans
P R O D U C T I O N		Search for finance	Advisory services
	Development		Grants, loans
		Design	Advisory services
	Manufacturing		Grants
		Localisation	Grants, tax exemptions
		Quality	Advisory services
S A L E S		Qualification Purchases Sub-contracting	Advisory services Advisory services Advisory services
	Marketing		Advisory services
		Branding	Advisory services
		Total Quality Management	Advisory services
	Logistics / Distribution		Grants
		Clustering	Advisory services
		Accounting & Finance	Advisory services
	After-sales		Advisory services
	Customers-related management	Advisory services	
	Export		Advisory services; Grants

Source : EURADA

2.6 Support service efficiency

Comparatively few studies are available on this issue. Politicians tend to focus more on the number or unit cost of new jobs. Therefore, few opportunity surveys are conducted to identify measures to be taken and public authorities very seldom encourage innovation in business support services.

The effectiveness of business support services can be estimated against parameters including:

- The nature of support: finance, assistance or a combination of the two. Generally speaking, the last is most effective. Equally, loans or equity investment in businesses tend to be more effective than subsidies. Loan applications are generally examined in greater detail than applications for subsidies since no profitability requirements whatsoever are attached to the latter.

- The quality of operators. In principle, private operators are more careful to deliver quality services than public providers who in practice are in a quasi monopoly position. However, it may be useful to advise SMEs on how to develop specifications in advance of tendering procedures.
- The delivery methodology. Integrate methods are more effective than ad-hoc (one shot) provision. The provision of advice is more effective than the provision of information as part of a touch-and-go system. Proactivity is always more effective than passiveness. And finally, collective action may be preferable to individual action.
- Cost. Public-private partnerships and incentives for the private sector to take entrepreneurial risks (e.g. in the case of business angels) is more cost effective than traditional subsidies or isolated public intervention.
- The product mix. Support services that combine advisory or audit services with financial support are more effective than funding granted without appropriate advisory service packages.

The effectiveness of public business support services also hinges on governance, on meeting a clearly defined need and on acceptance by the private sector of the organisation delivering the services.

Both the efficiency and effectiveness of public business support services are often questioned¹⁰. The main criticism relates to the fact that *"this support is provided under schemes that are costly, complicated, poorly coordinated and limited in scope"*. Besides, the report points to poor reckoning with evaluation outcomes among public decision-makers.

Worth adding to this realisation is the report drafted by a group of intellectual property experts¹¹ who deplore the fact that the services provided by public organisations are often the ones that are least useful to SMEs!

¹⁰ See *Rapport de la Cour des Comptes française* ("Report of the French Court of Auditors").

¹¹ *Pro Inno Europe Paper N° 3 – A Memorandum on Removing Barriers for a Better Use of IPRs by SMEs*.

CHAPTER 3 TAILORING SUPPORT SERVICES TO THE REQUIREMENTS OF BUSINESSES

3.1 Typology of business support services

It may be possible to better characterise the provision of business support services by means of an analysis based on the typology of the main market segment categories below:

- ✓ Business categories:
 - growing businesses;
 - start-ups;
 - entrepreneurial growth businesses;
 - businesses without much potential for growth;
 - businesses undergoing a transition;
- ✓ Business support services addressing different stages of the business lifecycle:
 - (pre-)commercial stage of innovative concept development;
 - (non-)financial services;
 - infrastructure or intangible services;
 - individualised or shared services;
 - basic or high value-added services;
- ✓ Categories of users involved in delivery mechanisms:
 - public authorities;
 - intermediary bodies;
 - universities, research centres;
 - private businesses;
- ✓ Stage in the development cycle of a new product or service:
 - definition;
 - proof of concept;
 - initiation;
 - development/growth;
 - maturity;
- ✓ Delivery methodology:
 - pilot projects, one shot, multi-annual programmes;
 - calls for tenders or desks/centres;
 - subsidies, repayable short-term loans, guarantees, equity participation, loans;
 - direct or indirect investment or consultancy support;
 - individual offer or common services offer;
- ✓ Support service aims:
 - supporting the development of low value-added businesses;
 - supporting the development of innovative businesses;
 - supporting the development of entrepreneurial growth businesses;
 - supporting the development of spin-outs/offers;
 - supporting local infrastructure (nurseries, incubators, enterprise real estate, industrial or tech parks, technical centres, etc.);
 - supporting technology transfer and the utilisation of RTD outcomes (patents, licensing, etc.);
 - supporting the coordination of business networks (clusters, clubs, etc.);
 - supporting organisation, market-driven or human resource-related technological development;
- ✓ Support service quality:
 - basic touch-and-go (information) v. specific (advisory) support services;
 - high value-added services;

- ✓ Nature of available support:
 - financial: subsidies, loans, guarantees, equity participation, tax relief, etc.;
 - other: advice, auditing, training, coaching, mentoring, etc.
 - networking.

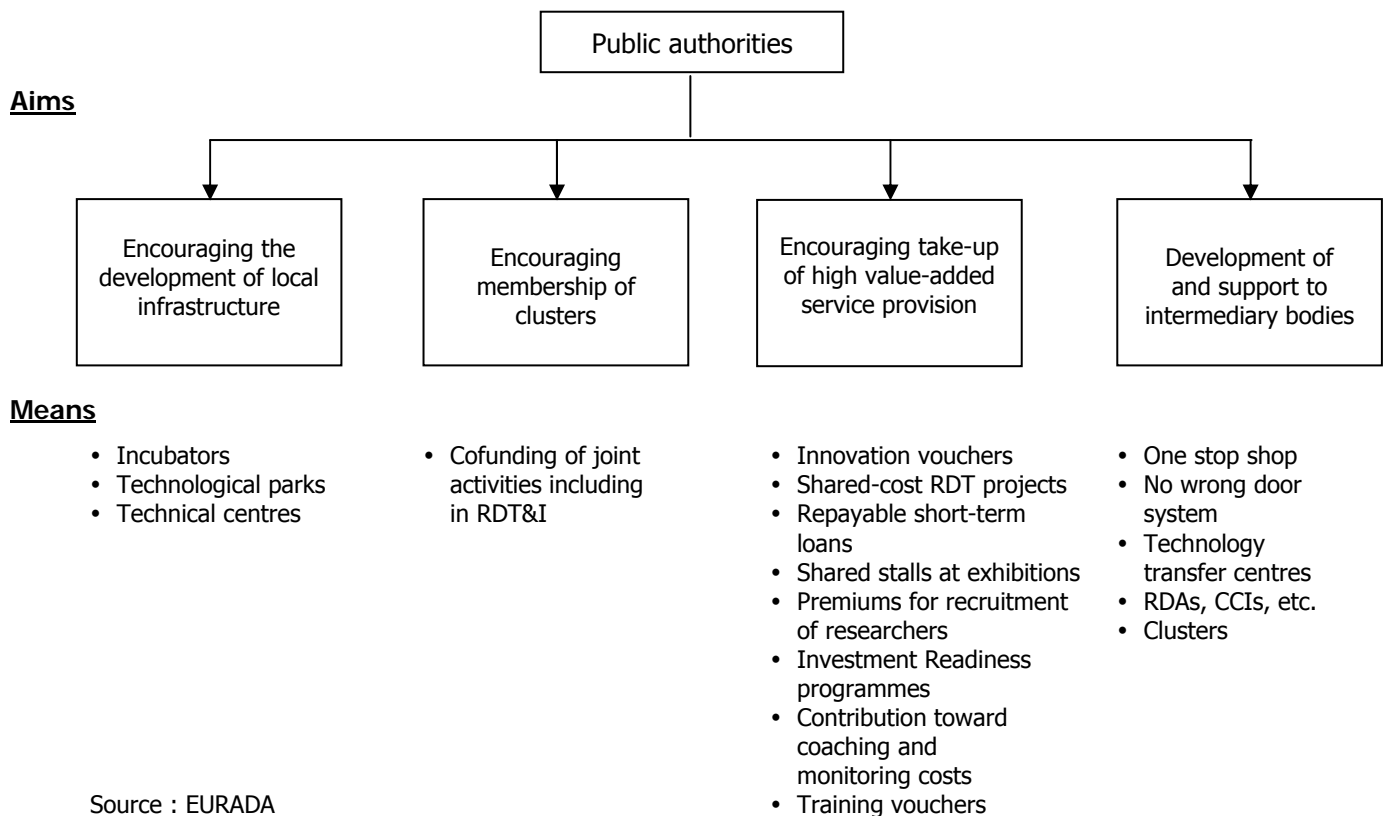
The aims of support service provision – whether public or private – must include:

- reducing the cost of accessing knowledge, research and innovation, whether in terms of capacity, ability or even effort-sharing;
- increasing access to technology and knowledge;
- shortening product/service time-to-market;
- improving the recruitment of talent and trained staff;
- facilitating access to sources of finance and venture capital;
- reducing the risks of developing new products and services, marketing new ideas and even leveraging research outcomes;
- encouraging medium-sized businesses to grow and develop in-house research and development capacities;
- reducing the disadvantages of SME status including size, absence of critical mass, distrust among public procurement contract adjudicators, asymmetrical information (v. principal contractors or equity investors), etc.;
- consolidating barriers of access to regional markets – while complying with fair competition and State aid rules;
- facilitating the incubation of innovative businesses
- stimulating fast growth among gazelles (entrepreneurial growth start-ups).

Figure 1 below illustrates how public authorities can encourage SME take-up of support services.

Business support service provision also needs to maximise networking and accumulation effects that very often allow both the generation of critical masses of talent, skills and knowledge and reduced transaction costs.

Figure 1 : Public policy promoting the take-up of support services



3.2 Innovation in public business support services

In recent years, changes have been in evidence in public business support service design. An illustration of these is provided in Figure 2 below, comparing so-called traditional and new intervention categories.

Figure 2 : Innovation in public business support services

Traditional types of interventions	New types of intervention
<ul style="list-style-type: none"> • Awareness and legal framework • Individualised services • Information services • Grants • Top-down approach based on the range of available public support services • Generic provision ("one-size-fit-all") 	<ul style="list-style-type: none"> • Economic and technological intelligence • Identifying and harnessing businesses' potential • Shared services, networking, clusters • High valued-added advisory services • Access to finance and venture capital, investment readiness • Bottom-up approach based on a careful analysis of business demand • Tailored provision for individual market segments

Source : EURADA

It seems however that the trend described above has not peaked yet. Indeed, the following shortcomings are still in evidence among public business support services, which severely constrain the effectiveness of regional business support service provision systems:

- excessively fragmented provision due to a plethora of intermediary bodies;
- absence of integrated provision, of a vision as well as of any analysis based on the public intervention value-chain;
- poor interpretation and use of the one-stop-shop¹² concept and lack of integration of the no-wrong-door concept¹³;
- absence of investment readiness programmes addressing the lack of symmetry between businesspersons and investors, adjudicating authorities, grant influencers, RTD and university circles, etc.;
- lack of systematic evaluation of public service delivery effectiveness and opportunity costs;
- mitigated outcomes of programmes focusing on EGCs (entrepreneurial growth companies). Too many companies in incubators remain medium-sized (5-6 staff and a turnover below €5 million);
- inadequacy of business retention schemes;
- lack of adequate projects to systematically dig up entrepreneurial and innovative business concepts lying dormant in research labs, universities and medium-sized regional companies;
- overrepresentation of grant-based provision v. loans, guarantee schemes and adequate seed capital funds and investment capital;
- lack of support mechanisms for applied research, protection of intellectual property rights and encouragement of branding¹⁴ and design;
- embryonic public-private partnership practice when it comes to business support services as well as RTD and innovation infrastructure;

¹² One Stop Shops simply represent a concept whereby foreign (i.e. non local) businesspersons or investors can perform in a single place all procedures required to set up and legally operate a commercial enterprise

¹³ The aim of the "no-wrong-door" concept is to leverage a joint needs evaluation system to guide business persons to the specialist regional organisations that are best equipped to advise them.

¹⁴ Branding is either collective (made in ..., geographical indications of origin) or individual (brands owned by businesses).

→ problematic delivery of support services that match new strategic business attitudes including lean manufacturing¹⁵, joint development and drastic rationalisation of subcontractor pools.

Besides, substantial asymmetry seems to be evidence between the values of the business models of public administration and traditional companies and those of innovative businesses, which further complicates the matching of supply and demand. This asymmetry is illustrated in the table below¹⁶.

Table 3 Comparison between traditional and innovative business models

	Traditional companies Public administration	Innovative businesses
1.	Predictable	Unpredictable
2.	Looking for stability	Looking for novelty
3.	Focus on core business	Focus of discovery
4.	Hierarchic organisation	Networked organisation
5.	Hierarchic progression	Tensions due to creativeness
6.	Efficiency through standard procedures	Efficiency through innovation and flexibility
7.	Foundation of in-house competences	Combination of in-house and external know-how
8.	Resistance to change and aversion of risk	Risk is taken because of incentives to change
9.	Performance is measured in terms of stability	Performance is measured in terms of innovation

Source : EURADA

There is therefore a need for public authorities to better harness the three basic segments of the business support service provision market, i.e.:

- adjusting offer to demand;
- improving demand quality;
- matching offer with demand.

Illustrations of this are provided in Figures 3 to 6 below, which try to clarify the nature of intervention according to each of the three segments above.

¹⁵ The method implemented by Toyota: reducing stocks and outstanding debt, subcontractor accountability, JIT, etc.

¹⁶ This table draws from *Creating the Innovation Culture*, Langdon Morris, Innovation Labs, 2007.

Figure 3 : Non-financial support service provision

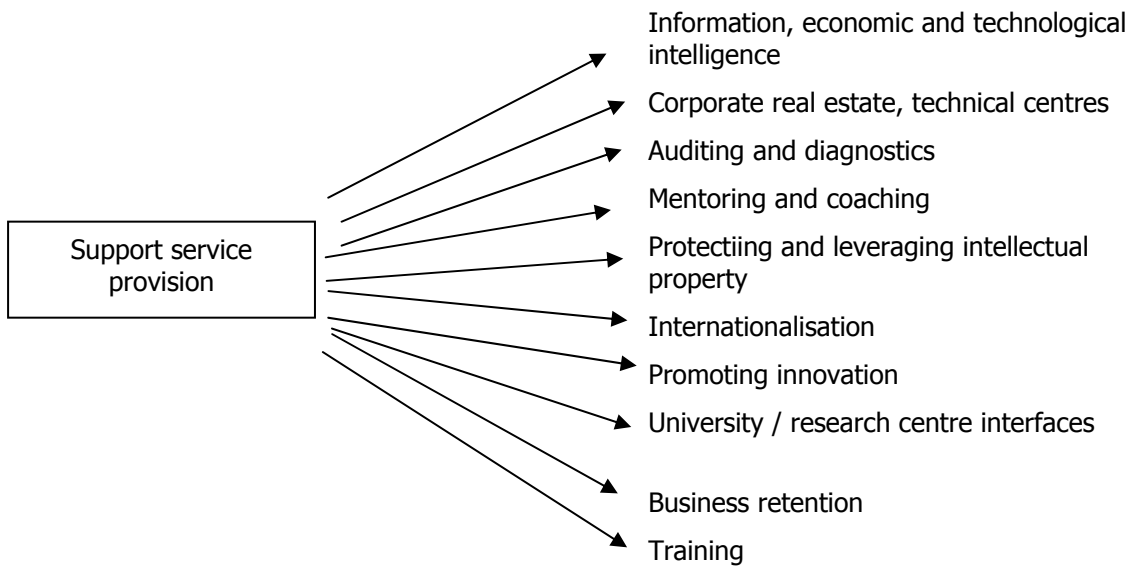


Figure 4 : Financial support service provision

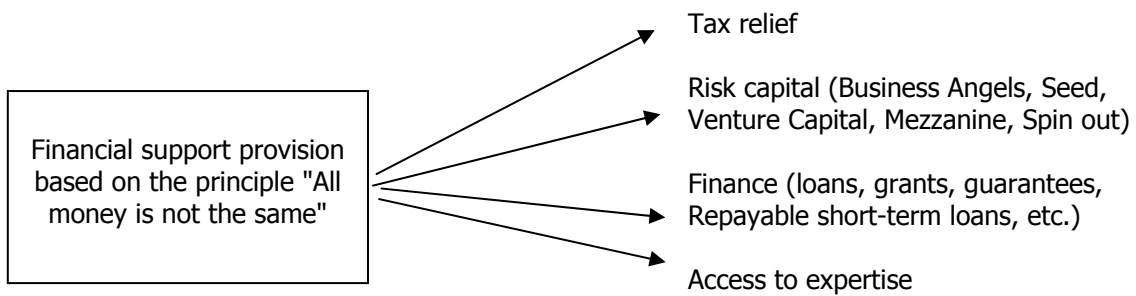


Figure 5 : Improved demand

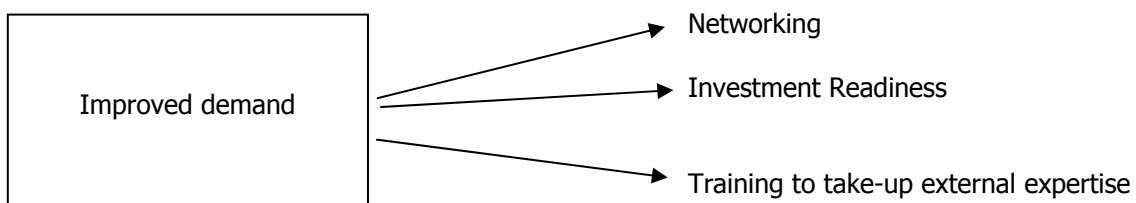
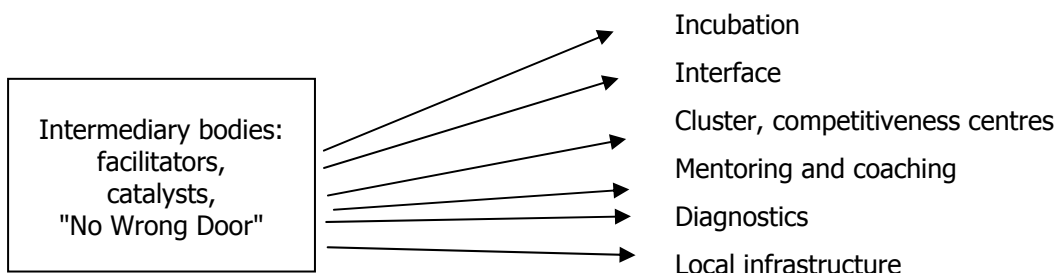


Figure 6 : Matching offer with demand



Worth noting is that in future, universities will come to play an increasingly important role in all three of the above segments of the business support services market. Indeed, they will be called upon to:

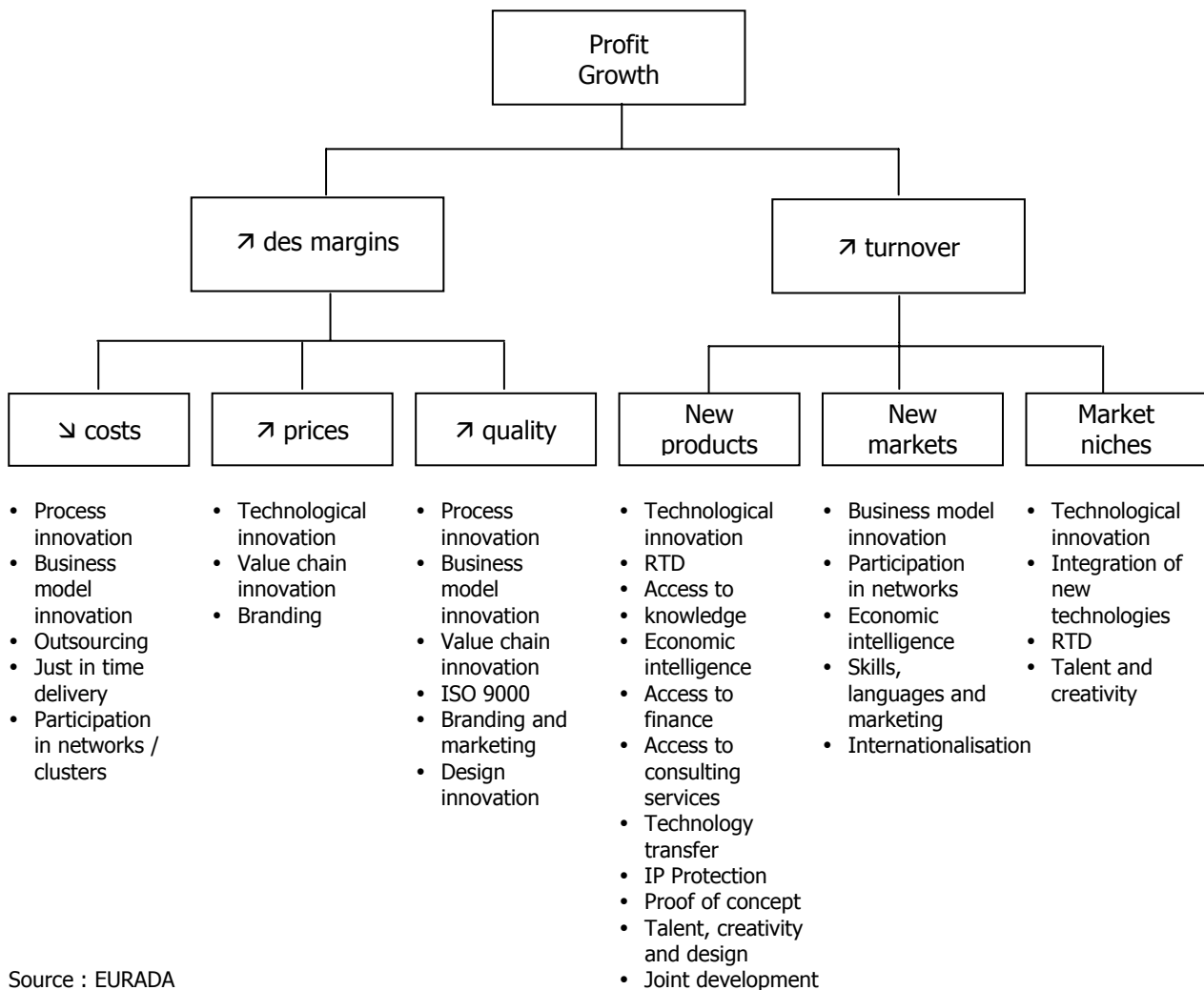
- ✓ train talent;
- ✓ promote entrepreneurship;
- ✓ acquire consultancy expertise;
- ✓ generate, leverage and transfer knowledge;
- ✓ manage RTD and innovation infrastructure (pre-incubators, laboratories, etc.);
- ✓ participate in support schemes (clusters, interfaces, seed capital funds, etc.);
- ✓ enhance public-private partnerships (PPPs);
- ✓ attract and retain talent;
- ✓ contribute to regional influence and marketing abroad.

3.3 Support services focusing on the requirements of growing businesses

Higher profits alone can deliver improved business profitability, which requires addressing either prices or sales.

The diagram below progressively needs to become the frame of reference for ex ante evaluation of measures contemplated to support existing businesses or stimulate the development of new ones. Indeed, it seeks to describe the resources needed to achieve the profit and growth objectives that drive all businesses.

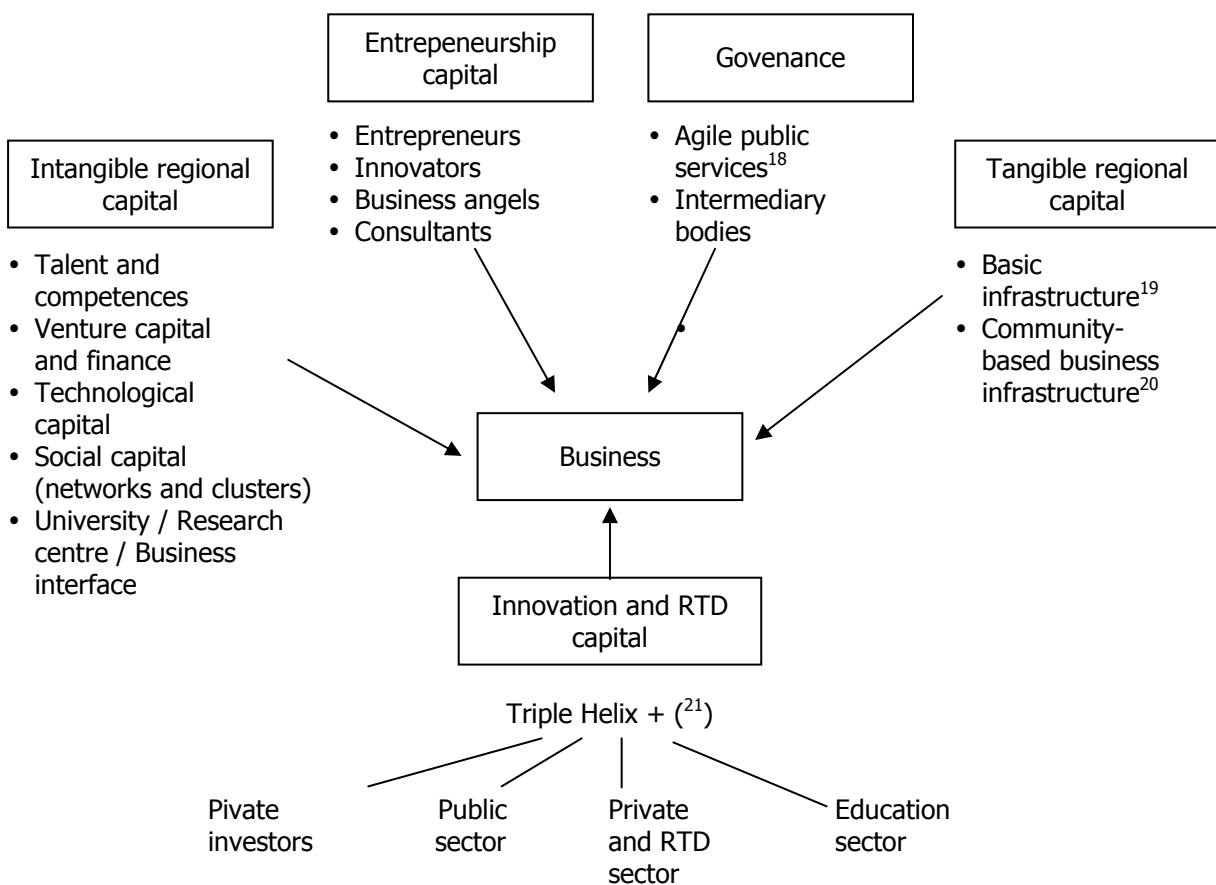
Figure 7 : Matching business aims with support services



Worth recalling is that in theory, the recipes of business success are straightforward: cost control, regular product range renewal (i.e. constant product, process and business model innovation), distribution and attention to market (design, functionality, price perception, etc.) and careful marketing expenditure. However, a German study¹⁷ clearly shows that despite this apparent simplicity, 93% of innovative business projects fail. The causes of such failures are multiple: development strategies focusing exclusively on technological aspects, lack of market knowledge, inadequate product characterisation, over-engineering, etc.

Obviously, the above figure needs to fit in a more global context addressing the framework regional conditions that have to be in place for business activities to flourish and unique competitive advantages to emerge for regional players.

Figure 8 : Regional framework conditions for entrepreneurship and innovation



Source : EURADA

Expressed in operational terms, acceptance of these frames of reference for regional development requires both provision of strong value-added support services and a new approach to the definition of the regional development vision.

¹⁷ *Les Echos*, 7 February 2007, quoting IAI survey of 1,200 companies.

¹⁸ Entrepreneurship and SME supportive framework conditions

¹⁹ Water, energy, transport, RTD, ICT, quality of life, education, health

²⁰ Nurseries, incubators, industrial parks, technological parks, technical/technological centres

²¹ We have added the "Private investors" component to the three traditional components identified by the literature to define the "Triple Helix" concept

According to a study conducted in Belgium²², the expected outcomes of company managers when using business support services include:

- Improved product or service added value;
- Business modernisation;
- Business differentiation v. competitors;
- Adjustment to business environment (i.e. competition) changes;
- Reduced activity-related risks;
- Optimised internal business organisation;
- Increased flexibility;
- Diversified activity;
- Reduced costs;
- The ability to innovate;
- Procurement of information and expertise.

The findings of this survey show a strong correlation with the items listed in Figure 7 above.

²² *Services aux entreprises et développement régional* ("Business Support Services and Regional Development"), Camal Gallouj, Fabienne Leloup, Bernadette Mérenne-Schoumaker and Laurence Moyart, De Boeck, 2006, p. 182.

⁶ PMEKMO.be, 05 January 2007. According to IBM, the term Business Intelligence has two meanings:

- Applications and technologies used to access and process data;
- The availability of information that supports strategic decision-making.

CHAPTER 4 SUPPORTING INVESTMENT IN INTANGIBLE ASSETS

The knowledge-based economy rests on intangible assets. Indeed, company value – including market capitalisation – no longer necessarily depends on physical production tools. These days, value is generated by a number of intangible assets including brand, innovation capacity, closeness to customers and patent exploitation.

This realisation presents public authorities with challenges belonging to three different categories:

- a) development of programme or service strategies to stimulate business investment in intangible assets;
- b) investment in the reinforcement of businesses' own intangible assets;
- c) stimulation of regional knowledge production, utilisation and internationalisation.

For memory, intangible business assets include:

- Human assets:
 - staff education and training levels;
 - support for staff in-service training;
- Knowledge assets:
 - RTD activities;
 - patents and other rights deriving from intellectual property: brands, designs, copyright, trade secrets;
 - innovation capacity (product, process and business model);
 - licences, franchising agreements;
 - software;
 - expertise;
 - knowledge utilisation;
- Process assets:
 - engineering;
 - governance;
 - database management;
 - remuneration of innovative ideas;
 - production or import quotas;
- Customer assets:
 - marketing and distribution networks;
 - customer-related services;
 - customer loyalty plans or client/supplier lists.

Worth underscoring is that a number of companies are "going intangible" in the sense that they no longer own any real estate (Apple, Accor Hotels, Marriott, etc.). The resources these companies free up in doing so are invested in branding, design, management, international marketing, intellectual property and know-how activities that all generate added value. Traditional business support schemes will progressively need to adjust to the requirements of this new business model.

Public authorities can help businesses grow their intangible assets by taking action in a number of areas, e.g.:

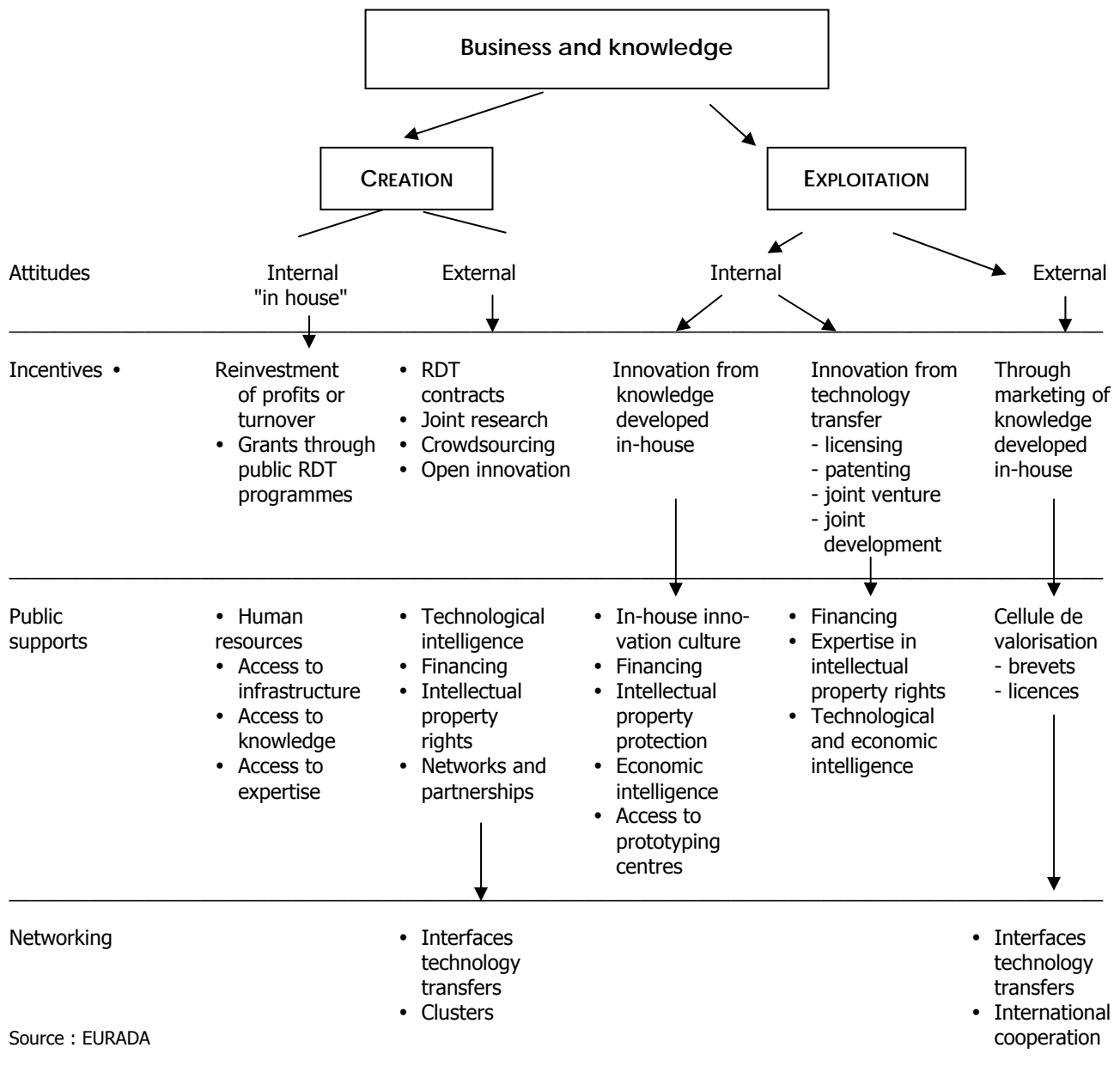
- ✓ technological, commercial and competitive watch and intelligence;
- ✓ systems to strengthen creativeness, design and different intellectual property protection tools;
- ✓ innovative public policy delivery and evaluation methods;
- ✓ know-how regarding the establishment and coordination of networks and public-private partnerships;
- ✓ transnational contacts;

- ✓ decompartmentalisation of administrations, private sector, universities and intermediary bodies;
- ✓ provision of permanent training tools in tune with strategic regional industries;
- ✓ ability to coordinate observatories and foresighting efforts;
- ✓ designations of geographical origin.

To do this, they can rely on interfaces, networks, industrial competence centres, industrial prototyping and product development and testing facilities as well as intangible assets utilisation centres.

Figure 9 below seeks to introduce the mechanisms and conditions needed to develop or leverage knowledge within businesses, i.e. their most important intangible assets. Understanding this process should enable public authorities to deploy support services that are appropriate, able to reinforce the competitive advantages of businesses or the regional attractiveness for knowledge-intensive companies.

Figure 9 : Mechanism to develop and leverage business knowledge and potential backing from public business support services



Source : EURADA

There is a need for innovation in delivery to back the evolving paradigm of support service provision described above.

Thus, innovation can take one of the following forms:

- use of public procurement to steer innovation;
- organisation of investment readiness sessions;
- use of intermediary body systems based on the “no-wrong-door” principle
- reinforcement of platforms of key organisations and interfaces between them.

In theory, effective delivery of innovative approaches of this type is possible through a clustering policy, provided that basic cluster features are reflected, including:

- good governance;
- maximisation of resources;
- SWOT analyses of industries to be clustered;
- critical mass of players;
- effective cooperation between the public and private sector and knowledge development or utilisation centres.

Belonging to one or more networks – and the role played in them – is also an important aspect of individual businesses’ intangible assets.

While the focus of regional or local intervention tends to be on clusters and competitiveness centres these days, other networking formats can deliver interesting added value for businesses.

Networks are considered tools to develop synergies among key stakeholders in an attempt to generate competitive advantages or exchange information to strengthen business competitiveness.

Networks can be formal – i.e. managed by a catalyst – or completely informal. They can be focused or open. They can also be horizontal (i.e. take the form of “Michael Porter”-type clusters) or vertical (industrial research value chains or systems).

In the case of specific industrial networks, the public sector should generally act as a facilitator. It may also refocus its policies and supports as well as its delivery mechanisms to better meet the needs of network members, thereby addressing market failures from the directions of both supply and demand.

Most effective networks are characterised by the involvement of both public and private stakeholders – though their leadership is often in the hands of a representative of the private sector or an intermediary organisation.

Effective networks also share the following features:

- They generate powerful magnetic attraction between the different nodes by facilitating the circulation of knowledge among network members. They help the chemistry amongst their membership.
- They are managed by a good “steering team” in charge of delivering the strategy and action plan, coordinating an intranet and evaluating performances.
- They perfectly understand the needs of businesses and know how to provide effective support services on a daily basis.

Many different types of networking approaches in support of small and medium-sized enterprises are possible, including:

- business clubs;
- business angels networks;
- regional consensus-building teams;
- coaching and monitoring pools (role models);
- shared or common services networks;
- communities of practitioners;
- networks of experts.

Part 2

ALL MONEY IS NOT THE SAME !

INTRODUCTION

Access to finance often remains one of the key factors in setting up and developing SMEs. It is an issue that is common to all European Union Member States, and possibly one that also affects a number of States in the USA. It is increasingly recognised that SME access to finance is hampered by a number of market failures. But as opposed to the USA, the European Union does not have a programme equivalent to that operated by the SBA – United States Small Business Administration).

Europe is characterised by its very diverse cultural context. This diversity is also apparent in the fields both of entrepreneurship and corporate finance. Clearly, the European Union can currently be described as a dual world with an Anglo-Saxon and a Latin component. Differences are measurable in terms of:

- the degree of acceptance among businesspersons of third-party investment in their company;
- the variety of funding sources available;
- the level of maturity of the different market segments that constitute the business finance value chain.

Public authorities in Europe also share issues relating to the formulation of programmes that actually address genuine equity gaps, and the lack of sufficiently varied funding procurement channels available to SMEs. This was highlighted by Professors C. Mason and Harrison in a paper published in the October 2003 issue of *Regional Studies*. Indeed, they argued convincingly that when the UK's DTI (Department of Trade and Industry) and RDAs (Regional Development Agencies) set up regional public venture capital firms using a supply-based approach, they did not manage to address the very real equity gap issue because they overlooked a number of aspects relating both to the demand side and to value chains. To be really effective, the programme should also have considered:

“initiatives to improve the demand side of the market, including a programme which helps business to become investment ready, better funding of the present system of business angels networks to enable them to more effectively address the inefficiencies in the informal venture capital market and extending eligibility for co-funding to organized angel syndicates in order to access classic venture capital skills”.

For entrepreneurs, it is important to understand that all forms of finance do not have the same aims. Similarly, the motivations and criteria of different funding parties will vary according both to the type of product presented and the level of risk linked to it. Therefore, business plan quality and content, as well as its presentation to potential investors need to be adjusted to their respective specific requirements. This explains the Anglo-Saxon expression “all money is not the same”.

Appropriate ways of addressing potential investors' expectations is something would-be investees can prepare for by attending an investment readiness programme or by passing through an incubator, hoping that some of them will one day become SME growth accelerators.

CHAPTER 1 THE MARKET

1.1 Definitions of funding sources

- **Business angels (informal venture capital):** private individuals who invest part of their estate in start-ups in the form of venture capital and also contribute their personal managerial expertise.
- **Business Angel Networks (BANs):** standing regional platforms that promote the matching of business angels with potential investees.
- **Buyouts:** existing investors' shares in a business are bought by the latter's own management team (MBO – Management Buy Out) or by another management team supported by a venture capital fund.
- **Corporate venturing:** venture capital invested by existing firms for the purpose of funding innovative businesses set up by their own staff or active in industries considered of strategic importance.
- **Development or expansion capital:** financing provided for the growth and expansion of a company, which may or may not break even or trade profitably. Capital may be used to: finance increased production capacity; market or product development; provide additional working capital.
- **Early stage (or start-up) finance:** equity invested in businesses that are past research and development but need additional funding to market their products and services.
- **Equity:** ownership interest in a company, represented by the shares issued to investors.
- **Expansion:** growth, bridging or restructuring capital.
- **Factoring:** a technique whereby SMEs sell invoices to specialised firms.
- **Financial package:** a combination of different funding sources.
- **Grants:** subsidies paid – without an obligation to refund—by public authorities to companies investing in a region for the purpose of facilitating their establishment or expansion.
- **Investment readiness:** set of advice given to entrepreneurs in order to better prepare them to meet with potential investors.
- **Leasing:** hire-purchase of capital goods.
- **Loans and debts:** the main sources of funding for SMEs.
- **Mezzanine:** combination of equity and loans (in form of bonds). The bonds can be converted in shares or reimbursed in cash.
- **Proof of concept:** finance provided to a researchers' team to support the validation of their business ideas. Often, the financial instrument takes the form of a grant and subordinated loan.
- **Quasi-equity investment instruments:** instruments whose return for the holder (investor/ lender) is predominantly based on the profits or losses of the underlying target company, are unsecured in the event of default and/or can be convertible into ordinary shares.
- **Replacement capital (also called secondary purchase):** Purchase of existing shares in a company from another private equity investment organisation or from another shareholder or shareholders – an investor buys another's stake.
- **Risk capital:** Equity and quasi-equity financing to companies during their early-growth stages (seed, start-up and expansion phases) in the hope of a return on investment (ROI) that is both large and speedy, on a par with the level of risk taken. It includes: (1) informal investment by business angels; (2) venture capital; (3) alternative stock markets specialised in SMEs and high-growth companies.

- **Seed capital:** Financing provided to study, assess and develop an initial concept. It precedes the start-up phase. Seed capital is required to fund a business project before the product or service is marketed. Seed capital is often pivotal in high-tech projects to allow businesspersons to conduct surveys as well as research and development on prototypes that will become companies' core business.
- **Start-up capital:** Financing provided to companies for product development and initial marketing. Companies may be in the process of being set up or may already exist, but have not sold their product or service commercially and are not yet generating a profit.
- **Venture capital:** Investment in unquoted companies by investment funds (venture capital funds) that, acting as principals, manage individual, institutional or in-house money. It includes early-stage and expansion financing, but does not include replacement finance and buy-outs.

1.2 SME finance players

The market of enterprise financing includes many different types of players²³ who fit roughly into three main categories:

I. **Venture capital players, including:**

- business angels and their networks and syndicates;
- regional venture capital funds;
- corporate venturing firms;
- match funds (as set up by DTI's Small Business Service);
- incubators;
- clusters;
- stock exchanges;
- open-end innovation investment funds.

II. **Loans and debt with:**

- banks and other financial organisations;
- suppliers – the cheapest source of finance are the easy terms of payment they may grant!

III. **Other sources, including:**

- government grants;
- business competition prizes;
- factoring;
- leasing;
- refundable advances;
- commercial credit;
- Export credits.

1.3 SME finance market segmentation

I. **Entrepreneurs' own assets as well as their families' and friends'**

- entrepreneur's savings;
- profit reinvestments;
- friends and family savings;
- second mortgage;
- personal credit cards;
- customer advance;
- delay of payment;
- premises sharing;
- employing relatives at below market salaries.

²³ Source (among others): *Investors – A simple Guide to raising finance up to £1m*, www.investors.co.uk

II. Start-up

- seed capital fund;
- loan on trust (i.e. without interest and/or guarantee);
- university and research centre spin-off funds;
- micro-credits;
- (semi-)public start-up and innovation funds;
- public subsidies;
- repayable short-term loans;
- proof of concept.

III. First financial rounds

- business angels;
- seed capital funds;
- bank loans/debt;
- guarantee schemes;
- (semi-)public investment funds;
- regional public venture capital;
- public subsidies;
- corporate venturing.

IV. Second financial rounds

- private venture capital;
- bank loans;
- stock purchase warrants;
- mezzanine.

V. Other financial rounds

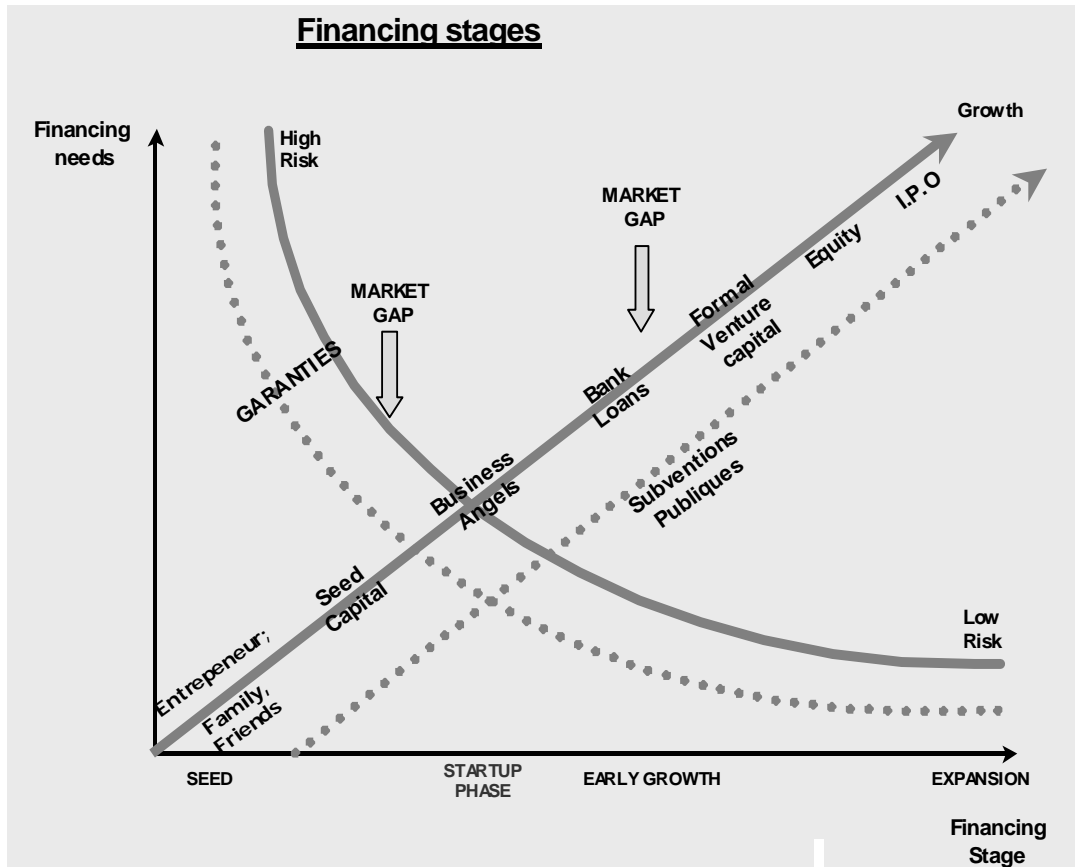
- Initial Public Offer (IPO) – listing;
- bond issues;
- convertible bonds;
- leasing;
- factoring
- franchising.

If we cross the two above mentioned datas (providers and tools), we can notice that in a region there might be either a fragmentation of the market, or an overlapping of competences which give entrepreneurs the feeling that they are lost in a jungle. Some agencies try to overcome the situation by providing intermediation services or by developing an e-portal website aiming at helping SMEs to access useful information about the market segments.

Many experts have tried to link the sources of capital needed by SMEs according to their stage of development. The following figure illustrates that:

- the different funding sources available on the market are often tailored to a specific stage in the business lifecycle;
- individual funding sources are often adjusted to the development cycle of businesses, which needs to be based on individual SMEs optimum turnover potential.

Graph 6 Financing stages



Source : Rudy Aernoudt & Christian SAUBLENS

1.4 Typical amounts invested by individual funding sources

As evident from the Table 4 below, the respective amounts that entrepreneurs can expect from the different categories vary according to the type of financial product and player involved:

Table 4

<i>Products</i>	<i>Venture capital investment range (in €)</i>
Loans without guarantee or interest	5.000 – 15.000
Micro-credits	3.000 – 30.000
Business angels	25.000 – 250.000
Seed capital	300.000 – 1.500.000
Early-stage finance—Start up	500.000 – 2.000.000
Venture capital	2.000.000 – 50.000.000
IPO	35.000.000 - 329.000.000 ²⁴

²⁴ World Federation of Exchanges. Average amount of equity raised by newly-listed companies

1.5 The equity paradox

We often hear and read that on the one hand, investors have money but don't find enough good projects, and, on the other hand, that entrepreneurs don't find enough funding sources to finance their project (which by essence are good ones).

Who is right?

It seems that the offer of risk capital is there but that not enough equity is dedicated to seed or early stage.

EVCA (European Venture Capital Association) annual reports show that in general funds leverage more financial means than they invest. In Germany, a study launched among 40 business angels in the first quarter of 2004 showed that only one quarter of those angels had invested more than 25% of the money they intended to invest.

If the supply of capital is not considered as the main obstacle of that market, the problem may come from the quality of the demand.

The demand problem can be classified in 3 fields:

- asymmetric information between the entrepreneurs' and investors' worlds;
- inefficient preparation of entrepreneurs willing to meet or meeting investors;
- a different perception of the innovativeness of entrepreneurs project.

1.6 Tailoring business plans to investor requirements

Once it is accepted that not all funding sources are equivalent in nature, it must also be recognised that it is essential for entrepreneurs to fully grasp the criteria whereby investors decide to invest or not. The table below seeks to list major criteria used by different types of investors as part of due diligence, i.e. the process of evaluating prospective deals.

The table below provides a succinct introduction to different types of capital suppliers and their criteria.

Table 5 Priorities of SME equity/loan suppliers

Suppliers of capital	Criteria for accessing funding sources
Family, Friends and Fools	<ul style="list-style-type: none"> • Personal relationship based on trust
Business angels or informal investors and spin-off corporate venturing	<ul style="list-style-type: none"> • Meeting or matching of individual entrepreneurs with business angels • Atmosphere of trust between individuals • Credible business plan in the eyes of the Business Angel • Good management team • Fiscal incentives • Market knowledge of the entrepreneur • Availability of exit route • Return on investment (capital gain)
Banks	<ul style="list-style-type: none"> • Availability of guarantees or collateral • Perceived ability to repay the loan • Company track record • Rating • Good management
Repayable short-term loans	<ul style="list-style-type: none"> • Innovative nature of business projects • Business plan quality • Management team
Venture capital and Financial corporate venturing	<ul style="list-style-type: none"> • Business plan credibility • Business plan with patent technology

	<ul style="list-style-type: none"> • Track record (over previous years) • Ability to grow fast and deliver quick ROI • Management team quality
Public funding	<ul style="list-style-type: none"> • New jobs • Investment in productive tools
Guarantees	<ul style="list-style-type: none"> • Stamina as well as technical and financial skills/abilities
Unsecured free of interest loans (loans on trust)	<ul style="list-style-type: none"> • Business plan credibility • Readiness to cooperate with a tutor
Seed capital funds	<ul style="list-style-type: none"> • Business plan quality • Perception of the innovative nature of the project • Good management • Intellectual property • High growth potential • Government tax policies
Corporate venturing	<ul style="list-style-type: none"> • Innovative nature of the project in relation to the company's core business • Industry-specific usefulness of the project, in particular from a technological standpoint • Business plan quality • Good management • Tax incentives
Institutional investors	<ul style="list-style-type: none"> • Business plan • Intellectual Property (IP) • High growth • Good management • Tax incentives from government
New capital markets	<ul style="list-style-type: none"> • Viability and consolidation • At least three years in existence • Positive results at least once within twelve months prior to application • More than €1.5 million in shareholder's equity • Ability to publish quarterly results • Public recommendation by analyst • Positive media attention • Government tax policies • Capable and experienced management team • Prominent Board • Experienced team of financial, legal and underwriter advisers • New business concept • Large market share • Record of high growth or high growth potential
Proof of concept	<ul style="list-style-type: none"> • Innovation • Management team • Entrepreneurship • Commercialisation of intellectual property

1.7 The equity gap

In general²⁵, a financial gap refers to a situation where firms that would merit financing cannot get it due to market imperfections. A specific case of financing gap is the equity gap, the lack of provision of private equity investments in the early stage of a firm's growth. The reasons for the existence of finance gaps can be linked either to the insufficient supply of funds or to inadequacies on the demand size. The gap can go from an investment size of less than

²⁵ DG Enterprise and Industry, Expert group on best practices of public support for early-stage equity finance, April 2005

€100.000 to over a million depending on the region or the country. In the UK the gap has been estimated to be between €400.000 and €3.000.000. For Germany, that gap extends to €5.000.000.

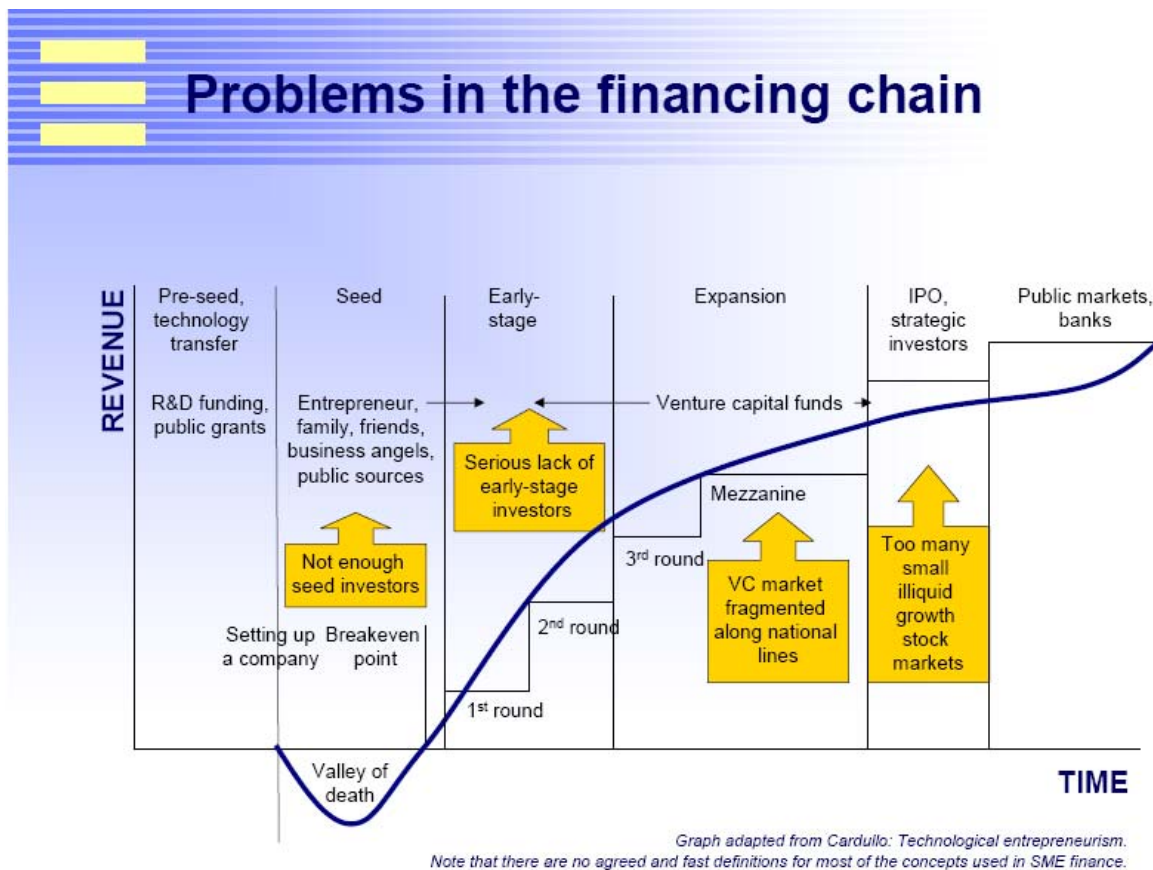
Some people²⁶ suggest that the equity gap is not a market failure as “SMEs find it hard to raise capital because capital markets understand only too well that many SMEs go bust and the survivors do not provide an adequate return for this risk. This is not market failure, this is the market working efficiently”.

Regardless of the opinion of these experts, it is generally accepted at EU level that there are four types of structural gaps in the SME finance cycle:

- insufficient operators in the seed capital segment;
- insufficient investors to finance the seed stage of SME development;
- excessively fragmented venture capital markets;
- insufficiently fluid SME stock markets.²⁷

This phenomenon is illustrated in the graph below.

Graph 7 Problems in the financing chain



Source : Presentation by Vesa Vanhanen (DG Enterprise and Industry) at the EASY Seminar in Ljubljana on 19.5.08

²⁶ Cf. Andrew Carter and David Walburn : *A case for excluding public policy programmes in support of SMEs from European Union State Aids controls*, September 2005

²⁷ Presentation by Vesa Vanhanen (DG Enterprise and Industry) at the EASY Seminar in Ljubljana on 19 May 2008.

CHAPTER 2 SMEs PATHWAYS TO FUNDING AND FINANCE VALUE CHAIN

As indicated in Chapter 1, not all funding sources have the same objectives, nor do they all address the same situations and stages in the business development cycle.

This realisation should guide both business developers' efforts and the formulation of policy that promotes SME access to finance.

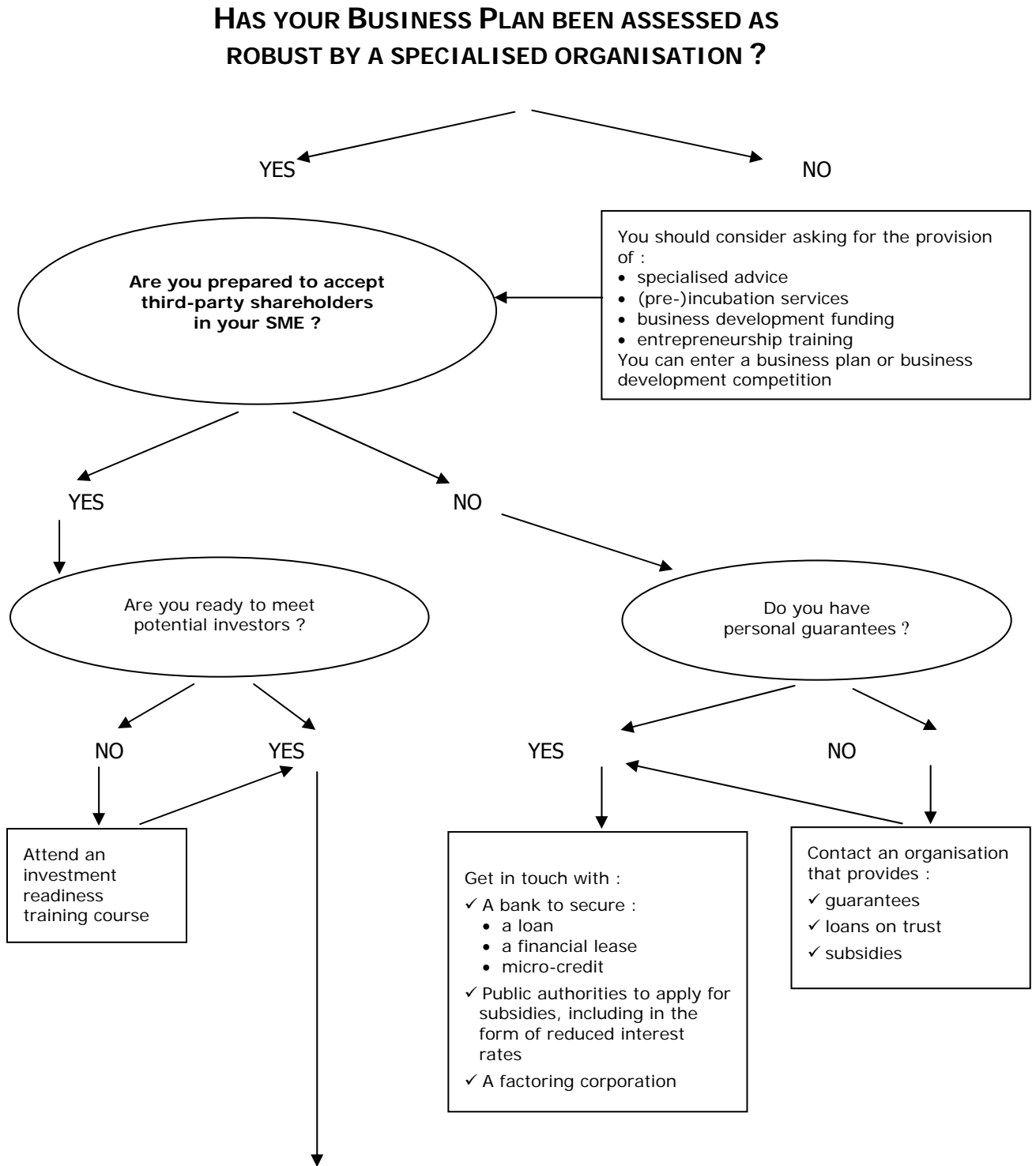
Mastering funding pathways and/or the finance value chain evidently facilitates SME access to funds, as it tends to either reduce the asymmetry between information available respectively to entrepreneurs and investors, or tends to ensure that the most suitable funding sources are available to regional SMEs in a given area. Of course, "facilitating" does not necessarily mean that it becomes easy!

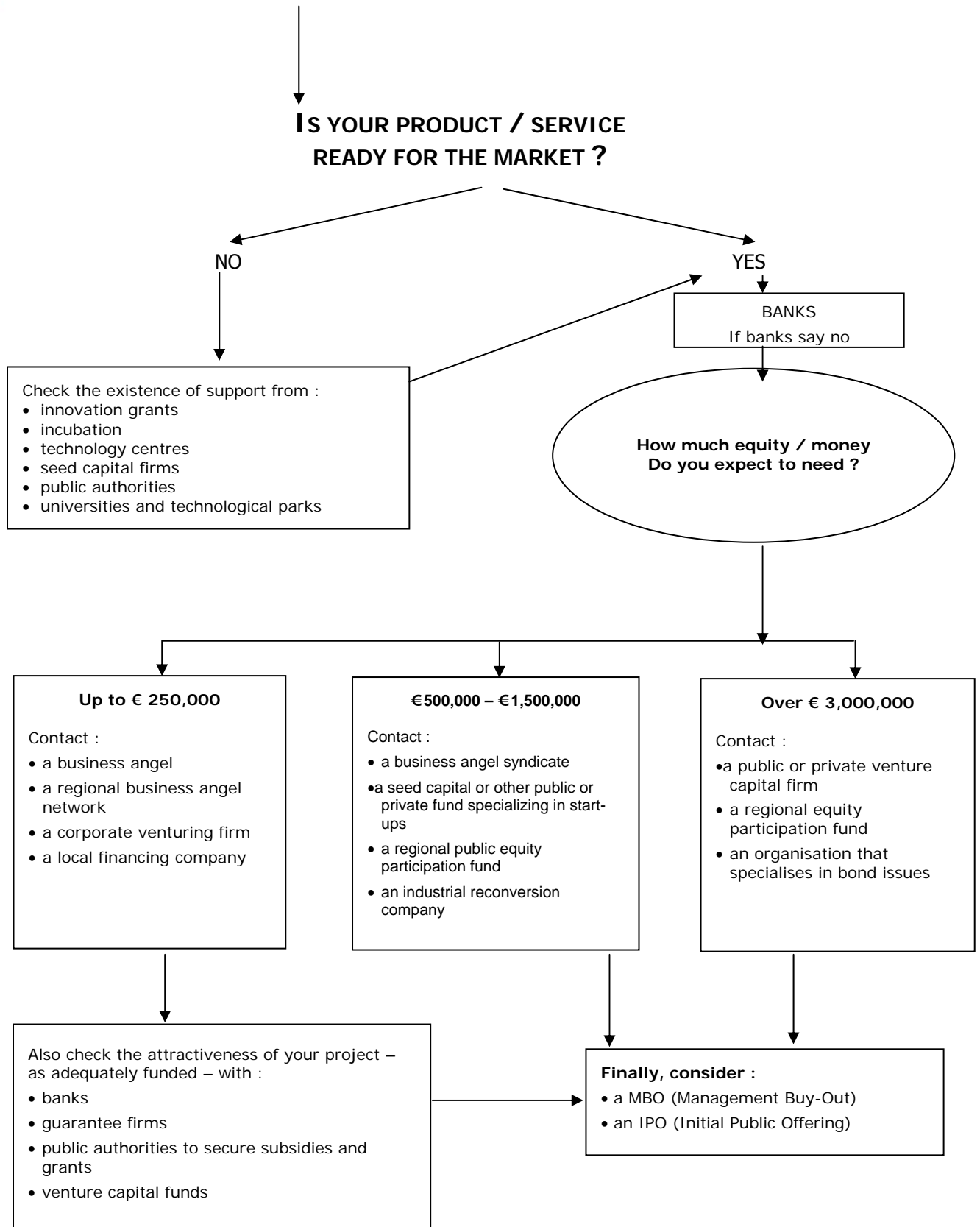
2.1 SME pathways to funding sources

The following pages illustrate the decision path that businesspersons looking for the most appropriate funding sources should follow. It includes five key parameters in the quest for third-party finance:

- business plan robustness;
- accepting or rejecting new shareholders;
- availability of personal guarantees;
- product/service market penetration potential;
- expected amount of financial sourcing.

Graph 8 SME funding pathways





Source : EURADA, December 2003

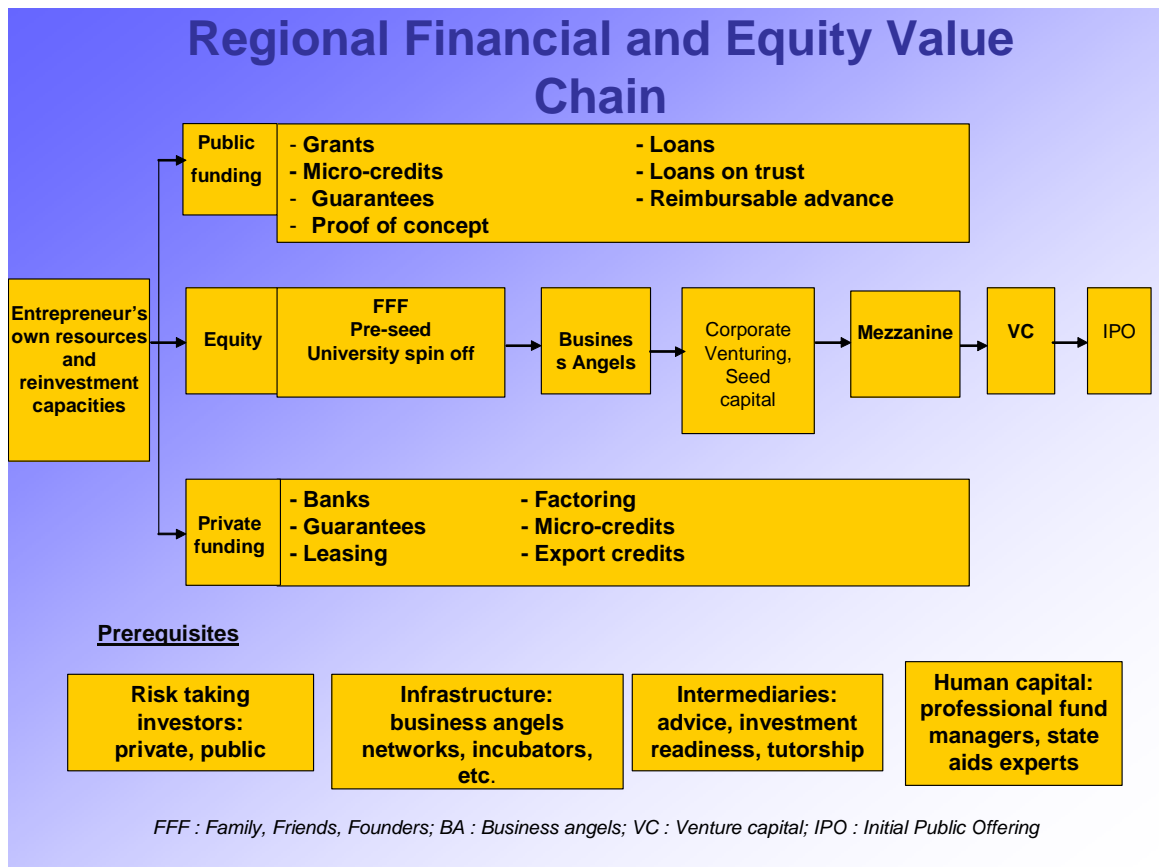
Ranges included in the box answering the question "How much venture capital do you expect to need?" (<€250,000, €250,000–1,500,000 and >€3,000,000), are of course arbitrary.

2.2 The regional finance value chain

It is increasingly evident that the different SME finance providers act complementarily and should link up to form a regional/local value chain.

Value chains can be flowcharted as follows:

Graph 9 Ideal capital provision value chain



Source : EURADA

A number of intermediaries and regional authorities that are not in a position to fully implement the business finance value chain in their respective regions propose a range of financial products that seek to form a smaller value chain to meet one or more of the types of needs expressed by SMEs, or to specialise in niche markets that are not targeted by private finance operators.

The challenges facing the management of such a value chain include:

- adequate funding provision for specialised funds (seed, venture, etc.): when it comes to value chains, critical mass is a key success factor;
- the availability of professional fund managers: their wages are generally substantially higher in large urban centres than in remote areas, which means that some regions may find it difficult to attract talented managers;
- market fluidity, i.e. the possibility for individual investors to sell their stake whenever they want at an affordable cost: this means ensuring that each link in the value chain provides the raw material for the next one. Exit opportunities are also important to allow investors to materialise their return on investment through capital gain for instance and then to

reinvest in new projects. The worst situation for an investor is to be stuck for an unexpected amount of time in a single investment.

- networking and partnership. This is needed both between the fund providers but also between those organisations and SME support organisations. SME support organisations have an important role to play in the investment readiness of entrepreneurs' proposals. Managers of the French seed capital fund Cap Decisif claimed in a press interview to Les Echos dated 30.6.04 that: "It's not easy to find good candidates. There are problems of the format in which we receive the projects. This should be the work of incubators, but in practice very few have the competences required. Moreover they are on a quantitative track and not a qualitative one".

The example of Rhône-Alpes (F) below shows how in a region the financial and non financial instruments are complementing one another according to the life cycle of the enterprise and on the type of enterprise. The chart drawn up by Rhône-Alpes Création is interesting in a number of ways as it introduces and draws a parallel between:

- different funding sources available to SMEs;
- average amounts available from individual funding sources;
- advice services tailored to individual funding sources.

Graph 10

BUSINESS DEVELOPMENT PROVISION IN RHONE-ALPES

TRAINING – ADVICE – SUPPORT

FINANCING

Incubators CREALYS
GRENOBLE

IINNOEXPERT
(CCI Lyon)

BUSINESS
CENTRE
(EM Lyon)

BUSINESS
INUBATORS

(NOVACITES
FRAC CREATION)

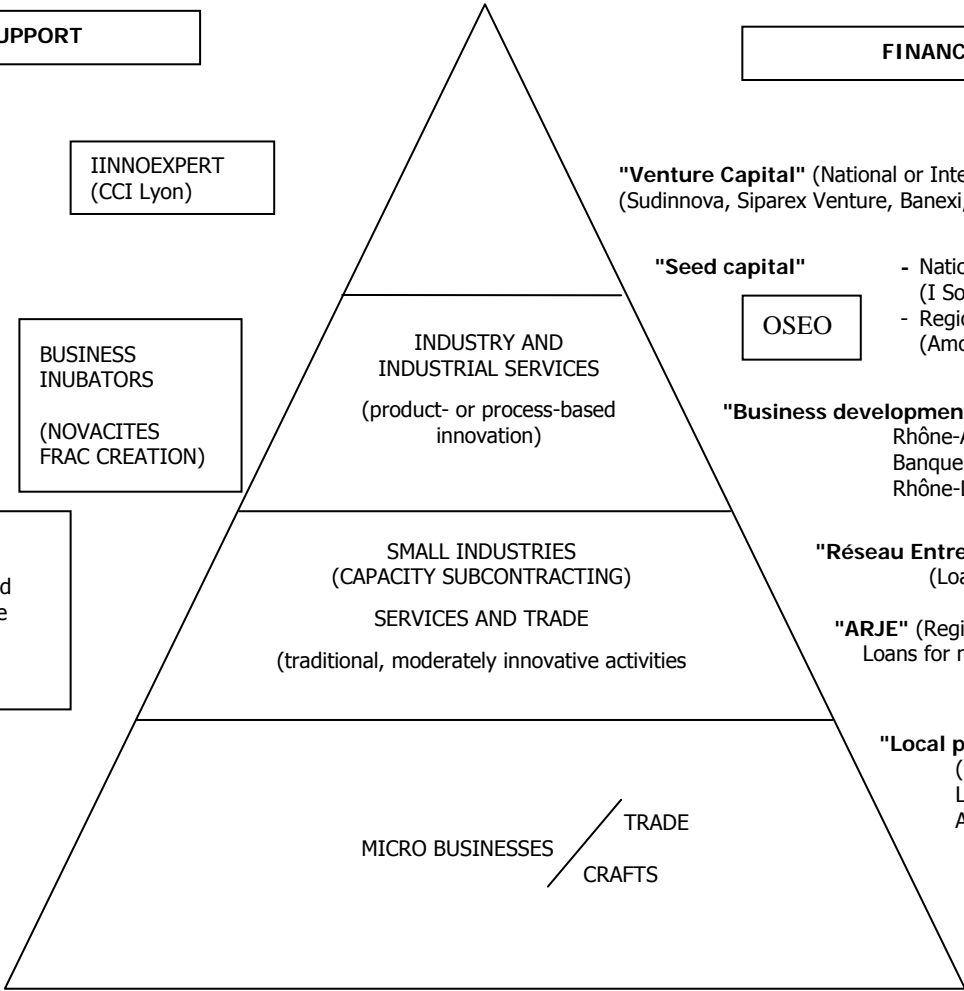
Sup. de Co Grenoble

Business
development and
reception service
(CCI)

"Sponsorship"
Local platforms

"Entreprendre en France"
Banks + Comité Sofaris
CCI + professionals
Chartered accountants
(ATEN)

"3 hours – 3 days"



DEVELOPMENT TYPES

"Venture Capital" (National or International)
(Sudinnova, Siparex Venture, Banexi, Partech)

"Seed capital"
OSEO
- National (thematic)
(I Source, Emertec, BioAm, ...)
- Regional
(Amorçage Rhône-Alpes)

"Business development venture capital"
Rhône-Alpes Création
Banque Pop., Crédit Agricole
Rhône-Dauphiné Développement

"Réseau Entreprendre"
(Loans on trust + Sponsorship)

"ARJE" (Regional repayable short-term
Loans for new businesses – 1-5 years)

"Local platforms"
(Loans on trust)
Local initiative platforms
ADIE

"P C E"
(BDPME loans)

"Mille et Un Talents"
(Regional grants)

Business
Angels

€ 300,000 +	LOCAL
300,000 to 45,000 €	FUNDING
45,000 to 15,000 €	REQUIREMENTS
15,000 to 7,500 €	SCALA

Source : Rhône-Alpes Création

2.3 Financing technology SMEs

In a knowledge economy the support to high-tech start-ups becomes a crucial issue. Most of the financial players have good reasons to be reluctant to provide finance to such enterprises because:

- entrepreneurs have no track record;
- investors have not necessarily the skill to assess the technology;
- time to market might be very long;
- enterprises have difficulties to valorise their intangible assets, i.e. their intellectual property rights, to in order to obtain bank loans;
- innovation is a risky business.

To overcome these difficulties, specific support programmes such as "Proof of Concept", "Reimbursable Advance Payments", etc. have appeared.

CHAPTER 3 ENTREPRENEUR MENTORING

3.1 Investment Readiness

This Anglo-Saxon concept, originally developed by the Department of State and Regional Development of the State of Victoria, Australia, emerged from the realisation that the information submitted by entrepreneurs to investors in the hope of convincing them to finance their project did not necessarily match the data that the latter required and expected.

Typical investment readiness programmes generally include the following five elements:

- critical business plan analysis;
- knowledge of funding sources;
- understanding of the timing of, and amounts to be expected from, funding applications (not all funding is the same);
- perceiving the needs and expectations of different types of investors – business developers need to demonstrate that they are “good risk” and that investors can actually expect a healthy ROI;
- training in submitting business projects to any and all kinds of potential investors.

In addition to the above, investment readiness training also needs to address notions including exit routes and shareholder agreements. The latter should notably discuss items including:

- the balance of power;
- exit clauses;
- release clauses.

In the UK, Exemplas implemented a similar programme called “Fit 4 Finance”, focusing around the following three types of action:

- awareness seminars on the concept of “what funding sources exist?”
- “guidance panels” comprising representatives of a bank, venture capitalist, business angel, SME consultant, etc.
- “after sales” services, i.e. advice after seminars as well as before and after guidance panels.

It is incumbent upon public authorities concerned with providing regional SMEs with an access to funding sources to also develop and provide investment readiness services on top of financing tools. This type of service is one of the solutions to increase the quality of projects submitted to investors.

3.2 Proof of Concept

Funding provided to a research team, which has a great potential to become entrepreneurs, in order to help them to develop their business idea.

The funding may take the form of grants, loans, quasi-equity or equity. SITRA (FIN), in partnership with TEKES (FIN), offers a package of grants and equity. The amount provided ranges from €20,000 to €70,000. In this case SITRA invests in subordinated loans and TEKES provides grants.

In Scotland, Scottish Enterprise has put in place a “Proof of concept” scheme which in the first years of implementation (2004-2005) helped the creation of 17 new enterprises. This scheme was based on the following tools:

- €300,000 per project of maximum 2 years;
- the entrepreneurial project must include representatives of higher education organisations and a marketing team;
- the university keeps the IPR rights.

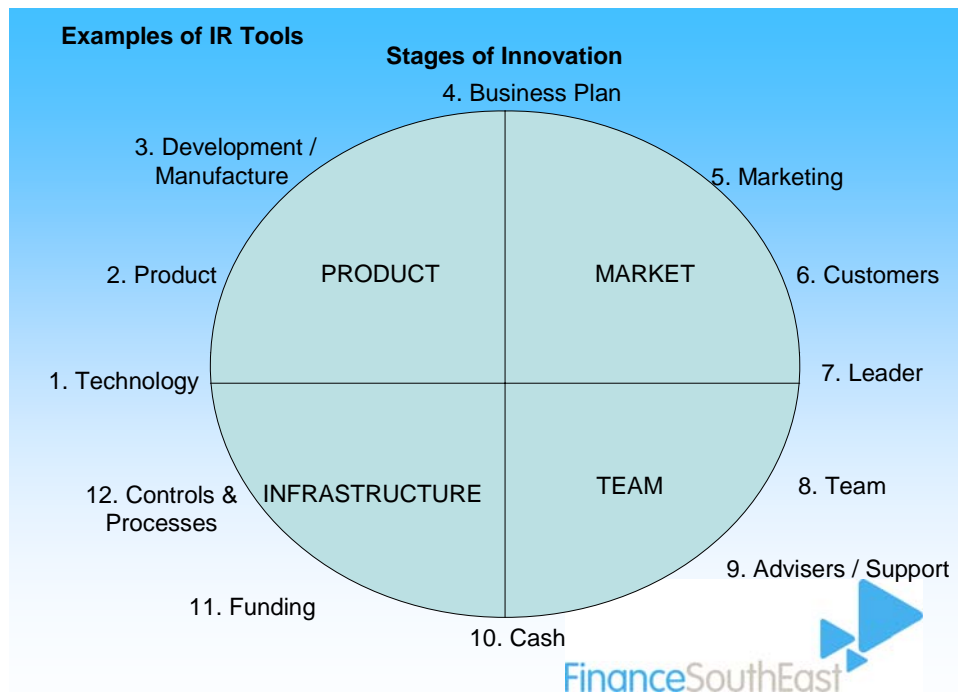
3.3 Areas for improvement

The aim of investment readiness and proof-of-concept schemes is to ensure that all fundamental requirements of future businesses are under control in order to maximise their chances of success and hence their return on investment.

In general, five broad categories of parameters are the subject of attention and advice:

- product or service;
- market;
- management team;
- finance;
- business model.

Some coaches use spider diagrams to visualise areas for improvement. The diagram below is used by Sally Goodsell of Finance South East (UK) in delivering her investment readiness programme.



3.4 Awards and sponsorship

Public authorities sometimes reward business development either in kind or with small amounts of money. The French ministry for R & D has made available along with the OSEO €30 millions in 2004 to reward 182 innovative projects. Rewards were given to three types of projects:

- emerging ideas. Maximum €45,000 of grants. 99 projects supported;
- ideas in development. Maximum €450,000 of grants. 83 projects supported;
- special awards.

The funnel effect of this scheme is as follows:

- 1402 files;
- 333 projects assessed;
- 182 projects awarded.

CHAPTER 4 LOANS

4.1 Bank loans

Bankers are undoubtedly the most important link in the business finance chain. How could it possibly be different when the number of companies attracting the attention and interest of other funding sources is known with a fair degree of certainty not to exceed 25,000? However, bankers seem to be the black sheep in the SME finance cycle.

Significant differences exist across²⁸ European countries when it comes to the use of bank loans. In some, practically all SMEs have one or more bank credit lines going at any given time, while in others this is true for only 70% of them. According to a survey conducted by the European SME Observatory, 60% of sampled SMEs are up to €100,000 in debt vis-à-vis their bank, 16% are in the red for €100,000–500,000, 3% for €500,000 – €1 million, 1% have more than €1,000,000 in bank debt, and 20% confess not knowing how heavily they are indebted to their bank(s)!

The same survey shows that 60% of European SMEs have applied for a new loan in the last three years. While the vast majority of them obtained the amount they applied for, 13% of SMEs were denied a new loan by their bank because it:

- considered guarantees to be inadequate;
- was not satisfied with the overall businesses performance;
- deemed the information supplied to be insufficient.

In Europe, all specialists agree that the vast majority of SMEs' own funds are inadequate and that undercapitalisation is the main source of failures.

Bank loans are often linked to tangible guarantees, though bankers themselves insist²⁹ that: "loans are never granted on the basis of guarantees. Loans are guaranteed from a company's net assets: capital, reserves, reported results and capital subsidies, as well as the entrepreneur's level of commitment through personal guarantees".

There are several types of banks (commercial, savings, cooperatives, public, ...) which are more or less friendly to SMEs and propose tailored solutions.

Commercial (or trade) credit is one of the main sources of short-term finance for categories of businesses including micro businesses, small enterprises and start-ups. It is an instrument available to SMEs when:

- banks do not wish to finance them;
- they want to avoid direct banking costs;
- they are put off by the complexity of bank credit;
- they lack in-house financial competences.

There is an extremely wide range of banking products available to SMEs, namely:

- soft loans;
- variable and fixed rate loans;
- credit line;
- capital investment loans (long term);
- mezzanine.

Banks can also provide special conditions to support the business transfers.

In late 2003, the French group *Banque Populaire* launched EXPRESS SOCAMA, a scheme granting loans without personal security of up to €25,000, repayable over a maximum of three years. In 2005 this bank launched another scheme for the same purpose in the form of a loan of maximum

²⁸ European SME Observatory, 2003 n°2. SME access to finance:
http://ec.europa.eu/enterprise/enterprise_policy/analysis/doc/smes_observatory_2003_report2_en.pdf.

²⁹ See interview of M. J. Thumelaire, manager in charge of SMEs with ING (B), in *l'Echo*, 29 October 2003

100.000 € subject to the fact that the entrepreneur has to provide 25% of the loan with a personal guarantee.

Some banks (namely in the UK) are increasingly interested in ways of providing loans for innovative businesses. This is mainly done through training and appointing "technology banking managers". Barclays Bank's Cambridge branch also works very closely with innovative entrepreneurs. HSBC has examined some of the products developed by banks operating in innovative US regions such as the Silicon Valley, the Research Triangle in North Carolina, the Boston region, etc., including "venture leasing" or "intellectual property valuation guarantee" but does not offer them (yet?) to its client businesses in the UK.

Banks generally specialise in the provision of three types of financial business needs:

- cash needs for working capital;
- growth and expansion;
- acquisition of fixed assets.

4.2 Small non-banking loans (risk sharing) – Loan on trust

This instrument is very well developed in France and is based on 241 platforms grouped in the "France Initiative" network.

This initiative started in 1985 under the business model: "support the creation of enterprises thanks to free interest loans on trust aiming at helping those enterprises to borrow money from banks".

In average the loan on trust given to an entrepreneur is €5,000.

Recently some platforms have specialised in loans for innovative technology SMEs.

These platforms mobilise regional professionals (territorial authorities, enterprises, institutional operators...) willing to contribute to the development of economic initiatives and of new jobs. They aim at mobilising funds in the form of free interest loans without guarantees for financing the creation of local enterprises. The loan is completed by a mentoring and coaching scheme for the entrepreneur. The coaching generally lasts for three years. It is implemented through the mobilisation of the managers of local enterprises. Loans range from €5,000 and €10,000. 15% of loans on trust are completed by a bank loan at the creation stage. In average, €7,165 of loans on trust allow to get €34,900 of bank loans.

In the UK many CDFIs (Community Development Finance Institutions) operate to provide between €1,500 and 75,000 to local enterprises. In general, the cost of such finance is higher than the current interest rate of the market, as the fund takes a higher risk than commercial banks.

In Pembrokeshire (Wales, UK) a lottery has been created in order to collect funds to be invested in the form of loans to local entrepreneurs or enterprises in order to create or maintain jobs.

In place since 1993, the lottery was able to support 100 enterprises for a total amount of 1.3 million Sterling Pounds (approx. €2.1 million) and so create or save 300 jobs.

The lottery runs as follow:

- each member of the lottery plays £1 per week. Currently nearly 7000 people are members;
- the winner receives £2,000;
- the surplus is invested in loans for a 2 to 5 year period paid back monthly.

4.3 Regional loan funds

Some regions create special loan funds in order to solve specific problems such as the transfer of ownership of enterprises or to soften the consequences of the failure of a major contractor.

Such investments have been put in place by Advantage West Midlands (UK), for instance in 2005 to avoid a “domino effect” bankruptcy among suppliers of the MG Rover Car company. That RDA has put in place a special loan fund named Advantage Transition Bridge Fund. The fund provided loans from €75,000 to 750,000 to enterprises affected by the closure of MG Rover. Supported enterprises had more than 15% of their turnover done with MG Rover. They had a viable business plan, but could not obtain funding from banks.

4.4 Spin-out loans funds

In the Netherlands, Twente University in Overijssel provides interest-free loans of up to €13,600 for teachers and students who want to start a business (more than 425 new businesses created since 1984). In addition to loans, the scheme also provides access to expert advice and university laboratories. A similar system is also taking place in Maastricht in cooperation with LIOF.

In the West Midlands (UK), the Mercia Spinner tool provides grants up to €75,000 towards patenting, market research, business plans, prototyping and interim management for university spin outs. This instrument is managed by a private investment company: Worwich Ventures.

In Andalusia (E), through the Campus project co-financed by ERDF and managed by AIDA (Agencia de Innovacion y Desarrollo de Andalucia), universities are able to provide up to €100,000 of free interest loans without guarantees and not refundable in case of total losses for technology based enterprises created by researchers. As part of a partnership, the agency gives a grant of €5,000 per project to the university that has promoted the project in order to ensure a follow up of the project and coaching system of the entrepreneur.

The support can take the form of a participative loan or can be converted into equity finance. There should be an exit after 7 years. The entrepreneurial project must be self-funded in at least 30%. 11 projects have been funded after 18 months (mid-2005).

4.5 Loans for innovative companies

OSEO (F) provides specific loans for enterprises facing problems to finance intangible investments such as: training, marketing and negotiation of a first order, internationalisation costs, commercialisation of an innovation, etc.

The scheme known as “contrat de développement innovation” allows an enterprise to get a loan ranging from €40,000 to 400,000 for a period up to 6 years. The loan is provided with one year payback holiday and doesn't need to be guaranteed. The interest rate of such loans comprises a fix part of 1.6% and a complementary remuneration based on the Euribor at 3 months. In all cases, a private bank must match at least 20% of the total loan needed by the enterprise.

4.6 Micro-loans

Micro-loans are aimed at small businesses that are unable to raise sufficient (or any) finance from traditional commercial sources. Such loans are available for commercial enterprises as well as for enterprises operating in the so-called social economy sector.

In the UK the South Investment Fund is offering loans of €1,600 to €20,000 for existing businesses and up to €16,000 for start ups.

A number of semi-public organisations have specialised in micro-credit provision. This is namely the case of ALMI (S) and FINNVERA (FIN). ALMI offers loans of up to €27,000. The EIF (European Investment Fund) set up a financial scheme to guarantee the micro-credit portfolios of non-banking operators involved in the segment of micro-credit focusing on support for the

development of social reintegration companies. The amount of this type of micro-credit is generally in the area of €3,000.

In order to minimise the entrepreneurial risk – notably in the development of very small businesses – some organisations develop micro-insurance schemes.

4.7 Loans for industrial reconversion

Some big enterprises, when facing industrial re-conversion, provide sometimes loans in order to create jobs in the region. For instance, Michelin Group (F) has created an ad hoc organisation named Micheli Development to offer loans at reduced rates. The amount of the loan is between €3,000 and €8,000 per job created, according to the type of activity (industry or services to industry), the quality of the project and the invested amount. However, the maximum amount of the loan cannot exceed €175,000.

In 2005, Michelin Development has provided €7 million of loans. Those loans are without guarantee and have a five-year-life time and they contribute to the running costs of SMEs.

The number of Business Angel Networks (BANs) in Europe has grown measurably since 1999. The European Commission³¹ and EBAN (European Association of Business Angel Networks) have played an important role in disseminating this concept. In the USA, more than 170 such networks have been identified. The total number in Europe is closer to 200, though some BANs have yet to close their first deal. Because of the informal nature of this sector, it is extremely difficult to collect statistical data. In the USA, more than 3 million angels invest roughly \$50 billion annually, i.e. twice as much as it is estimated that European venture capitalists invest each year.

In 2007 EBAN members reported the following data regarding the importance of the industry:

- number of active angels in the networks: 15,578;
- number of deals: 1,130;
- amount invested : €184,202 i.e. an average value per deal of €163,000.

Most of the deals were made in France, UK, Belgium and Spain.

The informal venture capital market remains strongly conditioned by:

- taxes on private investment and capital gains or losses;
- regulations on public capital issues.

Because of the very nature of their activities, business angel networks often find it difficult to become sustainable. A number of regions support a sizeable share of these networks' operating expenses.

As they mature, the range of services provided by business angel networks becomes increasingly sophisticated, including:

- angel syndication;
- setting up of dedicated funds that invest alongside angels;
- provision of easier exit routes for angels;
- business angel academies;
- investment readiness programmes;
- integrated finance;
- co-investment funds.

Entrepreneurs need to realise that angels will own a stake of their company. In some countries, this condition constitutes a major obstacle to the development of the informal venture capital market segment.

For entrepreneurs, the advantages of this funding source include:

- investment below the usual minimum amount invested by formal venture capitalists;
- investment in newly-created businesses without necessarily requiring evidence of a positive track-record;
- investment decisions tend to be made on a rather subjective basis—e.g. personal chemistry between angel and entrepreneur—compared to formal venture capitalists;
- angels are geographically closer to entrepreneurs who thereby also benefit from the latter's personal networks. This proximity often leverages other funding sources.

Business Angel Networks act as a market place and provide valuable services both to entrepreneurs and investors. Among them it is worth mentioning:

- the project detection process. Projects reach the network by: words to mouth, peers, intermediary organisations, advertising campaigns, business angel academy events, etc.
- the identification of potential angels and the support to help them to start their business angels' activities.

³¹ DG Enterprise co-financed awareness campaigns and pilot projects in 1999-2002. It also published in November 2002 a best report entitled *Benchmarking Business Angels*, Best Reports Nr 1, 2003; Eur-Op catalogue n° NB-AL-02-001-EN-C <http://ec.europa.eu/enterprise/library/best-reports/index.htm>

- the matching process. This process can be sometimes complex: first assessment of the business idea or business plan, training of the entrepreneur, improvement of the business plan, strengthening the skills of the team, training in deal agreements (dilution of power, exit route,).

Since 2004 several business angel networks have been trying to set up co-investment funds (some people call this instrument "side-car funds"), which invest "pari passu" with angels. Such funds are already in place in England, Scotland and Belgium. In 2008, the European Investment Fund (EIF) should be able to invest in such funds and therefore to increased their means of action³².

In 2007 several entrepreneurs from the Nord-Pas-de-Calais Region (F) decided to create a new financial instrument named Re-Resources in order to provide between €100,000 and €800,000 to be invested in local enterprises. The Re-Resources instrument is a mixture of co-investment funds and business angel activities. Their objective is to help up to 6 enterprises per year.

5.2 Venture capital

The venture capital market includes different market segments and venture capital provision streams for businesses with a strong potential for growth. These techniques therefore mainly address businesses already operating for a few years.

According to EVCA (European Private Equity and Venture Capital Association), the European venture capital market comprises:

Table 6 Definition of the venture capital market segments

Seed	Seed capital: capital investment serves to allow businesses to proceed with their RTD effort.
Start-up	Start-up funds: investment capital serves product development and early marketing.
Expansion	Growth, bridging or restructuring capital.
Replacement	An investor buys another's stake.
Buy-outs	Existing investors' shares in a business are bought by the latter's own management team (MBO—Management Buy Out) or by another management team supported by a venture capital fund.

Source: EVCA

In 2006, the European venture capital market totalled €71 billion invested in 7.536 companies compared to €37 billion invested in 6.985 companies in 2004. This market segment breaks down as follows in terms of average size investment in 2003 and 2006 :

³² <http://www.eif.org>

Table 7 Importance of and developments in the various segments of the venture capital market

	Importance (%)		Average size / deal (€)	
	2003	2006	2003	2006
Seed	1.6	2.4	494.150	3.642.750
Replacement capital	4.6	5.0	6.229.700	12.968.395
Start up	11.9	8.0	823.300	2.974.675
Expansion	29.4	16.0	1.702.300	3.415.250
Buy-outs	52.4	68.6	16.917.600	31.700.900
TOTAL	100 %	100%	3.907.600	9.443.200

Source: EVCA

In 2003, $\frac{3}{4}$ of the amount investment went to first-time investments and $\frac{1}{4}$ to follow-up financings.

According to EVCA³³, during the period 2002-2006 the private equity funds raised their sources of capital as follows:

- bank: 18%
- pension funds: 24%
- funds of funds: 15.5%
- insurance companies: 11%
- corporate investors: 5%
- government agencies: 9%
- private individuals: 7%
- academic institutions: 2,5%
- capital markets: 1%
- not available: 7%.

Before launching a quest for the "Holy Grail", entrepreneurs and public decision-makers need to consider that:

"Only a small fraction of venture capital firms are interested in providing seed and start-up capital. Fund managers are receptive to the following parameters: proven innovative ideas, market shares, intellectual property and expanding established businesses. Besides, due diligence costs being equal regardless of deal size, venture capital fund managers generally believe that their resources are better spent on sizeable projects. Deal risk and size are both important factors in explaining venture capitalists' increasingly evident lack of interest in seed and start-up investment"³⁴.

5.3 Seed capital funds

This segment of the venture capital industry focuses on the provision of funding to businesses during the process of incorporation. Capital made available in this form is used to fund research and development and possibly field trials of prototypes, i.e. all activities that relate to pre-market stages of the product or service.

Total equity available in Europe for this purpose is somewhat limited (around €1,682 million in 2006). On average, seed capital funds currently invest around €3 million per deal. This ticket did not exceed €1 million between 2000 and 2005.

The activities of seed capital funds vary considerably across the European Union. In recent years, funds operating in France, Germany, Denmark, Italy, Finland, Norway and Spain have arguably ranked among the most active. In France, CDC (Caisse des Dépôts et Consignations), manages 15 funds, six of which are industry-specific while the rest are regional.

³³ Les Echos, 30.03.2006

³⁴ See: *When Venture Capitalists say no*, Ron Peterson; Comanche Press M.D.

5.4 **Mezzanine funding**

Mezzanine funding is a hybrid product combining equity and loans. The product is used both by the private sector in LBO deals and by regional public funds.

According to a report from Crédit Suisse³⁵, the advantages and disadvantages of mezzanine funding for companies are the following:

Table 8 Advantages and disadvantages of mezzanine funding for companies

Advantages	Disadvantages
<ul style="list-style-type: none"> ▪ Remedies financial shortfalls and provides capital backing ▪ Improves the balance sheet structure and thus credit-worthiness, which can have a positive effect on the company’s rating and can widen the room for manoeuvre as regards financing ▪ Strengthens economic equity capital without the need to dilute equity holdings or surrender ownership rights ▪ Tax-deductible interest payments and flexible remuneration structure ▪ Greater entrepreneurial freedom for the company and limited right of mezzanine investor to be consulted 	<ul style="list-style-type: none"> ▪ More expensive than conventional loan financing ▪ Capital provided for a limited term only, in contrast to pure equity capital ▪ More stringent transparency requirements

Source : Crédit Suisse

The amounts invested through mezzanine funding vary according to the type of operator. In fact, public investments range from €100.000 to €2.500.000, while private investments range from €20.000.000 to €50.000.000.

5.5 **University and research centre venture capital funds**

In a number of EU Member States, universities have set up venture capital firms – generally along the same lines as seed capital funds – for the purpose of supporting business projects originating in the university itself or in research centres.

Among such funds are SECANT (Society for the Encouragement of New Technology Activities) set up by the University of Compiègne (F) as early as in 1997 with an initial capital of nearly €700,000 and ESINET (European Space Incubators Network) set up by the European Commission in 2002 to facilitate the development of civil applications from aerospace research outcomes. This fund invests between €50,000 and €300,000 per deal.

Since June 2003, London’s Brunel University (UK) has £1 million available to support the seeding of businesses set up within its walls. Maximum investment per business project is £50,000. The University had plans to assist in the creation of 8 new businesses each year for the next five years. The fund is supported by the London Development Agency (LDA) and HSBC, as well as by JRA Technology.

In Wales (UK), Finance Wales manages a programme entitled “Spinout programme” offering a package for people who have a close ongoing relationship with a Higher Education Institution (HEI) wishing to set up a business. These people are graduates, academics and researchers and spin-ins, i.e. entrepreneurs having ideas needing a close relationship with HEI.

³⁵ Crédit Suisse Economic Research, Economic briefing n°42

The Wales Spinout programme offers a package which may include:

- a 25,000 £ unsecured free interest loans not repayable during the first 3 months;
- a 7,500 £ grant to access business consultants and/or market research experts;
- free space in a HEI incubator;
- use of HEI expertise;
- equipment;
- on-going assistance.

In the UK, there is systematic support for the marketing of university research outcomes through the so-called University Challenge Funds available in 31 universities and 7 research centres.

In Belgium 6 universities have their own venture capital fund specialised in the early or seed capital market segment.

In 1999, the French Ministry for Research, Directorate for Technology, has issued a call for proposals aiming at co-financing technology incubators as well as seed capital funds. 12 funds were awarded State funding. 6 of them have sectorial objectives and the other 6 have regional based funds. 106 deals have been made between 1999 and 2005. It is worth noting that more than 80% of the deals have been made before 2002³⁶. Indeed, fund managers experiment difficulties to exit (9 voluntary exits only) and are often obliged to finance subsequent rounds, even if it was not their initial objective.

5.6 Corporate Venturing

This is a particular form of venture capital addressing businesses at the seed or start-up stage of their development. Indeed, in this market segment, capital is supplied by large businesses to finance both innovative spinouts and other companies set up in industries considered of strategic importance. A few major US companies including Motorola, Intel, Microsoft, Cisco and Johnson & Johnson have been active in this particular market segment at one time or another in their corporate history. In the USA, the exclusive aim of corporate venturing is to generate capital gains.

It should be noted that the most important corporate venture funds are related to pharmaceutical enterprises. Indeed, enterprises such as Eli Lilly, GlaxoSmithKline, Novartis, Novo Nordisk A/S or Sanofi-Aventis, manage funds having more than €100 million at their disposal.

In Europe, companies such as Belgacom (B), Thompson (F), Siemens (D) and Innovacom (a subsidiary of France Telecom) are also very active on this market segment. In 2004, Siemens for instance had 19 enterprises in its portfolio. Siemens activity in this field is entitled SMAC (Siemens Mobile Acceleration). The total investment made by SMAC, created in 2001, is worth more than €20 million.

Since 2002, the UK's DTI (Department of Trade and Industry) has funded a programme to promote "a formal direct relationship usually between a larger and an independent smaller company in which both contribute to financial management or technical resources sharing risks and rewards equally for mutual growth" through an association called Corporate Venturing UK.

Sometimes³⁷ European based companies develop corporate venture in the USA. This is the case of Siemens, which provides seed-stage funds and commercial helps to Berkeley (California) through its programme TTB (technology to business). This programme provides companies – 8 at mid October 2005 – with seed stage financing of about €415.000 and helps commercialisation. In return Siemens gets a percentage of each company and access new technologies.

³⁶ Les Echos, 25/5/2006

³⁷ The Wall Street Journal, 14-16 October 2005

5.7 Public venture capital funds

There are market failures in many regions relating to the provision of venture capital for local SMEs. This particular form of market failure has been recognised by European Community institutions.

Indeed, in 2001, DG Competition of the European Commission published guidelines in this field defining the notion of market failure. The Commission limits the term "market failure" for cases where it is believed that a serious misallocation of resources has occurred. There are two main sources of market failure relevant to risk capital markets which particularly affect access to capital by SMEs and companies at the early stages of their development:

- imperfect or asymmetric information;
- transaction costs³⁸.

This administration allows public authorities to act on the venture capital market provided that:

- the existence of a market failure is clearly established;
- venture capital intervention is limited to €500,000-750,000 depending on the region concerned³⁹.

In the European Union, the main regional funds are active in the UK, and in particular in England, where the 9 regional development agencies (RDAs) set up since 2000 have now taken over management of these development instruments. Also worth noting is that the EIF (European Investment Fund) and the ERDF (European Regional Development Fund) contribute to these regional public venture capital funds.

A number of funds such as Merseyside Regional Fund (UK), have developed several specialised schemes including:

Micro-credit:	Individual loan amounts =	£3,000-75,000;
Mezzanine:	Individual investment amounts =	£75,000-250,000;
Venture Capital:	Individual investment amounts =	£100,000-500,000;

Those three instruments are grouped under the acronym MSIF (Merseyside Special Investment Fund).

The UK is not the only country having promoted the emergence of public venture capital funds. It is also worth mentioning that in the *Pôle Européen de Développement* (European Development Pole covering the Belgian province of Luxembourg, the Grand Duchy of Luxembourg and the French region of Lorraine), EUREFI (*Fonds Transfrontalier de Développement*, Cross-border Development Fund) is very active and unique in that it pools the public resources of three regions situated in three different Member States.

In France, UNICER (*Union Nationale des Investisseurs en Capital pour les Entreprises Régionales*, National Union of Capital Investors for Regional Businesses) unites some 30 regional funds. Investment amounts range between €50,000 and €500,000.

Some regional funds can have a strong sectorial focus and take the advantages of a good public-private partnership. In mid 2005, the French regions Aquitaine and Midi-Pyrénées have both invested €1 million in an equity fund named Aerofund aiming at supporting SMEs acting in the aerospace sector. The fund is managed by ACE Management and has already collected money from enterprises such as EADS or SNECMA⁴⁰.

Advantage West Midlands has created in July 2003 a fund to support the creative industry.

³⁸ O.J. C 235, 21.8.2001 – State Aid and Risk Capital – Basis for authorising risk capital measures under Article 87(3)(a), (c) and (d) of the Treaty, VI.3

³⁹ O.J. C 235, 21.8.2001 (http://ec.europa.eu/eur-lex/pri/en/oj/dat/2001/c_235/c_23520010821en00030011.pdf) or website of DG Competition, accessible through its portal (http://ec.europa.eu/competition/index_en.html)

⁴⁰ Les Echos, 22 June 2005

In France Fedarene (a public body promoting a friendly use of energy and environment protection) has set up in 2003 an investment fund named FIDEME specialised in wind energy with several private investors. The fund has €45 million under management. This fund has taken a stake in the DEMETER fund active in the expansion phase of the venture capital market. DEMETER has €120 million in portfolio and invests in eco-industry⁴¹.

5.8 Regional public equity investment firms

These firms had their moment of glory in the sixties. Some of them are still active while others are looking for alternative development channels, and others have disappeared because they failed to innovate or invested too heavily in companies whose death was predictable or inevitable.

They were known under a variety of acronyms in different countries: SDR (Regional Development Firms, in F and B), SODIS (E) and FIN (I).

Some of them have joined forces to set up an EEIG (European Economic Interest Grouping) called "Eurodevelopment". Together, its 36 members weigh more than €600 million in financial assets invested in a portfolio of more than 3,000 client businesses.

The same category can be deemed to include regional development agencies operating in the Netherlands, such as LIOF (Province of Limburg).

In Belgium, such operators exist in every region:

- GIMV in Flanders. Remarkably, this firm is listed;
- SRIB (Brussels-Capital Regional Development Firm) in the Region of Brussels-Capital;
- SOWALFIN (Walloon Small and Medium-Sized Company Funding and Guarantee Firm) pools all financial instruments available to businesses operating in Wallonia.

In France, Regional Development Firms are operating in 13 metropolitan regions.

A number of French regional organisations have set up venture enterprise investment funds (VEIFs)⁴². This is how in December 2003, Toulouse-based IRDI (Regional Industrial Development Institute) of Midi-Pyrénées (F) launched a VEIF called ICSO1 (Venture Capital Investor in the South West) with €43 million in funding for company transfer and growth capital operations. The fund is fed by public partners (including the European Investment Fund, Caisse des Dépôts et Consignations, and the Regional Council), insurance companies, banks and private firms (Electricité de France and Total).

5.9 Industrial reconversion funds

A number of industrial groups facing structural adjustment issues leading either to the closure of production sites or to mass dismissal have set up finance companies that provide venture capital or loans to SMEs against a commitment to create new jobs or hire some of the workforce laid off at or near production sites affected by restructuring. Worth mentioning in this field are the initiatives of *Charbonnages de France* (French Public Coal Company) who set up SOFIREM) and FINORPA to operate in regional coal basins.

In Belgium, regional public authorities have set up a network of "invests", i.e. specialised financial corporations acting at sub-regional level to acquire stakes in new businesses. In 2003, they joined forces under an umbrella agency called SOWALFIN controlled by the Walloon region.

⁴¹ Les Echos, 30 March 2006

⁴² Les Echos, 2-3 January 2004

5.10 Proximity funding

The social economy too, developed alternative ways to provide operators of this sector of economic and social life with an access to funding. While the tools are often similar to those of the capitalistic economy, individual deals are often smaller. Worth mentioning among these tools are:

- in France: Lovemoney operates using a business model that is similar to business angels;
- at European level, INAISE (International Association of Investors in the Social economy) is a grouping of several operators.

Proximity funding⁴³ may also focus on regional commercial businesses. In December 2003, financial operators of the French North Department (Crédit Mutuel du Nord Europe and SIGEFI Nord Gestion) jointly launched a proximity investment fund called FIP Nord Europe PME to finance unlisted regional SMEs. Maximum stakes in individual companies reach €3,000.

5.11 Transmission funds

Zernike group (NL)), in partnership with the ING Bank, has set up a first transmission venture capital fund in the Netherlands. The fund investment strategy is to take over medium size enterprises facing transmission problems in view of bringing new management team and clustering them around their products and services.

Zernike is planning to create a similar fund in Germany. The size of the Dutch fund is €200 million.

⁴³ Les Echos, 15 December 2003

CHAPTER 6 THE STOCK EXCHANGE

6.1 National Markets for SMEs

For businesses, listing on a stock exchange is the ultimate stage of venture capital finance.

Since the success of NASDAQ, launched in the US in 1971⁴⁴, several European exchanges have shown an interest in EGCs (Entrepreneurial Growth Companies). The most dynamic such markets today include the AIM (London Stock Exchange) and Alternext (Euronext-NYSE), respectively with 1,679 and 135 listed companies as of 1 June 2008. Worth noting is that in 2007, some 284 companies launched IPOs on the AIM, raising more than £11 billion (€16 billion) in equity v. 46 newly-listed companies on Alternext for a volume of €451 millions in raised capital. Less renowned exchange cities too, have developed specific market segments for SMEs. Worth mentioning in this respect is the IEX (Irish Enterprise Exchange) in Dublin (IRL) inaugurated in 2005 and which had attracted some twenty companies by 1 June 2008. Not all European initiatives to develop specific SME stock exchanges have been equally successful. Indeed, EASDAQ and Neue Market (Frankfurt Stock Exchange, D) both failed to survive the burst internet bubble in the early 2000s.

Worth noting is that the conditions businesses need to meet for listing both on the AIM and Alternext are less demanding compared to the traditional stock exchange markets reserved for large companies.

Indeed, companies listed on the London AIM do not need to disclose their financial history, nor is there a minimum share issue requirement. Companies quoted on Alternext have to disclose their financial history for the last two years, issue at least €2.5 million in shares and undertake to make regular financial data disclosures.

Worth adding is that Alternext currently lists companies whose shareholders include at least 5 venture capital firms. And also worth recalling is that the AIM was set up in 1995 and had listed more than 2,900 businesses⁴⁵ by mid-2008. As for Alternext, it was launched in mid-2005.

The breakdown by sectors of the 1425 listed enterprises on AIM stock exchange showed in 2005 the following rough picture⁴⁶:

- Finance:	200	- Travel & leisure:	70
- Informatics:	130	- Real estate:	50
- Services:	125	- Bio & pharmaceuticals:	50
- Media:	110	- Retail & distribution:	30
- Gas and petrol	75		

Presented below is the regional breakdown of UK businesses listed on the AIM as of 1 May 2008:

East Anglia	98	South East	117
London	579	South West	54
Midlands	58	Wales	17
North West	113	Yorkshire North East	17
Scotland	41	Ireland	2

In their study entitled "Alternext two years later"⁴⁷, experts from Ernst & Young and Avenir Finance showed that the age of enterprises listed on Alternex is broken down as follows

- less than 5 years: 4%
- between 5 and 10 years: 43%
- between 10 and 20 years: 39%
- more than 20 years: 14%.

⁴⁴ Over 3,000 listed companies.

⁴⁵ Of which at least 500 companies from more than 70 countries in addition to the UK.

⁴⁶ Les Echos, 22 March 2006

⁴⁷ 80 listed companies to date (study of 11 May 2007).

Below is an indication of their turnover figures in 2005:

< €10 million	47% (i.e. 36 companies)
€10-30 million	33% (i.e. 25 companies)
€30-40 million	9% (i.e. 75 companies)
€40-100 million	7% (i.e. 5 companies)
>100 million	4% (i.e. 3 companies)

These 80 companies were active in the followings sectors:

- Consumer services	24
- Technology	20
- Industry	20
- Health	6
- Consumer goods	4
- Telecom	3
- Oil & gas	2
- Financial corporations	2

6.2 Regional electronic SME stock exchange

Ofex, in UK, is an independent market focused on SMEs. Since its launch, Ofex has served over 500 enterprises.

Early 2008, Advantage West Midlands (UK) put in place a regional SME share exchange named "Investbx", aiming at helping SMEs to raise money through a web based in stock exchange. This new instrument will provide a better liquidity of the regional access to finance market.

Investbx was set up to address the difficulties facing SMEs in the Midlands when trying to raise £0.5-2 million. Indeed as of mid-2005, only 57 out of 300,000 businesses in the West Midlands were listed on the AIM and 10 on Ofex⁴⁸. Investbx expects to be able to meet the financial needs of at least 47 SMEs over the first five years of its existence.

⁴⁸ J.O. L 45, 20.2.08

CHAPTER 7 FROM BUSINESS ANGELS TO IPOs

The two tables below emphasise the difference – in terms of IPO and new jobs – between US and EU success stories in the NICT (New Information and Communication Technology) industry.

Table 9 Large American NTCI start-ups

LARGE AMERICAN NTCI START-UPS				
Company	Creation	IPO	Capitalisation	Employees
Microsoft	1975	1986	\$ 290B	71 000
Cisco	1984	1990	\$ 172B	49 900
Google	1998	2004	\$ 149B	5 600
Intel	1968	1971	\$ 121B	99 900
Oracle	1977	1986	\$ 91B	68 400
Apple	1976	1984	\$ 73B	17 800
Dell	1984	1988	\$ 58B	78 700
eBay	1995	1998	\$ 42B	12 300
Yahoo	1994	1996	\$ 37B	9 800
Sun Microsystems	1982	1986	\$ 19B	38 000
Amazon	1994	1997	\$ 15B	13 300
Average	1984	1989	\$ 97B	42 000

Source : Hervé Lebret, "Start-up. What we may still learn from Silicon Valley"

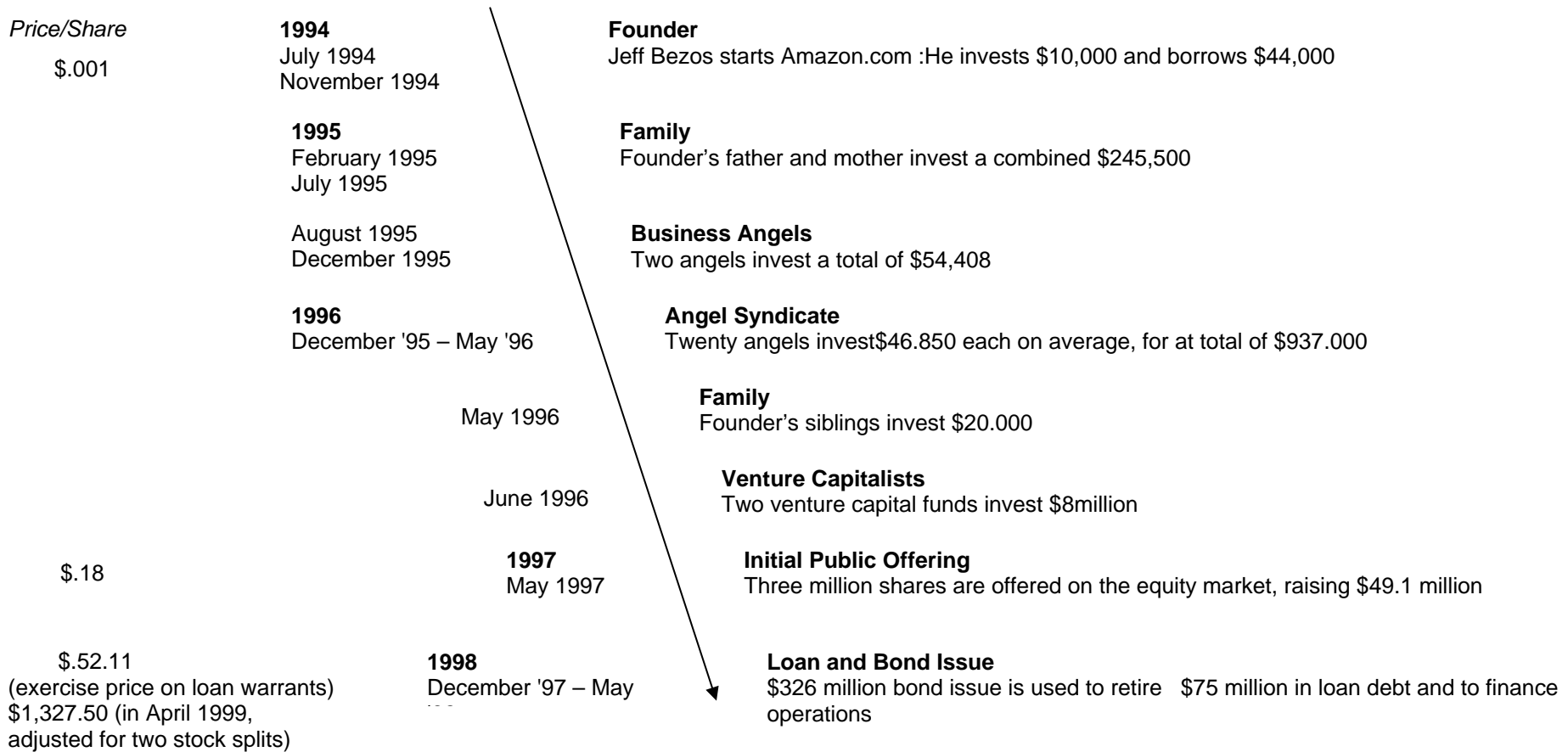
Table 10 Large European NTCI start-ups

LARGE EUROPEAN NTCI START-UPS				
Company	Creation	IPO	Capitalisation	Employees
SAP	1972	1988	\$ 65B	37 700
Dassault Systèmes	1981	1996	\$ 6.0B	5 700
Logitech	1981	1988	\$ 5.1B	7 200
Business Objects	1990	1994	\$ 3.7B	5 100
ARM Holding	1990	1998	\$ 3.1B	1 500
Soitec	1992	1999	\$ 2.6B	600
CSR	1998	2004	\$ 1.5B	810
Autonomy	1996	1998	\$ 1.5B	400
Gemplus	1988	2000	\$ 1.2B	6 300
Average	1987	1996	\$ 10B	7 200

Source : Hervé Lebret, "Start-up. What we may still learn from Silicon Valley "

The graphs below illustrate the venture capital funding cycles of two US companies that have become symbols of the success stories of the Silicon Valley, i.e. Amazon and Google.

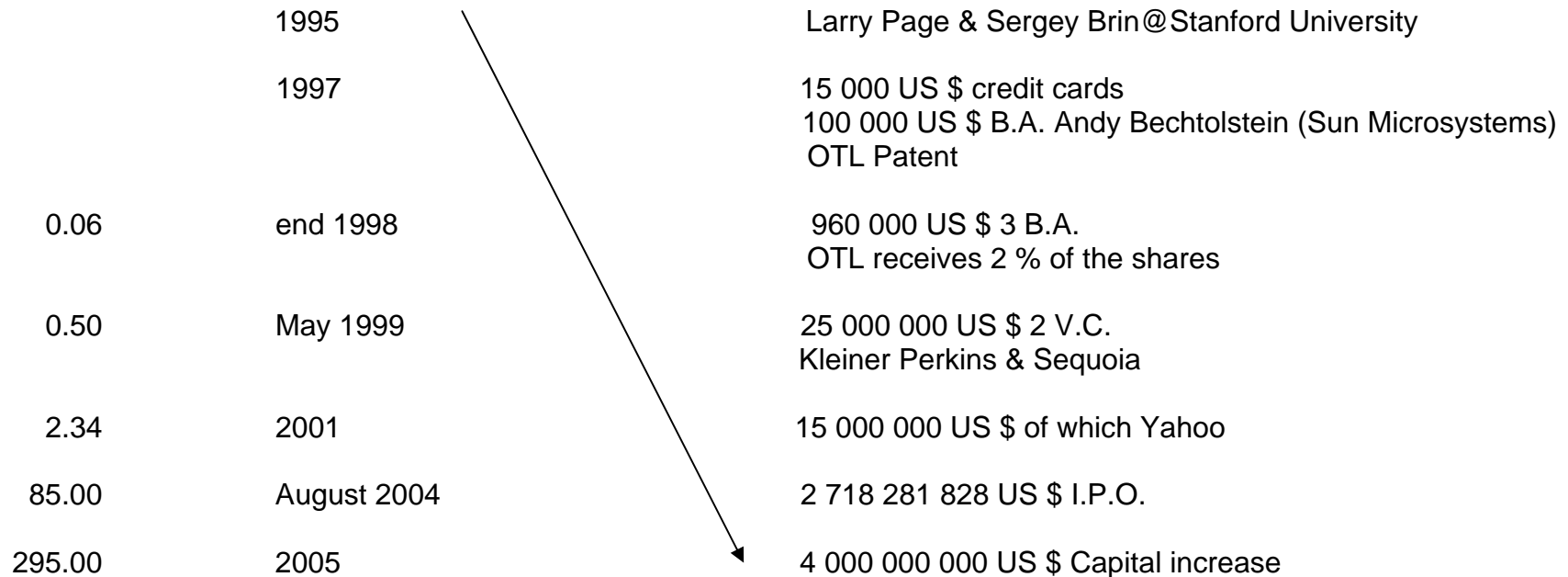
A financial chronology of AMAZON.COM



Source :M.Van Osnabrugge and Robinson : data partially adapted from Smith and Kiholm (forthcoming)

A financial chronology of Google.com

Price/Share
(in US \$)



NB: Turnover 200 000 US \$ 1999
8 000 000 000 US \$ 2006

Source : Hervé Lebret

CHAPTER 8 OTHER FUNDING SOURCES

8.1 Repayable success-linked short-term loans

Such funding is provided by the French OSEO. It is targeted at innovative companies and entrepreneurs with a research and development project potentially leading to marketable products or processes. Loans may cover as much as 50% of eligible expenditure incurred as part of project stages including:

- formulation and feasibility;
- development;
- preparation of first production;
- taking out and extension of patents;
- market research;
- search for intermediary partners.

8.2 Stock purchase warrants

Since 2001, OSEO offers growing businesses a financial product called BSA (stock purchase warrants), i.e. securities carrying the right to purchase shares of the issuing body at a fixed price within a specific timeframe.

BSAs have a double advantage for issuing businesses:

- higher equity capital meaning a stronger financial basis;
- improved cash position.

OSEO receives BSAs in exchange for its financial support, either immediately or by instalments as the business project develops, or at the time of calling its claim in the case of a repayable short-term loan.

Worth highlighting is that business developers have pre-emptive rights to buy back OSEO's BSAs if a third party offers to acquire them. As a rule, OSEO avoids keeping BSAs of individual businesses for more than ten years.

8.3 Factoring

Factoring is a fast and flexible way of alleviating businesses' cash flow problems by both providing short-term liquid assets (24 to 48 hours) and protecting them against payments outstanding.

Companies may obtain up to 90% of the full amount of their invoices⁴⁹ as soon as products are delivered or services are provided. Factoring applies to both domestic and export bills. Europe accounts for 65% of the global factoring market, estimated at a total of €670 million.

Factoring costs depend upon a number of elements⁵⁰. Indeed, the fees charged by factors are based on:

- the value of assigned claims;
- possible assorted services (administration, management, financing, credit insurance).

Commissions⁵¹ vary between 0.5% and 2% and interest rates are 2-3% above the basic rate charged by banks.

⁴⁹ In Belgium, advances on invoices generally amount to 75-85%

⁵⁰ L'Echo, 29 October 2003

⁵¹ European SME Observatory, 2003 n°2. *SME Access to Finance*
http://ec.europa.eu/enterprise/enterprise_policy/analysis/doc/smes_observatory_2003_report2_en.pdf

8.4 Leasing

Leases are an instrument whereby a financial organisation (the lessor) awards a company (the lessee) the right to enjoy an asset for a predetermined period of time against regular "rents".

The leasing market is subdivided into two segments: real estate (18%) and capital goods (82%). In the latter segment, the largest market share is represented by cars (33%), followed by industrial machinery and equipment (25%), lorries (19%), computers and business machines (12%) and heavy transport equipment (ships, planes, rolling stock – 4%).

Leasing habits differ across EU Member States, with market penetration as a percentage of total business investment being stronger in France, Italy, Germany and the UK.

Over 1,300 companies are active in this industry in Europe.

8.5 Franchising

This concept can be a tool to finance the growth of an enterprise.

The development of a network often needs an important amount of capital both for the brand holder and for the franchised entrepreneurs. Recently this market has been looked at by venture capitalists. In France, Natexis Private Equity has created a specialised fund named SPES. Entreprises such as Intersport, Mr. Bricolage or Optic 2000 benefited from that fund.

CHAPTER 9 GUARANTEES

Guarantees are an important tool to improve businesses' access to credit. According to AECM (European Association of Mutual Guarantee Societies), there are different types of guarantee schemes:

- mutual or joint-guarantee societies;
- public guarantee schemes, often set up by national or regional public authorities;
- guarantee or counter-guarantee schemes.

While banks are to be the principal source of external capital for small and medium-sized enterprises, guarantee schemes have a complementary role to play by making available guarantees to compensate for SMEs' insufficient collateral. The aim of guarantee societies is to improve the access to professional credit for viable small and medium-sized business projects without the personal collateral required by banks in the hope of building a stable long-term relationship.

Guarantee schemes are formed by a mixture of private and/or public initiatives and usually involve entrepreneurs either directly or indirectly in the action, decision-making and management mechanisms. A special characteristic of the European structure is the existence of national counter guarantees, regional in some cases, and supranational counter guarantee platform organized and financed by the European Commission and handled by the European Investment Fund.

In Finland, public corporation FINNVERA provides both loans and guarantees to SMEs which do not have access to bank loans because they lack adequate guarantees. FINNVERA's activities are deployed under six specific schemes:

- investment finance: mid and long-term loans and guarantees for newly-created SMEs;
- working capital supply: short to mid-term loans and guarantees;
- growth capital: low-rate loans and mid-term guarantees for business growth or environmental protection;
- micro-credit: low-rate, short to long-term loans and guarantees for micro-businesses;
- export credit guarantees;
- internationalisation funds.

The traditional approach is to present the guarantee as a "generic product", guarantee can also be presented in various packages. According to experts of European Commission who launched the project "Expert Group on BEST Practice in the field of Guarantees", guarantee products can be grouped as following:

- **Business start-ups guarantees**

The German Bürgschaftsbanken launched the "Bürgschaft ohne Bank" system. The entrepreneur contacts the Guarantee Society; its credit file is completed and analyzed with the assistance of experts of the Chamber of Craft/Commerce/Industry. A guarantee bond is provided to successful applications. The bank intervenes at a stage when the file is already completed and the partly coverage ensured. Some guarantee banks add an accompanying service, which enables a follow-up of the starting businesses.

- **Micro-credits guarantees**

FINNVERA (FIN). A micro-credit guarantee is intended for enterprises being established or employing a maximum of 50 persons. A micro-credit guarantee helps SMEs to obtain a loan and facilitates loan and guarantee decisions. A micro-enterprise guarantee is based on a credit and guarantee facility agreement, concluded between FINNVERA and banks, to enable small credits, generally of maximum €25,000, to be guaranteed by dividing the risk with a bank.

- **Guarantee for growing companies**

Vaekstkaution (DK) gives support to companies with a high growth potential: the guarantee applies to the development of new products, concepts, production methods or markets. The decision-making process is of less than 5 days for loans from €10,000 to €670,000. The guarantee premium amounts to 3% for the years 1 and 2, than to 1.5% for the next years.

- **Guarantee for business internationalization**

AWS (A) proposes a guarantee to the Austrian companies, which pursue an objective of internationalization. The premium rate is limited (0,5%/year) and the protection is high (80%).

FINNVERA's (FIN) internationalization guarantee is intended to serve as collateral for financing the business operations of a Finnish SME abroad. The guarantee may be used when a subsidiary or an affiliated company abroad needs funding for investment, development or growth. The guarantee can also be used to acquire or increase a holding, or to raise the share capital, in a subsidiary or in an affiliated company abroad.

- **Innovation guarantees**

AWS (A) runs a guarantee programme Innovative Dynamic SMEs to encourage productive investments and high technologies. A guarantee of 80% is attached to loans of a maximum of 1 million Euros. The premium ranges between 0.5% and 1.5% according to the risk. A profit sharing premium can be applied.

Sofaris (F) manages the "Biotechnology" fund, which is a combination of loan and venture capital guarantee. Sofaris has established contractual partnership with 16 Venture Capital companies and provides them with a 50% guarantee for 10 years.

- **Guarantee for working capital needs**

Hitelgarancia (H) developed a guarantee linked with a credit card. In full security, cash can be drawn and suppliers can be paid from a guaranteed account.

RCGF (LT) proposes a guarantee to short-time credits (up to 2 years), which are used by businesses to supplement current assets. The one-off guarantee fee is usually smaller than premium for long-term investment guarantees and accounts to 2% of the guaranteed credit amount.

- **Business transfer guarantees**

Siagi (F) is a guarantee society specialized in transfer and succession of micro-businesses. Bankers are interested in the professional expertise of Siagi and are satisfied with a guarantee protection negotiated at 35 to 45% of the final loss.

CHAPTER 10 WHAT COULD THE PUBLIC SECTOR DO ?

10.1 Scope of the public interventions

The scope for public interventions lays both at the supply side (provision of finance) and at the demand side (increase the quality of the business plan or reduce the risk to be taken by investors). The public sector can try to solve market failures by helping the demand to match the offer through networking activities.

We have evidences that at least thirteen different types of market failures occur in the field of access to finance by SMEs and start-ups. Those market failures can be:

- information failures: due to the fact that “not all the money is the same” and that the market might be fragmented;
- insufficient infrastructures: due to the fact that some tools do not exist, for instance business angel networks, investment readiness schemes, seed capital funds...;
- inefficient functioning of markets: due to the lack of competition, no exit opportunities for early stage investors, permanent assisted mentality of entrepreneurs used to receiving grants instead of fighting for equity, ...;
- limited interaction between actors due to a lack of an integrated approach, the existence of a value chain or a lack of governance;
- institutional mismatch between the infrastructure and the market needs due to lack of understanding by the public sector of the real needs of enterprises and the market failures;
- missing demanding customers due to cultural problems as well as good perception of investors’ expectations;
- government failure: due to a lack of coordination and to a focus on a component of the value chain;
- equity gaps;
- insufficient number of private investors;
- lack of risk-taking;
- bad framework conditions (legal, administrative, fiscal, environmental);
- bureaucracy practices;
- lack of public-private partnership.

10.2 Improving the demand side

Public policy should invest in schemes allowing entrepreneurs to become investment ready; this can take different forms, such as:

- support to enterprises wishing to improve their business plan in order to access financial tools;
- business plan competition;
- financial intermediation;
- investment readiness schemes;
- support the cost of “hands on” management systems and the due diligence costs;
- reviewing blockages in distribution channels to specific entrepreneurs: disadvantaged groups or communities;
- support the costs of public rating systems both on the point of view of bank or technology risk in favour of SMEs.

10.3 Improving the supply side

Public authorities can provide different supports in order to add value in the value chain of access to finance for SMEs. The support can take the form of:

- fiscal incentives aiming at improving the environment for business angels and individuals investing either in innovative enterprises or in non-quoted enterprises;

- soft measures such as reducing the costs of financial investors to do the due diligence or support for the recruitment of financial advisors by intermediary organisations;
- stake in funds. Public authorities can contribute to the creation or the sustainability of specific funds responding to regional market failure;
- clustering the main stakeholders in order to organise or strengthen a regional value chain;
- providing guarantees or grants to reduce the level of risk taken by investors.

10.4 Networking

Networking is a very useful tool to act as a facilitation process between entrepreneurs and investors. Investment readiness schemes can provide good opportunities for entrepreneurs to improve the quality of their demand. Business Angel Networks provide also advantages as matching platform between informal investors and entrepreneurs seeking start-up money.

Public authorities can also support regional networks aiming to secure expertise and equity for early stage companies.

In the Midlands (UK) a non profit network named Connect Midlands acts as facilitator between technology business and investors through a comprehensive programme of events helping young companies to become "investor-ready" and to meet potential investors. The events organised by Connect Midlands are:

- Invoked – an investment readiness programme;
- Connect Springboard – an investment raising platform for enterprises seeking up to €750,000;
- Connect Round Table – an investment raising platform for enterprises seeking between €375,000 and 1,500,000;
- Connect Investment Conferences – an investment raising platform for enterprises seeking from €375,000 to 4,250,000;
- Knowledge and Skill Building – events in the form of technology briefings, enterprise workshops and meetings with the entrepreneurs.

Connect Midlands has a wide range of sponsors such as regional development agencies, universities, business advisors companies, venture capital funds ...

It provides also several benefits to its membership.

Part 3

NOT ALL REGIONAL INNOVATION STRATEGIES PRODUCE SILICON VALLEYS, NOR DO THEY AUTOMATICALLY GENERATE GOOGLES, EBAYS OR SKYPES

INTRODUCTION

Public policy needs to adopt a new model, focusing on throughout analysis of the demand of the various regional enterprises, to effectively stimulate innovation, creativity, the development of knowledge and the marketing of innovating products and services.

In this field, the current benchmark is the Silicon Valley.

Worth recalling once and for all at this point is that there are four – equally important – ingredients* making the Silicon Valley what it is and that it will most likely remain a unique occurrence:

- a) The presence at regional level of dynamic and active institutions producing research, new ideas and technological innovation translating into products and services. This dynamism is reflected not only in the production of ideas but also in the fluidity of exchange and cooperation among all local stakeholders.
- b) A dense fabric of financial institutions allowing start-ups to secure adequate sources of finance regardless of the nature, sectoral rooting and development cycle of their project. The networking dimension is also represented and has played a sizeable role in the success of the Silicon Valley. Indeed, business angels, successful entrepreneurs and seed and venture capital fund managers invest in the coaching of business developers and the monitoring of their projects. In some cases, venture capitalists have intervened to change start-up management teams.
- c) A structured social capital that can be marshalled in support of many initiatives such as the mentoring of start-ups by serial entrepreneurs, business angels and venture capitalists.
- d) A culture of risk-taking instilled through the entrepreneurial challenge and supported by positive media and an educational system that is open to entrepreneurship.

Framework legislation and public strategies, even where they make added resources available for regional development, do not create jobs and growth – only businesses do. Pedro Arboleda of Monitor Group put this in a slightly different way when he said that “*businesses, not regions, are competitive*” and concluded that the “*question for government is how to attract as many competitive firms as possible.*” We would add that we believe the academic model of a triple helix is obsolete in that it does not recognize the overriding importance of private venture-capital investment in the development of businesses which have to be global players simply to exist.

* See namely *L'Art d'Entreprendre* (“The Art of Business Development”) in *Les Echos*, 6 June 2008.

To draw up the list of business projects that can be developed in a region with the best chances of success, all public authorities must strive to fully understand the strengths and weaknesses of their region's potential attractiveness and competitiveness as not all strategies can be applied in all regions.

It is vitally important for national and regional authorities to reshape their offering of service in support of business development to the new needs of businesses operating in the knowledge economy. The priorities are:

- access to capital
- development of support services enabling the commercialization of the technologies created and optimal use of the innovation potential of regional enterprises
- reduction of administrative expense for the protection of intellectual property
- reducing time to market, in particular by making public procurement more open to innovative businesses or developing new forms of private-public cooperation
- incentives for cooperation between business and universities for applied industrial research
- facilitating the recruitment and retention of talent from other countries , as well as the return of expatriates
- support for the development of global networks allowing for the different phases in the innovation.

Regional authorities can contribute to the emergence, preservation and reinforcement of the competitive advantages of businesses through initiatives targeting:

- clusters and other competitive groupings
- venture capital funds specialized in financing for creative industries
- centres specialized in the promotion of intellectual property rights
- design centres
- technical centres
- business real estate
- business intelligence
- support for the registration of patents, commercialization of innovative ideas (proof of concept) and identification of unutilized entrepreneurial ideas (spin-offs)
- vocational training.

These initiatives must support the creation of regional competences in the field of :

- research
- marketable invention and innovation
- design
- NICT content (New Information and Communication Technologies)
- intellectual property rights (patents, copyright, trademarks, proprietary processes)
- quality
- artistic production
- roll-out of new products and services
- the combination of complementary knowledge and technologies
- entrepreneurship
- venture capital funding of young enterprises
- management of local and international networks.

To contribute to the knowledge economy, the various forms of competency listed above must underpin the creation of added value and the competitive advantages of a business or region.

However, public authorities need to ensure that these initiatives do not overlap each other or stack up ("lasagne-style"). Indeed, schemes all too often add layer upon layer of piecemeal intervention rather than act as the links of a strategic chain and vision. Not to mention the fact that in some cases, intermediary organisations are even set up specifically for the purpose of delivering a new scheme.

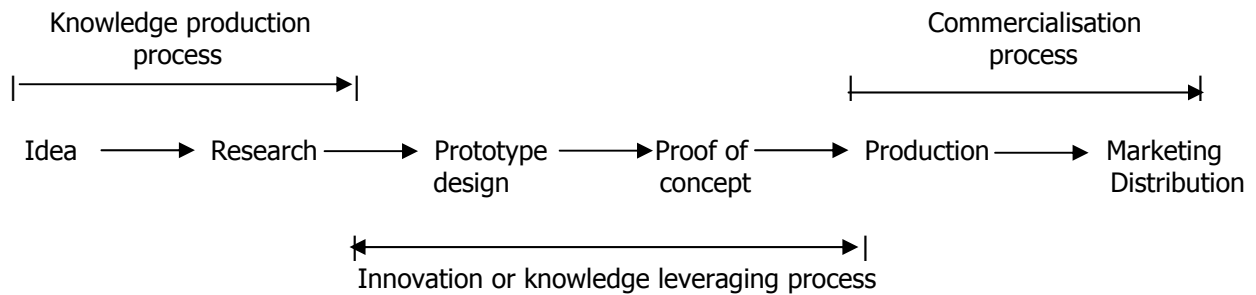
Thus, delivering regional innovation strategies is a complex effort requiring the commitment of a wide variety of stakeholders with complementary competences. This may warrant support to clusters and competitiveness centres.

It is an effort that requires consideration of at least the eight parameters below:

1. business requirements;
2. local RTDI infrastructure;
3. public provision of high value-added support services;
4. availability of adequate amounts of venture capital;
5. networks of public and private stakeholders;
6. advisory services;
7. the presence of Entrepreneurial Growth Companies (EGCs or gazelles);
8. talented labour and manpower training.

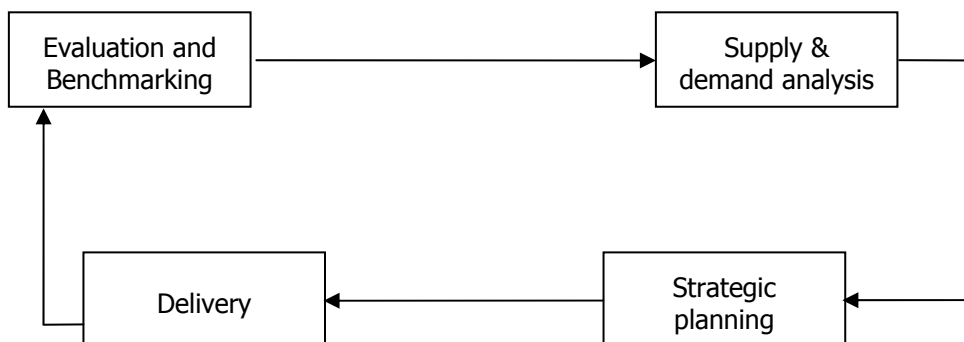
The above parameters can be analysed in the form of a regional innovation supply chain (see 3.3 below), which is the best approach to spot the weaknesses of the regional innovation ecosystem.

A simplified representation of such a supply chain would include the following components:



The “ideas” and “research” stages are influenced by external factors. They are increasingly outsourced or even offshored. This type of information needs to be considered when developing SME support policies since SMEs can be innovative themselves or be associated to the innovation process through joint development or subcontracting.

Finally, regional strategies must be able to evolve and be evaluated. Therefore, a virtuous circle of constant improvement of the quality of their components must be mainstreamed into strategies right from their development. This can be done by considering the items below:



With this practice of permanent assessment, it is possible to demonstrate that the regional public sector knows what it is talking about when it advocates the promotion of a regional culture of innovation.

Worth pointing out is that innovation can be synonymous with high or new technology, improvement of products or services and/or their production processes or even their business model (low costs, marketing, distribution, etc.). In terms of innovation relating to production

processes, worth listing are mainly automation, digitalisation, outsourcing and integration of two or more technologies. These innovation formats all strongly impact occupational skills requirements and therefore require strong synergies between innovation and employment strategies.

Finally, it may be useful for regional and local authorities to develop innovation readiness services for SMEs – using the same model as the investment readiness services provided to business developers to help them in the search for finance (see section 3.1 in part 2 above entitled “All Money Is Not the Same!”). Such a process needs to consider the following parameters:

- technological validation;
- checking intellectual property rights for possible IP exploitation or enhancement;
- quality of the technological argument and of intellectual property in the business plan;
- checking compliance with norms and other standards as well as existing legislation, including in environmental and ethical terms;
- confirming market size and the relevance of projected distribution channels;
- checking prototype quality and options for mass production of the product;
- validating the business model, including its sections on human resources, financial plan and return on investment.

These types of support services can be delivered through SME coaching and mentoring.

For a wide variety of reasons, the competitiveness of European countries and regions – as in other developed countries – needs to rest on the creativity of the men and companies established there.

In order to retrain or to create this kind of regional competitive advantage, public authorities and the private sector will self-evidently need, each in their own area of competence, to pay attention to competitiveness factors including:

- ✓ the quality of human resources, including their varied nature and mobility and the smoothness of movements between different sections of personnel;
- ✓ the attractiveness of both individual regions and their universities for talent and RTD- and innovation-related activities;
- ✓ the financing of creative industries and the protection of intellectual property rights;
- ✓ harnessing and leveraging businesses’ intangible assets, generally comprising their human, knowledge-based, process and customer capital and notably taking the form of patents, brand and design;
- ✓ the ability to mainstream new technology into traditional industries or to develop new uses for existing products in the absence of new market development opportunities;
- ✓ evolving competitiveness and product and service range renewal in creation-intensive sectors in which Europe has global industry leaders (luxury products, fashion, design, development tools, aerospace, etc.);
- ✓ leveraging creativity and talent as key regional marketing campaign arguments;
- ✓ the impact of NICT – and possibly web 2.0 – on the relocation/automation of creative functions such as design and technological innovation;
- ✓ developing new markets (alternative energy sources, wellness, eco-development, etc.) for which the ability to innovate will generate sizeable new market opportunities;
- ✓ implementing public and business support service policies that are suited to the needs and demands of companies conducting creative activities or rooting their future development in intangible capital;
- ✓ the role of universities in local development.

CHAPTER 1 THE REQUIREMENTS OF BUSINESSES

The ways in which businesses innovate have changed considerably in recent years, whether through open-source or joint development approaches. It is the duty of public authorities to adjust their financial and other support provision strategies to this new reality.

As a result of these changes, hierarchic "vertical" business operation models are increasingly discarded and replaced by "horizontal" cooperation-development-network systems that ignore both internal business boundaries and continental borders.

In order to best meet the new expectations of regional businesses, public authorities need to segment – and subsequently inventory – the latter according to both their innovation potential and the pressures generated by their markets. This approach then makes it easier to adjust support service provision to expressed or latent regional SME requirements or to team up with private operators in order to meet the real needs of SMEs.

Every region should normally be able to identify and meet the needs of the four categories of businesses below:

- ✓ newly-developed hi-tech companies (start-ups, spin-outs, etc.);
- ✓ entrepreneurial growth companies (EGCs or gazelles), which can be innovative without necessarily belonging to the "hi-tech" category of businesses;
- ✓ mid-sized enterprises with latent innovative potential;
- ✓ local businesses threatened by a lack of innovation potential.

Once businesses have been segmented, there is a need to determine, at the level of individual businesses or groups of them, the main possible obstacles to or drivers of the innovation potential. This segmentation considers the following parameters:

- ✓ the nature of innovation: product, service, process, business model, etc.;
- ✓ the ability to generate and manage innovative projects locally or through outsourcing, joint development or even mirroring of the competition;
- ✓ financial capacity through reinvestment of profits, own equity, subsidies, repayable short-term and other loans and use of different venture capital formats;
- ✓ management commitment to innovation: tradition, need to raise awareness of the innovation process, use of external auditing to identify untapped opportunities;
- ✓ business integration in the strategy or business model: existence of an economic intelligence and technological watch, in-service training and ad-hoc budgeting system, deployment of a system to reward ideas, existence of a research department in-house, take-up of joint research projects, etc.;
- ✓ the innovation trigger: in-house or external ideas, mirroring competition, invention, constant improvement of production quality or processes, contribution to solving client needs, etc.

The results of this analysis of demand should lead to the development or provision of business services including:

- specific advice on innovative project implementation and finance;
- networking;
- potential project identification;
- innovation process awareness;
- use of technological or economic intelligence systems.

To this end, some public authorities invest in:

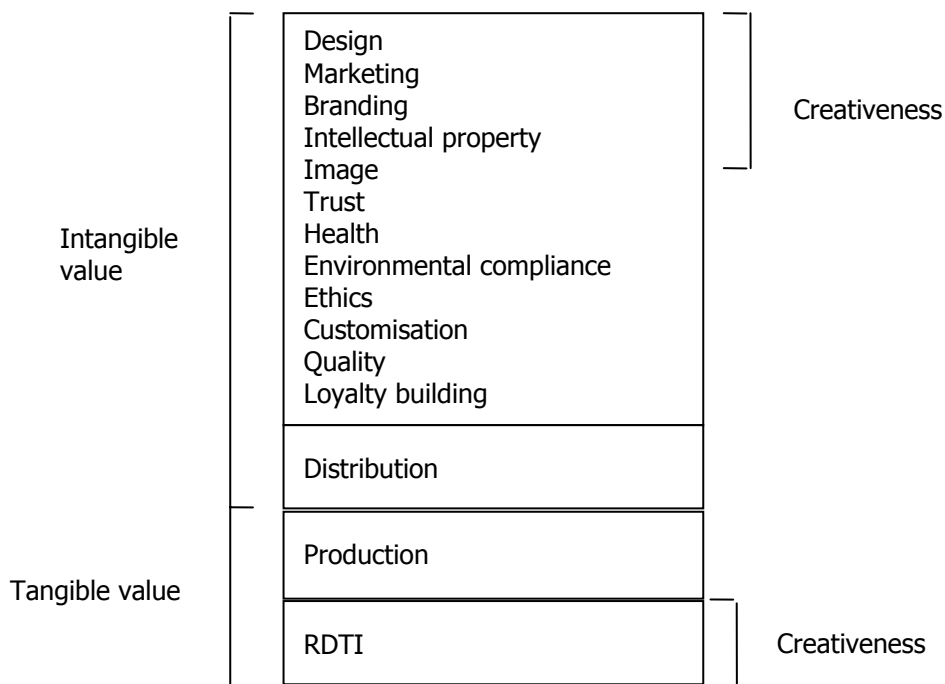
- economic intelligence or watch units;
- individualised audit schemes;
- observatories of regional business innovation practice;
- sub-regional and extra-regional benchmarking of business innovation practices;

- issuing innovation vouchers to SMEs to promote their access to the resources of the research centres of large companies;
- the establishment of a dedicated department in regional development agencies. This approach is to be recommended in preference to the development of regional innovation agencies from scratch for at least two reasons – justified by commonsense and a concern for effectiveness –: entrepreneurship and innovation have become inseparable and there is a need to curb the proliferation and fragmentation of public service provision. Besides, structural cost savings (on staff, real estate, operation, etc.) would make useful additions to the resources available to finance practical projects.

In the globalised knowledge-based economy, businesses operating in both the manufacturing and services industries are exposed to the constraints below – which must be taken into account when formulating regional strategies:

- the emergence of new business models based on a reformulation of the production and innovation supply chain;
- the emergence of new technologies or traditional products and services integrating or leveraging new technology;
- the relocation of geographical consumption, production, design, competence and – sometimes even – decisional centres;
- environmental and energy constraints;
- talent recruitment difficulties;
- client behaviour changes;
- shortened product and service lifecycles and time-to-market (market penetration window);
- higher RTDI and proof-of-concept costs.

Furthermore, public authorities will also need to reckon with or improve awareness of the fact that the added value created by businesses these days is the result of intangible assets rather than control of production – including staff – costs. This realisation is illustrated in the graph below.



Consequently, new types of support services have to be available in regions, including in cooperation with private providers of strategic business advice.

Public authorities will therefore have to develop support services for regional SMEs to help them adjust to the internal innovation practices of large companies. Worth underlining is that companies such as Procter & Gamble, Henkel and 3M have won recognition for their in-house structures for the promotion of innovation based on incentives for the creativity of staff and, in some cases, customers.

Henkel⁵², which derives up to 30% of sales from products launched less than three years ago, offered an innovation trophy to reward outside inventors in areas including design, applications, patents and product concepts, at the same time calling on staff to make their own contributions. In just a few months, 81,300 ideas were put forward, with 4,200 of these chosen for more detailed consideration. It takes from six months to three years to bring an idea to market.

A recent Eurostat poll⁵³ showed that staff members were the main source of knowledge for 47.4% of innovative European businesses, customers for 27.2% and suppliers for 23.8%. Universities were cited as the main source by only 3% and public research organizations by only 2%.

These findings are confirmed in the results of a survey of 765 CEOs conducted by IBM⁵⁴, which shows employees to be the main source of innovative ideas for 40%, business partners for 35%, customers for 35%, consultants for 22%, competitors for 20%, professional associations, trade fairs and conferences for 17%, in-house R&D for 7.5% and universities for 6%.

The above information is connected to the open innovation methods increasingly developed by large corporations. Open source development is a method whereby companies can procure knowledge and/or innovation from any external source through spontaneous or elicited proposals (crowdsourcing). Multinationals including Procter & Gamble, IBM, Philips, Telefonica, Kraft, etc. increasingly use this method. In this context, support services need to improve SME knowledge of open source techniques and help them redevelop their own innovation strategies in order both to leverage this innovation method and make their own innovation capacity available to large companies whilst also protecting their intellectual property rights where necessary.

In open innovation systems, businesses consider knowledge to be a product they no longer fully control and over which they do not have a monopoly of use. Therefore, they accept to acquire knowledge they themselves cannot create but can use (patents, licenses, joint development agreements, corporate venturing, purchase, etc.) and to part with knowledge they have but do not wish to use (patents, licences, spin outs, joint ventures, sale, etc.). This is described as follows by A.G. Lafley and Ram Charan⁵⁵ based on the experience of Procter & Gamble: *"to reach out innovation from any and all sources, inside and outside the company. Innovation is all about connections, so to get everyone we can involve : Procter & Gamble past and present staffs, consumers and customers, suppliers, a wide range of "connect-and-develop" partners, even competitors"*.

Private consultants including Ninesigma and Yet2 develop marketplaces for open innovation by launching offers called Requests for Projects or Requests for Solutions. To know more about this type of proposition, the Procter & Gamble website called "Connect + Develop" (www.pgconnectdevelop.com) is worth a visit, as well as the B2B website of P&G External Business Development (http://www.pg.com/b2b/pg_extnral.shtml).

Public initiatives focusing specifically on leveraging the potential of open source are relatively few or little advertised – although some intermediary bodies have implemented technology supply and demand platforms that are quite comparable to the open innovation process.

⁵² La Tribune, 28 June 2007

⁵³ Statistics in focus — Science and Technology, vol. 81/2007

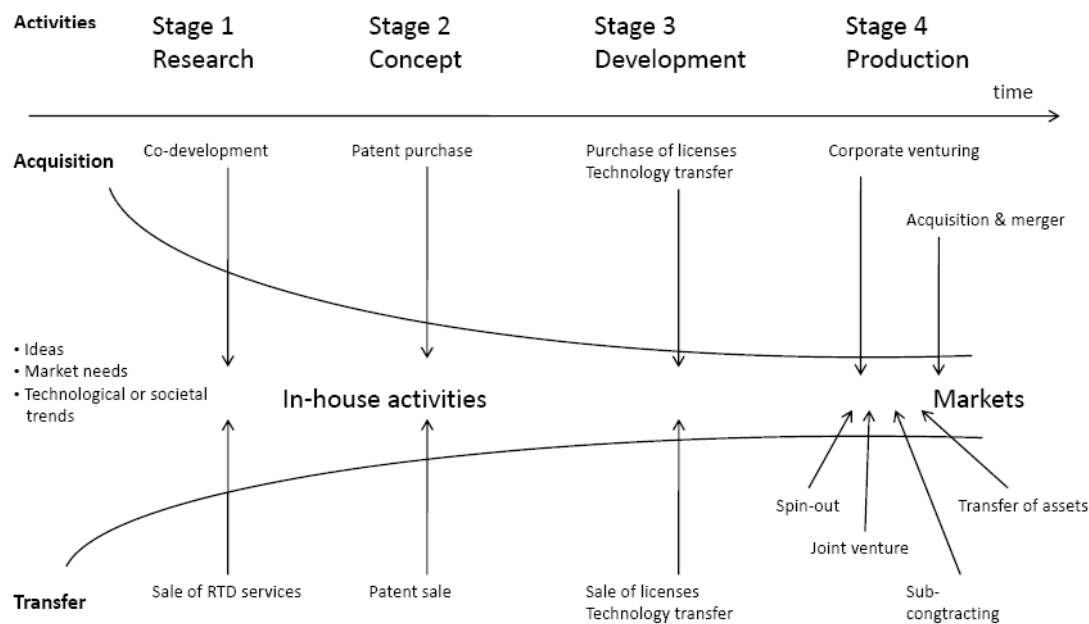
⁵⁴ The Global CEO Study 2006 (IBM). Cited in the Economist Special Report dated October 13, 2007.

⁵⁵ *Game Changer: How you can drive revenue and profit growth with innovation.*

In the US, the State of Delaware has launched a unique “IP Programme” called “Intellectual Property Business Creation Program”, an initiative whereby more than 100 patents owned by DuPont and Hercules are made available for use by local businesses and companies willing to locate in the State. The patents were transferred to the state in recognition of its financial support for the RTD centres of both companies. For more detailed information, visit www.state.de.us/dedo/businesspatent_portfolio/index.shtml

The relationship between businesses and their external environment in the open source context can be represented as follows.

Graph 14 : Interaction in an open innovation system



Source: Eurada, based on a presentation of Mr Dries Lodewijcks of LIOF (NL) : Chemelot Project

In any case, this requires strengthening regional policy tools promoting:

- internationalisation;
- mobility;
- networking;
- global development and harnessing of knowledge.

Worth noting is that while Europe remains an attractive location for the research centres of international companies, the latter have already started segmenting their activities. Indeed, according to a study of the Centre d'Analyse Stratégique⁵⁶, the R&D centres of multinationals are ranked according to three types of specialisation:

- “Product customisation” centres, whose purpose is to adjust products to the specific requirements of the different national markets on which the multinationals operate;
- “Global innovation” centres, which provide access to resources that are not necessarily available at national level;
- “Radicalisation” centres, which act as subcontractors to the parent company with a view to generating savings from the recruitment of low-cost, highly skilled labour.

The study underscores that the choice of a location for R&D activities is guided by the quality of infrastructure, education and training, fundamental research and public-private cooperation.

⁵⁶ *Internationalisation de la R&D des entreprises et attractivité de la France* (“Internationalisation of Corporate R&D and the Attractiveness of France”).

CHAPTER 2 THE RANGE OF SUPPORT SERVICES PROVIDED AS PART OF REGIONAL INNOVATION STRATEGIES

2.1 RTDI Infrastructure

In general, regions are all equipped with incubators, sectoral technical centres and technological parks.

So the focus of infrastructural investment should presently be on strengthening the interfaces between businesses and universities and research centres as centres of competence and between businesses and private investors.

In order to complement the existing RTDI infrastructure provision, some regions invest in:

- specialist intellectual property promotion and protection;
- regional design and quality centres;
- prototyping and quality testing facilities and equipment;
- business angels, investment readiness and innovative project maturation networks;
- interfaces to support the commercialisation of research project outcomes.

2.2 The range of high value-added support services

The innovation culture of businesses and regions relies essentially on intangible factors including technical, commercial or entrepreneurial creativeness and risk-taking.

Public support services therefore need tweaking to namely provide:

- subsidies to leverage intellectual property;
- schemes to give SMEs access to external competences (RTDI vouchers, subsidies to hire university graduates, etc.);
- proof-of-concept support (prototyping, design, quality, etc.);
- help to attract or provide venture capital and investment readiness schemes (see 2.3 below);
- a scheme to (pre)finance and commercialise RTDI projects;
- finance for collective applied RTDI projects;
- resources to integrate universities in the regional productive ecosystem and encourage commercial use of knowledge developed in universities, whether in-house (spin-offs) or externally (licensing, preferably of regional companies).

As for patents, public authorities need to understand that they no longer just protect products or technologies but have themselves become tradable goods. The feasibility of regional marketplaces for intellectual property trading should be examined. And in the face of increasing research costs and shortened product lifecycles – even in the case of extremely innovative products –, regional authorities will likewise develop – alongside traditional support – regional platforms enabling SMEs to combine knowledge developed in closely related sectors.

2.3 The Availability of Venture Capital

Numerous analyses underscore that the majority of EU businesses are undercapitalised and that regions lack adequate venture capital instruments. This realisation explains to a large extent the inability of EU SMEs to grow and maximise their innovation potential. This undercapitalisation is also a sizeable obstacle when it comes to securing bank loans. Thus, the solution is improved provision of SME access to either guarantee schemes or venture capital, whether private or – in case of market failure – public.

The five main venture capital formats need to be available at regional level to address the needs of businesses at the different stages of their lifecycle or innovation project development:

- a) informal venture capital (business angels);
- b) seed capital;

- c) venture capital;
- d) mezzanine funding;
- e) repayable short-term loans, possibly convertible into venture capital.

The availability of guarantee funds as collateral for bank loans is an undeniable advantage.

Regions need to realise that they have to either attract private investors to their territory or build public-private partnerships to deploy similar instruments to finance innovative businesses – for more details, see Part 2 above.

Worth underscoring is that some authors⁵⁷ argue that only two innovative technologies out of 10,000 ever become global leaders. The supposed progression from idea to champion is the following:

Out of	10,000	technological development ideas;
	1,000	will give birth to a company;
	100	will be financed by venture capital funds;
	10	will be listed on the stock exchange;
	2	will become world leaders.

The same authors also estimate that out of 1.5 million new businesses developed in Europe every year, while roughly 150,000 can be said to have high growth potential, 3,000 to 4,000 only will gain access to venture capitalists to finance their growth.

2.4 The Quality of Public and Private Stakeholder Networks

The quality of regional networks is measured in terms of their governance, representativeness and added value. In principle, the latter is measured in transaction cost savings and access to technological and commercial information and competences (labour, talent, finance).

Since in the global knowledge-based economy, neither individuals nor businesses nor regions can shoot for multidisciplinary and multi-sectoral excellence on their own, local and cross-regional networking becomes crucial when it comes to stimulating innovation. Consequently, the saying “think global, act local” loses its meaning and should be replaced by “think local to be global”. Thus, the different formal and informal networking formats that exist on a regional scale need to acquire a transnational/global dimension.

To increase the range of services they provide in this field, regions need to promote:

- ✓ the emergence of incubators;
- ✓ the development of innovation vouchers, which should ideally be exchangeable in competence centres outside their region too – and even possibly in other countries;
- ✓ the implementation of an ambitious policy to attract and retain talent, including foreign students;
- ✓ their involvement in networks of key stakeholders in the evaluation of innovation requirements while rejecting their corporatist and clientelist tendencies if any;
- ✓ attraction in their region of companies specialised in knowledge brokerage (e.g. NineSigma, Innocentive, YourEncore, SPI-Sociedade Portuguesa de Inovação, etc.)

2.5 The Role of Universities in Stimulating Innovation

There is a need to become aware of the fact that universities play a crucial role in regional development through the multiplicity of their potential intervention in support of entrepreneurship and innovation. Below is as exhaustive as possible a list of potentially relevant forms of university intervention in support of the development of a regional innovation culture and practice.

- education and training of students;
- lifelong training of the general population;

⁵⁷ Rudy Aernoudt: Presentation at the 4th INSME Annual Meeting in Guangzhou, 3 July 08.

- Entrepreneurship, via activities such as:
 - ✓ Promoting entrepreneurship;
 - ✓ Developing new businesses (spin offs);
- Leveraging knowledge from:
 - ✓ Marketing project outcomes;
 - ✓ Technology transfers;
 - ✓ Small business consulting;
- Managing infrastructure including:
 - ✓ Preincubators;
 - ✓ Incubators;
 - ✓ Science/Technology parks;
 - ✓ Laboratories shared with regional players;
- Economic coordination by means of active participation in structures such as:
 - ✓ Clusters;
 - ✓ University/SME interfaces;
 - ✓ Seed capital funds;
- Development of public-private partnerships
- Talent attraction.

In addition to the interventions described above, which are of an endogenous nature, there is a need to consider the role of regional universities in terms of:

- Leveraging their reputation to attract and retain talent;
- Promoting internationalisation by transferring the regional know-how to operators in other regions and countries;
- Supporting areas that do not have a university, notably by conducting research activities on their behalf.

2.6 Private consulting market dynamics

Innovation calls upon a number of competences that the public sector cannot always provide, if only because it cannot match the wages paid by the private sector for these skills.

In general, sophisticated private services comprising the innovation value chain include:

- leveraging and commercialising patents and licenses;
- valuing businesses during negotiations with venture capitalists upon IPOs;
- contract development;
- acquisition/merger advice;
- marketing and branding advice;
- location, offshoring or outsourcing support;
- business model appraisal;
- human resource advice.

In this context, regions need to focus particular attention on the attitude of serial entrepreneurs, i.e. people with a personal fortune enabling them to act as business angels, of venture capital fund players and of university and research centre staff who could become or support business developers. Indeed, these people represent a substantial share of the private regional entrepreneurial capital.

Regions without the critical mass needed to attract a permanent private operator should consider negotiating a time-sharing arrangement with one or more operators who would undertake to be present regularly one or more days per week or month to meet with local businesses, either spontaneously or based on a pre-selection by regional development agencies or any other intermediary organisation. Public authorities pay for the offices and possibly the cost of using the services provided.

Regional strategies need to consider the two dimensions above in order to strengthen:

- the take-up of high value-added services among businesses;
- the solvency of the regional demand for such services;
- the attraction to the region of providers of sophisticated services or one of their subsidiaries.

The best way for regions to maximise private sector know-how for the benefit of SMEs is to provide low-cost generalist strategic assessment complemented with specialist consulting services helping them to formalise their innovation and growth strategy.

2.7 From Incubation To gazelles

The aim of all innovation strategies is to hatch or grow entrepreneurial growth companies (EGCs or gazelles). This presupposes differentiated action to address business development (incubation) and growth (expansion).

Statistics on incubator performances show that they fulfil their business development role but find it more difficult to promote the emergence of gazelles. For instance⁵⁸, the outcomes of the incubator of Midi-Pyrénées (F)⁵⁹ over eight years are as follows:

- 102 businesses accommodated out of 330 applications;
- 54 companies have left the incubator;
- 28 projects were terminated during incubation;
- 10 companies wound up;
- 40 million in venture capital raised;
- 450 jobs created.

The ratio of new jobs per business development is small: an average of 7 jobs in the 64 business that still exist. The ratio falls to 6.5 jobs per company if account is taken of the fact that 3 businesses alone created 59 jobs.

Many incubators show similar data. The managers of the incubator in Midi-Pyrénées are aware of the fact that one of the recurring issues facing accommodated companies is their financing capacity (generally €250,000 v. €500,000 ideally).

The concept of gazelles was defined as early as in 1979 by David L. Birch to characterise companies with a potential to create considerably more new jobs year after year over a period of three years. It seems that there are fewer gazelles in Europe compared to the US and that their average growth rate is slower too. This realisation is confirmed by an analysis of EU and US gazelle rankings. In 2006, the top 100 gazelles listed in Business 2.0 magazine created 90,000 new jobs (i.e. an average of 90 per company) while Europe 500's top gazelles created only 150,000 (i.e. an average of 30 per company).

It seems difficult to predict which companies will become gazelles and to develop proactive policies for their benefit. Therefore, a scouting system is needed to spot them and determine which categories of support services are most suitable to consolidate their strong growth rates.

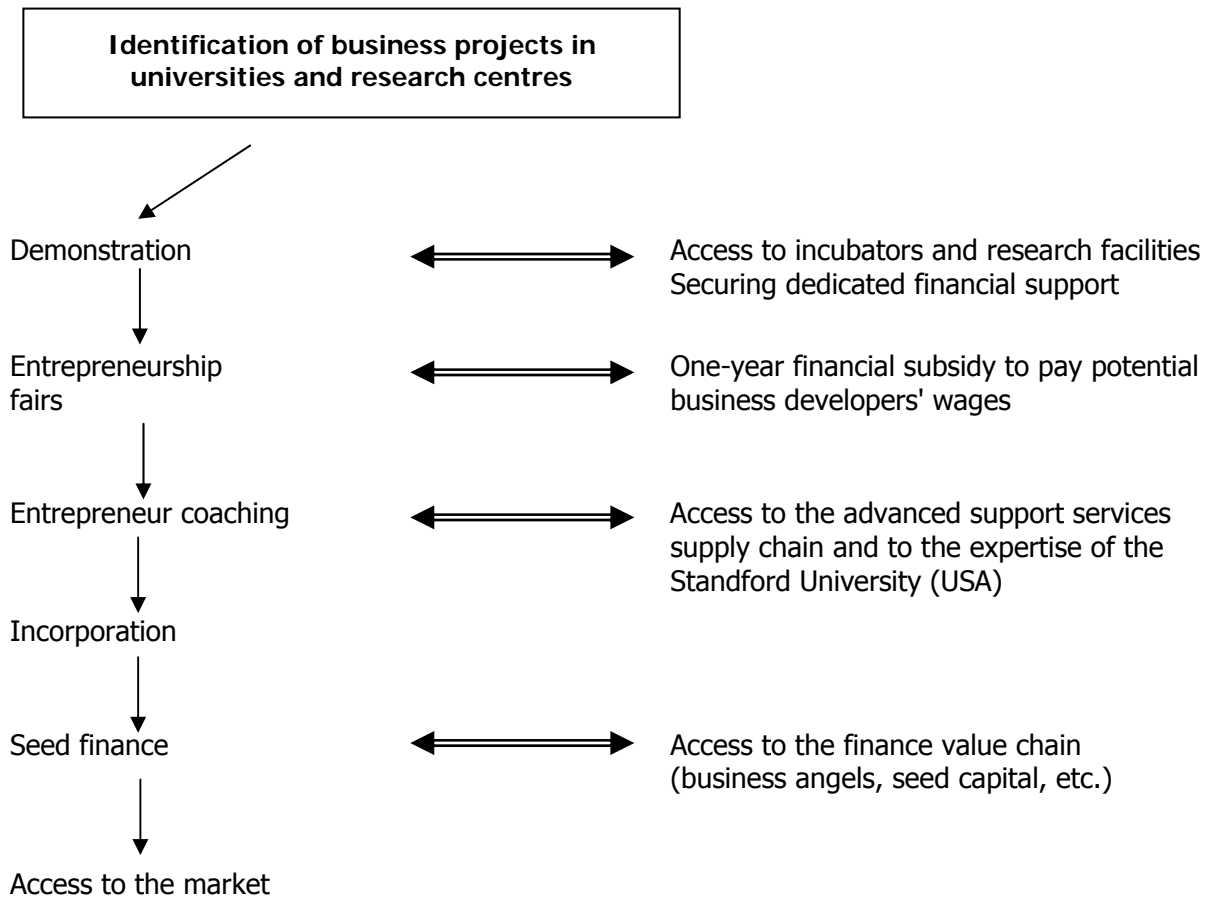
It is remarkable that US media focus more attention on gazelles than EU media and that the former are more famous than the latter because their products and services have become strongly branded consumer goods (Microsoft, eBay, Apple, Intel, Google, etc.), while EU businesses have developed niche or professional products (IBA, Dassault Système, SAP, Vestas Wind System, etc.).

By way of example, a diagram is presented below illustrating the value chain dedicated to the acceleration of the commercialisation of knowledge generated in Scottish universities developed and implemented by Scottish Enterprise, the Scottish regional development agency.

⁵⁸ *Les Echos*, 23 June 2008.

⁵⁹ For the period 2007-9, the incubator's budget amounts to €2 million per year.

Graph 15 Knowledge commercialisation acceleration value chain



Source : Diagram from a speech by Mrs Margaret McGarry, Scottish Enterprise (UK))

The business growth acceleration value chain developed by Mankato Growth (Minnesota, USA) is presented below⁶⁰.

The aim of the programme developed by this RDA is to help innovative business developers address their business growth process leveraging all available internal and external (advisory and financial) resources at every stage of the business lifecycle. In order to optimise this process, RDAs take the following action:

- high value-added services delivered by professionals;
- networks of experts and coaches;
- availability of venture capital;
- co-localisation or no-wrong-door system among intermediary service provider organisations.

To improve the follow-up of supported businesses, the RDA deploys a constantly updated reference system taking the form of a scoreboard showing all parts of the value chain with a system to monitor compliance with objectives and deadlines and identifying the consultants who have met the business along with a summary of their respective contributions.

⁶⁰ Speech presented by Ms Jill Klinger at the 2008 IEDC annual meeting on 20 October 2008.

Graph 16: Growth acceleration programme

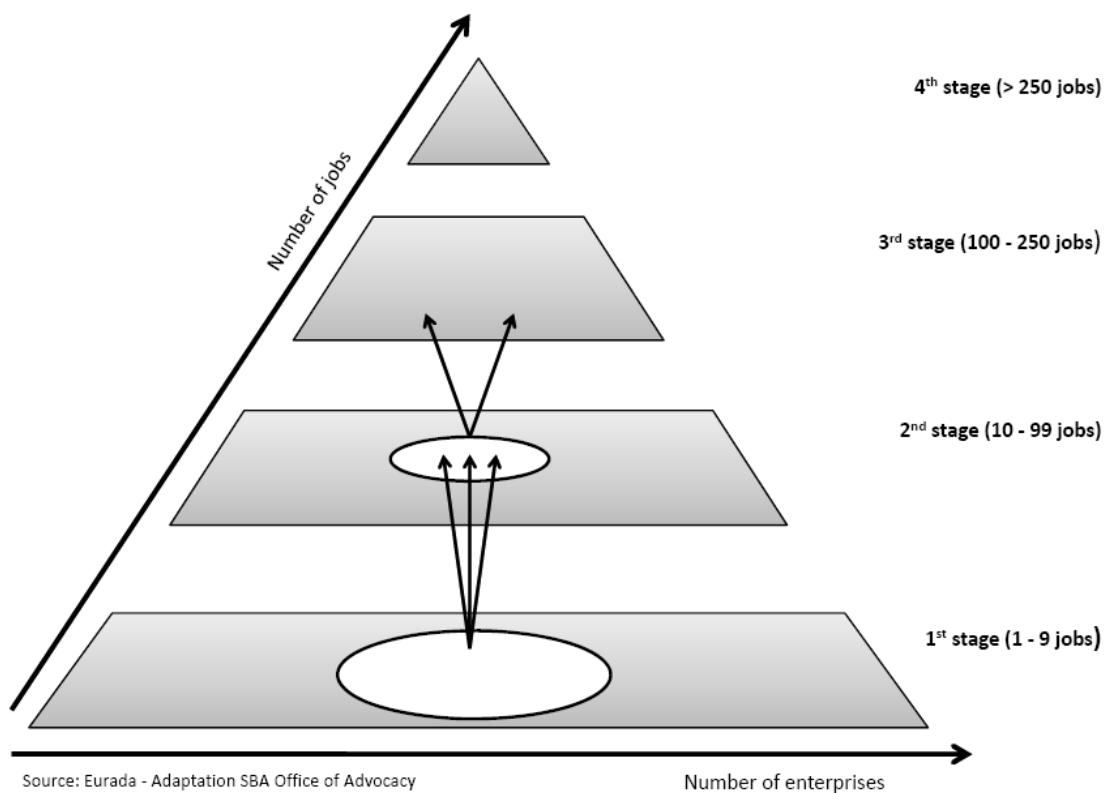
Step 1	Step 2	Step 3	Step 4	Step 5	Time
Concept	Seed	Start-up	Growth	Consolidation	→
<ul style="list-style-type: none"> • Idea • Maturation 	<ul style="list-style-type: none"> • R&D plan • Market validation • Legal personality • Obstacles to access • Business model definition • Financial needs • Investment readiness • Search for technical and commercial opportunities on the global market 	<ul style="list-style-type: none"> • R&D project management • Business model implementation • Removal of obstacles to access • Human resource planning • Marketing and sales plan • Own and other equity • Strategic partnerships and alliances • Identification of advisors • Internationalisation plan 	<ul style="list-style-type: none"> • Human resources and management team • Strategy implementation • Raising equity and external finance • Production tool development • Business model implementation • Internationalisation plan implementation 	<ul style="list-style-type: none"> • Process consolidation • Business model redevelopment • Strengthening of the marketing and sales plan • Production tool development • Financial model consolidation • Agreements with international partners 	→

Source: EURADA, adapted from the model developed by Mankato Economic Development Corporation (USA)

While the basics of EGC support services are generally known, the issue of their early detection remains completely unaddressed.

A number of US RDAs – including in regions such as Littleton-Denver (pioneer in this area), Santa Fe, Madison and Cheyenne – have developed schemes called Economic Gardening or "Balanced Portfolio Approach"⁶¹ with the aim of helping 3-5 year old companies having already created between 10 and 99 jobs. Acting from a realisation that 81% of net new jobs in the Denver area are created by 21% of businesses, the Littleton RDA developed specific support services to speed up and support the growth of companies at the second of the four stages of its balanced portfolio approach as illustrated below.

Graph 17 : Balanced portfolio approach



The services provided by support schemes all target the following aspects:

- ✓ connectivity: strengthening interactions and exchange between business developers and intermediary bodies including universities as well as among entrepreneurs;
- ✓ economic intelligence: access to information about markets, clients and competitors that is competitive, i.e. of the same quality as is available to large businesses on commercial terms.

Action is delivered through advisory services, clusters, peer-to-peer problem solving resource meetings and mentoring by large business managers. Participants in the scheme (businesses and mentors or peers) have to commit for 18 months, i.e. the time it takes to identify and deliver a growth acceleration strategy, consolidate financial resources and access new markets.

⁶¹ See SBA Office of Advocacy, Economic Gardening Next Generation.

The aim of this practice is to maximise the benefits of local ties among key stakeholders and businesspersons, notably through one-to-one contacts to enable informal exchanges of knowledge for the benefit of entrepreneurs and strengthen relationships based on trust among them.

Thus, the portfolio approach based on EGCs is comparable to the key account approach developed as part of business retention schemes. The difference is that strategic businesses in terms of growth potential are selected rather than existing companies providing most jobs.

Advisory services aim to improve and validate the organisational structure needed to build the business and maximise its growth. This organisational structure may include the following elements:

- market identification (regional, national, global);
- production scenarios (in-house, subcontracting, licensing, etc.);
- distribution scenarios (in-house, agents, etc.);
- international presence;
- access to funding sources;
- human resource procurement (in-house, outsourcing, etc.);
- procurement of competences with consultants;
- development of a brand, image or culture;
- quality system.

2.8 Emerging markets

Industries including biotechnology, medical equipment, nanotechnology, renewable energy, eco-innovation, composite materials and ICT are called upon to grow thanks to strong innovation potential.

Therefore, it is legitimate for regions to deploy systems to attract or stimulate activities in these industries by supporting clusters, investing in RTDI programmes or financing centres of excellence.

Regardless of the industry that is supported, the recipe for success always includes the ingredients described in previous sections. It is remarkable that California in general and Silicon Valley in particular have transitioned so smoothly from ICT to biotechnology and renewable energy despite deeply-rooted knowledge-based economy fundamentals (talent, venture capital, entrepreneurship and social networks, agile public authorities).

Difficulties in leveraging the opportunities of emerging markets have led EU Commission services to conduct discussions on the concept of lead markets in order to recommend to public authorities a number of measures promoting the development or growth of markets for the products and services of these industries.

The European Commission's initiative firstly identifies promising emerging markets to be supported by a concerted action based on in-depth analysis. It also designs a process to better streamline legal and regulatory environments and accelerate the growth of demand.

Based on the analyses, the following six markets were identified for the initial stage of the initiative:

- ✓ eHealth
- ✓ protective textiles
- ✓ sustainable construction
- ✓ recycling
- ✓ bio-based products
- ✓ renewable energies.

The Commission has identified for each sector measures to be taken with regard to legislation, public procurement, standardisation, labelling and certification, business support services, innovation, training and communication. The European Union's financial instruments will of course be used.

The documents are available from the Secretariat and on the ad-hoc e-platform <http://ec.europa.eu/enterprise/leadmarket.htm>

It goes without saying that the above considerations can apply to regions and be mainstreamed into a value chain or regional cluster.

While it is self-evidently in the interest of individual regions to carefully analyse their endogenous potential and attractiveness for emerging sectors, many will often conclude that their competitive advantage is limited to a niche industry that exists thanks to specific competences or talent, or to a role as integrators of new technology in traditional industries. While the latter realisations are less glamorous and ambitious, they can prove to be very beneficial in terms of generating regional added value and undoubtedly more profitable in terms of consumption of public financial resources.

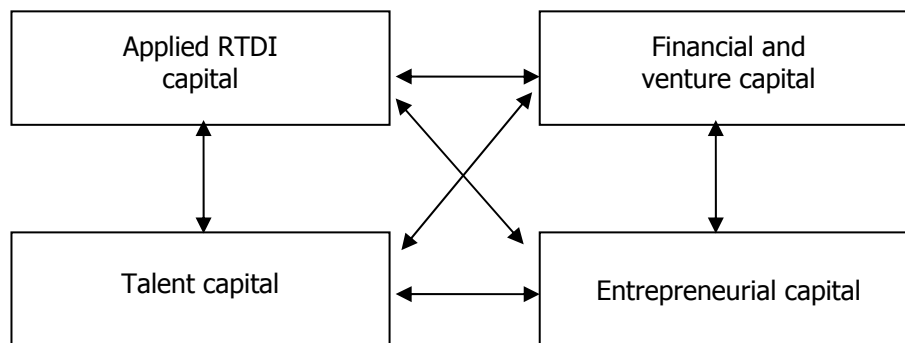
CHAPTER 3 MATCHING SUPPLY AND DEMAND

3.1 Modernising the Triple Helix

As noted in the introduction, the triple helix is a traditional concept that needs reviewing to reckon with the importance of venture capital in SME finance (financial capital). The advent of the knowledge-based society also calls for greater attention to qualifications (talent capital) in the regional eco-innovation system.

The different types of regional capital to leverage can be presented in graphical form as follows:

Graph 18 Forms of Capital to Leverage at Regional Level



They can be matched namely through clusters and be assessed through a value chain. These themes are discussed in greater detail below.

3.2 Clusters and competitiveness centres

There are many definitions of – and hence public approaches to – the concept of clusters and competitiveness centres these days. They all consider the spatial concentration of businesses and public or private institutions and educational establishments strengthening the industrial or technological value chain. Below are a few examples of definitions of the term “cluster”.

Cluster can be defined as follow:

- ✓ a geographically proximate group of interconnected companies and associated institutions in a particular field (M. Porter)
- ✓ groups of companies and/or services and all the public and private entities on which they, in some way, depend, including suppliers, consultants, bankers, lawyers, education and training providers, business and professional associations and government agencies (S. Rosenfeld)
- ✓ a tool for a collective learning process amongst enterprises and public organisations. This collective learning process should lead to productive gains for clusters members (Eurada’s Round Table of professionals in economic development)
- ✓ a source of innovativeness and competitiveness based on partnership and collaboration between business and public research institutions with the support of public and semi-public bodies (DG Research Expert group on Research Intensive Clusters and Science Parks)
- ✓ an association of companies, research centres and educational institutions of a given local area working in partnership (under a common development strategy), to generate synergies in the execution of innovative projects in the interest of one or more given markets with high growth potential (French new industrial policy).
- ✓ a local technological innovation system organised around universities and other public research institutions which have unique R&D themes and potentialities. Companies inside and outside the region are also expected to come into it (MEXT, Japan).

A distinction should nevertheless be made between spontaneous clusters set up by businesses themselves and those supported under public policies or even "regional politicians' pet clusters", which exist only due to bonanza effects created by the availability of public subsidies. Some clusters can have global influence thanks to their technological excellence or their networks of transnational contacts.

When developing their cluster support policy, public authorities can choose between supporting:

- private initiative clusters (bottom-up);
- industry-specific clusters;
- clusters combining complementary technologies;
- niche clusters;
- clusters based on existing or emerging industries;
- RTDI-intensive clusters;
- global excellence clusters.

It goes without saying that the nature of support varies according to the type of approach that is chosen and regional competences.

Below is a tentative typology of clusters developed by a group of research intensive cluster experts⁶².

- a) Spontaneous "bottom up" ones. Those clusters have started from a few regional stakeholders wishing to address a well identified need or opportunity through sharing knowledge and experiences in a loose informal network of committed organisations.
- b) Publicly supported ones. Those clusters were born thanks to a "top down" strategy initiated by ministries (industry, research, education, regional development) in order to facilitate or urge stakeholders to work together to improve their competitiveness. Clusters methodology serves as a public policy instrument through which grants are provided to networks of regional stakeholders.

Clusters exhibit different degrees of formalised structure depending upon the maturity of the cluster, the degree of trust between actors and the complexity of what the cluster actors want to achieve and whether the cluster aligns and supports their own corporate objectives.

Other ways to classify clusters are according to:

- a) Their sectorial focus. Some clusters are very sectorised focused, others are multi-sectorised and/or technology focused.
- b) Their aims. Some clusters can be built to strengthen the trade capacities of their members and others to create or exploit new knowledge. This can be achieved through collaboration and a renewed portfolio of activities such as market research, research activities, supply chain linking or integration of technologies in other product or process innovations.
- c) Their openness. Clusters vary also according to the degree of openness and formal organisation. Some clusters have formal memberships based on fees or even have a status of clubs with restricted membership, others are much more loose with no defined boundaries and open to new partners and networks.
- b) Their geographical coverage. Some clusters have a regional impact zone; others can be transregional or national.

A cluster however must not be seen as a 'regional' phenomenon. Depending on the understanding of a 'region' in national contexts, the spatial size of clusters can be much smaller. It can be a local activity within a municipal area or between a municipality and its suburbs. Usually, cluster borders are not confined to administrative boundaries. This holds true for

⁶² "Research Intensive Clusters and Science Parks" expert group convened by DG Research of the EU Commission in 2006/2007. See eponymous publication.

clusters of all sizes. A local cluster can encompass different locations while a regional one extends over different administrative regions within a country or between more countries. However, transnational clusters do not rank at the first position of cluster organisation patterns, but are a possibility in regions bordering neighbouring countries.

Nevertheless, today, there are attempts to create transnational clusters supported by common transnational governance. Indeed, despite the fact that clusters are rooted spatially, clusters may comprise different locations connected by research and production networks. The 'meta clusters' develop in scientific areas at the edge of scientific and technological development in which one location does not provide the necessary knowledge input for research and innovation activities. Research and even production is distributed over several locations within a country, a continent or even between continents and the challenge is to identify and integrate parts of it in the most productive way. Core drivers of these clusters are multinational companies which organise their research and production activities around subsidiaries located in different countries and contributing to a local cluster each.

As stated earlier, clusters have so far operated mainly at a regional or local level. Crossborder co-operation has only recently become a part of the operations, usually on a case by case basis. However, in the first meeting of a newly established High-Level Advisory Group on clusters in January 2007 the French senator Pierre Lafitte, the founder of Sophia Antipolis, pointed out that: "To remain competitive Europe must build more world-clusters. This calls for more transnational co-operation between the different cluster initiatives in the member states."

Furthermore, according to the recent Commission's communication on innovation, more and better transnational or crossborder European co-operation are essential in order to attain critical mass and improve strategic orientation. This new approach will give the chance to generate world-class European clusters. In the past we have seen that clusters at a regional or even national level often lack a wider view. Therefore it was essential to develop a new strategic orientation. Interregional or crossborder alliances will integrate regional efforts, will identify and contribute to the removal of barriers preventing closer co-operation between clusters and foster the development of common actions, technology projects and mutual learning among the regions. As an example of such interregional cluster, we can mention 'Eindhoven – Leuven – Aachen Triangle (ELAT)'.

To summarize, regional stakeholders have to carefully assess what is the real potential of the region for clusters before investing in them, as very few regions have a real potential to create world class high tech clusters and only a few can claim to become European or national champions. For those other clusters, they might focus their activity on upgrading their existing manufacturing base through greater support for innovation and through technology and knowledge transfer before aspiring to become innovative clusters.

In some countries such as Belgium, France and Japan, several networks coexist. Indeed, clusters exist alongside competitiveness centres in both Belgium and France, while in Japan, clusters are supported by two different ministries, i.e. METI (Ministry of Economy, Trade and Industry) and MEXT (Ministry of Education).

The fundamental principles applying to clusters and competitiveness centres are the geographical location of their members as well as interactions between them. Clusters can be assimilated to crossroads between vertical links (connections between public authorities, RTD centres or universities and businesses) and horizontal ties between complementary organisations (businesses and financial, logistical, advisory and other services).

Clusters organise their membership of economic stakeholders including:

- companies, both small & medium-sized and transnational;
- managers of community infrastructure: research and technology transfer centres, universities and their business interfaces, incubators, science parks, technological parks, etc.;
- intermediary bodies: chambers of commerce, business clubs, specialist public agencies such as regional development or innovation agencies, etc.;

- the private sector: consulting, banking, insurance, business lawyers, etc.;
- public authorities.

Clusters must yield benefits for both regions and businesses in fields including:

- knowledge development;
- occupation skills development;
- RTDI stimulation applied to markets;
- individual or collective entrepreneurship;
- commercialisation of innovative products and services.

In short, although they are competitors, clusters have to bring their members competitive advantages derived from their complementarity or cooperative activities.

Thus, public authorities can contribute to cluster development by:

- financing RTD activities;
- strengthening the catalyst effect of clusters, i.e. networking or shared service provision;
- promoting business growth;
- increasing investment in human resources as well as the attraction and retention of talent;
- accelerating the process of commercialisation of innovative ideas;
- developing economic and technological intelligence services;
- strengthening any and all types of cooperation at both regional and international level.

In the field of economic intelligence, efforts need to enable adequate anticipation of changes in markets or production processes due mostly to automation, digitalisation, outsourcing, offshoring or even the customisation or commodification of products and services. Economic intelligence should also enable SMEs to detect the best partners of their growth on research, component or product and service markets. The latter's specialisation requires SMEs to establish adequate structures and competences to meet the specific requirements of those three markets. In future, the networking function will become a key element of SME and regional competitiveness.

As indicated above, clusters must serve to improve cooperation among their membership. The cooperation formats described below can be implemented in a regional or trans-regional context, notably within the framework of interclusters.

There are many types of collaboration possible within industry, this is across organisational barriers (inter) or intra-organisational, all of which are important and have a common element - people.

- Strategic alliances

Collaboration between two or more companies designed to achieve some corporate objective. This may include international licensing agreements, management contracts or joint ventures.

- Joint ventures

When two or more businesses co-operate to run a project together - often a separate joint venture company will be established in which the various partners own a share. A joint venture is limited to one project while a partnership forms the basis for co-operation on many projects.

- Project based bids

When two or more organisations jointly work on a project tender, collaborating to supply a bid for a main contractor / client organisation. This is often run with a lead contracting partner who is in charge of the bid and who joins the bidding team.

- Supply chain partnering

This is defined as collaboration between same industry organisations that collaborate to deliver a contract of work. This would be a one off collaboration for a particular piece of work and might involve competitors collaborating to deliver a product together, as they could not do it alone.

- Product development teams
A common industrial collaboration, which is intra-organisational, and vital to an organisation's innovative success, is that of new product development teams. A facilitative process that enhances the working practices of this collaboration is of great benefit.
- University collaborations
A common collaboration is that between university and industry, which often involves several project partners, e.g. European project teams. Frequently, if it is an international collaboration, the complexities of the venture increases when cultural and language issues are added to the mix.
- Non-competitive collaborations
Collaborations can begin for a variety of reasons. Often these can be non-competitive, for example a special interest group of industry experts. Without the urgency of a competitive outcome these collaborations can dwindle yet are very important especially as knowledge sharing is a benefit of such collaborations.
- Regional
Firms who are co-located have the added advantage of being able to meet face-to-face and an industry specific network or cluster group is a common example of a regional collaboration initiative.
- General project teams
All people based group invariably have to collaborate, so some of the processes developed can also be applied to smaller groups and teams that are together over a period time or a period of a project.

Worth pointing out is that cluster performance hinges to a large extent on the quality of their coordination team, their list of contacts and their industrial competences. Remarkably, the French Clusters Association CDIF delivers a training programme for cluster managers in order to professionalise this role. Such training is especially useful where support service provision is fragmented, institutions are compartmentalised and the regional social capital is low.

Finally, cluster developers need to take care of SME involvement both in cluster governance and as users of the services and other advantages provided by clusters. Also, complicated financial schemes and long delays in securing subsidies often dissuade SMEs from actual involvement in clusters.

3.3 The regional innovation value chain

The members of EURADA and an expert group convened by DG Research of the EU Commission have developed a graphical representation of the main components of an RTD-intensive cluster / competitiveness centre value chain (see below)⁶³.

This value chain may become a regional innovation strategy development toolkit as it puts infrastructure and intermediary organisations as well as all intangible factors in perspective with potential business needs. Indeed, such a value chain enables the strengths and weaknesses – as well as any shortages – of the regional innovation ecosystem to be assessed, thereby allowing regional innovation strategy developers to take the most appropriate measures to strengthen its weak links.

This assessment reveals the missing links of the chain and highlights overlapping or redundant links represented by a plethora of stakeholders –often also the ones with the lowest added value.

⁶³ *Research Intensive Clusters and Science Parks* – EU Commission DG Research (2008).

The value chain also emphasises the importance of regional governance and leadership and in particular of a genuine commitment by public authorities to support innovation.

This approach requires leadership, political boldness (governance) and investment commitment, i.e. the three most important intangible parameters of any strong, committed public innovation policy.

Such a value chain should ideally include the following parts:

(i) Awareness and investment readiness. Researchers and university senior managers have indeed to be convinced of their ability to contribute to the creation of business and the commercialisation of research leading to the growth of regional clusters. Their contribution can for instance take several or all of the following forms :

- providing specialised training and workforce development opportunities,
- attracting and retaining talent,
- investing in entrepreneurship and innovation culture,
- addressing entrepreneurial RDT needs,
- providing assistance to start-ups (student placements, teachers, researchers) in order to technologically and commercially validate their business ideas and provide solutions to real needs,
- providing support to existing SMEs to enhance their RDTI absorption capacity
- building appropriate infrastructures from pre-incubators to science parks
- managing IPR and technology transfer and knowledge transfer interfaces or centres,
- taking stake in spin out or seed capital funds,
- integrating transnational partnerships.

Intermediary organisations have to fulfil an important task in helping research and university representatives to understand and speak the same language as the one used by businesses and to solve the asymmetric information gap between the long-term fundamental research expectations of researchers and universities and the short to medium term commercial imperatives of enterprises and the application of research. They also play an important role in creating an identity or a brand for the clusters.

(ii) Organisational infrastructure availability. Public, private and higher education institutions need to invest in RDT infrastructures and facilities. Due to the fact that investments in such assets are becoming increasingly expensive, cluster stakeholders have to consider new forms of Public-Private Partnerships and joint ventures.

(iii) Market driven and applied research activities - clusters aim at providing solutions to the RTD needs of enterprises. Those needs might be either outsourced TD/innovation activities, in house RTD/innovation activities supported by external researchers or student or risk shared RTD/innovation.

This issue can be tackled through support schemes aiming either at helping universities and research centres provide assistance to SMEs (direct support or student outplacements) or at helping enterprises procuring services or consultancy advice from research or academic institutions.

The instruments

The central component of the value chain includes 5 instruments facilitating the innovation process consisting of:

(i) The networking or clustering process through which the demand and offer for research/innovation services are matched and through which pre-competitive and collaborative research projects and programmes are defined and implemented. This process also helps promote regional innovativeness and dissemination of new technologies. It also secures better technology and market intelligence and commercial co-operation or partnering. Those networking activities will help enterprises to access technology and commercialisation intelligence and audit, prototyping and test or technological centres. They will support

partnership and supply chain development, and interface opportunities with research centres and high education institutions.

- (ii) Protection of IPR and promotion of incentives for scientists to protect their research results. Encouragement of technology transfer and quality management.
- (iii) Promotion of skills, education, training and student placements in enterprises but also encouragement of companies engaging in developing their own work force. Those investments are essential in successful clusters as they provide the right type of human capital allowing enterprises and universities or research centres to strengthen their labour force without contributing to their overheads significantly.
- (iv) Entrepreneurial training and culture. Those are cluster activities which allow clusters to bring research ideas and results to markets by boosting start-up creation and helping them develop their business and marketing skills and testing whether or not there are routes to market for their products and services and whether or not they are commercially viable. Special attention should be given to the use of external consultants and knowledge experts by SMEs as well and innovation management and leadership capabilities in SMEs.
- (v) Access to funding sources (Business angels finance, Pre and seed capital, Venture capital, Repayable grants, Proof of concept funding, University / Research centre spin out / spin off fund, Mezzanine funding). The non availability of equity and other types of funding is often the major reason of a lower rate of high-growth SMEs (gazelle creation) in European clusters compared with the most dynamic ones in the USA.

The Outputs

The last part of the value chain deals with outputs, i.e. spin off and spin out formation, commercialisation of research results in the form of new products or services or increased market shares. This part should provide the main performance indicators for the clusters.

Regions have or attract above average talented people, innovators, entrepreneurs and creative workforce. Clusters also generate jobs, better wages, growth, public knowledge which can be used by all stakeholders and local enterprises. They are able to drive the regional research agenda on the basis of market needs.

Performant clusters provide enterprises with a range of competitive advantages, which impact their profits and growth through cost reduction and/or sales increase. Those advantages are related to research and innovation, access to funding sources and human capital as well as to sectoral issues. In the field of research and innovation, a cluster will reduce the costs linked with those activities through cheaper (shared efforts), easier and quicker access to information, knowledge, infrastructure, capacities and capabilities (network and scale effects). Clusters also enable enterprises to access human resources and attract talents and highly qualified skills (reputation, branding effects). The most dynamic clusters are able to attract different types of investors (business angels and venture capitalists), serial entrepreneurs and top class service providers. Clusters create a good business environment which helps to reduce the risk related to the commercialisation of research results and market introduction of new products and services. They also improve the RDTI absorption capacity of existing SMEs. Being part of a cluster offers SMEs opportunities to avoid some of the disadvantages they usually face (asymmetry of information, distrust of public procurement authorities, etc.) by bringing them close to the different stakeholders of the cluster value chain. Finally, enterprises can through the clusters improve the representation of their sectoral interest (lobbying).

Clusters have in fact to facilitate the "Research, Innovation, Market" process and in particular they have to speed up the "research idea to market" process and, vice –versa, the market needs into research projects.

Graph 19 Value chain for research intensive clusters

Pre-requisites

Assets

- Human capital
- Technological capital
- Financial and equity capital
- Social capital
- Infrastructure

Public sector

- Interinstitutional collaboration
- Governance
- Leadership
- Vision
- Attractiveness
- Investment willingness

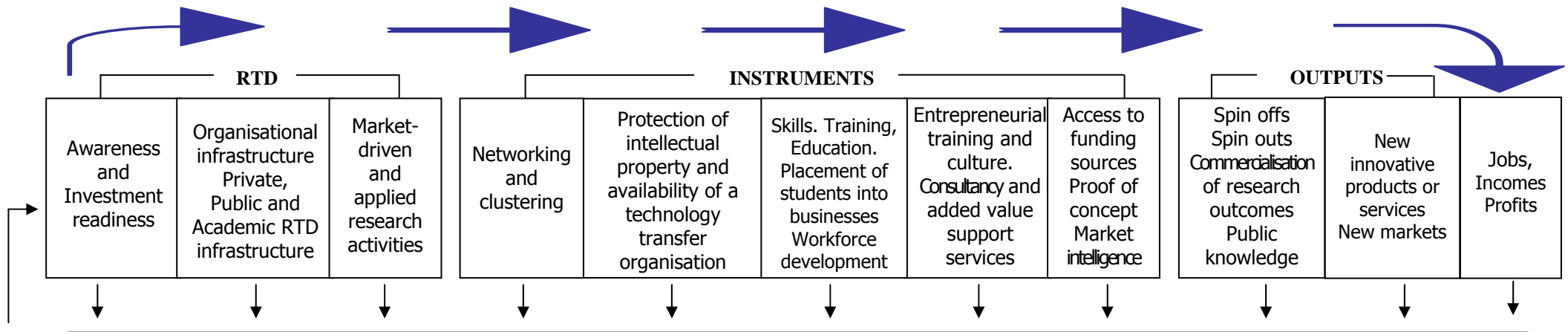
Triple Helix

Private sector

- Capacities
- Critical mass
- Sound financial enterprises
- Investment readiness
- Engagement in a research regional agenda

Intermediaries

- Quality infrastructure
- Competences
- Capability



Implementation

- Consensus building
- Strategy design to support research intensive firms and commercialization of research results
- Delivery mechanism of the strategy

Source : EURADA Round Table of Practitioners in Economic Development and RIC Expert Group

The table below presents examples of action taken by regional development agencies as part of the value chain presented on the previous page.

Table 11 Breakdown of the value chain and examples of action taken by EURADA members

Value chain links	RDA	Scheme
Awareness	ASTER CEEVO Val d'Oise (F) IMPIVA Valencia (E) ADIRA Bas-Rhin (F)	Link-up RTDI week in Val d'Oise RENAC: Network for nanotechnology applications in materials and products for habitat Researcher & business club
Infrastructure	IGRETEC Charleroi (B) JYKES Jyväskylä (FIN) Shannon Development (IRL) Scottish Enterprise (UK)	<i>Aéropole</i> (aerospace technology centre) Agora Wellness Lab Limerick Science Park Aberdeen Energy Centre
Market-driven research	LIOF Limburg (NL) ASTER Emilia-Romagna (I) Scottish Enterprise (UK) South West of England RDA	Research Vouchers Spinner Research to revenue pipeline Grants for research and Development
Networks, clusters, competitiveness centres	Midi-Pyrénées Expansion (F) AIDA Andalucia (E) Advantage West Midlands (UK) ERVET Emilia-Romagna (I)	Aerospace valley Marble Food & drinks, tourism, KIBS Farm equipments
IP rights and technology transfer	Scottish Enterprise (UK) London Dev. Agency (UK)	Intellectual Assets Centre London Technology Network
Training, skills and value-added services	AGIT Aachen (D) LIOF Limburg (NL) Scottish Enterprise (UK) IMPIVA Valencia (E)	Innovation competition plan Research Vouchers Research to revenue pipeline Electrical Technology Institute
Access to funding sources, proof of concept, spin-offs	AIDA Andalucia (E) Scottish Enterprise (UK) Enterprise Ireland (IRL)	Campus LINC Business Angels Proof of Concept

Source : EURADA

CHAPTER 4 INTERNATIONALISATION OF TECHNOLOGICAL SMEs

Public authorities need to develop internationalisation policies for innovative businesses and even possibly for intermediary bodies including clusters. This effort can deliver three kinds of benefits: improved competitiveness for local SMEs, more technology-intensive local SMEs and stimulated acquisition of technology.

Furthermore, since only technological start-ups become global leaders – because they mainstream the international dimension right from their development –, it is increasingly important to provide regional SMEs with a range of available support services based on internationalisation.

Worth mentioning among them are:

- ✓ economic intelligence;
- ✓ proof of concept (technology and market) demonstration by foreign experts;
- ✓ recruitment of talent or provision of coaches;
- ✓ access to specialist RTD or prototyping equipment;
- ✓ temporary accommodation in business hotels.

According to a Finnish survey entitled “International R&D in high growth SMEs – Implications to innovation policy”⁶⁴, public authorities can help the internationalisation process of technological companies by supplying them with support services in the six areas below:

1. knowledge of international market and technology demand
2. strategy development for international R&D activities
3. identification and selection of partners
4. identification, selection and acquisition of technology
5. skilled personnel
6. funding for international core, close-to-market and supporting R&D.

In some cases bold regional outsourcing or offshoring support policies should be deployed in order to help SMEs acquire components – including knowledge – at affordable prices, thereby enabling them to remain competitive and hence ensure their long term survival.

These days, there are definitely one or more good reasons to compare the expertise available in-house in all departments – research, innovation, production, marketing/sales – with that available around the world. A detailed segmentation of regional business needs reveals the advantages they could derive from an internationalisation strategy. The table below illustrates this concept.

⁶⁴ Gaia Group oy, http://proact.ktm.fi/index.phtml?menu_id.

Table 12 Matrix of business functions and international services

Business functions	International services
Research	Joint research Access to equipment Establishment (FDI)
Innovation	Joint development Proof of technological concept Proof of economic concept Licensing and transfer of intellectual property
Production	Outsourcing Offshoring Subcontracting Establishment (FDI)
Marketing	Market testing
Distribution	Economic intelligence

Source : EURADA

CHAPTER 5 CREATIVITY AND KNOWLEDGE

5.1 The challenges of the knowledge-based economy

There are in theory no limits to the knowledge resources available to a country or region — in contrast to raw materials, for example — but optimum use of these resources requires an adequate cultural, educational, administrative, legal and tax framework. Structures must both favour and stimulate:

- creativity and the acquisition of creative capacities
- the spirit of enterprise and innovation
- the development of talent, and the ability to attract and retain talent
- cross-fertilization of expertise
- commercial applications of research results
- venture capital investment
- internationalization of thinking and planning
- markets and profits.

Regions will therefore increasingly depend on access to technology, knowledge and competences.

Only when these conditions are met can there be any real assurance that knowledge will generate new knowledge without exhausting the possibilities of the sectors concerned. In the future, the value of a region's overall knowledge offering may well be the crucial measure of its wealth⁶⁵.

Can there be any lasting credence in the idea that the global economy is divided into two compartments, one consisting of developing countries offering competitive production bases founded on low wage costs, and the other of developed countries that are the focus of creativity, research, original design, innovation and quality? This question is worth asking considering trends in developing countries, where:

- University education is seeing exponential growth.
- Public and private⁶⁶ investment in R&D and innovation is rising steadily.
- Attractiveness is on the rise for R&D centres of European and North American multinationals⁶⁷.
- Local businesses are making increasing commitments to innovation, design, quality and branding.
- Local talents will sooner or later move on from imitation to innovation, and overcome the quality failings that emerged during the summer of 2007.
- At the same time, European competitiveness clusters and other focuses of expertise are too inward-looking due to a lack of strategy or an inadequate international presence.
- Entrepreneurs and professional are in some cases returning to their native countries, reversing the so-called brain drain.

The knowledge society can shift the balance in development opportunities. A number of studies and ranking s (e.g., from Shanghai Jiao Tong University and Business Week), show that China, India, South Korea and other developing countries have achieved high levels of excellence in scientific and technological training. Fortunately, innovation is for the moment not only a matter of ideas or creativity, but also of organization and market approach. In some sectors, customer-centred innovation is critically important to effective responses and anticipation of demand, as illustrated by examples including Apple's iPod, Zara, Renault's Logan and Starbucks.⁶⁸ In this

⁶⁵ See Alvin and Heidi Toffler, "Revolutionary Wealth" (Knopf, 2006)

⁶⁶ SAIC Motor Corp. has just invested €180 million in its research centre at Jiading (Shanghai)

⁶⁷ According to some studies, 400 multinationals already have research and technology centres in China, compared with 77 in India. The city of Shanghai's website claims 150 research centres.

⁶⁸ See Innovation Tribune, Blog Innovation and Entrepreneuriat, among others.

area, the businesses of the west will probably hold onto their lead on rivals in developing countries for a few more years.

There is however a need to accept that the argument according to which only low-skilled jobs can be offshored will not much longer resist the reality of globalisation⁶⁹. Indeed, a closer look reveals that jobs are threatened wherever they can be replaced through automation, outsourcing or digitalisation. Therefore, constant ICT innovation increases the number of professions that are potentially at risk. This will have increasingly sizeable consequences in the services industry and in the administrative departments of companies.

It should encourage public authorities to carefully analyse their potential and ability to:

- create knowledge, either spontaneously or as part of a system facilitating solutions to the problems facing regional businesses;
- transfer the knowledge developed within or transferred into regions. This transfer may take several forms: business development, improved products and services or regional knowledge, etc.
- absorbing knowledge, whether locally available or imported.

In this context, universities and key regional stakeholders will need to develop strong partnerships based on mutual or shared areas of interest.

5.2 Public policies and creativity

National and regional authorities can contribute to the emergence, preservation and reinforcement of the competitive advantages of businesses in creative industries through initiatives targeting:

- clusters and other competitive groupings
- venture capital funds specialized in financing for creative industries
- centres specialized in the promotion of intellectual property rights
- design centres
- technical centres
- business real estate
- business intelligence
- support for the registration of patents, commercialization of innovative ideas (proof of concept) and identification of unutilized entrepreneurial ideas (spin-offs)

Some examples of good practices adopted in European regions are given below.

- Seed capital funds for creative industries: London Development Agency (UK), Advantage West Midlands (UK), SEE Finance (UK), ICIC Cataluna (Spain)
- Design centres: Lyon (France)
- Centres for the commercialization of intellectual property: Wales (UK), Scottish Enterprise (UK)
- Clusters: Flanders (Belgium), Cholet (France), Cosmetics Valley (France), Pôle 16000 Images (France), West Midlands (UK), Jyväskylä (Finland)
- Business real estate: 12,000 sq.m. fashion and design centre to open in Paris in the first half of 2008.

In France ADEME, the Agency for the Environment and Energy, puts out calls for projects in the field of eco-design, encouraging R&D centres to make creative use of renewable materials in items for daily use., while at European level the European Association for Creativity and Innovation aims for a better understanding of innovation management , its acceptance and practice in Europe (www.eaci.net). EACI places special emphasis on cooperation and cross-fertilizing among universities, businesses, and teachers in the field of innovation and creativity.

⁶⁹ Cf. *The World is Flat*, Thomas L. Friedman.

In the UK, a 2005 report entitled "Review of Creativity in Business: Building on UK Strengths"⁷⁰ underscored the importance of investing in creativity and design for SMEs keen on boosting productivity and performance. As the Cox report noted *"The intelligent application of creativity and design allows businesses of all sizes to access new, global markets by increasing the distinctiveness of products and services and competing on the basis of the added value of their unique appeal to consumers"*.

The review focused on two broad areas: building a stronger relationship between businesses and creative professionals, and strengthening the links across university departments and with industry.

The review concludes that a lack of awareness and understanding of the role that greater creativity can play in business is a key barrier to SMEs making greater use of creative skills. It recommends a number of measures to tackle this:

- *raise the profile of the UK's creative capabilities through a national network of creativity and innovation centres;*
- *engage SMEs and demonstrate the practical benefits of applying creativity through the availability in each region of the Design for Business programme of support;*
- *increase the understanding of creativity and innovation in the boardroom by recruiting people with creative experience onto company boards;*
- *educate senior business people by including creativity on the syllabus of the Institute of Directors' Chartered Director programme; and*
- *use the broadcast media to encourage creativity and innovation.*

The review makes a number of specific recommendations to develop better linkages between creativity and other disciplines:

- *build cross-disciplinary capabilities in business, engineering, technology and creativity through new educational centres of excellence;*
- *establish closer links between universities and SMEs; and*
- *ensure that higher education courses better prepare students to work with, and understand, creative specialists.*

The report shows that the main – real or perceived barriers to use innovative design by SMEs are: cost, lack of in-house design or creative skills, lack of customer demand, manufacturing or development issues, access to external design or creative skills, ...

The report led to the creation of a first centre of excellence in London by the Royal College of Art, the engineering school of Imperial College London and Imperial Tanaka Business School. It is backed by an initial investment of £5.8 million.

5.3 The contribution of creativity to sector reconversion

Creativity and the capacity for innovation within a region can be significant sources of new relative advantages where industrial sectors suffer from a loss of competitiveness. Examples include the strength of some French regions in technical textiles and that of some UK regions in areas relating to Formula 1 automobiles, where over 4,000 businesses are involved. Equally, while Europe has lost the merchant shipbuilding market⁷¹ (bulk cargo vessels, oil tankers, gas carriers, container ships), companies such as Aker Yards (N), Fincantieri (I), Meyer Werft (D) dominate the world cruise ship market thanks to technical design expertise.

In some cases, innovation can keep production plants from closing down — albeit perhaps temporarily. The Seb plant in Is-sur-Tille (France) is an example: its existence reflects a policy of innovation on site⁷².

⁷⁰ Cox Report: http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2005/press_cox_05.CFM

⁷¹ Les Echos, 7.4.08

⁷² Les Echos, 25.10.07

In another example, Belgium's Noukies, specialized in plush toys for children, was losing ground until it developed a range of children's wear and a series of cartoons based on its star product, winning a new lease of life.

In the future, revamps of this type, based on the capacity to innovate, are set to become increasingly important in Europe as sales volumes for many industrial sectors in the developed world reach saturation point. Businesses will thus have no option but to differentiate their offer, either by creating high added-value products with higher profit margins, or by developing concepts based on well-being or unique experience to justify a higher price. In this case, innovative technology will need to call on creative flair in marketing, design, packaging and even distribution networks. Government authorities can help SMEs to develop effective industry watch services and programmes.

5.4 Public financing for creative industries

As indicated in the previous section, venture capital funds specializing in creative industries have been set up, mainly in the UK, where the sector also benefits from the support of specialized development agencies.

Creative London is one of these, providing support that includes advice, business incubation facilities help with access to financing, protection for intellectual property rights and access to production studios at attractive rates. The agency also manages a venture capital fund with £5 million for individual equity investments between a minimum of £70,000 and a maximum of £500,000. Its website home page delivers a clear message "Creative Industries shape London's Future. Ideas are Britain's fastest growing exports."

In the north of England, the Creative Investment Development Agency (CIDA) based in Huddersfield has provided professional services and other support for nearly 3,000 businesses, including 350 start-ups, since its launch in 2000. To this end, it has raised over €16 million in venture capital financing and now has an annual budget of €1.5 million, employing 18 people compared with just two at the beginning. CIDA also benefits from EU funds (ERDF and ESF).

In the Netherlands, the Dutch Creative Fund set up in 2006 offers support ranging from €20,000 to €40,000 to support business starts in creative sectors.

5.5 From manufacturing clusters to knowledge clusters

Current thinking on clusters centres on conglomeration effects associated with the concentration of a broad range of functions and knowledge relating to a given activity in a single area. Yet with the emergence of centres of excellence in an increasingly large number of countries and regions, multinational firms are tending to break up the geographical bases of their value chain, locating or relocating certain functions in regions offering the desired capacities and types of talent.

Authorities need to take their cue from this trend, and adapt support for regional clusters to match the new geographical breakdown of knowledge and competencies, forging new alliances between clusters in different countries and in complementary fields.

On this point, it is worth referring to the report of the Forrester Research consultancy (The Forrester Wave: National Innovation Network Q4 2006), which argues that the biggest failing of most innovation programmes is that they consider countries as closed systems, as if they each had to have their own innovative capacities. Counter to this view, Forrester advocates a global ecosystem of cooperative innovation bringing together countries, businesses, universities and other organizations. Within such a network, individual countries play specific roles in discovery, transformation, financing and intermediation according to their various capacities. In this context, the regions have to rid themselves of protectionist reflexes to make the most of their own strengths with the support of the complementary strengths of others. This is even more true of cluster managers and organizations in charge of economic intelligence than of regions, since it is even harder for them to acquire critical mass at all key points along the value chain of innovation and market exploitation of new ideas.

The pertinence of these recommendations is backed up by another study, entitled "Innovation Networks: Global Progress Report 2006", which points out that *"across industries and regions, firms are abandoning vertically integrated innovation approaches in favour of innovation networks – global partner ecosystems that co-develop and co-market new products, services and business models – and reaping big benefits. CEOs can drive and accelerate innovation network adoption by developing a secure and scalable collaboration infrastructure and investing in new skills to broker and orchestrate cross-firm innovation partnerships."*

5.6 Free zones for research and innovation?

To get a better grip on production costs, many countries have developed industrial free zones. Why should European regions not develop free zones dedicated to research and innovation? Businesses and investors in these zones could be offered maximum fiscal benefits, including sales, to promote RDT activities, innovation and the marketing of research findings.

CHAPTER 6 GOVERNANCE

6.1 Regional development trajectories

In principle, regional development can focus on one or more of the following options:

- Leveraging region's natural, cultural and tourism potential;
- Enhancing their function as services and commercial centres for their hinterland;
- Strengthening their productive basis as a link in one or more industrial supply chains ("screwdriver plants");
- Leveraging the collective innovation capacity and the ability to adjust to market or technology changes;
- Harnessing their knowledge and talent in sectoral or scientific centres of excellence.

Regardless of eventual regional choices, success will be possible only by carefully articulating regional physical (infrastructure) and intangible assets whilst ensuring that public provision of innovation support services meets the requirements of the private sector and in particular of SMEs as the genuine drivers of regional dynamism.

In some cases, public provision needs to ensure a more fluid flow of knowledge locally and to improve its absorption capacity by regional SMEs. This requires substantial investment in training, human resource development and talent retention.

Unfortunately, this kind of investment does not attract media attention and its return on investment is not easily measured. It is therefore poorly attractive in terms of notoriety for politicians compared to infrastructure investment. However, regions and businesses alike face the "innovate or die" dilemma these days. And innovation should be understood in two different ways: turning regions into innovation centres and innovating in terms of the contents and delivery of regional strategies.

In this context, regional development is no longer achieved only via provision of infrastructure but also through its use by business managers, which in turn hinges on their creativeness and competences. Also worth recalling is that regional innovation is not measured by the number of regional patents but as the ability of regional firms to turn new ideas into turnover, profit and jobs.

In the near future, European regions will no longer be able to rely on the creativeness of their population to deliver development. Fortunately, unlike raw materials, this potential is theoretically inexhaustible – though investment in education and science & technology is observably levelling off everywhere, the culture of entrepreneurial excellence and success is losing its prestige, and there is growing hesitation among university graduates when it comes to creating their own business. This too, justifies a more careful analysis and a reinforcement of the intangible assets of all regions.

As with businesses (see Part 3, Chapter 1), the added value of regions depends on intangible assets these days – i.e. mainly their population. Indeed, regional dynamism rests on factors including:

- leadership;
- training, skills and talent;
- creativeness;
- the entrepreneurial and innovation spirit;
- the circulation of knowledge – and hence the quality of networks;
- the reputation of universities and their involvement in regional development;
- the perception of the level of financial risk;
- the internationalisation capacity of commercial or technological entities facing novelty or change.

These success factors also apply to the public sector. Some players call this realisation “governance”.

6.2. When copying a regional strategy, can you mirror its benefits too ?

In the field of economic development, is it possible to copy a model developed by another region irrespective of its degree of success? We conclude that the answer to this question has to be no, in the sense that it is increasingly evident that the difference between success and failure in any regional strategy is a function of intangible factors rather than infrastructure, administrative pronouncements or policy-makers’ wishes.

These days, the main intangible factors that combine to deliver the regional competitive edge relate to elements including:

- ✓ an entrepreneurial, venture-prone culture;
- ✓ the anticipation of new needs;
- ✓ governance;
- ✓ leadership;
- ✓ social capital;
- ✓ a critical mass of finance and talent;
- ✓ serial entrepreneurs;

i.e. factors that cannot be moved from one place to another.

In this context, basic infrastructure is only a prop—i.e. important but not decisive. And the same is true of administrative and intermediary bodies, especially as for historical reasons they often duplicate or even compete for, public subsidies that ensure their survival—but not necessary their legitimacy—and actually thwart any attempt to promote change.

Let us imagine for a minute an “economic development expert or team” from region A embarking on a fact-finding mission and landing in San José (Silicon Valley), Durham (Research Triangle) or Boston (the starting point of Route 128). What will he/she/they see?

- ✓ an airport;
- ✓ roads and rail tracks;
- ✓ at least one university or other academic institution;
- ✓ business parks and shopping malls;
- ✓ one or more (pre)incubators;
- ✓ private, public and university research centre laboratories;
- ✓ a technology centre;
- ✓ teachers, students and researchers;
- ✓ businesspersons and SMEs;
- ✓ a university/business interface;
- ✓ venture-capital fund managers;
- ✓ an intellectual property development unit;
- ✓ a nondescript structure meeting any of the definitions of clusters or competitiveness or excellence centres;
- ✓ one or more development strategies geared toward promising tech industries;
- ✓ (semi)public intermediary bodies;
- ✓ a cultural centre, a golf links, and possibly a marina;
- ✓ elected representatives and a local or regional administration;

i.e. a whole range of concepts with which he/she/they are familiar if he/she/they come from any average European region, city or town. Except that contrary to his/her/their hometown, those few areas have become famous development models!

This confirms that what makes the difference between any two regions lies either in better regional branding and marketing as well as in the reputation management or in other, more subtle ingredients, i.e. more difficult to identify and consequently to replicate, especially since—as shown below—they relate to human factors, namely trust and confidence, culture (hierarchy

vs. open decision-making process) and guarantee of stability. In other words, or so the saying goes: "people make the difference"!

Added to this realisation are also other parameters including a critical mass of finance and talent as well as investment willingness and readiness, which are comparatively less evident in Europe.

Actually, the main differences our visitor(s) would notice are:

- ✓ a higher number of foreign entrepreneurs and talents;
- ✓ an active business angels community;
- ✓ a well-funded seed and venture capital industry;
- ✓ networks of pragmatic-visionary decision-makers trusting a clearly identified leader;
- ✓ punishment meted out by the market rather than an institutional problem-solving approach;
- ✓ faster risk-taking and—consequently—decision-making.

The aim of the argument below is to establish that up-to-date public policy cannot be satisfied with infrastructure but needs to pay greater attention to concepts including:

- ✓ investment willingness and readiness among both public and private operators;
- ✓ networking key stakeholders.

The level of performance of infrastructure investment is closely connected to:

- ✓ available financial resources, with a view to promoting optimised use of said infrastructure;
- ✓ effective involvement of the private sector in defining and implementing projects, including possibly their funding;
- ✓ the quality of human resources managing newly-developed infrastructure;
- ✓ the networking of key stakeholders involved with both the supply and demand sides of infrastructure usage;
- ✓ the relevance of support measures aiming to promote appropriate use of newly developed infrastructure.

Thus, public authorities need to pay ever-closer attention to a range of aspects such as:

- ✓ harnessing the regional social capital with a view to improved leveraging of investment efforts;
- ✓ changes in the regional supply chain resulting from investment and the need to take follow-on measures to maximise the latter's beneficial impact, namely in terms of SME take-up of schemes and the resulting generation of value added;
- ✓ training intermediary bodies to detect new, as yet unexploited opportunities for existing SMEs or potential investors;
- ✓ performance levels of regional infrastructure compared to other territories;
- ✓ new opportunities for transnational cooperation arising from investment operations.

i.e. a conjunction of intangible factors calling upon creativeness and knowledge development.

6.3. The importance of intangible factors

There is little doubt that the quality of infrastructure is a determinant of economic development. However, investment in infrastructure is neither an absolute precondition of economic growth nor a guarantee of successful regional development. For instance, how many industrial parks, technology centres and incubators look more like "cathedrals in the desert" than competence centres? The causes of failure are undoubtedly to be found in the following mistakes:

- ✓ public authorities seduced by fleeting fashions;
- ✓ bad choice of locations;
- ✓ absence of a critical mass of entrepreneurs;
- ✓ lack of adequate resources to support potential users in order to maximize the benefits from infrastructures;
- ✓ public interventionism dictated by supply rather than an analysis of demand;

- ✓ faulty interpretation of a concept imported from another region;
- ✓ lack of available, earmarked financial resources;
- ✓ failure to anticipate changes in scheme lifecycles;
- ✓ lack of operator credibility or notoriety;
- ✓ inadequacy of the public/private—or even possibly public/public—partner;
- ✓ inadequate management or lack of adequate and appropriate local competences;
- ✓ irrelevant regional supply chain;
- inadequacy to framework conditions.

When it comes to regional dynamism, there is abundant evidence suggesting the crucial role of informal and formal networks, whether in terms of clusters contributing to the competitiveness of regional companies, business angels to the development of innovative companies, business clubs to exchanging best practices or business/university interfaces to innovation in regional SMEs.

However, networking is not something that can be pronounced. Indeed, it must stem from a determined process initiated by businesspersons based on the perception of pre-competitive advantages shared by all network members. In this context, the role of public authorities should be limited to facilitating the process and encouraging investment that contributes to increased competitiveness among network member companies.

Networks can only be effective provided that an adequate critical mass is available to them and that they are moderated by a leader recognised by their membership.

Networking using the no-wrong-door concept may be a response to fragmented public provision by promoting stakeholder specialisation.

The availability of a diversity of funding sources is also a key aspect of regional development. Each funding source is essential because it serves the needs either of specific categories of businesses or of all businesses at different stages of their lifecycle. There is little doubt for instance, that micro-credits meet different needs compared to seed capital funds or guarantee schemes.

It is also emerging with increasing clarity that the availability of adequate amounts of equity can only efficiently promote business success provided that steps are taken to improve its absorption, i.e. if support is provided to entrepreneurs to stimulate demand and equity amounts are adequately ensure market flexibility.

In some regions, supply of public equity should go hand in hand with professionalized fund management and the development of partnerships with the private sector.

In an economy whose competitiveness rests on developing and leveraging knowledge, the regional human capital becomes a critical raw material. Talent must be available for invention, design, innovation and entrepreneurship alike.

Regions are often dependent upon serial entrepreneurs and investors with the ability to leverage new market opportunities and share their expertise with the social and economic fabric of the local environment.

Talent also translates into regional leadership. Indeed, the development of every single acknowledged competitiveness cluster enjoyed the support of a leader with a vision. The best known include:

- Silicon Valley : Fred Terman
- Route 128 : Vanevar Bush
- Sophia Antipolis: Senator Pierre Lafitte
- Leuven: Martin Hinoul
- Orthopedic surgery cluster in Birmingham, Alabama (USA): Dr James Andrews
- Cardiac devices cluster in Minneapolis–St Paul, Minnesota (USA): Earl Bakken

The importance of a critical mass as a success factor is underscored a number of times above. Below are a few examples of critical mass making the difference between failure and success in economic development policies:

- €400 million: the budget dedicated by METI and MEXT (Japan) in 2005 to their policy in support of the 37 clusters of national interest, as opposed to €280 million over four years for five clusters in Wallonia (B) and €1.5 billion over four years for 65 projects in France!;
- \$128 million of equity raised from seed capital funds by the three Californian start-ups developing nanotech-based photovoltaic energy technology. For the record, according to EVCA figures, seed capital investment in Europe totalled €148 million invested in 355 enterprises in 2004!;
- \$185 million invested by venture capital firm OVP Venture Partner in the software cluster leveraging Linux operating system around the University of Portland, Oregon (USA). By comparison, the Leuven Region (B) had €200 million of venture capital available in 2002 through 9 companies.

NB : A counterexample: €18 million were invested in a public incubator in Belgium which was closed only two years after its opening due to a lack of tenants, whereas the "Open Source LINUX" incubator of Portland (USA) only cost \$1.2 million to the public authorities, i.e. the State of Oregon and the City of Beaverton.

6.4 Agile public administrations

One would expect public administrations advocating business innovation as a driver of regional development to be able to innovate themselves.

A.T. Kearney⁷³ consultants studied this issue and identified six features shared by the most effective – i.e. agile – public agencies and services. These features relate to the parameters below:

- a. Leadership: defining a clear vision, focusing resources on new trends and strategic objectives and improving flexibility to allocate resources when and where they are needed;
- b. The ability to generate and manage organisational change: understanding client needs, improving customer relations and allocating human and financial resources to meet client expectations;
- c. eGovernment: take-up and use of NICT applications;
- d. Customer service: implementation of CRM (Customer Relationship Management) practices enabling a segmentation of support service provision based on an understanding of customer demands and the development of efficient delivery schemes;
- e. Performance evaluations: use of balanced scoreboards and investment in vocational training;
- f. Organisational culture and values: mutual and reciprocal trust between and among leaders and employees as well as openness toward both the outside world and in-house creativeness.

Organisational agility is generally hampered by "public market" failures that often take one or more of the following forms:

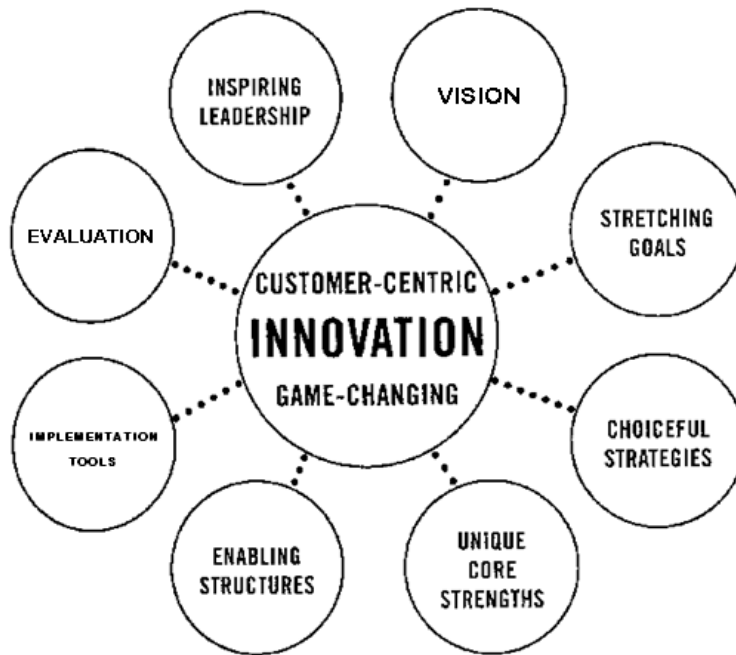
- dogmatism;
- bureaucratic paralysis;
- absence of proactivity (resistance to change);
- clientelism;
- the NIMBY or "do as I say, not as I do" syndrome;
- announcements not followed by financial resources (investment willingness);
- self-congratulation due to the absence of an evaluation culture;

⁷³ Cf. A.T Kearney, Agile Government: Improving Performance in the Public Sector

- fashion effects without an objective analysis of the strengths and weaknesses of the value chain.

The graph below, adapted from the book of A.G. Lafley and Ram Charan and entitled "The Game Changer", illustrates the elements to be taken into account by an agile public administration when formulating a regional strategy.

Graph 20 : Agile public administration and regional strategy



Source : Adaptation of A.G. Lafley's and Ram Charan's graph

This virtuous circle should also apply to all public strategies and their components. Indeed, it may be relevant to entrepreneurship strategies and financial engineering strategies or strategies to strengthen the academic role in economic development or enhance IP utilisation.

CHAPTER 7 REGIONAL INTELLIGENCE

7.1 Definition

Regional intelligence can be defined as an exercise enabling a region to both anticipate socioeconomic change and manage the knowledge derived from such change for the purpose of developing policies, know-how and innovation to eventually become a centre of competence.

In other words, regional intelligence is the regional equivalent of the advantages drawn by the private sector from concepts including economic intelligence, technology watch and transfer as well as RTD activities, with all the consequences this carries in terms of management as well as planning, making and implementing decisions.

7.2 Components of the exercise

The prerequisite for deploying a regional intelligence system is public service mastery of a series of "fundamental" parameters:

- macroeconomic parameters: e.g. the impact of economic globalisation, the comparative advantages of emerging countries, the importance of the international political context on the business climate (oil prices, economic growth, inflation/deflation, etc.);
- mesoeconomic parameters: the formulation of public support services geared toward (i) companies, including in terms of business and talent attraction; (ii) the interface between businesses and key stakeholders; (iii) innovation; and (iv) vocational training;
- microeconomic parameters: the promotion of entrepreneurship and innovation within businesses;
- human capital : availability of talent, observatory of future skills needs, analysis of functions endangered due to offshoring, outsourcing, automatisisation and digitalisation;
- society parameters: the impact of the attitude of civil society on the business environment: age pyramid, NIMBY syndrome when it comes to spatial planning or the rejection of scientific progress, environmental issues, the matching of people's skills with business requirements, immigration, etc.;
- legislative parameters: the impact of legislation on attitudinal change among businesses. Legislation may encourage or hinder innovation and entrepreneurship.

Mastery and management of knowledge relating to the parameters listed above will call for the following from both public authorities and businesses:

- the ability to anticipate and absorb change;
- a capacity for sliding strategic planning;
- the ability to communicate on, and promote awareness of, innovation;
- the ability to operate within formal and informal networks;
- administrative and entrepreneurial flexibility;
- the ability to generate (administrative, product and service, process and business model-related) knowledge and innovation;
- the ability to generate added value over and above the ability to create jobs.

In his book "L'Entreprise réinventée" (Business Reinvented), Marc Halévy-van Keymeulen described (pp. 214-215) the areas businesses need to explore when seeking to develop a corporate vision.

Mr Halévy's thinking can be extrapolated to any regional strategy without difficulty or loss of substance. Thus, below are the questions that regional intelligence needs to address in order to help public managers develop a suitable regional strategy in light of the present competitive context...

Without any pretence to exhaustiveness, any "good" regional intelligence strategy needs to answer at least the following questions:

- *What drivers of external change are most likely to impact the functioning of the regional economy within the next five to ten years? Conversely, which of its components are most likely to remain unchanged? These questions need to be asked especially in areas including technology, political ground swells and natural resources as well as population, cultural and sociological trends.*
- *What are the likely weight and milestones of the influence of these drivers on the pathways of my region's economy? In light of those, what should be my priorities?*
- *To what extent are my region's entrepreneurial dynamic and regional policy at one with these drivers? (This is the crucial test for any strategy's survivability).*
- *What will be the impact of these drivers in terms of threats and opportunities for my region?*
- *Alongside the existing regional vision, there still remains another issue: What of my strengths (which I need to leverage as a matter of priority) and weaknesses (which I need to address or outsource as a matter of priority) against these drivers.*

The main challenge will be to identify lasting tendencies in the mass of available data and knowledge and tell it apart from non-information and passing trends. It is in this context that regional intelligence can make an important contribution when it comes to developing and reviewing regional strategies.

7.3 Objectives

There is a growing need in view of the complex make-up of both global and regional economic dynamism, to develop regional intelligence systems. The aim of such systems is to understand how competitive advantages evolve within regions and neighbour and other player regions – as well as their respective resident companies – in a globalised economy. This requires understanding industry-specific factors and the operation of networks of (technological, financial and knowledge-, market-, cluster- and talent-based, etc.) excellence to anticipate change and work out transnational alliances.

According to a number of French experts⁷⁴, the aims of regional intelligence need to enable:

- the development of projects generating added value;
- the anticipation of change in technology as well as markets and know-how;
- the promotion of regional attractiveness;
- the moderation of formal and informal economic and social networks;
- the deployment of theme- and sector-based economic watch schemes;
- the development of regional information systems and their use by as many SMEs as possible.

The outcomes of this kind of effort will make it possible to:

- constantly update the assessment of regional strengths and weaknesses and value chains;
- deliver support services to the different local, national and transnational networks;
- strengthen governance;
- boost competitiveness;
- solve the asymmetry between public policies and private sector needs including in economic terms, i.e. supporting the anticipation of industrial change and the effects of globalisation.

For our part, we advocate a system that also aims to understand the regional knowledge generation, transfer, utilisation and absorption system.

7.4 Regional intelligence and the knowledge-based society

Such a system provides public authorities with an overview of how regional players generate knowledge (original ideas, innovation geared toward solving problems identified by the fabric of

⁷⁴ Including Philippe Clerc, President of the *Association française pour le développement de l'intelligence territoriale* ("French Association for the Development of Regional Intelligence").

the local economy and society), transfer and disseminate it to regional and other stakeholders and utilise it in the form of innovation or absorb it as public goods for the benefit of all local stakeholders.

Doing this requires:

- identifying knowledge owners;
- setting up a network to share knowledge;
- collecting, acquiring, sorting , analysing and validating knowledge;
- sharing, unlocking and leveraging knowledge;
- understanding the barriers to knowledge dissemination and mainstreaming;
- solving the asymmetry of information among key stakeholders;
- identifying and leveraging the specific roles of those key stakeholders.

This process is reflected in the table below, introducing a reference system for a regional intelligence initiative.

Table 13 Regional Intelligence Reference System

Process	Stakeholders	Activities
Knowledge generation	Public administration	Investment in <ul style="list-style-type: none"> • Joint RTDI research • Joint development • Financial engineering • Networking • Technological and market intelligence
	Education establishments	Involvement in activating the social and economic fabric, the provision of talent and the popularisation of knowledge, as well as in solving the issues facing key regional industries
	Enterprises	Spending on RTDI and internationally on in-service training and talent recruitment
	Clusters	Representativeness and technological and economic intelligence efforts. Degree of internationalisation
Transfer	Universities / Research Centres / Enterprises	Partnerships, spin-offs, spin-outs, licensing, proof of concept
	Enterprises	Technology transfer (imports & exports)
Utilisation	Enterprises	Marketing new products and services Mainstreaming new technology into traditional sectors New businesses development
	Investors	Seed capital
Absorption	Key stakeholders	Disseminating ideas and knowledge Developing new markets Detecting and formulating new needs

Source: EURADA

Local development of such a reference system should take account of the fact that regions only really have the five growth drivers below at their disposal:

- talent capital (creativity);
- innovation (“if you can’t copy, you have to innovate”);
- constructive destruction of activities and companies (public equity is limited; lame ducks are always supported to the detriment of innovation);
- venture capital (essentially at proof-of-concept, seed and start-up stage).

Specific attention needs to go to (i) the relative speed of change in individual industries or value chain links; (ii) the availability of the different skills needed; (iii) potential productivity gains; and (iv) the quality of interfaces between key stakeholders.

It may also be useful to carry out a SWOT analysis of the regional supply chain linking knowledge generation and absorption and including the following chains:

Generation Dissemination	Transfer Absorption
Education	Imitation
Basic training	Product and process improvement
Creativity	Innovation
Higher education	Intellectual property acquisition
Life-long training	Technology transfer
Applied research	Commercialisation of breakthrough products/services
Proof of concept	
Basic research	
Publication, popularization	
Intellectual protection	
Commercialisation of results	

Appropriate decisions are then made based on the findings of this analysis to strengthen the regional knowledge generation capacity or to ensure seamless trade and transfer between stakeholders, whether local or foreign.

The emergence of regional intelligence systems may also help regions transition from a traditional culture of public intervention based on an obligation of means to one resting on a culture of results!

7.5 Consequences for public managers

At regional level, all change can be a source of decline or growth. The regional impact of change will depend on public and private decision-makers’ attitudes and aptitudes.

Potential attitudes are:

- ✓ “laissez-faire”, endure and react, V.
- ✓ analyse, anticipate and proact.

Existing aptitudes (capacity) are:

- ✓ limited to acquired skills and by inflexible procedures, V.
- ✓ enhanced by constant learning and experimenting.

The table below seeks to introduce the risks and opportunities for regions represented by “fundamental parameters” presented under section 7.2.

Table 13 Risks and opportunities for regions represented by "fundamental parameters"

Fundamental parameters	Potential positive attitudes	Capacity for constant adjustment
Export growth	Improved SME awareness	Specific support (Fit for Export)
Business relocations	Market segmentation (FDI) Retention schemes Awareness campaigns on the added value and development of intellectual assets in local businesses	Refining target group selection Discussing with business managers Regional strategy to promote innovation, IP (intellectual property) and quality Leveraging businesses' intangible assets (brands, designs, customers, know-how, innovation, etc.)
Volatility of energy prices in light of political context	Analysis of the regional dependence on oil as an energy source	Energy savings and renewable energy programmes
Improved competitiveness in the regions of emerging countries	Transnational cooperation	Support for clusters' internationalisation
Population ageing	Analysis of public support opportunities and needs	"Wellness" or "ergonomic design" clusters
Innovation and new technologies	Analysis of local needs and potential Sectorial technological watch	Strategies to mainstream new technologies into product development in traditional industries
Increased importance of NTIC	Analysis of potential new applications	Training Creation of new markets

Worth mentioning among interesting examples of regional intelligence projects carried out by Eurada members is the web design initiative of Limousin Expansion (F)⁷⁵ combining the organisation of a web design festival (knowledge absorption) with (i) an international web design competition (knowledge generation and transfer), (ii) the only university-based web design vocational training course (knowledge generation/transfer); and (iii) accommodation of newly-developed businesses and start-ups in an incubator (knowledge utilisation).

7.6 **Regional intelligence and SME growth**

The four defining features shared by all Entrepreneurial Growth Companies (or EGCs, also known as "gazelles") are:

- their position as global niche market leaders;
- their balanced sourcing of finance (own equity, venture capital, financial loans, net cash flow);
- their excellent management team and quality staff;
- the value of their intangible assets (patents, brands, RTDI capacity).

Regional authorities may develop high added-value services addressing such needs by helping EGCs acquire – or providing them with – market intelligence services (about clients, suppliers, competitors) and access to RTDI or venture capital infrastructure and networks of local (peers, universities, mentors, etc.) or international contacts.

⁷⁵ See www.limousin-expansion.fr.

Developing such an approach is justified because in general only a small fraction of regional businesses (3-5% of all regional SMEs) provide the vast majority of local jobs.⁷⁶

7.7 The component parts of a regional intelligence tool

It is our contention that an interactive and constantly updated database addressing the following list of critical issues facing businesses needs to be developed for every industry of importance to the regional economy. Data shall be collected at regional, national and international level:

- Markets: volumes, niches, market trendsetters, global trends, geographical concentration of operators, new business development and knowledge generation nurseries, etc.;
- Human capital: trends in jobs and skills requirements, provision of basic education and in-service vocational training, talent spotting, attraction and retention and impact of job outsourcing, digitalisation and automation opportunities;
- Social capital: clusters, business clubs and other formal and informal networks, role of peers and mentors, types of industry-relevant interfaces;
- Financial capital: risk aversion among the different investors in an industry, availability of the different sources of finance, key elements of the due diligence process by financial operators, etc.;
- Knowledge: RTD capacity, innovation ecosystem, quality of consultancy services and university/enterprise interfaces, intellectual property, time-to-market, etc.;
- Infrastructure: quality and relevance of basic and business infrastructure;
- Environmental footprint of individual industries: contribution to the debate on climate change;
- Trends in technological integration and convergence as well as modelling and stimulation.

⁷⁶ See the work of MIT's David Birch on "gazelles".

Part 4

EVALUATION SHOULD NOT BE TABOO ANYMORE !

INTRODUCTION

Too many experts and politicians still believe that regional development strategies are all about deploying resources without necessarily having clear, predefined and achievable objectives in mind. This tendency reflects a culture based on means rather than outcomes or on supply rather than demand, which is not conducive to the emergence of evaluation methods.

Also, this type of culture undoubtedly explains the plethora of regional initiatives motivated by prestige or fashion rather than (i) an honest analysis of the regional ability to leverage support schemes, (ii) mastery of the value chain, and (iii) the availability of the kind of public and private finance needed for effective scheme delivery. How many incubators, tech parks and clusters belong in the categories of "politicians pipe dreams" and "mere let know" rather than "centres of excellence" and "genuine know-how"?

Efforts to evaluate public development policies are hampered by the difficulty of identifying their true users. While the latter should logically be businesses or businesspersons, it appears in practice that they are elected representatives, i.e. the suppliers of funding rather than its final users.

How many intermediary bodies including RDAs have been decapitated, restructured or even closed, not because of poor performance but due to unilateral government action motivated by dogma (e.g. in the UK under Mrs Thatcher) or politics (France, Central Europe)? And how many other intermediary bodies have concomitantly been set up to satisfy egos or bring in relatives or friends of ruling politicians without adding any real value to the paradigm of intermediary bodies? Also, short-sighted visions and emotional motives in the case of business relocations are not conducive to objective assessment of the mid to long term benefits of regional policies or their instruments.

Also indisputable is that public policy assessment is complicated by the assessment the extra costs generated by (i) the need to reckon with public goods, (ii) the inexistence of solvent markets for a number of services, and (iii) the countercyclical nature of certain types of intervention.

Spelling out economic development roles in contracts instead of voting lump-sum annual budget appropriations encourages the definition of increasingly objective parameters to evaluate provider services and the effectiveness of intervention in regional entrepreneurship and innovation stimulation supply chains.

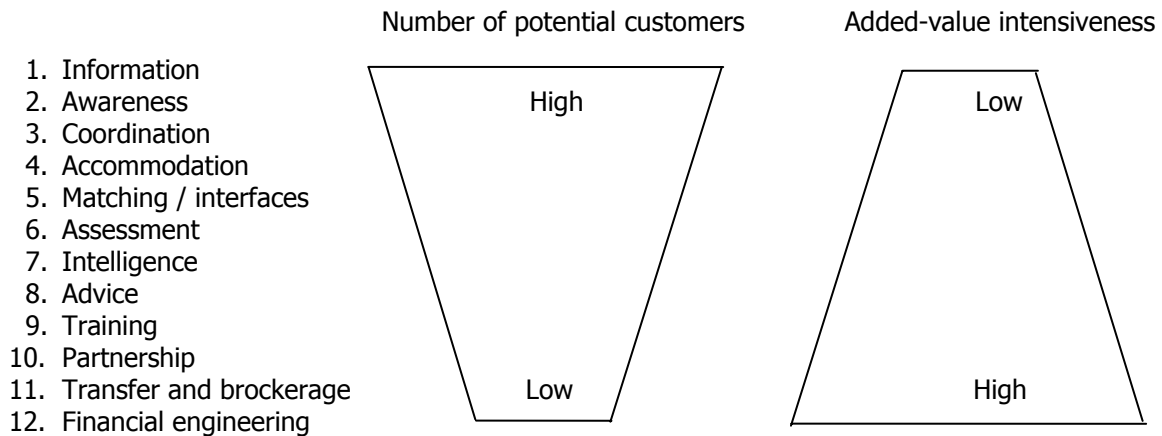
Below are some thoughts about methods to evaluate the hard and soft outcomes of regional development tools and policies.

CHAPTER 1 REFERENCE SYSTEM TO MEASURE THE ADDED VALUE AND INTENSITY OF BUSINESS SUPPORT SERVICE PROVISION

The table below introduces a tentative hierarchy of support services according to:

- a) their added value for businesses;
- b) the requirements imposed on support service providers in terms of the intensity of their efforts and the professional skills they need to acquire.

On a scale of effort intensity of 1 to 6 – where 1, 3 and 6 respectively correspond to a low, average and high degree of sophistication –, the different rungs correspond to the following activities:



Source : EURADA

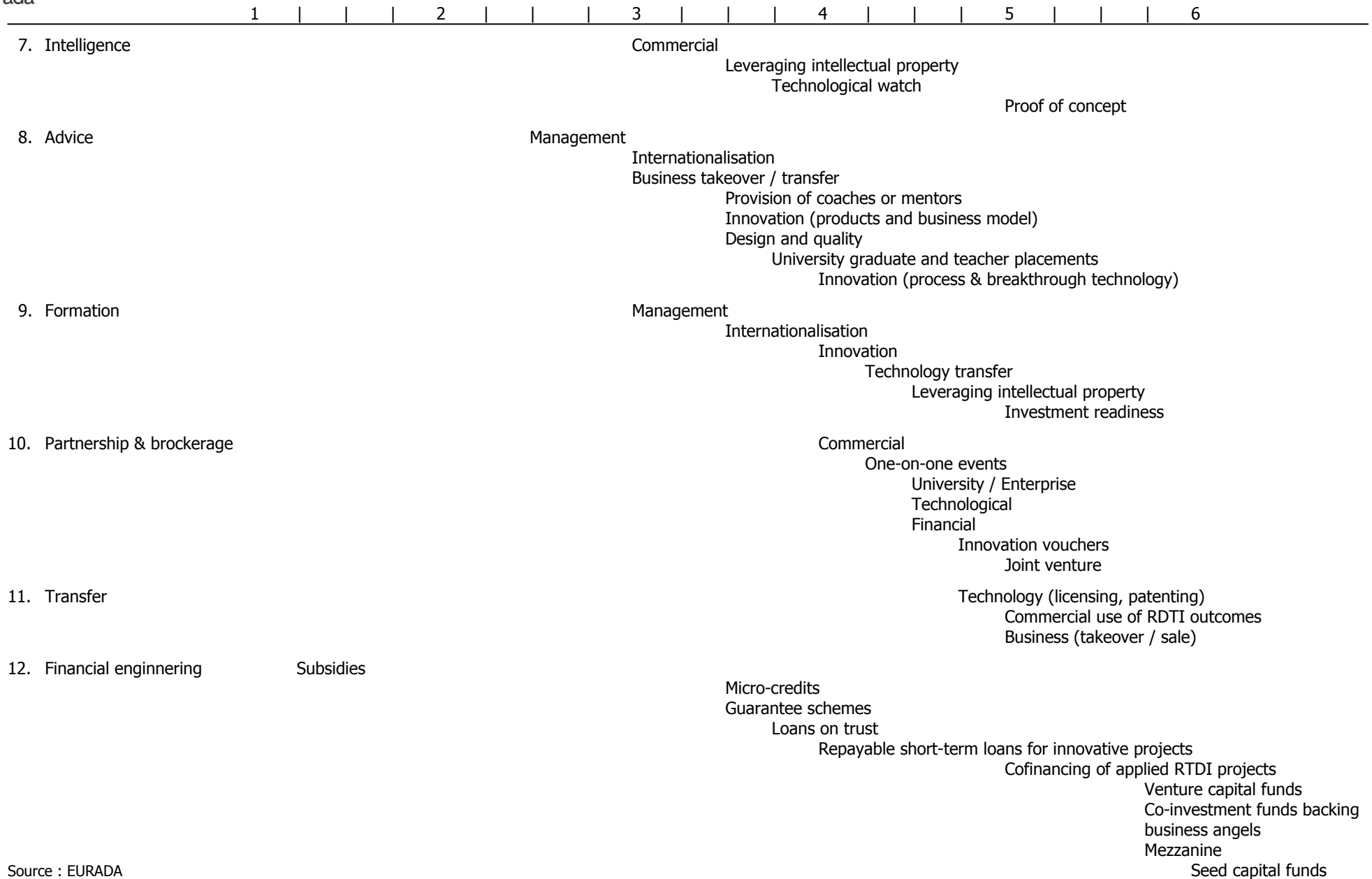
The shape of the value scale is a reversed pyramid with a large base – because it includes generic services targeting a wide range of potential users (businesses and potential business developers) – and a narrow top – because provision at this level is limited to sophisticated support services focusing on a few businesses with specific, highly specialised and labour intensive needs. Another remarkable feature of this “reversed pyramid” shape is the large number of players it includes (hundreds on a national scale) in the field of information as opposed to just a few in financial engineering.

As already underscored in Part 1, there is a plethora of operators for low skilled services (≤ 3 on our scale) who can be assimilated to universal service providers, and a shortage of skills-intensive service providers.

Table 14 introducing a hierarchy of support services is completed by Graph 18 presenting a comprehensive support service supply chain.

Table 14 Support service hierarchy

	1	2	3	4	5	6
1. Informations	General information (touch-and-go)	Specific information	Database management (grants, legislation)	Targeted information	Business plan (formulation)	
2. Awareness	General activities	Business days or weeks	Targeted action	Business plan competitions	Business fairs	
3. Coordination	One-stopshops (business development)	Databases of economic opportunities	Business clubs (users groups)	Technological opportunity databases	Incubators	Industrial tech centre
					No-wrong-door (concept implementation)	Business angels clubs and networks
4. Accommodation		Industrial parks	Incubators and nurseries (space rental)	Business hotels	Technological parks	
5. Matching		Digital profile sharing	Group participation in fairs	Digital tech profile sharing	Targeted (or bilateral) business opportunity sharing	Bilateral exchange of tech opportunities
					IBEX (meet-the-buyer fairs)	
6. Assessment		Proof of business concept	Analysis of strengths and weaknesses	Benchmarking	Audit of needs and dormant potential	



Graph 21 Support service supply chain

Preconditions

- Institutional recognition
- Legitimacy
- Skilled staff
- Capacity to understand business requirements
- Ongoing evaluation of service effectiveness and provider efficiency

Information	Awareness	Coordination	Accommodation	Matching	Assessment	Intelligence	Advice	Training	Partnership and brockering	Transfer	Financial engineering
General Specific Targeted Touch & Go	Ongoing Ad-hoc Events Competitions	Databases Clubs Networks No-wrong-door Business infrastructure	Industrial parks Incubators Technological parks Business hotels	Commercial Technological	Business plan Auditing Benchmarking	Technological market	Management Internationa- lisation Takeovers / transfers Innovation	Management Innovation Technological transfer Investment readiness Intellectual property	Commercial Financial Technological University / Entreprise	Technological Enterprise	Subsidies Venture capital

Delivery mechanism

- No-wrong-door
- Package of financial and other services
- Network coordination

It is possible to analyse the value chains presented in previous chapters using this reference system, which also enables public authorities to assess and formulate support service provision. Public authorities also need to review the funding granted to the different service providers because organisations providing high value-added services self-evidently face higher transaction (analysis, procedure validation, risk-taking, etc.), staffing and (technique, training and other) resource costs and consequently deserve more substantial financial support compared to others providing only information or awareness services.

While this statement may sound self-evident or commonsensical, it is worth observing that in practice, this rule is not always enforced. This is how over the last 15 years for instance, the EU Commission spent millions of euros supporting the EIC (Euro-Info-Centres) network for the sake of dissemination ("let know") as opposed to only €250,000 in support of the development of business angels networks. Moreover, no ad hoc funding has ever been earmarked for investment readiness or proof-of-concept schemes, although these are areas in which Europe desperately needs modelling and expertise, and therefore "know how". The blame for this can equally be laid at the feet of all EU Member States – except the UK and Ireland – and their regions. It illustrates the severe asymmetry that still all too often exists between assessment, policy announcement and investment willingness among many public stakeholders when it comes to recognising the added value of their interventions.

This type of quality assessment of intervention by intermediary organisations operating in the field of business and innovation support should ultimately make it possible to evaluate the need for further efforts to improve the added value of the necessary investment in service provision and human capital in this field. In some cases, the outcomes of this process need to spur action to streamline one or more parts of the value chain and strengthen partnerships among the different links of the chain (e.g. concepts including no-wrong-door, single advisory stop shops or signposting systems). The benefits of the principle of creative destruction that was so dear to Schumpeter can also apply to the public sector! Evaluation activities should therefore also discuss the quality of partnerships and interfaces developing among businesses and other key regional stakeholders (owners of financial, knowledge and other forms of capital) at the level of all individual links and stakeholders of the chain.

In this way, public authorities can analyse the overall range of available regional support service provision as well as the individual packages offered by the different players, with evaluation discussing the range, quality and value-added intensiveness of available services. Redundant services are then eliminated and missing or weaker links receive financial and human resources to bridge the gaps.

CHAPTER 2 EVALUATION OF INTERVENTION IN THE FIELD OF REGIONAL DEVELOPMENT

Traditionally, RDA activity or public intervention in the field of regional development is only evaluated against the number of jobs created or retained.

The (predictable) changes caused both by economic globalisation and the quest for competitiveness gains should encourage public managers and funding parties to identify other parameters than simply jobs to measure the impact of their action. Such parameters would be better suited to the challenges of endogenous development over the next five to ten years.

Below are some suggested parameters for consideration in this new context:

- return on investment;
- "opportunity cost"
- "value for money";
- value added;
- customer satisfaction;
- measuring the gap between objectives and outcomes;
- leveraging private investment
- contribution to changing the regional socioeconomic fabric
- sustainable development.

Some tools are to be considered as ex ante ones and some ex post. It should be stressed that the main role of RDAs is to change or improve the framework conditions in which the socio-economic fabric of a region is operating. This means to look how interventions are encompassing political goals such as entrepreneurship, innovation, R&D exploitation, job creation etc...

2.1 Return on Investment

Public money is spent from budgets fed by direct and indirect taxes.

In the same way as business performance is measured by its return on investment, it would be judicious to evaluate the effectiveness of public sector intervention in support of the economy in terms of the tax revenue it generates (higher tax revenue including VAT, income tax, etc.). In some cases, it may be interesting to measure the increase in average regional wages achieved through public sector intervention. Such an analysis could be performed at the level of both strategic programmes and individual measures.

The return on investment concept can also be applied to measure the number of jobs supported as well as the growth created in the regional economy.

With regard to the growth created in the regional economy, RDAs can undertake an analysis based on the balance sheet of enterprises which got their support. RDAs can compare performance trends of a sample of enterprises supported and not supported. Both IGRETEC (B) and ALMI Företagspartner (S) found out that enterprises having been supported present better balance sheets than the others. Of course, all the growth cannot be claimed by RDAs, but at least a contribution for such better competitiveness situation can be awarded to the services provided by the RDAs.

2.2 Opportunity Cost

Opportunity cost is a concept that covers the double notion of acting V. abstaining and choosing one method of action rather than another.

Evaluating RDA action in light of this concept asks the following questions:

- ✓ Is action always validated based on potential recipients' actual—as opposed to supposed—needs?
- ✓ Do beneficiaries perceive the actual advantages of proposed action or are they simply leveraging an opportunity?
- ✓ Is RDA intervention strategic of opportunistic?
- ✓ Is the cost of intervention commensurate with expected positive outcomes (i.e. does it address a market failure, improve awareness of some innovative concept, meet solvency needs on a specific market segment, etc.)?
- ✓ Could the cost of intervention be reduced via alliances with other partners (economies of scale) or through subcontracting or merger with other existing measures? Does intervention replicate—or overlap with—others existing measures?
- ✓ Are grants legitimate? Would it not be useful—from the point of view of public spending—to consider other alternative forms of intervention including (soft) loans or even repayable advances?

An analysis of answers to these questions may yield financial flows that may in turn generate a tax ROI or enable the determination of expected value for money.

2.3 Value for Money

Using the concept of “value for money” requires a thorough examination of the comparative advantages of the different existing forms of intervention:

- ✓ grants, loans, guarantees, interest rate subsidies;
- ✓ subsidy rates;
- ✓ shared V. tailored services;
- ✓ cost per job created by an SME supported by a subsidy V. FDI;
- ✓ direct intervention V. outsourcing.

RDAs should be able to demonstrate which projects or programmes bring good value for money in matching the demand of their shareholders.

For instance, this approach should help answer the question "Is it better to give grants to universities to develop schemes in favour of SMEs or to provide money to SMEs to buy services from universities ?"

2.4 Value Added

Based on the argument that in every country these days, regional competitiveness rests on:

- innovation;
- talent and quality in human resources;
- cooperative networks;
- proof of concept and awareness of methodologies that are inadequately disseminated at regional level;
- attraction of private investment;
- the regional contribution to the eradication of market failures;

the effectiveness of intervention can be measured in terms of financial value added. It is useful to consider and quantify benefits in terms of capacity building in areas including collective learning, social integration as well as environmental protection and the preservation of endogenous resources. For the sake of congruence, there is a corresponding need to deduct from this financial value added the costs incurred due both to resistance to change among key stakeholders (amount of aid paid to ailing companies) and to delays inherent to the decision-making process.

The contribution of a programme to the competitiveness and the profitability of the local economy can be measured by the added value created. Often this parameter is related to the

incentives provided for local infrastructure, firm productive investments and innovation. From a regional point of views, trends year after year are the most significant data to draw lessons.

2.5 Customer satisfaction

Any form of public spending to foster economic activity should be followed by a customer satisfaction survey. In order to be objective, such a survey should be divided into two parts: one on recipient satisfaction, distinguishing between occasional and loyal users and another one of potential recipients who did not access support. This second part is essential in the sense that, while beneficiaries of public subsidies can reasonably be expected to express general satisfaction with the public support they have received, understanding the reasons why other potential beneficiaries did not leverage available support is more revealing.

Indeed, even when recipients are not pleased with public services, very few of them dare openly express dissatisfaction because they are anxious about possible retaliation. Evidence of this can for instance be found in the disastrous management of some European Commission programmes (late payments, audits and more audits—sometimes leading to arbitrary or dogmatic conclusions being drawn—, lack of adequate means to achieve expected outcomes, publication of calls for proposals at preposterous times of year—31 December or in August—, excessively lengthy decision-making processes, etc.) without anyone ever daring to either file a formal complaint with DG Competition on grounds of abuse of dominant position or publishing an objective memorandum exposing donor failures and voicing customer frustrations. And it can reasonably be inferred that the same attitude predominates at all other administrative levels (national, regional, local).

Evaluating customer satisfaction should also enable comparative analyses to be conducted on delivery mechanisms (calls for tenders, direct management, etc.) as well as on the nature of support: subsidies V. loans with or without counselling and/or support measures complementing finance.

2.6 Measuring the gap between objectives and outcomes

In any organisation these days, modern management requires setting both annual strategic objectives and specific targets either for centres of competence or for individuals.

Therefore, it is possible to evaluate RDA performance by measuring the gap between objectives and outcomes, as well as resulting gains or extra costs.

It is worth noting in this respect that French RDA managers under the umbrella of UCAR, have investigated the possibility of granting incentive bonuses to the executive staff of RDAs in proportion of performance against predetermined objectives. This work illustrates the relevance of the evaluative approach.

2.7 Leveraging private investment

In the face of diminishing public budgets and increasingly scattered public intervention, the latter's effectiveness should be measured in terms of its ability to leverage private investment. RDAs can play an important role as private investment accelerator including with universities and research centres.

This method could be implemented at different levels including:

- (i) RDA budget or individual cost centres;
- (ii) Individual strategic programmes;
- (iii) Individual measures;
- (iv) Individual public-private partnerships.

The effectiveness of intervention could also be measured on the basis of the multiplying effect of initial public investment.

2.8 Contribution to changing the regional socioeconomic fabric

The European regions will no longer be competitive if they do not support the conversion of their territories. Therefore, the public policies will have to measure the way this change is supported rather than count the number of jobs lost in traditional sectors.

With a view to measure this change, the data to be collected might be as follows :

- amount of investment in research and innovation infrastructures
- support to be given to enterprises in order to introduce new products and services on the market
- number of enterprises assisted in order to access RTD or technology transfer fundings
- number of jobs created in new activities
- assessment of the means how enterprises are involved in policy implementation.

RDAs and other public sector bodies have to detect new needs and provide new services and activities in order to respond to those new needs.

2.9 Sustainable development

Another assessment criterion might be the contribution to sustainable development. The following criteria to be taken into account in this case are :

- Quality of jobs created
- Rational use of energy and natural resources
- Environmental constraints
- New activities (eco-innovation)
- Equal opportunities (education, training, professional reinsertion)
- Increased average regional wages.

CHAPTER 3 BENCHMARKING, SIX SIGMA & LEAN : TOOLS THAT SUPPORT THE NEVERENDING QUEST FOR EXCELLENCE

3.1 Private Market Tools

Evaluation is not an end in itself; it needs to produce a system that constantly improves the formulation, contents, added value and delivery of regional strategies. In pursuit of this objective, the private sector draws from three techniques these days: benchmarking, Six Sigma and Lean. These methods were originally developed by Xerox (benchmarking), Motorola & GE (Six Sigma) and Toyota (Lean) respectively. While the public sector cannot simply cut-and-paste them, some of their ideas and principles may be helpful to public players initiating permanent process improvement schemes.

Benchmarking can be defined as an ongoing process of research, comparative analysis and adjustment of business practices aiming for excellence throughout its supply chain. There are five activities involved in any benchmarking effort:

- selecting partners;
- collecting relevant data;
- analysing the data;
- interpreting the findings of the analysis;
- having both the will and the ability to adopt processes identified as the best.

As for the Six Sigma concept, it can be defined as a structured method to constantly improve the quality and efficiency of product or service production and marketing processes. It is based on mastery of the five parameters below:

- thorough knowledge of client expectations;
- understanding their operational environment;
- performance measurement;
- analysis and mapping of production processes;
- improvement and innovation in processes;
- control of the impact of change on performance.

As to LEAN, it is a concept that is tentatively defined as a method applicable to the quest for performance through the elimination of flaws. It requires command of the three parameters below:

- control of production patterns, which must be based on demand rather than local production capacity and require close partnerships with suppliers who need to adopt the same quality standards;
- a management style that cares for constant quality improvement and innovation, values contact with the field and is keen to reach a consensus;
- a long term strategy geared toward excellence and the belief that added value is defined by clients who need just-in-time deliveries.

3.2 Applying These Concepts to the Public Sector

Adapting these management methods to regional development requires addressing four types of challenges including:

- regional cultural, administrative, financial and tax environments, which by essence are hard to mirror or transfer;
- the difficulty of demonstrating the link between a project and its impact on regional development;
- resistance to change;
- the duration of the strategic lifecycle.

The Six Sigma and LEAN concepts could definitely inspire new attitudes in public agencies, e.g.:

- ✓ focusing greater attention on the aspirations and needs of the final users of public intervention;
- ✓ mastering the different value chains of economic development;
- ✓ strengthening partnerships throughout the different value chains;
- ✓ shortening decision-making cycles;
- ✓ measuring the efficiency and effectiveness of procedures and service providers;
- ✓ enabling permanent reviews of procedures to adjust them to best practices;
- ✓ enforcing change with dedicated, appropriate human and financial resources;
- ✓ mainstreaming the international dimension into all action taken.

The present economic context characterised by globalised competition as well as the growing importance of knowledge and the contraction of public budgets, requires public authorities to pay ever closer attention to LEAN and benchmarking concepts and their implementation within the framework of their regional development strategies.

This process is all the more justified since the majority of local and regional authorities offer – at least on paper – the same programmes and tools to stimulate entrepreneurship and innovation and attract talent and investors and so competitive advantages can be derived from (i) the quality of the services provided as part of these programmes, (ii) the synergies emerging among the different stakeholders of these programmes, and (iii) their contribution to the added value generated on behalf of their final users.

The use of peer reviews, staff exchange schemes with sister organisations abroad and self-assessment methods should be encouraged. It would be interesting to mainstream such practices into Interreg projects in order to increase its added value as an interregional cooperation tool.

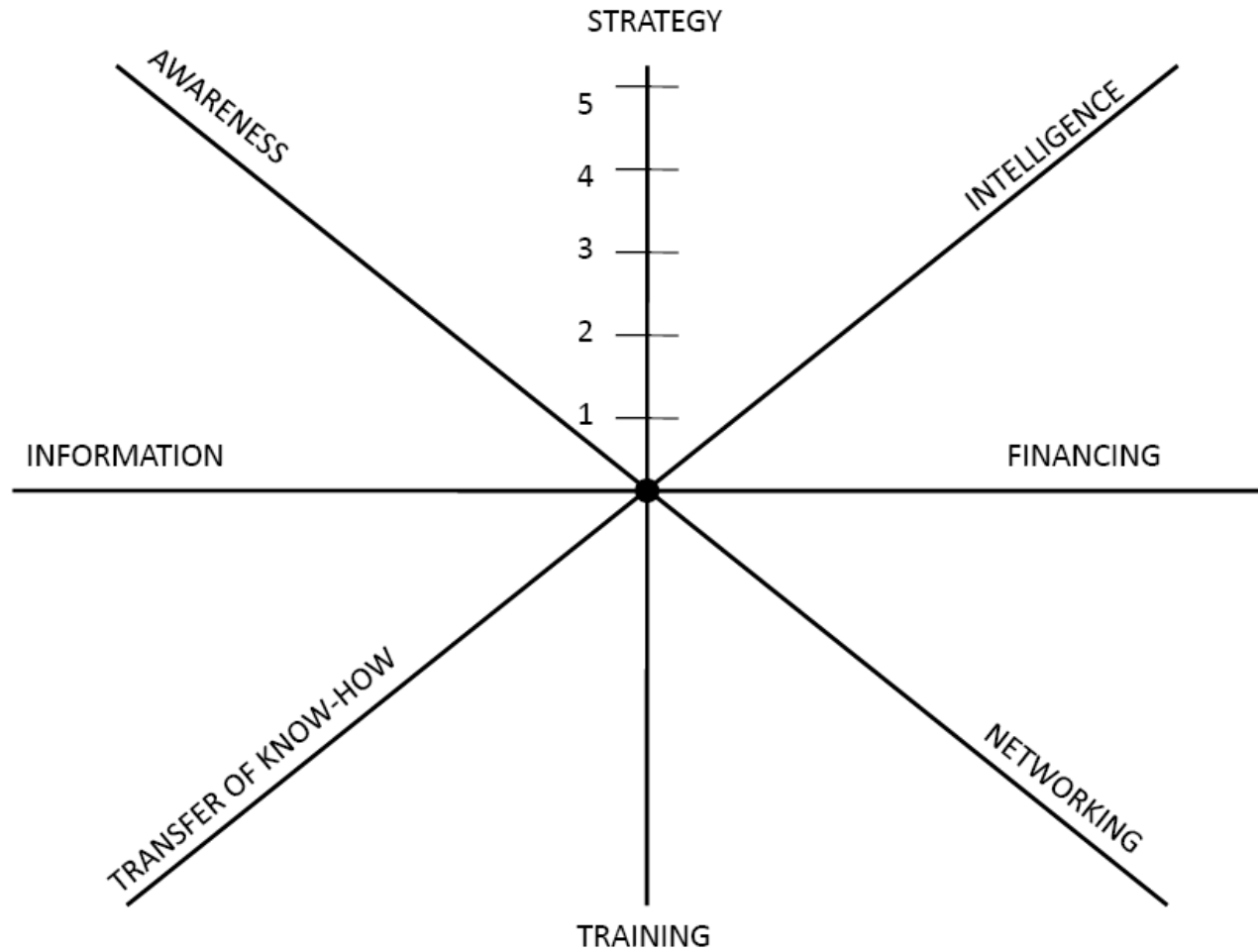
It is apparent that in many regions, the paucity of ties and interactions between public authorities, intermediary bodies, private enterprises, inventors, innovators and investors is one of the main obstacles to maximised dissemination and leveraging of knowledge and hence innovation within regions.

In the spirit of the Six Sigma and Lean concepts, it might be useful to complement SWOT and value-chain analyses with a mapping of regional competences and their natural interactions in order to encourage the emergence of new partnership formats. US consultants NES (New Economy Strategies) have developed the concept of Community of Innovation (COI) Platform and Portal⁷⁷ to speed up the process whereby all stakeholders of the regional innovation ecosystem interact and adjust their respective contributions to the needs of the other sectors and especially of businesses. This process is said to help regions adopt the basic principles of the quest for constant improvement of business and innovation support service provision.

Public authorities could also evaluate service provision perception by comparing the findings of surveys conducted with business and intermediary bodies. To do so, they can compare outcomes as represented in spider diagrams. The chart below may be used as a model for such an evaluation. Indeed, Bretagne Innovation uses this approach to evaluate every two years the perception of the provision of support service providers in the region of Bretagne (F).

⁷⁷ See www.new-econ.com

Graph 22 : Evaluating the perception of the services provided by intermediary bodies to enterprises



Source : EURADA

Bibliography and other Sources of Inspiration

The present document is the product of reading, discussions with experts, speeches, group work, personal thinking and intellectual contributions to the delivery of projects co-financed by the EU Commission.

Below is as exhaustive as possible a list of my sources of inspiration.

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