

# Regional policy for smart growth of SMEs

Guide for Managing Authorities and bodies in charge of the development and implementation of Research and Innovation Strategies for Smart Specialisation



This guide was drafted by Christian SAUBLENS, Director of European Association of Development Agencies. It draws on existing guidance material, policy analysis and good practice compilations in the field of SME and innovation support, including drawn up by DG Regional and Urban Policy, the S3 Platform in the IPTS/JRC and DG Enterprise and Industry, as well as EURADA, UEAPME and other national and regional bodies. It aims at facilitating the preparation and implementation of SME related 2014-2020 operational programmes of the ERDF and the SME aspects of smart specialisation strategies for research and innovation.
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### Regional policy for smart growth of SMEs

Guide for Managing Authorities and bodies in charge of the development and implementation of Research and Innovation Strategies for Smart Specialisation

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European Commission, Directorate-General for Regional and Urban policy REGIO DG 02 - Communication Mrs Ana-Paula Laissy Avenue de Beaulieu 1 1160 Brussels BELGIUM

E-mail: regio-publication@ec.europa.eu Internet: http://ec.europa.eu/regional\_policy/index\_en.cfm

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#### **Foreword**

Small and medium-sized companies represent the lion's share of all EU national and regional economies. They make up more than 98% of all businesses in the EU and provide around two thirds of the private sector jobs. Their contribution to the economy is also reflected in their contribution to Gross Value Added: They accounted for 58% of it in 2012.

This is why European SMEs are at the centre of our policy. In fact, cohesion policy is now the single most important EU policy for SME support.

In the 2007-2013 programmes some 70 billion EUR from the European Regional Development and European Social Funds is being invested into SME support, of which around 10 billion in the form of financial instruments. According to recent figures (end of 2012) ERDF supported activities have already created close to 250.000 new jobs in SMEs with the figure expected to rise as more projects are completed.

With the future European Structural and Investment Funds (ESIF) for 2014-2020, and in particular the European Regional Development Fund, the European Union will further increase its strategic focus on SMEs and in particular on making them more innovative as this is the key to their competitiveness and growth.

Yet the needs and potentials of SMEs are not uniform. They differ strongly between the regions and types of firms and thus require tailor-made solutions and policy offers, which are best developed with the appropriate input from SMEs and their intermediaries. This collaborative and bottom-up vision of policy development is also firmly embedded in smart specialisation, an approach that we have been promoting for the new programming period.

Through requiring all regions to adopt smart specialisation strategies for guiding their future innovation investments and through introducing a stronger results-orientation into EU Regional Policy the pressure to get future ERDF Operational Programmes right in terms of support forms, methods and policy-mixes is increasing. This includes also the need to design better-tailored and better-targeted SME support measures, which are an important element of these policy-mixes.

It is to respond to this need that the following guide has been commissioned. I hope that this document, which forms part of a series of guides addressing different aspects of designing and implementing smart specialisation strategies, will find the attention it deserves and will inspire a new generation of ERDF Operational Programmes and support investments that help SMEs to thrive, compete and innovate.

Johannes Hahn

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Member of the European Commission in charge of regional and urban policy

#### **Executive Summary**

The purpose of this guide is to extract policy lessons from the past decades of Structural Fund, national and regional support for SMEs into a comprehensive guide with the aim to help ERDF managing authorities and regional penholders of any RIS<sup>3</sup> design a policy mix that supports enterprises in maximising the objectives and opportunities of a RIS<sup>3</sup>.

This guide draws not only on SME specific policy experiences, but spans across a wide range of policies, including research, innovation, cluster, state aid, internal market, education and training (the issue of financial instruments will be covered in more detail in separate guidance).

This guide highlights, in particular, that SME competitiveness in Europe relies heavily on innovation and thus the successful implementation of a National/Regional Strategy for Smart Specialisation (RIS³) and the quality of its design and delivery mechanisms for financial and non-financial support services. In line with the 2014-2020 ERDF thematic priorities, these support services should enhance R&D+I activities or strengthen enterprise competitiveness. This guide provides thoughts, tips and ideas on how to achieve this.

The **Introduction** sets the scene for better support services to SMEs to remove the most common identified barriers encountered by enterprises when trying to innovate or to compete in a global environment. It reminds of the links between RIS<sup>3</sup> and better SME support services and highlights the following elements for successful SME support services to be deployed in all regions:

- 1) to involve SMEs and their representative organisations in RIS<sup>3</sup> development design as well as identify the different categories of the regional SME population to be able to provide targeted and high value-added services and work on the basis of strategic business portfolios.
- 2) to adapt support service schemes to a wide typology of enterprises but also to the innovation capability, willingness and readiness of their management teams and focus support not only on R&D but on innovation in the wider sense.
- 3) to create a policy mix that combines financial support with advice, access to specialist infrastructure as well as a network of professional facilitators, including the support to risk reduction tools, investment readiness and proof-of-concept and the leveraging of public procurement to support SME innovation and growth.
- 4) to properly use monitoring and evaluation to measure the desired structural change and to manage the implementation of the strategy, allowing for informed corrections of the policy-mix, not just measuring transactions.

#### Chapter 1: Place-Based Support Service Schemes Within a RIS<sup>3</sup>

- starts with a reminder of the RIS³ methodology and makes a plea to take RIS³ as an opportunity to review the current SME support systems in the light of recent development and trends in innovation, business models and the economic environment involving business representatives in the RIS³ six-step process.
- reminds to match demand and offer of support services and to this end differentiate the service offers according to different SME profiles and needs.
- suggests to develop a "logical intervention path" to design the RIS<sup>3</sup> policy mix balancing different tools and schemes

The key message of this chapter is: "RIS" needs a tailored support service ecosystem to be successfully implemented".

#### Chapter 2: Designing Support Services for SMEs within a RIS<sup>3</sup> Exercise

- reviews the prerequisites and the issues to bear in mind when designing support services tailored to the requirements of businesses.

- this includes a review of the options to build a comprehensive support services scheme: balancing the types of interventions, the nature of the support, the choice of a delivery technique, the diagnosis of the needs of enterprises, the follow-up of service beneficiaries, the choice of the intermediaries, the financial sustainability and critical mass.
- highlights the various 'Do's' and 'Don'ts' for designing the policy mix to deliver a RIS3, including the SME-related measures

The key message of this chapter is: "Deliver what you promised. Don't just promise to deliver!"

#### **Chapter 3: Support Services to Enhance SME Investments in R&D+I**

- recommends to consider all forms of innovation, the different ways how enterprises innovate and the innovation life cycle when designing the policy mix.
- reviews the toolbox for different RIS³ objectives in the field of R&D+I support and calls to identify the bottlenecks in the path from knowledge to market
- suggests that support to the acquisition and absorption of knowledge can be a fast way to help SMEs innovate.
- highlights the needs of first time innovators as well as support to new ways of innovation to meet new markets or societal challenges.

The key message of this chapter is: "Innovation is not just about high tech".

#### **Chapter 4: Support Services for SME Competitiveness**

- looks at how to help enterprises enhance their competitiveness and which tools are best suitable to support the RIS<sup>3</sup> priorities in this field.
- makes a plea for the development of high value added support services, investment in intangibles, internationalization of SMEs and dedicated support to new types of entrepreneurs, the so-called "e-solo-entrepreneurs".

The key message of the chapter is "Each enterprise with a proven growth potential should be able to access the dedicated support services it needs to be more competitive".

#### **Chapter 5: The Various Forms of Support Services**

- provides an exhaustive list of business support services employed by public authorities.
- explains that these support services have to be adapted to the lifecycle of businesses
- illustrates this by analyzing the different needs according to each stage of a business lifecycle

The key message of this chapter is "A wide range of support services is available, but there is a need to use them in a way they can be fit for purpose".

#### Chapter 6: What to Take into Account in Order to Modernize the Current Support Services?

- looks at recent developments/trends in the field of business strategies to adapt support service offers: outsourcing, relocation, (re-)positioning in the value chain, up-scaling of product range, evolving relations between large and small enterprises, open innovation, need to go global, etc.
- advises public authorities to develop a regional intelligence system and the right path to acquire new support services tools when trying to enlarge their current policy mix.

The key message of this chapter is: "Business as usual is not a reasonable attitude for putting a RIS<sup>3</sup> in place".

#### Introduction

#### **Better SME support services needed**

The financial and economic crisis that has been raging since 2008 has strongly highlighted the competitiveness issues facing SMEs in some EU Member States and their regions.

The most commonly identified weaknesses include:

- ✓ Inadequate shareholder's equity and difficult access to external funding sources;
- ✓ Overcautious/wrong strategic choices by businesses, preventing them from up-marketing supply, from geographical/technological diversification or from "low cost"-oriented innovation and even from detection of new growth relays;
- ✓ Inadequate investment in innovation, especially into generic technology and e-business;
- ✓ Gaps in managing innovation:
- ✓ SME size (few regions compare with the medium-sized enterprise fabric of German regions);
- ✓ Difficulty recruiting and adjusting human resources;
- ✓ The first-client search;
- ✓ A low propensity to develop transnational cooperation in innovation;
- ✓ Inappropriate public support services.

To address these and other challenges and opportunities, public authorities have been providing support services to enterprises for decades. The purpose of this support ranges from attracting foreign direct investment to boosting enterprise creation and growth or to incentivise enterprises to align their decisions with the regional policy priorities.

In its annual 2012 Scoreboard on State  $Aid^1$ , the European Commission's Directorate General for Competition notes that the volume of public support to manufacturing and services enterprises reached 52.9 billion Euros in 2011, i.e. 0.42% of the EU GDP. Most of the public support focuses on regional development (€14 bn), sustainable development (€12.4 bn), R&D+I (€10 bn) and sectorial support (€5.5 bn).

In some regions and countries there is a plethora of schemes. As a 2009 European Commission survey found out, less than 1/3 of enterprises rate public innovation support they received as satisfying. And nearly 80% of innovation support providers found that there is a need to improve their existing support mechanisms<sup>2</sup>.

This raises questions as to the effectiveness and appropriateness of those schemes in relation to their objectives and targets as well as with regard to synergies between support services provided at different levels of the multi-governance system.

EU Cohesion Policy is a major driver of economic recovery and convergence. It supports structural change through a mix of different investment that are adjusted in line with the needs and capacities of the different Member States. The policy supports actions aiming at helping enterprises undertake R&D+I activities and increase their competitiveness. To reach those objectives the ERDF can cofinance investments related to:

- R&D infrastructure and equipment,
- commercialisation of R&D results,
- innovation either or not related to technology,
- social capital, i.e. networks, clusters, partnership between regional knowledge and technology stakeholders,
- sectorial diversification, transformation or specialisation in market niches,
- provision of business support services targeting access to external financial sources, change in business model or access to market intelligence,
- repositioning the product/service range in the global value chain.

<sup>&</sup>lt;sup>1</sup> Doc. COM(2012) 778 final dated 21.12.2012

<sup>&</sup>quot;Making public support for innovation in the EU more effective", European Commission, DG Enterprise and Industry 2009

#### Purpose of this guide

Regional growth results from the ability of enterprises to introduce new products/services/solutions to the market. To do this they either innovate or improve their competitiveness. As regards innovation there has recently been a 'paradigm shift' towards comprehensive national/regional strategies for smart specialisation (RIS³), which have been included as a specific conditionality in Cohesion Policy.

Measures targeted towards SMEs will clearly have an important part in RIS3 strategies and the related policy mix, including the design of better and more targeted SME support services as part of the policy mix to implement the strategies. The policy mix is the key element in a RIS³ strategy. It determines how interested businesses will be in the strategy and, ultimately, how much impact and leverage will be achieved.

This provides ERDF managing authorities and RIS<sup>3</sup> penholders with an opportunity to build a policy mix that can help entrepreneurs tackle the structural changes defined in the strategy, i.e.

- transition from traditional business model or activities to new ones,
- modernisation of existing processes, for instance by absorbing KETs, new knowledge or service innovation.
- diversification of the product range or of the markets through internationalisation,
- breakthrough innovation or business model.

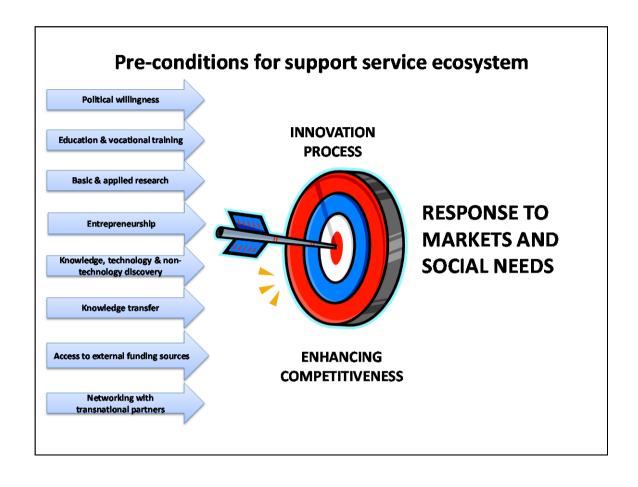
The purpose of this guide is to help ERDF managing authorities and regional penholders of any RIS<sup>3</sup> in this important task by extracting the best practices and policy lessons from the past decades of Structural Fund, national and regional support for SMEs and making these available in the form of a comprehensive guide.

To propose well designed support service schemes, policy makers need to develop intelligence on enterprises' needs by deepening the analysis of the long-standing common issues: access to finance, market information, search of reliable partners, skilled workforce, internationalization and the real needs of regional SMEs to be embarked in the RIS strategy.

The guide starts after managing authorities and regional policy makers have understood the needs of enterprises and have decided to design instruments to implement their RIS<sup>3</sup>. It is part of series of guides supporting the RIS<sup>3</sup> methodology which are available on the RIS<sup>3</sup> Platform <a href="http://s3platform.irc.ec.europa.eu/home">http://s3platform.irc.ec.europa.eu/home</a>

It highlights a number of important elements for successful SME support services such as the need:

- 1) to provide high value-added services and to this end properly identify the different categories of the regional SME population and work on the basis of strategic business portfolios (gazelles, hidden champions and phoenixes).
- 2) to adapt support service schemes to a wide typology of enterprises but also to the innovation capability, willingness and readiness of their management teams and focus support not only on R&D but on innovation in the wider sense.
- 3) to create a policy mix that combines financial support with advice, access to specialist infrastructure as well as a network of professional facilitators, including the support to risk reduction tools including investment readiness and proof-of-concept and the leveraging of public procurement to achieve innovative market solvency or support the first client search.
- 4) to properly use monitoring and evaluation to measure transformations of the socio-economic fabric and to manage the implementation of the strategy, not just to measure transactions.



#### Chapter 1 Place-Based Support Service Schemes Within a RIS<sup>3</sup>

#### 1.1 RIS<sup>3</sup> and Enterprises

RIS³ rely both on the concept of entrepreneurial discovery and on the notion of unique competitive advantages. Therefore, RIS³ implementation and success will logically hinge upon the ability of business support services deployed, to enable SMEs to leverage new markets resulting from the RIS³ visioning and priority-setting. SMEs should have been taken into account for the identification of niche markets and/or sectoral/cross-sectoral specialisations in which businesses and (tech and non-tech) centres of excellence enjoy unique competitive advantages that led to the RIS³ priority choices.

Going over the six stages described in the RIS<sup>3</sup> Guide<sup>3</sup> published by DG REGIO, this notably requires:

- · involving SME representatives in the governance process;
- analysing specialist and emerging sectors;
- · validating data used as a basis for strategic choices;
- analysing the support service "product mix";
- quality in cooperation among the different departments of public government;
- characterising and analysing the data relating to the strategy evaluation process.

It would be advisable to use the opportunity of the reflection process surrounding the S³ to review the business support system. To start this process, industrial business strategies might be used as a benchmark to adapt the public support services.

Industrial strategy  Taking care of the brand	Translation to public support services  Strengthening unique competitive advantages
raking care of the braild	Suchgulening unique competitive advantages
Strengthening rationalisation	Selecting a few priority areas for action: KET, social innovation, eco-innovation, etc.
Focusing on a new market segmentation	Differentiating support services according to a typology of potential users (start-ups, spin-offs, medium-sized enterprises, hidden champions, phoenixes4, 'born global' enterprises)
Promoting innovation	Taking up new business support formats (financial engineering, marketing new ideas, public procurement, etc.)
Drastically changing the relationship with clients	Leveraging a portfolio of strategic businesses (identifying the 200 businesses that are key for regional development).

#### 1.2 The Entrepreneurial Discovery Process

In the context of a smart regional strategy, a number of issues emerge, including in terms of detecting the entrepreneurial discovery process and supporting it with public services.

The following questions arise<sup>5</sup>:

• What are the new ideas/products, processes, improved old products/processes that were brought to the market by local enterprises over the past three to five years?

<sup>&</sup>lt;sup>3</sup> Cf. http://s3platform.jrc.ec.europa.eu/s3pquide

<sup>&</sup>lt;sup>4</sup> Cf. the optoelectronic SMEs in Rochester (USA) which were created on the ashes of Kodak or the spin-offs born from the restructuring of Nokia in Finland.

<sup>&</sup>lt;sup>5</sup> Source: A Preview of the MIT Production in the Innovation Economy Report

- What was the process to bring those ideas to market (start at the lab, result of a R&D project, observation on the shop floor, idea in the manager's head)?
- Where did the enterprises find the capital for the various stages of the idea to market journey (self-finance, venture, grants, bank loans, corporate co-sharing funding, research grants, ...)?
- Where did the talent and skills come from (in house, consultant contract, recruitment, ...)?
- Where was the know-how found (in house, outsourcing)?
- What were the public supports if any which made a real difference?

Answers to these questions will allow to understand the innovation process of regional enterprises and provide clues towards their ability to engage in the RIS<sup>3</sup> process. Signals of the presence of an entrepreneurial discovery process at enterprise level can be detected by collecting data on:

- ✓ business investment into production/use of cutting-edge technology including robotics, nanotechnology, advanced IT, high value-adding services, etc.;
- ✓ investment into productivity gains by businesses operating in non-relocatable industries or non-commercial sectors including healthcare, wellness, tourism, retail, etc.;
- ✓ take up by local businesses operating in a niche market of advanced support services including seed and venture capital, IP rights, proof of concept, internationalisation, etc.
- ✓ above regional average business investment into R&D+I, staff training and strategic intelligence;
- ✓ techniques implemented by enterprises in order to reward their innovative staff.

Public authorities should leverage these clues to design their strategy, as they signal the presence of an entrepreneurial discovery process. This requires deploying a more elaborate system to observe and analyse business strategies and behaviours than generally exists in most regions. There must be an ability to perform such monitoring down to the level of very specific niche markets and it needs to provide an indication of the capacity to absorb new collaborative business methods. These analyses must also focus on how to provide enterprises with the knowledge they cannot develop internally but which is absolutely necessary for them to innovate.

#### 1.3 Involving SMEs in a RIS<sup>3</sup>

#### 1.3.1 Towards an Action Plan

The Research and Innovation Strategies for Smart Specialisations (RIS³) is a process which requires the involvement of all regional stakeholders. Although the RIS³ is about an entrepreneurial discovery journey, entrepreneurs are amongst the most difficult stakeholders to involve. Therefore, public authorities and RIS³ penholders have to find a suitable way to ensure that the views of leading entrepreneurs are known and taken into account. This requires the identification of either leading entrepreneurs or representatives of enterprise organisations showing their interest in being engaged in a policy dialogue regarding the regional eco-innovation system as well as the design of a public strategy.

Some actions to help entrepreneurs and enterprise organisations contribute to the RIS³ process are described below<sup>6</sup>. The actions are related to the six steps suggested by DG REGIO in the RIS Guide to design a successful RIS³.

#### Action 1: Involvement in the RIS<sup>3</sup> governance system

Leading entrepreneurs and enterprise organisations have to invest time and resources to take part in the consultation process supporting the design of a RIS<sup>3</sup>. Their involvement will lead to the identification of the most promising areas perceived by private investors in the innovation ecosystem. They are the regional stakeholders with the best knowledge about activities in which entrepreneurs show interest, willingness and capabilities to invest in.

The public authorities and the RIS³ penholders have nevertheless to make sure that the entrepreneurs and enterprise organisations are able to speak for all types of enterprises and about all forms of innovation (not just the high-tech one or their own particular sector) and to take distance

:

Towards an Action Plan for Entrepreneurs' and Enterprise Organisations' Involvement in the RIS³ Process http://s3platform.jrc.ec.europa.eu/documents/10157/46174/Action%20Plan%20enterprise%20involvement%20RIS%C2%B3.pdf

vis-à-vis the traditional conservative lobbying approach undertaken by enterprise representatives when it comes to ask for public support.

#### Action 2: Contribution to the analysis of the regional context

Entrepreneurs and enterprise organisations should provide objective feedbacks regarding the results of any SWOT analysis and assessment of the regional entrepreneurial discovery process.

They must be able to provide evidence of trends in sectors, in global value chain and for emerging industries such as through data on the number of enterprises having invested in:

- next technology generation either as producers or as users,
- improving competitiveness thanks to the integration of KETs in traditional sectors,
- enhancing productivity in non-tradable sectors,
- using high value added support services,
- rewarding innovative staff members.

#### Action 3: Involvement in the elaboration of the overall vision

Entrepreneurs and enterprise organisations have to be involved in establishing the regional vision. This is needed in order to ensure its wider acceptance as well as securing ownership by the private sectors, i.e. the sole sustainable engine of growth and job creation in a region. Entrepreneurs and enterprise organisations have to guarantee the realistic dimensions of the vision as well as its desirability.

#### Action 4: Participation in the identification of priorities

The RIS<sup>3</sup> has to target all forms of innovation and knowledge related to each of these forms.

To create a unique competitive advantage, public authorities and RIS<sup>3</sup> penholders need to identify sectorial niches, often at the frontier of different sectors of activities.

Enterprise organisations can help in pointing the most promising fields of specialisation and to facilitate cross-sector collaboration between the different stakeholders. They can also assess the risk in local supply chains.

#### Action 5: Involvement in the definition of a coherent policy mix

Enterprise organisations have to provide their views regarding the effectiveness of the current policy mix, the gaps in the provision of added value support services by the public and private sectors. They should advise on the right balance between financial and non-financial support services as well as on the way the support services are delivered or in the field of not yet met expectations. In which areas R&D and skills development should be enhanced? They should also contribute to strengthen the regional intelligence system in sharing information on market and technology foresight/forecast.

Entrepreneurs and enterprise organisations have also to assess the regional position in the global value chain in order to develop robust interregional and international components of the RIS<sup>3</sup>. This will avoid investment in infrastructures similar to those available in neighbourhood regions or hot spot hubs. Few regions can indeed afford to invest in the top level equipment for each and every priority sector if the list of priorities is a long one.

Enterprises should advise on the right combination of financial and non-financial support services which help entrepreneurs address the major barriers to innovation, i.e. costs, access to finance, skills, innovation management capacity, first client search, marketing, competition and information. They are best placed to give feedback about what is working, when funding or support to build capacity are needed.

#### Action 6: Contribution to evaluating and continuously improving the process

Enterprises and enterprise organisations have to be involved in the design and analysis of monitoring and evaluation systems and results in order to ensure that these systems are designed and evaluated in a realistic way so that they can contribute to a continuous improvement of the RIS³ implementation process. In this process, public authorities need to inquire also the enterprises that do not benefit from public support, e.g. lack of awareness or poor attractiveness of the scheme due to asymmetry between expectations and offer, or wrong targeting or too high administrative constraints. The results of such inquiries will help reshape the support system in order to better match the needs and expectations of the enterprises, the end users of the RIS³.

;

#### 1.3.2 Recommendations to Public Authorities and RIS<sup>3</sup> Penholders

Whatever path is chosen to design a RIS<sup>3</sup>, public authorities have to invite leading entrepreneurs and representatives of enterprise organisations to participate in the different phases of this process.

Those representatives will be chosen on the fact that they can demonstrate their capacity and willingness to contribute to the drafting and implementation of a RIS<sup>3</sup> based on unique competitive advantages, not on opportunistic or traditional mind-sets.

In the consultation process, public authorities and RIS<sup>3</sup> penholders have to recognize that innovation is not just about technology or about a historic position, but who represents the future strong domains.

They have also to understand that the regional SME population is not a homogeneous group; this means that the way individual SMEs innovate varies according to their lifecycle, economic area, their perception of market opportunities, their access to finance and skills or their innovation management capability. SMEs can better be supported if the public support services are based on a demand approach (bottom-up) rather than on a supply side one (top-down).

#### 1.3.3 Recommendations to Entrepreneurs and Representatives of Enterprise Organisations

In case they feel the public authorities and the RIS³ penholders are not involving themselves in the most appropriate way, leading entrepreneurs and enterprise organisations should undertake a proactive lobbying attitude in order to make their voice known. Therefore, they should carefully monitor the path chosen by the public authorities and the RIS³ penholders to design the RIS³ and engage with those actors leading the RIS³ process or leading the stakeholder involvement process irrespective of whether that is public officials or contractual agents in charge of it.

They should be able to at least advocate for the unique competitive advantage they have as well as for the effectiveness of the policy mix and the realism of the priorities set us in the RIS<sup>3</sup>.

### 1.3.4 Do's and Don'ts for a Successful Engagement of Leading Entrepreneurs and Enterprise Organisations

- → Don't engage with stakeholders only on the basis of traditional positions, but engage with the ones focusing on innovation.
- → Do define innovation in a broad sense.
- → Don't focus only on generic sectors. Go for niche markets and cross-sector collaboration or the integration of KETs or creative industries in traditional sectors.
- → Do a review of the effectiveness of the support service policy mix.
- → Don't follow trends without analysing how they contribute to the regional competitiveness.
- → Do a realistic review of the interregional and international components of the RIS³.
- → Don't believe that the support to clusters is the "magic" solution, as it will need to take into account emerging markets as well.
- → Do innovation in public administration and policy support (innovative procurement, voucher schemes, proof of concept, ...) and favour experimental projects (living labs, inter-clustering, ...).
- → Don't provide only grants as support to SMEs, go for financial engineering and coaching/mentoring.
- → Do a "no nonsense test" of your choices as you cannot always follow the beliefs of your colleagues.

#### 1.4 Matching Demand and Offer of Support Services

The RIS³ priorities have obviously an impact on the enterprises' behaviour. Public authorities indeed expect enterprises to align their strategy to meet the objectives set up in the RIS³ while entrepreneurs hope to access the right type of incentives to enhance their ability to compete in a given economic environment. It is therefore essential that the demand for support services matches the offer made available by ERDF managing authorities and their intermediary organisations.

Worth underscoring is that businesses themselves indicate that their ability to grow depends on the following factors:

- · 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. These need to ensure that they strengthen the ability of SMEs to manage the (internal and external) innovation process and to access markets and first clients.

To achieve this, the intervention of public authorities may take the form of direct aid to companies or the financing of intermediary bodies which then deliver services to enterprises (indirect support).

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
- improving the overall ecosystem in order to attract knowledge intensive would be entrepreneurs.

Whatever the case, public authorities need to ensure that innovation support service managers have the analytic skills required and that the administrative system is tailored to SME population segmentation requirements. In some regions, this will require hiring new officer profiles.

Meanwhile, public authorities need to ensure that human capital support is tailored to RIS³ requirements, including in traditional industries because manpower skills change fast. Innovation in vocational training will be as key as other innovation formats to developing unique regional competitive advantages.

This being said, public authorities need to avoid a number of pitfalls, including:

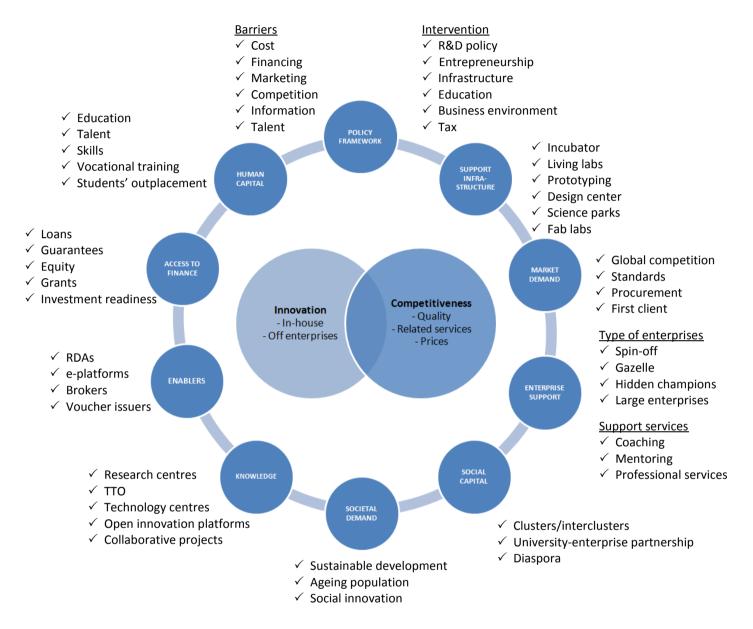
- piling up measures (there are up to 500 different support measures in some regions);
- √ inappropriate measures (competitiveness centres as start-up development accelerators);
- √ support scheme perversion (bonanza effects, culture of grant-based assistance, etc.);
- $\checkmark$  fashion effects and unconsidered transfer of such practices (clusters, science parks, etc.).

Worth recalling is that in Europe, there are more than 400 regional economic development and innovation support agencies, 500 incubators, 2,200 clusters, 200 science parks, 850 universities and 2,000 chambers of commerce. A number of them do not seem to meet the basic fundamental requirements to perform their role optimally.

#### 1.5 The RIS<sup>3</sup> SME Support System

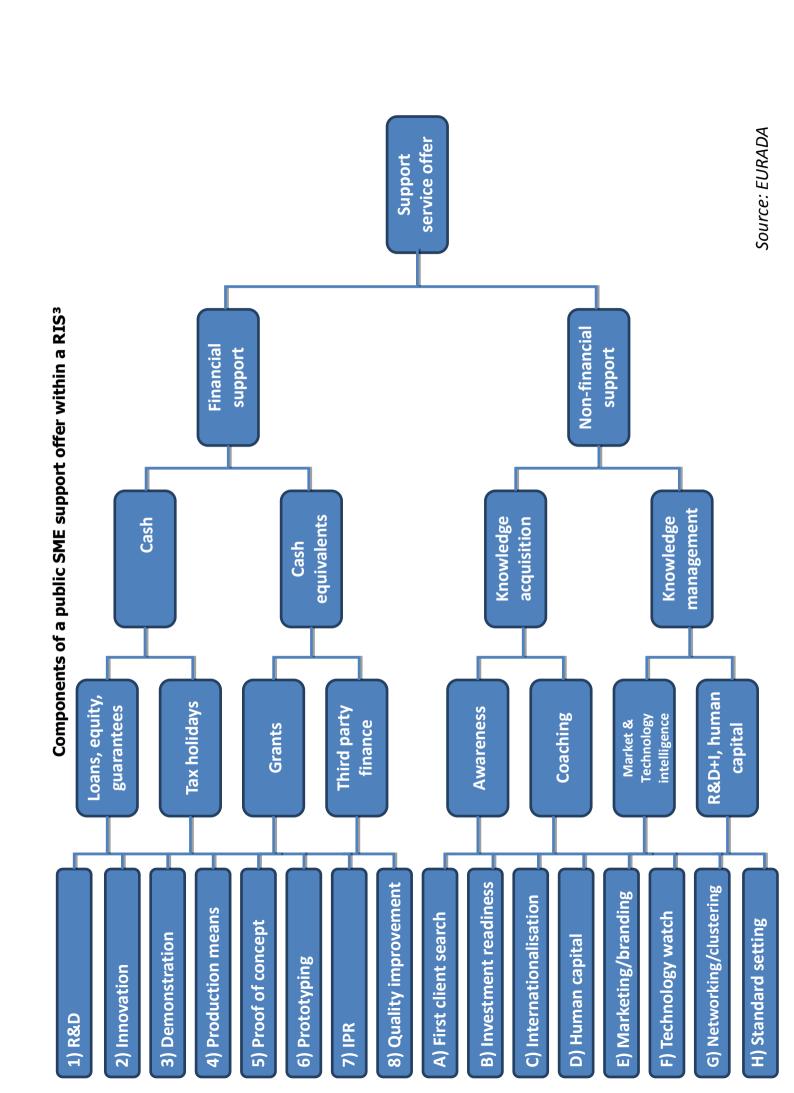
The support services made available in a RIS³ must be part of a supportive eco-system that can be mapped out as below. This mapping summarizes the main six components of such eco-system, i.e. knowledge generation, innovation enablers, policy framework, investors, firm strategy and demand by the market.

#### RIS<sup>3</sup> SUPPORT SERVICE ECO-SYSTEM



Source: EURADA

As far as the support services themselves are concerned, they can be mapped out as follows when taking as a starting point that financial and non-financial services are complementary (see next page):



#### 1.6 Efficiency of Support Service Public Programmes and Measuring Success

Comparatively few studies are available on this issue. Politicians tend to focus more on the number of jobs created or safeguarded rather than on the added value created, the diversification and modernisation of the productive sector, innovation or the cost per job created. Therefore, few opportunity surveys are conducted to identify measures to be taken, new schemes are preferred to 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.
- <u>The quality of operators</u>. 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.
- <u>The delivery methodology</u>. Integrate methods are more effective that 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 that passiveness. And finally, collective action (clusters) may be preferable to individual action.
- <u>Cost</u>. 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.
- <u>The product-mix</u>. Support services that combine advisory or audit services with financial support are more effective that funding granted without appropriate advisory service packages.
- <u>Financial sustainability</u> and stability of framework conditions. Support services are fashionable and sometimes they are subject to only one call for proposals.

This is confirmed in a DG REGIO report<sup>7</sup> which, in response to the question: "What form of support is best", notably argues that:

- ✓ Although much of enterprise and innovation support is delivered through grants, there are early indications that loans are more effective than grants;
- ✓ There are also signs of the effectiveness of non-financial, "soft" support such as business advice.
- ✓ There are also some hints that combining financial and non-financial support in one package contributes to impact.
- ✓ The most strikingly successful measures were those that target not just capital market failures, but information market failures. For medium-sized enterprises, innovation support, networking and innovation consortia proved effective at increasing long-term growth and productivity. For small and micro enterprises, basic business advice may be the single most cost effective form of support. For SMEs of all size, this may suggest a tailored package mixing appropriate financial and non-financial elements.

Both the efficiency and effectiveness of public business support services are often questioned. The main criticism relates to the fact that "this support is provided under schemes that are costly, complicated, poorly coordinated and limited in scope".

Worth adding to this realisation is a report drafted by a group of intellectual property experts<sup>8</sup> who deplore the fact that the services provided by public organisations are often the ones that are least useful to SMEs!

This statement is backed by an analysis of the findings of the survey conducted by DG Enterprise and Industry entitled "Making Public Support for Innovation more Effective", which reveals a lack of symmetry between the needs of businesses and the services they receive.

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What are counterfactual impact evaluations teaching us about enterprise and innovation support? Regional Focus 02/2012

Pro Inno Europe Paper Nº 3 – A Memorandum on Removing Barriers for a Better Use of IPRs by SMEs.

<sup>9</sup> Cf. http://ec.europa.eu/enterprise/policies/innovation/files/swd\_effectiveness\_en.pdf

Regional authorities need to ensure that their SME support system provision meets certain requirements. Sometimes, there are more or less subtle forms of asymmetry between service supply and demand. Below is a comparison of business expectations when it comes to innovation and business utilisation of public support.

BARRIERS/EXPECTATION	S	USE OF PUBLIC SUPPORT	Г
Nature	%	Nature	%
Lack of access to finance	69.44%	Support for financing innovation projects	48.90%
Innovation costs too high	64.52%	Support to networking and cooperation	22.00%
Lack of incentives facilitating cooperation between actors	49.49%	Support to awareness raising	21.50%
Difficulty in finding partners for innovation	45.96%	Support to technology / knowledge transfer	19.60%
Lack of knowledge about support instruments	43.69%	Support to identify innovation potential	10.60%
Lack of access to knowledge networks and clusters	38.01%	Support to innovation management	9.60%
Lack of creative and skilled personnel	34.22%	Support to the creation of specific skills	8.50 %
Lack of management skills including innovation management	28.79%		
Lack of IP protection	27.90%		
Lack of knowledge about benefits of innovation	27.02%		
Lack of access to knowledge	26.26%		

Source: Making Public Support for Innovation more Effective, European Commission 2009

These findings should encourage public authorities to redesign service provision, specialising it differently. These findings support the idea of having better segmentation of the regional enterprise portfolio and the type of support services each segment is able to absorb either to innovate or to enhance its competitiveness. 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.

Assessing successful business support service delivery within the framework of a RIS³ is of course a challenge. Before claiming an impact on regional development, there is a need to define what success means (What is the purpose of a RIS³?) and then to decide what to measure, how and why (The European Commission has suggested a more results-oriented approach for EU cohesion funding in its legislative proposals for 2014 - 2020¹¹).

There is a need at the very least to have accurate data on how public intervention leverages:

- the amounts of private finance invested into innovation;
- turnover volumes generated by products/services marketed over the last three years at most;
- export sales growth;
- innovation partnership growth;
- investment into cutting edge production and retail processes (e.g. software, e-commerce, robotics, 3D printing, open innovation);
- up-scaling the quality of the product/service range;

 $^{10}$  http://ec.europa.eu/regional\_policy/information/evaluations/guidance\_en.cfm#1  $\,$ 

- shorter time-to-market for new products/services among companies receiving public support. 11;
- the number of enterprises having moved into market niches;
- · increased value of IP or brands;
- percentage of publicly funded R&D projects having generated a start-up or licensing fees over the last 3 to 5 years.

The different business support services each have specific aims. Sometimes, their promoters have wrong assumptions about the outcomes that tools can realistically be expected to deliver.

Worth mentioning here by way of example is the 2012 French competitiveness pole evaluation report complaining that such centres have been unable to encourage the development of a large number of start-ups or any significant number of patent applications, while this policy had indeed promoted the emergence of a significant number of R&D projects.

There is, thus, a need to understand that individual tools have their limits in order to mainstream these into the value chain or take ad hoc measures to make up for them, for instance seed funding, proof-of-concept and research outcome commercialisation schemes in the case of the competitiveness poles.

#### 1.7 <u>Innovation in Public Business Support Services</u>

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

Innovation in public bu	siness support services
Traditional types of interventions	New types of intervention
Awareness and legal framework	Economic and technological intelligence     Identifying and harnessing businesses'
Individualised services	potential  • Shared services, networking, clusters
Information services	High valued-added advisory services
Grants	Access to finance and venture capital, investment readiness
<ul> <li>Top-down approach based on the range of available public support services</li> <li>Generic provision ("one-size-fit-all")</li> </ul>	<ul> <li>Bottom-up approach based on a careful analysis of business demand</li> <li>Tailored provision for individual market segments</li> </ul>

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:

- 1. excessively fragmented provision due to a plethora of intermediary bodies;
- 2. poor interpretation and use of the one-stop-shop<sup>12</sup> concept and lack of integration of the nowrong-door concept<sup>13</sup>;

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According to the results of the IMP³rove project based on a sample of 600 businesses, the ones that implemented an innovation management scheme cut their product time-to-market by three months (from 12.5 to 9.5 months)!

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

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.

- 3. absence of integrated provision, of a vision as well as of any analysis based on the public intervention value-chain;
- 4. absence of investment readiness programmes addressing the lack of symmetry between businesspersons and investors, adjudicating authorities, grant influencers, RTD and university circles, etc.;
- 5. lack of systematic evaluation of public service delivery effectiveness and opportunity costs;
- 6. weak outcomes of programmes focusing on EGCs (entrepreneurial growth companies), i.e. too many companies in incubators remain medium-sized (5-6 staff and a turnover below €5 million);
- 7. inadequacy of business retention schemes;
- 8. lack of valorisation projects to systematically dig up entrepreneurial and innovative business concepts lying dormant in research labs, universities and medium-sized regional companies;
- 9. over-representation of grant-based provision v. loans, guarantee schemes and adequate seed capital funds and investment capital;
- 10. lack of support mechanisms for applied research, protection of intellectual property rights and encouragement of branding <sup>14</sup> and design;
- 11. embryonic public-private partnership practice when it comes to business support services as well as RTD and innovation infrastructure;
- 12. slow adoption of support services that match new strategic business attitudes including lean manufacturing<sup>15</sup>, open innovation, living labs, joint development or drastic rationalisation of subcontractor pools;
- 13. lack of support services relating to innovation management in SMEs and particularly for first time innovators.

In addition, substantial asymmetry seems to be evident 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 below which also provides clues (column 3) on how to make public policy fit with current business practices.

	Comparison betwee	n traditional and innovative l	ousiness models
	Traditional companies Public administration	Innovative businesses	Public administration
1. 2. 3. 4. 5. 6. 7. 8.	Predictable Looking for stability Focus on core business Hierarchic organisation Hierarchic progression Efficaciency through standard procedures Foundation of in-house competences Resistance to change and aversion of risk Performance is measured in terms of stability	Unpredictable Looking for novelty Focus on discovery Networked organisation Tensions due to creativeness Efficiency through innovation and flexibility Combination of in-house and external know-how Risk is taken because of incentives to change Performance is measured in terms of innovation	Agility Flexibility Focus on regional assets No wrong door Tensions due to choices Efficiency through governance and networking of stakeholders Combination of financial and non-financial support Investment in regional intelligence Performance is measured in terms of impact
10.	In-house development / innovation	Outsourcing / Contract Open innovation	Systemic innovation

Source: EURADA

<sup>4</sup> Branding is either collective (made in ..., geographical indications of origin) or individual (brands owned by businesses).

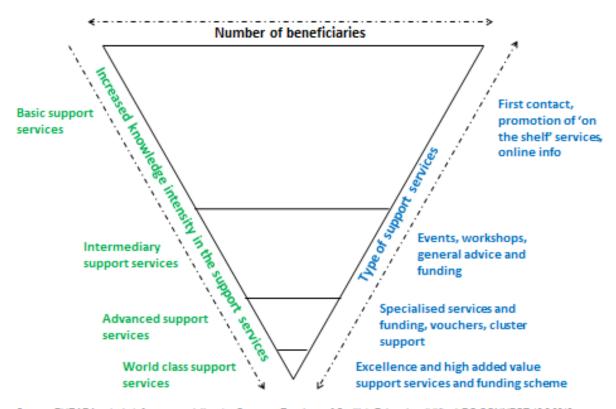
The method implemented by Toyota: reducing stocks and outstanding debt, subcontractor accountability, JIT, etc.

This table is drawn from Creating the Innovation Culture, Langdon Morris, Innovation Labs, 2007.

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

- adjusting offer to demand;
- improving demand quality;
- · providing new support services.

As a consequence, public authorities should structure their support services according to the inverted pyramid scheme below, based on the added value of the business support services, i.e. from "touch and go" to tailored high value advice and funding. This could be done as proposed below by a four-scale instrument. This would help to put a hierarchy in place in the design of the RIS³ policy mix and to decide which of the SME support organisations or agencies have to adapt their offer of support services to be in line with the RIS³ objectives.



Source: EURADA, adapted from presentation by Graemen Rennison of Scottish Enterprise (UK), at DG CONNECT 15.5.2013

#### 1.8 Adapting the Policy Mix to the RIS<sup>3</sup> Priorities

The delivery of support services has to be in line with the lifecycle of enterprises and their projects and to allow for experimentation. Tools are indeed tailored to support different stages of that lifecycle, e.g.

- the initiation and validation of project ideas will be best supported by incubation, co-working space, advice, coaching/mentoring, IPR valorization, ...
- the demonstration of the technology and commercial viability of the project will be supported by tools such as proof of concept, fab labs, early-stage funding, investment readiness, large-scale demonstration, ...
- the early implementation phase of the project could benefit from grants, loans, market replication, soft landing, pre- and innovative public procurement, ...

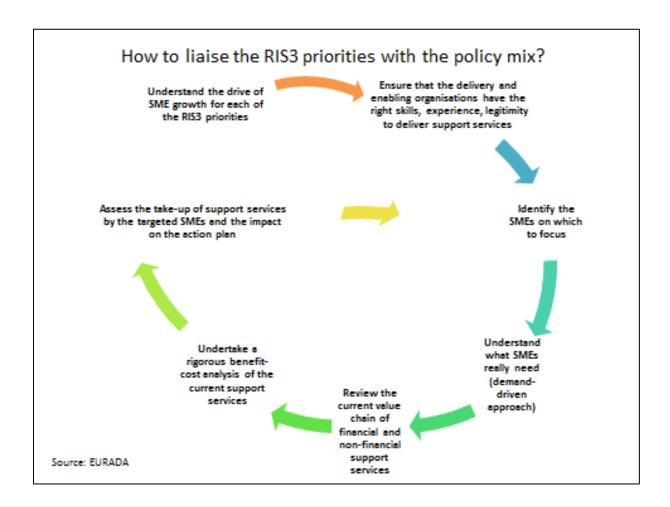
• the development stage can be boosted by equity funding, networking, relay buildings, internationalization schemes, inter-clustering, ...

Support services which seem to fulfil general purposes (support to start-ups, access to finance, internationalisation, ...) need to be adapted to the RIS priorities. This can be done either by a stronger segmentation of beneficiaries or by an ad-hoc design of the support services.

It could, for example, be questioned to put in place a yearly project selection system for the support of software enterprises which are rapidly obsolete, or the small size of seed fund schemes for the biotech industry which has a long exit time.

Public authorities have to be engaged in their innovation strategies by using their purchase power (public procurement) and committing themselves in the support of social innovation. They can also play an active role as risk capital providers to finance innovative enterprises.

To optimise the investment foreseen in the RIS<sup>3</sup>, it is crucial to start a virtuous circle linking strategy priorities with business support services that reflect its delivery. The chart below suggests the different parts of such a virtuous circle.



Behind this virtuous circle the following questions are pending:

- → What are the RIS horizontal priorities?
- → What means should be deployed to reach the RIS³ goals?
- → What tools or schemes are most suitable to generate the expected outcomes?
- → What are the options available?
- → Which types of enterprises should be targeted?

- → How to diagnose the individual SME needs and strengths to absorb benefits of the tools?
- → What type of administrative delivery process should be put in place?
- → What could be the nature of public support?
- → How to follow the enterprise transformation process?
- → What outcome measures to take into account?

#### 1.9 Which Tool/Support for Which Policy Objective?

Policy makers are expecting from their regional strategies to create new jobs and generate growth thanks to sustainable enterprises. This can be achieved either by supporting the creation of new enterprises, enhancing the competitiveness of existing ones, creating new markets or attracting foreign investors. There is no single tool or scheme which can deliver all those outcomes. Therefore, any policy mix attached to a RIS³ should balance the different tools and schemes which are in the hands of policy makers who, together with the ERDF managing authorities, should build their own "logical intervention path" made of the following trails.

Regional policy objectives	RIS <sup>3</sup> horizontal priorities	Means to be deployed	Schemes	Outputs
<ul> <li>Job creation</li> <li>Economic growth</li> <li>Sustainable development</li> <li>Social inclusion</li> </ul>	<ul> <li>Supporting private investment in R&amp;D</li> <li>Stimulating innovation</li> <li>Enhancing SME competitiveness</li> </ul>	<ul> <li>Supporting industrial research</li> <li>Strengthening human capital development</li> <li>Fostering University/SME collaborations</li> <li>Transforming publicly funded knowledge into market applications</li> <li>Encouraging the creation of new firms</li> <li>Boosting the introduction of new products/services into the market</li> <li>Supporting non high tech innovation</li> <li>Favouring geographical diversification</li> <li>Helping sectorial diversification</li> <li>Promoting the upscaling of the product range</li> <li>Supporting the reduction of raw material and adopting environment friendly practices</li> </ul>	<ul> <li>Business support infrastructure</li> <li>Financial support</li> <li>Advisory services</li> <li>Support to commercialization of innovative products/services</li> <li>Key stakeholder matching services</li> </ul>	<ul> <li>Creation of start-ups/spin-offs</li> <li>Growth of existing companies</li> <li>Skills acquisition</li> <li>Job creation</li> <li>Attraction of foreign direct investment</li> <li>Phoenix enterprises</li> <li>Up-scaling the product range</li> <li>Development of market niches</li> </ul>

The table below provides further details on how to put a balanced product mix in place taking into account the type of enterprises which can maximize the benefit of the different planned tools/schemes.

Support service categories	What tools?	For whom?
Business support infrastructure In addition to corporate real estate (offices, factories,	Relay building	Growing start-ups facing problems to finance/find real estate matching their new needs.
research centres, etc), public authorities may provide SMEs with community infrastructure meeting different needs:	Demonstration centres	Businesses with a prototype in need of a place to test it or pass a test certifying its conformity with existing norms and standards.
<ul> <li>a) Hexible production space:</li> <li>business incubators,</li> <li>relay workshops;</li> <li>b) chared working and collaborative chare or equin-</li> </ul>	Sector technical, design or prototyping centres	Businesses looking to acquire outside knowledge so as to innovate through access to equipment or talent on a timesharing or contract basis.
ภี⊑ •	Co-working space	Businesses looking to use open work space where they can meet with peers and share/acquire social capital, skills and advice.
<ul> <li>demonstration centres (test pre-production, fab     labs, technological showcasing, etc.);</li> <li>spaces to meet consumers or peers (living labs,</li></ul>	Fab labs	SMEs and prospective entrepreneurs looking for access to cutting-edge CAD and prototyping or 3D printing technology.
	Incubators	Young start-up developers looking for low (or progressive) cost accommodation and specialist advice.
	Living labs	Businesses looking to involve users in product/service development.
	Science/technological parks	Tech companies looking for community ties with universities and their research centres.
	Soft landing	Businesses aiming to tackle export markets and looking to test their business plan on a specific foreign market.
Financial support There is a wide range of support services that public	Repayable short-term loans	Businesses with an applied research or innovation project with strong ROI potential.
authorities can provide to meet the funding requirements of SMEs: grants, loans, guarantees, venture capital or even mixed funding packages. Each instrument meets a character funding need often connected to the business.	Proof of concept	Teams of researchers seeking to develop a start-up to commercialise the outcomes of a research project requiring technological validation and market approval.
lifecycle.	Financial engineering tools	Businesses with strong short-term growth potential from technological or organisational innovation and ready to

Support service categories	What tools?	For whom?
Experts broadly agree to identify a variety of structural market failures (seed and early-growth capital) that public authorities can address by investing into regional venture capital or guarantee funds. This funding backs investment into:  • corporate real estate;		accept third-party investors.  According to their needs and stage in the business lifecycle, they may expect to raise the following funding sources: loans on trust, micro-credit, business angels, seed capital, start-up capital, venture capital, crowdfunding, corporate venturing, IPO.
<ul> <li>productive investment into logistics or R&amp;D+I;</li> <li>R&amp;D+I activities;</li> <li>human capital;</li> <li>diversification or modernisation of activities;</li> <li>intangible assets;</li> <li>internationalisation initiatives;</li> <li>external cooperation and partnerships.</li> </ul>	Grants / Tax reductions	Businesses meeting the criteria to qualify for access to a public strategy or scheme supporting investment, R&D+I, the modernisation/ restructuring of productive activities, exports or job creation.
Advisory services  Public authorities may also deploy a diverse range of business advisory services, taking the form of either	Innovation accelerators	Tech business developers accepting third-party share capital investors and specialist business management advice.
generic or high-value added services. They meet one or more needs including:	IP advice centres	Businesses looking to diagnose, protect and leverage IPR assets (patents, brands, etc.).
<ul> <li>access to information,</li> <li>strategic decision-making;</li> <li>improved internal management;</li> </ul>	Innovation management advice	Businesses with latent innovation projects that are unused due to a lack of human resource management capacity.
<ul> <li>productive or commercial investment;</li> <li>technological or geographical diversification;</li> <li>external cooperation and partnerships;</li> <li>acquisition of knowledge;</li> <li>vocational training and talent attraction.</li> </ul>	Advice for first-time innovators	SMEs looking to overcome the main obstacles barring their path to innovation, i.e. the lack of human resources, opportunities to form alliances, adequate access to knowledge and venture capital and poor ability to join networks.
I hese services are usually delivered through direct subsidies granted to businesses, allocation of "consultancy	Open innovation	Businesses looking to acquire external competences to innovate.

Support service categories	What tools?	For whom?
vouchers" or financial support for collective action taken by intermediary bodies including clusters, or also through the proximity of enterprises and counsel providers (incubators).	KET (Key Enabling Technology) mainstreaming	Businesses looking to technology to diversify their product range through KET mainstreaming.  NB: KETs include the following technologies: micro/nano-electronics, • nanotechnology, photonics, advanced materials, industrial biotechnology, • advanced production technology
	Incubation	Enterprises looking for advice regarding office space, business plan, innovation, access to finance, IPR, commercialisation of new products/services, internationalisation
	Investment readiness	Entrepreneurs and start-ups looking for external funding sources to back their development or growth and seeking to improve their business plan in order to strengthen their attractiveness in the eyes of private investors.
	Market intelligence and emerging market opportunities analysis	Innovative enterprises in search of diversification opportunities.
	Research lease	Pre start-ups in need of accessing infrastructure and equipment to validate their business ideas/model.
Support to commercialise innovative products/services  For innovative businesses, finding one or more first clients	Market replication / first application	Innovative businesses having demonstrated the technical viability of their innovation but still needing support to significantly penetrate the market.
is crucial. According to ECB surveys, <sup>17</sup> it is the top concern among SMEs. Besides, being able to back a business plan with initial orders by first clients facilitates discussions with potential investors and banks.	Large scale demonstrators	Groups of SMEs seeking to share with research centres, users and public authorities knowledge and testing options to respond through new products/services/solutions to emerging demands.
I here are two different ways in which public authorities can help businesses secure initial outlets:  • deploying suitable public procurement policies to buy innovative products/services for their own purposes,	Pre-commercial public procurement	Businesses with the ability to either market innovative products/services/ solutions that have not been commercialised yet or offer a unique solution to a public problem that has not been solved yet.

<sup>17</sup> European Central Bank, *Survey on the Access to Finance of SMEs*, November 2012.

Support service categories	What tools?	For whom?
<ul><li>i.e. resorting to:</li><li>pre-commercial public procurement,</li><li>public procurement of innovative products/services,</li></ul>	Meet-the-buyer fairs	Subcontractors looking to form partnerships with major contractors based on specific demand for products/services/solutions formulated by the latter.
<ul> <li>public production rayouting innovative products, services;</li> <li>helping match businesses with potential first clients through:</li> </ul>	Soft landing	Businesses looking for specific advisory services and affordable accommodation to confirm their ability to penetrate an export market.
<ul> <li>technological showcasing,</li> <li>demonstration centres,</li> <li>soft landing,</li> <li>soft meet-the-hiver fairs</li> </ul>	Technological showcasing	Businesses having developed a prototype but still looking for a client who is prepared to let them test it in real operating conditions.
	Quality and design management	Business having the opportunity to upscale their product range.
<b>Key stakeholder matching services</b> Services of this type can promote bilateral partnerships (involving universities, SMEs and/or businesses) or the	Clusters	Businesses looking to develop cooperative relations (R&D+I, training, market, human capital) and share technological and market intelligence.
matching of groups of stakeholders (clusters, business	Large enterprise/SME cooperation	SMEs in need of coaching/mentoring to innovate
services are especially advisable when supporting innovation at the boundary between adjacent industries	University-Enterprise networks	Businesses able to manage technology-driven innovation or in search of solving a technical/process problem.
and the adoption of KETs by businesses in traditional industries.	Inter-clustering	Businesses belonging to a cluster and looking to either go international or form ties with member companies of other clusters (in similar or complementary industries).
	Strategic regional business portfolios	Focus of public support on a small number of (small, medium-sized and large) companies with regional development in mind.
	Vouchers	Businesses looking to acquire external competences enabling them to prepare an economic model shift (innovation, management, internationalisation).

Support service categories	What tools?	For whom?
	Industrial cross-fertilization	Businesses able to be engaged in a sectorial diversification process by using knowledge developed in another sector including KETs.

<u>Please note concerning the use of Financial Instruments</u>: Public authorities have to be aware that **all money is not the same**. Indeed, each financial instrument fits a purpose linked to a given time of the enterprise life cycle. The financial engineering market can be divided in the following segments<sup>18</sup>:

#### a) Entrepreneurs' own assets as well as their families' and friends'

- · entrepreneur's assets,
- · profit reinvestment,
- · friends and family savings,
- · mortgage,
- · credit cards,
- · pre-payment of clients' orders,
- · terms of payment,
- · sharing enterprise real estate,
- employing family members with wages below the market price.

#### b) 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
- · crowdfunding.

#### c) First financial Round

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

#### d) Second financial Round

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

#### e) Other financial rounds

- initial Public Offer (IPO)—listing;
- · bond issues;
- convertible bonds;
- leasing;
- factoring
- franchising.

<sup>&</sup>lt;sup>18</sup> Cf. EURADA Document "All Money Is Not The Same", Rev. 5, March 2013

#### **Chapter 2** Designing Support Services for SMEs within a RIS<sup>3</sup> Exercise

#### 2.1 Prerequisites

Strategies may look good on paper but lack effectiveness when implemented because their delivery rests on schemes that are neither dynamic nor relevant.

It is in this context that the distinction between concepts of efficiency and effectiveness take on their full meaning. There are many examples of ambitious strategies that failed to deliver any substantial outcomes due to a lack of adequate delivery schemes.

In recent years, a number of fashionable trends have emerged in regional development strategy delivery practices. Incubators, technological parks, clusters, vouchers, etc., have all had their hour of glory. And they all have obvious advantages, provided that their promoters implement them in a relevant administrative, human, financial and economic environment.

Unfortunately, these concepts are often adopted without due analysis of the local context or consideration of alternatives, opportunity costs or impact scenarios. They often overlap existing schemes in the absence of a detailed analysis of potential synergies between existing instruments or intermediaries.

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

- → that support service provision is tailored to business requirements and aligned with the RIS³;
- → that delivery mechanisms bring added value both in view of business requirements and compared to existing schemes;
- → that financial resource allocation 19 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 multiannual programmes;
- → that there is a strong inter-institutional cooperation to avoid unnecessary bureaucracy or duplication of efforts.

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

#### 2.2 Enterprise Support Services Within a Regional Innovation Ecosystem

There are two reasons why enterprises are at the core of any RIS³. Indeed, RIS³ rely both on the concept of entrepreneurial discovery and on the notion of unique competitive advantages. Therefore, ultimate RIS³ success will logically hinge upon the ability of business support services deployed to enable regional SMEs to leverage the new market opportunities resulting from the RIS³. Because individual territories have their own culture and no to 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 creation and growth cannot be willed by public policies, even to fight unemployment: it must continue to be a reaction to the perception of potential financial or

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

societal profit and market opportunities. Therefore, business support services must aim to reduce the entrepreneurial financial risk, improve market access and speed up business growth or to respond to societal challenges. This implies the support for the creation, dissemination and absorption of knowledge.

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

- a) understanding business needs and anticipating market failures in order to respond to the problem raised by the most appropriate instrument;
- 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
- f) taking into account the geographical ambitions of enterprises: local, regional, national, EU internal market, worldwide, ...
- g) Removing barriers to innovation. The most commonly accepted are: costs, financing, human capital, marketing, competition, information, social infrastructure.

The promoters of that strategy must be able to distinguish between a good idea and a market opportunity. This applies both to the entrepreneurial project and the support service system.

#### 2.3 Regional Enterprise Portfolio

The segmentation of the "business" clients of regional entrepreneurship strategies can be based, by way of an example, on the 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
- 11. enterprises pursuing social objectives;
- 12. phoenix enterprises
- 13. hidden champions
- 14. "born global" enterprises
- 15. would-be entrepreneurs, team of entrepreneurs
- 16. life style entrepreneurs
- 17. family-owned enterprises
- 18. entrepreneurs by necessity.

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" targeting for instance support to start-ups, gazelles, hidden champions and strategic enterprises for the region.

#### 2.4 Which are the Delivery Options to Build a Policy Mix?

When designing a comprehensive policy mix, ERDF managing authorities have to consider, for each tool/measure, which option they have in front of them. The table below seeks to introduce the options available to regional strategy delivery managers in terms of support nature and delivery techniques.

Strategy	Strategy objectives			Delivery options	options			
Delivery	Delivery method	<ul><li>Individual users</li><li>Member of a cluster</li><li>Part of a strategic portfolio</li></ul>	<b>3</b> • •	Collective users • Clusters • Joint development	ient	Purpose • Techr	Purpose Vehicle • Technology transfer • Financial engineering	er ng
Selection	Selection method	Call for proposals: fix deadline, open, restricted, negotiated		Pre-commercial public procurement	ublic	Private/	Private/public partnership	ship
	Nature of support	Access to specialist infrastructure  Incubators  Technological parks  Sector technology centre  Fab labs / Living labs  Co-working space		Supply of support services  • Financial • Non-financial • Hybrid	t services	Networking Clusters Clubs Clubs Coopera	Networking opportunities  Clusters  Clubs  Cooperative research  Investment pitch	<u>ities</u> ch
	Types of support services	Financial  Grants  Loans  Guarantees  Venture capital  Mezzanine loans	<ul> <li>Access to markets</li> <li>Market replication</li> <li>Precompetitive Pu procurement</li> <li>Access to first clie</li> </ul>	cess to markets Market replication Precompetitive Public procurement Access to first clients	Non-financial  Intermediation Coaching Audit Awareness Investment readiness	ion adiness	Hybrid • Proof-of-concept • Mix of advice & finance	oncept ice &
Business support	Place of provision	In user company • Placement of experts / of students	·	<ul> <li>External (outsourcing)</li> <li>Cooperation with third pa / universities / research centres</li> <li>Purchasing services from providers (vouchers)</li> </ul>	<ul><li>External (outsourcing)</li><li>Cooperation with third parties / universities / research centres</li><li>Purchasing services from providers (vouchers)</li></ul>	<u>Ab</u> • • •	<u>rroad</u> Fairs Soft landing Technology showcase Meet-the-buyer exhibition	ase nibition
	Scale specificity / Knowledge intensiveness	Generic			High added-value services	ilue services		
	Aims of support services	<ul><li>New activities</li><li>Enterprises</li><li>Sectors</li></ul>	Prod	Productivity gains	(0	Geograp	Geographical (intemationalisation) or sectorial diversification	onalisation) or n
	Targeting of businesses	No Pre start- targeting up	Start-up	Growing	Gazelle F	Hidden champion	FDI	Others

	Financial volume	> 5,000€		Between 500	Between 5001 & 100,000€	Between 100,001 & 1.5 mio €	1.5 mio€	> 1.5 mio €
	Co-funding	100 %	%	7.	75 %	50% / 25 %	%	< 25 %
	Objective	Start-up		Study of innovation potential	novation	Market study for sectorial or geographical diversification		Regional location of a FDI
	Competitive situations	Start-up	Mature business	Hidden champion	Phoenix enterprises	Business under restructuring	Use of enabling technology	nabling Business/ gy activity retention
	Sector approach	Industry		Services		Hybrid: integrating services into industry	ing ustry	Societal
	Time to market	Concept	Research	arch	Prototyping Proof of concept	ig 1st clients oncept	ents	Exports
	Target of support	Applied R&D	Solving local issues		Demonstrator	Transfer	Commercial exploitation	ial Society on challenge
	Objectives	Developing new concepts	w concepts			Strengthening human capital	uman capi	tal
	Nature	Breakthrough innovation		Incremental innovation	Non-technological innovation		Business model innovation	Society-oriented innovation
Support for R&D+I	Technological competitiveness	Developing and leveraging new knowledge	ıd leveraginç	_	Mainstreaming knowledge from complementary sectors	nowledge from ectors	Transfer and specific region requirements	Transfer and adjustment to specific regional fabric requirements
	Relations to market	Market push		Market pull		Response to user needs	speeus	First client search
	Sector approach	Single sectors		ŭ	Converging sectors	ırs	Multi-sector	tor
	Place of innovation	In situ		Ō··	Outside the enterprise • Outsourcing • Living labs / Fab labs	rprise b labs	Open innovation	ovation

# 2.5 <u>Tailoring Support Services to the Requirements of Businesses</u>

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 segment categories below:

- ✓ The position of the enterprise in its lifecycle:
  - · growing businesses;
  - start-ups;
  - entrepreneurial growth businesses;
  - · businesses without much potential for growth;
  - businesses undergoing a transition (re-engineering, transmission);
- ✓ 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;
  - search of the first client
  - technological and/or geographical diversification
- ✓ Categories of users involved in delivery mechanisms:
  - public authorities;
  - · intermediary bodies;
  - · universities, research centres;
  - · regional businesses;
  - · subsidiaries of multinationals;
  - private consultants;
  - enterprise organisations;
  - · cluster organisations;
- ✓ Stage in the development cycle of a new product or service:
  - definition of product / service / solution;
  - · definition of standards and norms;
  - proof of concept;
  - entry on the market;
  - · development/growth;
  - · maturity;
  - feasibility of a new product/service;
- ✓ 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;
  - · use of vouchers;
- ✓ 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/offs;
  - 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;
- supporting reconversion or diversification;
- supporting brokerage between demand for knowledge/innovation and the offer;
- supporting the use of new management forms;
- supporting the design of new products/services (prototype, demonstration centre, fab lab, living lab, ...);
- supporting the commercialisation of R&D results, the search of first clients for an innovation or internationalisation
- ✓ Support service quality:
  - basic touch-and-go (information) v. specific (advisory) support services;
  - · high value-added services;
- ✓ Sector where enterprises are operating:
  - Industry
  - Services
  - Trade
  - Tourism
  - · Agro-food
- ✓ Position in the global value chain:
  - Manufacturing
  - Subcontracting
  - Integration
- ✓ International context:
  - Global enterprise
  - Exporting / importing enterprise
  - Outsourcing, near-shoring enterprise
  - Enterprise ready to repatriate some of the offshore activities
- ✓ Nature of available support:
  - financial: subsidies, loans, guarantees, equity participation, tax relief, etc.;
  - other: advice, auditing, training, coaching, mentoring, etc.
  - networking
- ✓ Forms of support services:
  - Grant
  - Guarantee
  - · Voucher for acquisition of knowledge
  - Loar
  - Participation in capital
  - · Order through public procurement
  - Cheap property rental
  - Tax reduction
  - · Supporting staff training
- ✓ Types of innovation to be supported:
  - Technology innovation;
  - Product / service / solution innovation;
  - · Process innovation:
  - · Societal innovation;
  - · Business model innovation;
  - Lifestyle innovation;
  - · Open innovation;
  - Organisational innovation;
  - Marketing innovation;
  - · Systemic innovation.

## 2.6 Balancing the types of interventions

Strategy items broadly belong to several categories including:

- investment in business support infrastructures: incubators, technology centres, equipment etc.
- investment to promote entrepreneurship: financial and non-financial services to both support the competitiveness of the capitalistic and social economies and address societal challenges;
- investment covering the cycle from knowledge creation to commercialisation;
- structural investment: networks, facilitators, intermediaries;
- investment into human capital in connection with entrepreneurship: training, coaching, knowledge and know-how developers and popularisers;
- investment into public authorities' management capacity: project scouting, project portfolio management, delivery assessment, regional intelligence, outlook and monitoring, emerging converging technology, etc.;
- investment into regional intelligence: observatory of new tech and non-tech knowledge.

Self-evidently, all types of interventions need to be delivered in parallel. Indeed, industry-specific strategies for instance, cannot be expected to succeed in the absence of adequate investment into human capital, R&D centres or clusters, if the needs of businesses in terms of skilled staff are not met or if public managers lack the ability to assess the quality of projects submitted for evaluation!

# 2.7 Public Intervention Planning

Ideally, the business support service delivery planning process needs to include analyses of:

- the market, including a segmentation of potential users as well as the resources needed to detect and involve them in support scheme design;
- the issues to be solved and relative measure suitability to expected outcomes.
- delivery options: what intermediary bodies should be the vehicles and what business categories should be selected?
- the business model: what should be the preferred support product mix and what support rate should be granted?
- practices in competing regions: what support systems do they use? What are the types of businesses they support? What are the schemes they deploy? What are their predominant evaluation systems?

#### 2.8 Nature of Public Support

Public support is either finance- or knowledge-driven (coaching), or both. Financial support for business is either direct or indirect, i.e. via contributions to venture capital funds or loan or guarantee schemes. Consideration should be given to providing start-ups with repayable short-term cash or equity loans instead of grants.

When strategies remain in State hands, it is often crucial to leverage tax cuts to steer investment in the right direction (research tax credit, business angels, start-ups, etc.).

Advisory services often prove decisive for SME development and growth. Regional schemes need to include both basic and high value-added services so as to cover the entire business development cycle. They should also include schemes to match businesses with complementary stakeholders such as peer clubs, investment forums, various networks.

With regard to high added value services that they will never be able to offer themselves in an efficient way, the public authorities should think about attracting private service providers on their territories. They might for instance set up a weekly permanence with specialised providers. The files submitted would be validated by intermediary bodies.

Packaging financial and non financial support services				
Financial support	Related non-financial support			
<ul> <li>I. Debt finance (SMEs in need of competitiveness support)</li> <li>Micro-loans</li> <li>Guarantee schemes</li> <li>Loans</li> </ul>	<ul> <li>Investment readiness scheme</li> <li>Accelerators management</li> <li>Investment forum</li> <li>Business angel networks</li> </ul>			
<ul> <li>II. Equity finance (high growth SMEs)</li> <li>Seed capital</li> <li>Venture capital</li> <li>Technology transfer fund</li> <li>Proof of concept</li> </ul>				

Implementing "voucher" schemes may prove useful when it comes to providing high value-added services. Outsourcing services this way exempts public authorities from developing in-house cutting-edge skills for which there is no critical mass capable of attracting private providers to their region. To best meet the service needs of innovative SMEs, it may for instance be advisable to sign service provision contracts with experts (specialising in IPR, investment readiness, venture capital) securing their presence in the region on fixed dates.

To adjust service provision with recent trends in innovation, public authorities should promote the use of different collaborative formats (open innovation, joint development, living labs, etc.) and internationalisation of businesses and regional clusters. They should also deploy schemes enabling start-ups and innovative SMEs to find their first clients (proof-of-concept, large scale demonstrators, technology showcases, soft-landing scheme, pre-commercial procurement, meet-the-buyer fairs, etc.).

In an economy based on innovation through knowledge exploitation, regional strategies could for instance rest on the five pillars below:

- relations between businesses and universities / sector-specific technical centres and outlook,
- · enhanced labour skills and talent attraction,
- knowledge acquisition and validation (IPR, open innovation, prototyping, clusters, etc.),
- support for commercialisation and the search for first clients (living labs, proof-of-concept, start-ups, etc.),
- access to funding sources.

For each of those five pillars, specific attention should be given to internationalisation, SMEs and of course, assessment.

There is of course a need to select a funding format (grants, loans, guarantees, equity investments, advances that are repayable if projects are successful, etc.), the granting conditions and a rate of public finance.

# 2.9 **Delivery Techniques**

User selection is one of the keys to success in delivering any strategy. The way this selection is effected is important too. Closed – i.e. time-limited procedures – may inadequately address businesses' need for constant innovation and synchronisation with market trends. Open procedures are therefore preferable, with deadlines (three or four times a year).

User selection is possible in a variety of ways including:

→ Calls for proposals to support businesses in the entrepreneurial discovery process. Use of negotiated public procurement procedures or even idea competitions is recommended in addition

to traditional calls for tenders. To reflect recent innovation trends, calls should where appropriate include provisions promoting joint development by operators from complementary industries (ICT, "nano", "green"), cooperation between different types of organisations (businesses, universities, research centres, designers, etc.) or even internationalisation.

Public authorities can also foresee two-stage call procedures for projects: a first one succinctly introducing project aims and a second one describing the work plan in greater detail. To ensure that the best projects stand out, public authorities may also call upon experts from outside the region or peer review groups.

- → Calls for expressions of interest to negotiate attainment contracts with intermediary bodies to encourage business managers to take up new practices. This solution is especially suitable (i) in the case of projects involving incubation, clusters and technology or knowledge transfer; (ii) to provide answers to society challenges and access to funding sources; and (iii) to leverage IPR, market RTD project outcomes, etc. Implementing this type of market can be achieved through a voucher scheme.
- → Calls for projects for PPP contract negotiations. Public sector representatives invest in the private sector with a view to match-funding community infrastructure or acquire stakes in (equity, loan, guarantee) financial engineering instruments.
- → Business plan competitions to deliver "special purpose funds/vehicles", e.g. to market, acquire or integrate RTD outcomes, redesign or reengineer products, mainstream enabling technologies into traditional industries or redeploy high value-added advisory services (IP, specialist start-up development, etc.).

Final users are either businesses or intermediary bodies. The former can be approached through direct (one-to-one) payments or collective (one-to-network) support.

To avoid forcing businesses to constantly navigate the different administrations in charge of individual support schemes, public authorities can implement a no-wrong-door system enabling businesses to easily identify the right desk and support eligibility conditions.

One example is the establishment of a regional innovation agency alongside a pre-existing economic development agency to address the knowledge society challenge, as though innovation and economic growth were not interdependent concepts.

## 2.10 **Diagnosis of SME Support Needs**

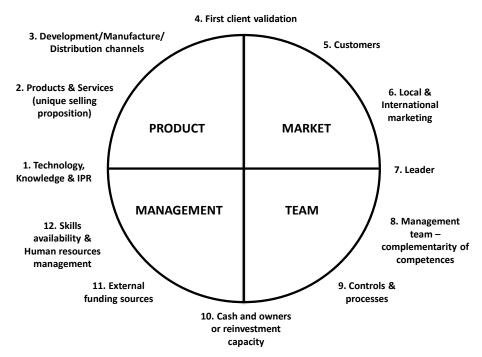
Making access to financial support contingent upon use of advisory services (even if only for the purpose of a capability diagnostic or strategic plan analysis) should become standard practice. Using capability diagnostics tools<sup>20</sup> or an investment readiness check list is a sound preliminary step to take before implementing a support service policy.

The graph below outlines a procedure to diagnose SME needs so as to provide a sensible package of financial and non-financial services. It also enables optimum business referral to those intermediary bodies best able to provide the necessary support.

57

<sup>&</sup>lt;sup>20</sup> Cf. Europe INNOVA programme: the schemes such as Impro<sup>3</sup>ve and REMake

# DIAGNOSIC TOOL FOR COACHING SUPPORT



Source: EURADA – based on Sally Goodsell from Finance SouthEast's presentation at EURADA's investment readiness training events in Timisoara and Riga

In doing so, intermediary bodies also need to test the will of businesses to innovate by assessing entrepreneur attitudes toward parameters such as:

- √ willingness to change prevailing business models;
- √ determination to take calculated risks;
- ✓ the ability to launch new products/services or mainstream KETs into the production process;
- √ readiness for geographical or sector diversification;
- ✓ prospects for either up-marketing or differentiation based on a low-cost business model;
- √ the ability to react quickly to market changes or to detect usable ideas;
- ✓ a preference for in-house innovation development v. joint development or other more or less intensive forms of cooperation with third parties including clients and suppliers;
- ✓ the ability to imagine hybrid innovation systems, i.e. a mixture of product, business model, marketing and/or e-commerce innovations;
- √ the existence of an innovation strategy or at the very least a willingness to develop one.

These parameters will predetermine the impact of support by first excluding companies hunting for public funding opportunities and to focus exclusively on the ones that actually need a boost to grow or diversify and adjust to changing market trends.

## 2.11 Follow-up of Support Service Beneficiaries

In order to maximise the effectiveness of support services, intermediary bodies should adopt a common tool to diagnose SMEs requiring support through a no-wrong-door system.

Where final users are intermediary bodies, these need to fit within a regional intranet system (a CRM-type software or a software to follow a patient in a hospital) based on the no-wrong-door principle, enabling the evolution of the contacts developed by the enterprise with the public stakeholders as well as user project progress to be monitored on a daily basis by all members of the regional public and semi-public ecosystem.

Once this is in place, public authorities can even go one step further in the follow-up of the implementation of support services by setting up a catalogue of support services and a customer intelligence service. This catalogue could for instance be based on the following headings. Such catalogue will also provide the enterprises with a good view of what is available for them.

Ref. number	Policy priority	Objective of the scheme	Nature of the service	Target	Form of the support	Delive- rables	Impact	Imple- mentation enabler	Supported enter- prise

Source: EURADA, based on INFO Murcia catalogue created within the framework of the PYME+I Initiative

The system enables to collect an incredibly large set of data which can lead to develop impact assessment of the support service ecosystem. It will indeed be possible to collect and analyse data regarding the beneficiaries such as:

- type of enterprises (age, size, legal form, ...)
- geo-localisation of beneficiaries (cities, rural areas, location in science parks, in incubators, in industrial parks, ...)
- number of supports received, frequency of the support, ...
- type of supports (grants, loans, advice, coaching, ...)
- knowledge intensity of the support (awareness, social capital, ...)
- part of the business or project lifecycle (start-up, development of idea, prototyping, production, marketing, ...)
- sequence of the support (one shot, advice followed by a funding, funding without advice, ...)
- department or unit of the enterprise having access to the support (CEO, research, production, international, ...).

The content of the different headings might be for instance:

- ✓ Priority area: start-up support, R&D+I, internationalisation, competitiveness enhancing, FDI attraction, cluster policy, ...
- ✓ Objectives: management improvement, access to funding sources, training, technology innovation, non-technology innovation, legal advice, first client search, access to business infrastructures, internationalisation support, networking/social capital, ...
- ✓ Services to be received: loans, equity, grants, quarantee, advice, mentoring/coaching, training, ...
- ✓ Target/beneficiaries: would be entrepreneurs, start-ups, gazelles, micro-enterprises, hidden champions, ...
- ✓ Forms: direct grants, vouchers, ...
- ✓ Deliverables: number of hours of training or mentoring received, volume of funding attracted, number of staff recruited, increased volume of export sales, number of new/improved products/ services introduced into the market, volume of investment made, ...
- ✓ Implementation agencies: ministry, agency, chamber of commerce, ...
- ✓ Supported enterprise data: name, location, date of birth, department/unit which signed the agreement

The technology allows to do this. This means that the take up of such system relies on political willingness and bureaucrats' commitment.

Such system can also provide information concerning:

- The market share of the different support services and so the attractiveness of support services. Are grants more used than coaching? Are coaching schemes leading to the obtaining of funding support? ...
- The impact of the support services on the growth of enterprises or the survival rate of start-ups. The sample of enterprises having received support services can be compared with a sample of enterprises having not received support services.
- The characteristics of enterprises not interested in public support or failing to successfully introduce a file.
- The alignment of the beneficiaries with the targeted enterprises of the strategy.

In order to help managing authorities figure out how such a catalogue will look like, the table below shows a few examples of support services which could be included.

01 Ma	nagement / Organisation	02 Tra	ining
01.001	Strategic innovation plan	02.001	R&D management
01.002	Introduction of ICT from a strategic	02.002	Market and technology intelligence
	point of view	02.003	Learning how to use innovative ICT tools
01.003	Outsourcing plan		•
03 Acc	cess to external funding sources	04 Acc	cess to business infrastructure
03.001	Investment readiness	04.001	Incubators
03.002	R&D FP7 / Horizon 2020	04.002	Living labs
03.003	R&D national projects	04.003	Fab labs
03.004	Micro-credit	04.004	Prototyping
03.005	Grants for export	04.005	Design centre
05 Inn	novation services	06 lea	gal services
05.001	Vouchers	06.001	IPR
05.001	Mentoring / coaching	06.001	Knowledge & technology services
	5.		5 5,
05.003	Proof of concept	06.003	Export
05.004	Business plan for start-up/spin-off	06.004	Licensing agreements
05.005	Hiring PhD students		

## 2.12 Financial Sustainability and critical mass

Public authorities must consider the budget resources needed to deliver their strategy. Are these recurring, temporary or exceptional? A cluster strategy needs between seven and ten years of commitment to produce results and a venture fund usually has a life span of seven years. Furthermore, every support scheme needs a critical mass in order to create a regional impetus. Finally, any individual intervention has its own efficiency threshold. For instance, a  $\in$ 1,500 voucher will not have the same impact as a  $\in$ 17,500 voucher.

Policy makers will have to decide what has to be delivered in a central way and what needs to be addressed by regional intermediaries in order to be close to entrepreneurs.

Innovation requires mainly substantial financial means. Therefore, sustainable access to finance is of paramount importance.

## 2.13 Segmentation of Final Beneficiaries

The size of enterprises matters. Midsize enterprises are often struggling to find the best funding sources to invest in the innovation process and the commercialisation of new products/services or to penetrate foreign markets. Small enterprises are most likely in need of coaching/mentoring in order to enhance their management capabilities and their capacities to identify innovation and market opportunities.

There is a need to decide whether support services are available to all businesses, individually or as networks, or to a selection thereof based on the ability of potential users to maximise support service effectiveness. To perform this selection, service promoters may define ex-ante criteria limiting scheme access to potential users that can demonstrate the ability to successfully leverage the scheme (e.g. in the case of an initiative to promote business internationalisation, applicants should demonstrate that they speak fluent English and already have a geographically diversified portfolio of national clients) or restrict access to companies that belong in the regional key-business accounts portfolio.

Finally, the question will inevitably arise of whether support for SMEs is considered a universal service or one reserved for an elite! This issue has been controversial for many years.

Some defend access to support services for all businesses. The proponents of this approach speculate that some recipients will eventually put public intervention to good use. This system is often criticised for its bonanza and sprinkling effects.

Others plead for high value-adding public support service provision tailored to the absorption capacity of potential users. These enterprises may vary in size but all have a clear growth potential acknowledged by an accredited intermediary body acting as the keystone to the system.

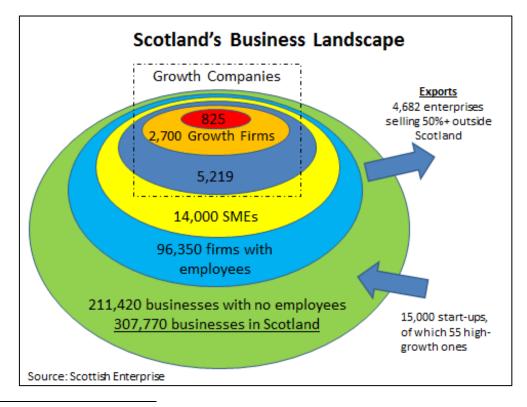
To improve support service effectiveness, some intermediary bodies (e.g. Scottish Enterprise) have developed strategic regional portfolio schemes based on the outcomes of impact studies of business support policies and an analysis of the regional business population.

Indeed, the findings of the impact study show that companies performing best in growth terms are those displaying particular willingness to:

- √ show management leadership ambition;
- √ export;
- √ achieve productivity gains through innovation elevated to management system status;
- √ show leadership potential in a specific sector or niche market;
- ✓ cooperate, including with intermediary bodies such a regional development agencies.

The graph<sup>21</sup> below introduces the findings of an analysis of the Scottish business population. Having willingly joined the portfolio, companies are handled by approximately 100 account managers who act as their case officers when it comes to business support services and various experts (see the nowrong-door concept under section 4.5 above). Account managers are in contact with the top managers of the businesses they handle. Every year, Scottish Enterprise reviews its business portfolio. On average, 100 to 150 enterprises enter or exit the portfolio.

The range of services provided to businesses includes six categories: (i) business model efficiency; (ii) leadership and strategy; (iii) innovation; (iv) organisational development; (v) investment; (vi) market growth.



<sup>&</sup>lt;sup>21</sup> Speech by Linda Hanna of Scottish Enterprise at the Eurada board meeting held in Glasgow on 6-7 March 2013.

# 2.14 <u>Do's and Don'ts for a Successful Design of a Policy Mix within a RIS<sup>3</sup></u>

- → Do a mapping of the existing SME support services in order to identify gaps in the value chain and mismatch between the offer and the real needs/demand for support services by SMEs.
- → Don't add a new tool/scheme without assessing its added value vis-à-vis existing ones and its integration in the current value chain.
- → Do an assessment of the objectives of any support services, of what is needed to reach the target group and which process and human resources have to be put in place to reach that group.
- → Don't forget to develop evaluation instruments to be able to learn what will be needed to reshape the implementation tools in order to better achieve the objectives of the strategy.
- → Do a segmentation of the SMEs to be targeted and of the nature of the innovation or of the competitiveness weaknesses you would like to address.
- → Don't re-conduct the existing tools/schemes without having carefully analysed their impact and evaluation reports.
- → Do a check of the public and private service providers so that there is no unneeded competition between the two sectors.
- → Don't try to copy what other regions are doing without understanding the rationale of their behaviour and the unique competitive advantage you can create in adopting one of their ideas.
- → Do a package of funding, of human capital improvement and of soft measures instead of different schemes or at least make sure that there is a good synchronisation between the different schemes.
- → Don't underestimate the need for coaching/mentoring for SMEs to enhance their management capacity in innovation and in market diversification.
- → Do ask yourself if a grant is the best option to bring enterprises to engage in the innovative path or to enhance their competitiveness.
- → Don't forget that human and social capital is key to foster R&D+I capacities and competitive advantages in a complex global knowledge economy.
- → Do a due diligence check to see if the innovation and competitiveness support services in place or in the process of being launched contribute to help enterprises bring new or improved quality products/services to the market. This is indeed the only way to create growth.
- → Don't forget that a good tool or scheme can be completely useless if the administrative process is wrongly designed.
- → Do insert service and societal innovation in the policy mix implementation system.
- → Don't believe building infrastructures is enough. Provide support services to SMEs to use them.
- → Do a review of the skills available in SMEs and intermediary organisations to make sure that the services are delivered and used professionally.
- → Don't believe that the design of your policy mix is a "tick-box exercise" to receive cohesion policy funding.
- → Do an analysis of the risk profile of regional supply chains from the viewpoint of the economic advantage of the sector's geography: outsourcing and offshoring trends, intellectual property risks, time to market, production costs,...
- → Don't use support service schemes to ensure the survival of intermediary organisations which were created years ago to deliver a policy which now might be out of date or lose their "raison d'être".
- → Do ask the intermediary organisations to make a quality assessment of the final beneficiaries, not just an eligibility check.
- → Deliver what you promised, don't just promise to deliver, i.e. make sure that your RIS3 strategy is backed up by the right policy mix and has an appropriate budgetary commitment to be able to deliver on your promises and the expectations raised.

# **Chapter 3** Support Services to Enhance SME Investments in R&D+I

### 3.1 Prerequisites

Each SME can be identified as a non-innovative or innovative business. The latter can have technological or non-technological purposes. These forms of innovation can comprise the following concepts:

- → breakthrough technology innovation
- → product or service innovation
- → process innovation
- → innovation by integration of a service into a product
- → design or marketing innovation
- → organisational or managerial innovation
- → system or networking innovation
- → life style innovation
- → public service innovation
- → social innovation
- → frugal innovation.

Whatever the type of innovation, businesses increasingly leverage open innovation, requiring regional SMEs to develop new skills and enough financial resources to generate new partnership formats.

To penetrate emerging markets, businesses may combine the different forms of innovation to develop products/services/solutions based on the concept of "frugal innovation" or "reverse innovation", which consists in achieving more with fewer resources. To help the creation of emerging market niches or markets based on societal challenges, public authorities might consider creating a systemic approach to innovation (cf. Point 4.5 below).

As far as process innovation is concerned, there is a need to closely monitor how regional businesses install robots both in production units and logistics.

Enterprises are using one or several of the innovation models below<sup>22</sup>:

- → in house
  - inside a unit
  - share model with other units of the enterprise
- → off site
  - partnership model with a university, their clients, their suppliers,...
  - consultancy model with a research technology centre and private service providers
  - network model within a cluster
  - open innovation model through a e-platform.

Each of these different forms of innovation can have a different impact on the regional economy according to its incidence on the market. So, we can distinguish<sup>23</sup>:

- 1. market transformation innovations which are creating jobs,
- 2. continuation innovations which enable "yesterday" products to be replaced. Those innovations are creating few jobs, but they allow the enterprises creating them to temporarily maintain competitive advantages.
- 3. efficiency innovations. Those innovations can certainly reduce the number of jobs because they rationalise the processes, but they allow jobs to be saved insofar as, by lack of innovation, the enterprise or production units would in term be destined to disappear.

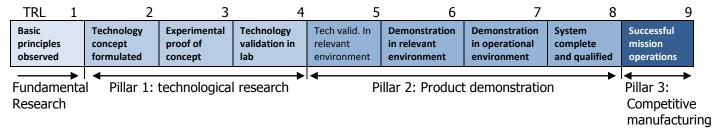
Public authorities can play a role in orienting enterprises in a given direction by using the so-called "users innovation" concept.

<sup>23</sup> Clayton M. Christensen, The New York Times International Weekly, Le Figaro, 16.11.2012

<sup>&</sup>lt;sup>22</sup> 360 Research – How place fosters innovation, Steelcase

The lifecycle from idea to market has to be taken into consideration when offering support services. As an example, the graph below reproduces the TRL (Technology Readiness Levels) option of that lifecycle.

# **Innovation lifecycle**



Source: Doc. COM(2012) 341 final, 26.6.2012, 'A European strategy for Key Enabling Technologies - A bridge to growth and jobs'

Enterprises usually apply this lifecycle by developing an interactive process in house and/or with their key partners. This process comprises: (a) idea factory; (b) feasibility; (c) development; (d) production; (e) commercialisation. Marketing is an integral part of the innovation process.

# 3.2 Which Tools for R&D+I RIS<sup>3</sup> Objectives?

RIS <sup>3</sup> Objectives	Dedicated Tools	Practice references
Increasing the number of enterprises engaged in R&D activities	Enterprise/university networks     Grants for R&D activities     Feasibility studies to access grants     Reimbursable loans     Research intensive clusters     Vouchers	Connecting Universities to Regional Growth: A Practical Guide  http://ipts.jrc.ec.europa.eu/activities/research-and- innovation/documents/connecting universities2011 en.pdf  University-Business Cooperation: 15 Institutional Case Studies on the Links Between Higher Education Institutions and Businesses http://ec.europa.eu/education/higher- education/doc/studies/technopolis en.pdf  The Riga Declaration: Realising the Full Potential of Innovation Voucher Programs http://www.europe- innova.eu/c/document library/get file?folderId=132988& name=DLFE-9801.pdf
Increasing the number of enterprises engaged in transnational R&D activities	Advice and support for feasibility studies to participate in transnational consortia	Supporting enterprises to take part in FP7 <a href="http://www.eurada.org/files/Catalonia Emilia-Romagna FP7ParticipationSupport.pdf">http://www.eurada.org/files/Catalonia Emilia-Romagna FP7ParticipationSupport.pdf</a>
Commercialisation of R&D results through spin-offs/ start-ups	Proof of concept  Seed capital Incubator Prototyping Fab labs Living labs Accelerator	Proof of concept: Practice cases http://www.eurada.org/files/Proof%20of%20concept goo d%20practice%20cases.pdf The Smart Guide to Innovation-Based Incubators (IBI) http://ipts.jrc.ec.europa.eu/activities/research-and- innovation/documents/innovation incubator.pdf The CAMPUS Programme (Technological Transferability and Business Support), operated by IDEA Andalucia (E) http://www.proinno- europe.eu/sites/default/files/repository_files/11/06/CAMPU S%20report%20public%20version.pdf Fab labs http://fab.cba.mit.edu/

RIS <sup>3</sup> Objectives	Dedicated Tools	Practice references
		Living labs <a href="http://knowledgecenter.openlivinglabs.eu/">http://knowledgecenter.openlivinglabs.eu/</a>
		Start-up Europe's Accelerator Assembly
		http://www.acceleratorassembly.eu/
Commercialisation of R&D results through licensing	Coaching/ mentoring     IPR valuation     Technology brokerage	IPR valuation <a href="http://www.iprhelpdesk.eu/library">http://www.iprhelpdesk.eu/library</a> Licensing of research results <a href="http://www.wipo.int/sme/en/documents/academic_patenting.html">http://www.wipo.int/sme/en/documents/academic_patenting.html</a>
Supporting service innovation	Living labs     Voucher for design advice	The Smart Guide to Service Innovation <a href="http://s3platform.jrc.ec.europa.eu/documents/10157/0/s">http://s3platform.jrc.ec.europa.eu/documents/10157/0/s</a> <a href="mailto:mart%20Guide%20to%20Service%20Innovation.pdf">mart%20Guide%20to%20Service%20Innovation.pdf</a>
Improving the quality of R&D+I infrastructure	• Grants	ERDF grants http://ec.europa.eu/regional_policy/projects/stories/searc h.cfm?LAN=EN&pay=ALL&region=ALL&the=45&type=ALL &per=2 FP7 grants: research infrastructures http://ec.europa.eu/research/fp7/index_en.cfm?pg=infra
Supporting the introduction of new innovative products/ services to the market	Coaching/mentoring     Market replication     Pre-commercial procurement     Large-scale demonstrators	Market replication DG Environment http://ec.europa.eu/environment/eco- innovation/index en.htm  Pre-commercial procurement http://ec.europa.eu/enterprise/policies/innovation/policy/l ead-market-initiative/files/meeting-procurement- feb2012/study-eu-support-public-procurement-innovative- solutions en.pdf Large-scale demonstrators http://www.mobilise-europe.mobi/large-scale- demonstrators-real-live-testing/
Supporting social innovation	Incubator     User-driven innovation	Guide to Social Innovation  Http://s3platform.jrc.ec.europa.eu/documents/10157/478 22/Guide%20to%20Social%20Innovation.pdf  User-driven innovation  http://ec.europa.eu/enterprise/policies/innovation/files/consultation/background-paper-demand-side-policies en.pdf

# 3.3 Supporting Creation, Absorption and Commercialisation of Knowledge

When building competitive advantages, innovation plays an ever greater role. Public authorities can implement schemes promoting the generation and take-up of both tech and non tech knowledge. While knowledge generation support services are relatively well harnessed thanks to grants to build infrastructures, to acquire equipment or to undertake R&D projects, this is far less true of services promoting knowledge transfer, absorption and commercialisation. The table below illustrates how to segment support service provision according to the innovation process lifecycle.

Example of the segmentation of services supporting the business innovation process					
Knowledge generation	Knowledge protection	Knowledge acquisition/transfer and take up	Pre-commercialisation of new knowledge	Support for commercialisation	
Access to R&D infrastructures R&D subsidies Reimbursable loans Tax exemptions for R&D investment Open innovation R&D+I intensive clusters Intelligence and foresight Support for researcher recruitment Placement of graduate students in businesses Networking Scanning the results' commercialisation potential	IPR Valorisation Support for spin-offs	Licensing Staff mobility Living labs Technology fairs Technology/knowledge transfer Support for advice and market/ technology watch Networking Technology brokerage Voucher schemes	Proof of concept Incubation Prototyping Seed funding Design Living labs / Fab labs Large-scale demonstration projects	Public procurement of innovation Support in the search for a first client Meet-the-buyer fairs	

Source: EURADA

When it comes to knowledge generation, the growing emphasis on open innovation calls for ad hoc support services so as to involve as many regional SMEs as possible in the process. This requires developing methods affording SMEs access to appropriate information and secure knowledge pooling – possibly including IPR negotiation – and of course helping them match regional supply with demand from international businesses.

Open innovation needs to enable businesses to:

- access knowledge and technology that is available outside businesses or regions;
- mainstream external expertise to develop new products, services, processes or solutions;
- leverage ideas, patents, knowledge that are not essential for businesses;
- vary the sources of necessary skills according to project types.

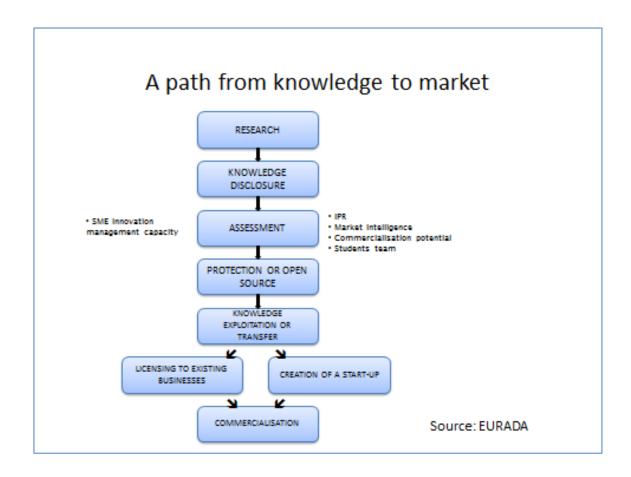
In many regions, efforts are needed to increase the volume of knowledge – and possibly technology – transferred among stakeholders both locally (SMEs and universities or research centres) and with other regions (acquisition of external competences by local businesses or attraction of foreign businesses to harness local competences that are untapped – or possibly unusable by local companies). This should enable bridges to be built between the scientific or technological centres of excellence that exist in some regions and local businesses (see the Canary Islands [E], with both a world-class astrophysics centre and a strong tourism business).

To multiply transfers, regional public authorities need to deploy an integrated scheme – and possibly an ad hoc intermediary body (see the French SATT initiative) $^{24}$  – which needs to address the entire transfer value chain, i.e.:

<sup>24</sup> Sociétés d'accélération du transfert de technologie (SATTs – "Technology Transfer Accelerators") are private limited companies whose shareholders are research centres (67% of the share capital) and the *Caisse des Dépôts et Consignations*, a public savings and deposits bank, i.e. the State (33%).

- ✓ raise the researcher awareness to ensure that they systematically find a commercial or societal use for the outcome of their research, especially where backed with regional funds or conducted using infrastructure co-financed by regional authorities or more simply to encourage researchers to measure their contribution to the regional economy;
- ✓ detect usable projects: this often requires putting together a consortium of experts to translate projects and match scientists with entrepreneurs;
- ✓ support to leverage outcomes in the form of patents, licenses, start-ups, proof of concept, investment readiness, market surveys, prototypes, etc.;
- ✓ organise events to match researchers with SMEs and/or investors.

This requires the people in charge of this aspect of the strategy to have specialist skills and to cooperate with business development/incubation specialists. The flow chart below provides a graphical illustration of the links in such a value chain.



Such an integrated scheme needs to include support services notably enabling:

- · technological watching with commercial applications in mind;
- proactive spotting of technology with commercial potential;
- researcher awareness raising as to both the market value of the outcomes of their research and cooperation with clients, investors or regional businesses;
- · validation of the technological maturity and commercial competitiveness of selected ideas;
- IP protection;
- selection of the most suitable commercial strategy: licensing, patent sales, spin-outs;
- brokerage tools;
- negotiation of the transfer of knowledge or technology;
- development of a business and financial plan plus an incubation contract if need be;
- support to develop a prototype;

- support to secure proof-of-concept funding or a grant to back the development of a start-up;
- possible support in the search for investors (business angels, seed or venture capital funds);
- support in the search for a first client.

More and more innovative businesses operate at a crossroads between knowledge generated in complementary industries or provide services in addition to manufactured goods. To encourage the generalisation of these business model changes, public authorities need to implement a policy supporting the take up of enabling technologies and the development of non-tech innovation. This requires provision of ad hoc support services such as collaboration and networking spaces.

Since not all regional businesses can be innovation champions, there is a need to implement schemes that facilitate knowledge imports and mobility within the region and then support their uptake by as many stakeholders as possible. However, while current ERDF rules allow such action to be funded, comparatively few regions leverage this opportunity, probably out of fear of transferring funding to other regions, although the ultimate goal is to buy knowledge or skills on behalf of their own companies. The graph below suggests a few mechanisms helping the flow of knowledge according to different targets: people, businesses, local communities or knowledge transfer.

## **PEOPLE BASED ACTIVITIES**

Mobility
Participation in networks
Participation in conferences
Coaching / Mentoring / Training
Joint publications

# COMMUNITY BASED ACTIVITIES

Exhibitions / Fairs
Conferences / Workshops
Technology showcases
Clusters internationalisation

# TECHNOLOGY TRANSFER ACTIVITIES

Purchase of patents
Licensing
Spin out attraction
Brokerage events
Demonstration centres

# ENTERPRISE BASED ACTIVITIES

Joint research
Joint ventures
Co-development
Prototyping and testing
Staff mobility
Consultancy services
Soft landing packages
Feasibility studies

Source: EURADA

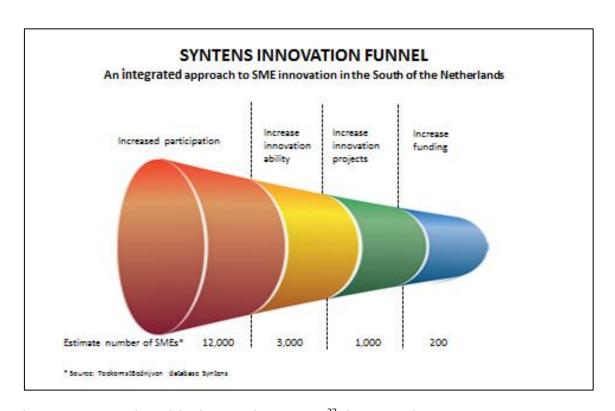
### 3.4 <u>Integrated Approach for First Time Innovators</u>

Statistics show that 50% only of EU businesses innovate and that only a fraction of those export. So all regions could potentially increase the share of regional businesses that are able to innovate and export.

The reason for these numbers is that entrepreneurs face constraints relating to innovation management capacity or staff, time and resources (finance or project or administrative engineering) and hesitate to ask for support (advice, coaching, etc.). Several surveys<sup>25</sup> show that if only few business managers seek help, they are often satisfied with the support they received. Data indeed shows that enterprises having access to external support services have a higher growth rate than the others. It also seems that SMEs outsourcing R&D+I activities innovate more than those having still their R&D centres.

<sup>&</sup>lt;sup>25</sup> Cf. for instance Innovatech (B) "Enquête sur l'innovation chez les TPE/PME wallonnes"

So these findings justify setting up an integrated support system in favour of entrepreneurial discovery. In the Netherlands, Syntens<sup>26</sup> breaks down such a system into three distinct steps: innovation management capability advice, support for concrete innovation projects and growth finance. In graphical terms, this translates into the tunnel effect below.



Below is a proposed model of regional ecosystem  $^{27}$  for SMEs discovering innovation or export activities.

- → Business plan competitions for innovation or export projects. Prizes take the form of coaching or ad space in the press and/or seed or proof-of-concept funds or consultancy vouchers.
- → Coaching of businesses to help them identify in-house one or more innovative ideas or export markets. Coaching includes three steps, i.e.:
  - a) an introductory seminar on how innovative ideas emerge or how to identify export markets;
  - b) a brainstorming seminar for SME staff and management;
  - c) mentoring within the SME with the aim of defining a suitable business model to implement the findings of the brainstorming seminar described under b) above.
- → Partnership loans/grant. Three types of loans can be granted: first, for university/SME partnerships aiming to encourage the transfer of knowledge either to market a new product or service or to adopt a new production process or business model; second, to promote cooperation between two SMEs providing complementary products/services leading to commercialisation of a new product/service resulting from this cooperation; third, to target the acquisition of external competences to expedite idea maturation with short-term (i.e. 12 months max.) commercialisation in mind.

This type of support would be delivered in five stages: (a) brief presentation of project and partnership aims; (b) agreement in principle or rejection; (c) development of a draft project proposal; (d) project approval; (e) project delivery.

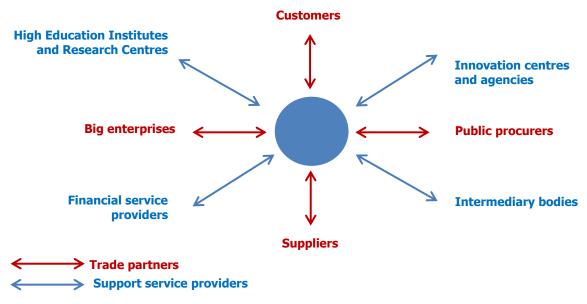
<sup>27</sup> Inspired by Inter Trade Ireland.

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Syntens and the Competitiveness and Innovation Framework Programme, January 2011. http://ec.europa.eu/cip/files/docs/consultation-syntens\_en.pdf

- → Internationalisation voucher schemes. Grants to acquire specific knowledge in connection with internationalisation (advice on maiden export activities or on issues relating to export taxes and finance: credit/insurance) could be granted, ranging between €2,000 to €3,000 per SME.
- → Innovation voucher schemes. Grants to acquire external capability, advice or knowledge. This is by nature a perfect tool for SMEs to start cooperation with knowledge providers and to get strategic advice before investing in a new area for them (ICT, eco-innovation, diversification, export...).
- → Subscription could also be provided to early warning schemes drawing SME attention to calls for tenders or offers of cooperation launched by open innovation platforms.
- → A system of student placement grants during school holidays or of summer student living labs could be implemented for SMEs facing design, e-commerce or eco-innovation issues.

Such measures would fit into an innovation ecosystem based on interactions between SMEs, trade partners and support service providers. That ecosystem could be described as follows:



## Source: InterTrade Ireland

# 3.5 Favouring the Innovation of the Innovation Process

To leverage market opportunities provided by emerging countries, EU businesses – and SMEs in particular – must realise that they have to adapt their products/services/solutions to the needs of those countries. This may require adjusting usual (i.e. European) product or infrastructure size to the size of those markets. This notably applies to renewable energy production, water, healthcare and education. In other cases, innovation developed in emerging countries may have niche applications in Europe. Examples of reverse innovation developed by General Electric, Nestlé or Tata Motor have established the feasibility of this approach. Finally, in times of financial crisis, all (public and business) stakeholders can develop frugal innovation (called Jugaad in India) seeking to deliver innovative solutions/products/services thanks or due to limited financial resources. Innovation of this kind may result from reducing product complexity, cutting costs or re-engineering a production process.

Roland Berger – Strategy Consultants – defines *frugal products as simple, affordable solutions that* meet customer needs in emerging markets. They are defined along the attributes "Functional, Robust, User-friendly, Growing, Affordable and Local" and are found in most industries<sup>28</sup>.

Companies such as Veolia Environnement (F)<sup>29</sup> and Honey Bee (IN)<sup>30</sup> are trying to detect innovation solution ideas at local level and then to disseminate them in various countries all over the world.

2:

Roland Berger Strategy Consultants: Frugal products – Study results – February 2013

Veolia Environnement: Initiative FACTS

Europe could turn the challenges associated with its population dynamics, with reducing its dependency on fossil fuels and with the transition to the digital economy, incl. mining big data into market opportunities provided that it sets appropriate framework conditions in fields including applied research, transnational and trans-sector cooperation through inter-cluster collaboration and innovative public-private partnerships.

There are 3 ways for EU businesses to penetrate LDC (Less Developed Countries) markets: (i) adjust their business model based on existing products (e.g. Schneider renting lamps at monthly rates equivalent to the cost of candles or Bel<sup>31</sup> unit-selling *Laughing Cow* cheese portions); (ii) tailor their products to individual market needs (e.g. Danone's Ultramel yoghurt that does not need to be kept cool); (iii) providing their know-how through innovative partnerships (Ericsson and Nokia Siemens Network with India's Airtel or Total using its network of petrol stations in Africa to distribute solar lanterns).

To support niches in emerging markets or markets based on societal challenges, public authorities need to put in place a systemic innovation model<sup>32</sup>. Those markets indeed need innovations that can only be realised in conjunction with complementary knowledge or require lots of adjustments in current business models. A systemic approach of the innovation process is based on the following paths:

- mapping interactions between actors and changes to be introduced in their behaviours and business models;
- •anticipating legislation changes;
- understanding development, dissemination and absorption of new products/services/solutions;
- · building new skills;
- designing new roles for public authorities and their agencies in order to accelerate the acceptance of the innovations;
- supporting demonstration centres, living labs and pilot projects;
- putting key stakeholders into a network to stimulate a multi-stakeholder dialogue and to collect useful data.
- drafting calls for proposals so as to obtain a desirable outcome (users driven innovation) instead of buying an existing product or service.

NESTA: Systems Innovation: A Discussion Paper

<sup>&</sup>lt;sup>30</sup> Quoted by Enjeux Les Echos, February 2013

Les Echos, 17.1.13. Sabine Delanglade. *Pourquoi il faut croire en l'Afrique?* 

# **Chapter 4** Support Services for SME Competitiveness

#### 4.1 Prerequisites

The competitiveness of an enterprise relies on its ability to offer a product/service/process/solution at an attractive price, of a higher quality or with secure related services (packaging, distribution, maintenance, customisation,...). To do this the enterprise needs to enhance its business efficiency, access external funding sources, invest in human capital, use market intelligence, review its strategy, develop capacity to quickly adapt to customers' needs or to market opportunities, build partnership and take advantage of social capital, ...

Therefore, public authorities can intervene and offer support services which can have the following forms:

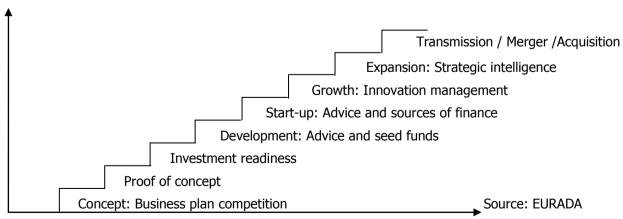
- √ access to proximity infrastructures (incubators, laboratories, testing and measuring equipment, ...);
- ✓ counselling (business plan, innovation management, detection of barriers to innovation, ...);
- √ funding (grants, guarantees, loans, venture capital, ...);
- √ reinforcing human capital;
- √ intelligence (technological and market watch);
- √ networking;
- √ innovation demand (public procurement, ...).

Worth recalling finally is that regions and businesses alike derive the bulk of their competitive advantages from factors including:

- reputation (image, brand name, etc.);
- · connection to global networks and infrastructure;
- relations with partners (clients, suppliers, stakeholders, etc.);
- knowledge (internal, external, scientific, technical, intelligence-related, etc.);
- processes of excellence;
- relations to regulators (e.g. standardisation bodies, lead market initiatives and public contracting authorities).

Moreover, the proposed support services have to be adapted to the different phases of the enterprise lifecycle shown below.

# Entrepreneurship lifecycle and potential support service needs



# 4.2 Which Tools for Competitiveness RIS<sup>3</sup> Objectives?

RIS <sup>3</sup> Objectives	Dedicated Tools	Practice references
Improving product/ service/process quality	<ul><li>Coaching/mentoring</li><li>Vouchers</li><li>Living labs</li><li>Design</li></ul>	The Riga Declaration: Realising the Full Potential of Innovation Voucher Programs  http://www.europe- innova.eu/c/document_library/get_file?folderId=1329  88&name=DLFE-9801.pdf  Living labs
		http://knowledgecenter.openlivinglabs.eu/ Design http://ec.europa.eu/enterprise/policies/innovation/file s/design_swd_sec501_en.pdf
Increasing export turnover	Coaching/mentoring     Export guarantee scheme     Soft landing	Coaching/mentoring <a href="http://www.intertradeireland.com">http://www.intertradeireland.com</a>
	• Soft failuling	Soft landing http://www.ebn.be/DisplayPage.aspx?pid=128
Access to external funding sources	Investment readiness     Public financial engineering scheme	JEREMIE http://ec.europa.eu/regional_policy/thefunds/instrum ents/jeremie_en.cfm  Investment readiness http://ec.europa.eu/enterprise/newsroom/cf/_getdoc ument.cfm?doc_id=1170
Supporting market diversification	(Inter)cluster	Cluster observatory <a href="http://www.clusterobservatory.eu/index.html">http://www.clusterobservatory.eu/index.html</a> Inter-clustering <a href="http://www.intercluster.eu/en/">http://www.intercluster.eu/en/</a>
Hiring qualified staff	Vocational training schemes     Student and PhD placement	Leonardo da Vinci Programme http://ec.europa.eu/education/lifelong-learning- programme/ldv_en.htm Students' placement http://www.eue-net.org/_download/EUE- Net_Guidelines.pdf
Improving resource efficiency	Coaching/mentoring	REMake project http://www.ecomanufacturing.eu/1775.html
Access to high value added support services	• Vouchers • Clusters	
Enhancing growth	Coaching/mentoring     Financial engineering	Financial engineering: All Money is not the Same <a href="http://www.eurada.org/files/All%20Money/All%20money-E%20Rev 5.pdf">http://ex.europa.eu/enterprise/policies/finance/guideto-funding/index en.htm</a>
Enhancing innovation management	Mentoring / coaching     Vouchers	IMP³rove https://www.improve-innovation.eu/
Increasing the number of SMEs engaged in cooperation	Clusters     Vouchers     Meet the buyer     Matchmaking	Meet the buyer: Aeromart http://www.bciaerospace.com/toulouse/index.php?op tion=com_content&view=article&id=1&Itemid=2&Ian g=en Matchmaking: Enterprise Europe Network http://een.ec.europa.eu/

# 4.3 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 several broad categories (non-exhaustive list):

- protection of intellectual property rights, support to R&D activities and up-scaling quality;
- accelerated commercialisation of research project outcomes;
- detection of innovative dormant projects through the implementation of innovation management schemes;
- 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;
- training skilled staff specialised in innovation management and commercialisation
- appropriation by subcontractor SMEs of management methods that help reassure large principal contractors (6sigma, LEAN, co-development, etc.);
- creation and management of multi-sectorial or pluri-disciplinary platforms in order to boost applied research as well as innovation and internationalisation;
- · technology and market intelligence;
- networking enterprises between themselves or with service providers.

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. To remedy any weakness in this field, business finance programmes should include the provision of management or business development consulting services and investment in human capital as a (pre)condition of or complement to funding.

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 in order to identify the real needs of enterprises and to discard the needs expressed by lobbyists seeking announcement effect or protection of obsolete "acquis"
- · 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.

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. Today, a certain number of regions favour an approach by portfolio of strategic enterprises for the territory or an approach supporting the "hidden champions".

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

The table overleaf compares what can be termed traditional (entrepreneurship and innovation) support services with services that can be deemed to provide high added value in terms of business acceleration and growth.

Support for entrepreneurship and innovation	Support for growth acceleration	Accelerating effects
- Incubators	Proof of concept Pre-commercial tendering	Market and technology validation of the project
- Clusters	Portfolio of strategic enterprises	Targeting the support for enterprises having the best growth guarantees
- Grants - Equity funds	Investment readiness Co-investment funds	Reducing the asymmetry of information between SMEs and equity providers
- R&D+I projects	Vouchers Problem solving tendering Valorisation of intellectual property Scanning the potential of the commercialisation of R&D+I project results	Better targeting the benefits of support services
- Investment in R&D+I infrastructures	Financial risk sharing for the commercialisation of R&D results Investment in prototyping and demonstration centres	Overcoming the "death valley" of the commercialisation of R&D+I results
- Training	Outplacement of PHD students Consultancy innovation/ internationalisation management	Access to external knowledge
- Awareness raising	Coaching Market opportunity analysis Patent exploitation scan Networking based on "users community"	Tailored business support
- Trade missions	Technology showcase Soft landing scheme Market intelligence Export credit/insurance	Tailored services
- Grants	Advice in innovation management Package of funding and advice	Overcoming the main barriers to growth: skills and access to finance
- Networking	Brokerage Matchmaking (B2B) Reverse fairs	Fostering the contacts between potential partners

# 4.4 **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 strategies, programme or 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.
- "Social" capital
  - membership of a cluster
  - capacity of concluding partnerships
  - involvement in university/enterprise networks.

Worth underscoring is that a number of companies are "going intangible" is the sense that they no longer own any real estate (Apple, Accor Hotels, Mariott, 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;
- √ managing a network of mentors and coaches
- ✓ systems to strengthen creativeness, design and different intellectual property protection tools;
- ✓ innovative public policy delivery and evaluation methods:
- $\checkmark$  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 foresight 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.

## 4.5 **Supporting Internationalisation**

In front of the increasing globalisation of economy, internationalisation support services will have to be proposed. Public authorities have to take into consideration that today the internationalization concept is wider than the export one. Below a series of support services meeting this objective.

Research Joint research

Access to equipment and expertise Establishment of research facilities (FDI)

Innovation Joint development

Proof of technological concept Proof of economic concept

Licensing and transfer of intellectual property

Production Establishment of production facilities (FDI)

Subcontracting

Outsourcing / Offshoring

Marketing Market testing / Economic intelligence

Distribution International outreach

Funding Joint venture

**IPO** 

Access to investment funds Merger and acquisition

In order to encourage the adoption of internationalisation strategies, public authorities may provide financial services (export guarantees, loans, subsidies, etc.) and other services (training, foreign trade missions, market intelligence, etc.) or even a mixture of both (soft landing, ...). The main issues faced by SMEs when they are thinking about engaging themselves in internationalisation activities are: market knowledge (export existing products/services or adapt them to local needs, ...), presence in the country (sales agents, joint-venture, FDI, ...) and the risks encountered (costs, insolvency, late payments, exchange risks, ...).

On top of support to individual enterprises, support can also be provided to cluster organisations or similar enabling organisations. In some cases, big enterprises can be good mentors for SMEs.

### 4.6 Sector Specific Support Services

When it comes to industrial specialisation, regions are naturally more or less diversified. Therefore, it is natural for sector specific policies to emerge, translating into support for clusters or competitiveness centres backing sectors that are usually traditional or technological and more rarely cross-sector or transnational.

Public support addresses both basic cluster operation and joint activities by cluster member companies.

The action that public authorities need to support as part of sector specific policies includes:

- joint R&D+I activities,
- · access to technical or technological equipment,
- · action to acquire or absorb generic knowledge and technology,

- business-to-business cooperation, including coaching among small, medium-sized and large companies,
- prospective studies on markets and vocational training requirements,
- · joint internationalisation efforts,
- · regional branding and marketing action,
- · foreign business attraction
- adaptation of training provision in line with sectoral skills needs.

Sector-specific efforts may prove useful where SMEs in a given industry are less active than competitors or below regional ambitions when it comes to innovation. Such efforts may lead to the deployment of services to strengthen SME cooperation with other regional stakeholders or encourage SMEs to invest in human capital. In some regions this is achieved through coaching by engaging big and small enterprises in order to enhance all the regional clusters in quality improvement.

Support for sector-specific policies may also take the form of support for sector incubators, <sup>33</sup> the setting up of sector venture capital funds<sup>34</sup> and the establishment of demonstration platforms. However, it is increasingly evident that most policies designed to support sector-specific clusters have failed to yield positive results. Indeed, experts remark "*yet new research suggests that it is the colocated interdependencies among complementary activities, not narrowly specialised clusters, that produce higher rates of growth and job creation, and they do so across a broad range of industries, not just in high-tech or advanced manufacturing (...). We have observed that trying to create public goods – or semi-public, or club goods – in the industrial ecosystem is an approach that may pay the greatest dividends<sup>35</sup>.* 

This is acknowledged by DG Enterprise and Industry which, in its March 2013 call for projects entitled "Clusters and entrepreneurship in support of emerging industries" emphasizes that "*innovation is most likely to happen at the borderlines between different industries, and this suggests that industrial policy should not be based on a strictly sectorial approach that looks at economic activities within narrowly defined borders"*. Consequently, it calls upon regions to develop open spaces or brokerage platforms enabling businesses, institutions that own knowledge and intermediary bodies to explore new products/services/solutions at the boundary between different industries.

Services supporting sector-specific policies as part of a RIS³ only make sense provided that they rely on a strategy developed jointly with entrepreneurs based on an implementation plan specifying very clear targets, e.g. in terms of exports, new start-up development, branding or turnover growth from commercialisation of new products.

# 4.7 <u>e-Entrepreneurs (solo[entre]preneurs)</u>

Today already and definitely in the near future, communication technology – combined with production technology based on 3D-printing and robotics – will enable a new type of entrepreneurs to emerge, leveraging either the talent of creative individuals or the knowledge generated within webbased communities of interest. These new entrepreneurs will be local in production terms and global when it comes to resources and markets. Vocational training centres should develop Fab Labs featuring cutting-edge equipment (computers equipped with design software, 3D printers, CNC and laser cutters and e-commerce, e-manufacturing and crowd funding coaches) to acquaint youth with this new type of entrepreneurship.

Fab labs can become strong instruments to support DIY (do-it-yourself) innovators to start their business or to build users communities (cf. surfers, mountain bikers, ...).

The experiences of businesses including 3D Robotics, Sparkfun, the Manchester Fab Lab and experiments with the use of machines such as Market Bot Replicator, Ultimaker, Maker Bot 3D Scanner and e-commerce websites like Etsy and 3D printing service provider Donoko should be

<sup>&</sup>lt;sup>33</sup> Cf. Wallonia Space Logistics in Wallonia (BE) or the Cloud Incubator Hub in the region of Murcia (ES).

<sup>&</sup>lt;sup>34</sup> In Scotland, there are specific funds focusing on alternative energy sources and life sciences.

<sup>&</sup>lt;sup>35</sup> M. Delgado, M.E. Porter & S. Stern: *Clusters, Convergence and Economic Performance* 

analysed in detail post haste with a view to deploying them in every labour supply pool as a complement to co-working spaces, hubs, vocational training organisations and social incubators.

Under such an approach, it would be possible to leverage the "cognitive and creative surplus" of youth already made aware of the e-economy in the general meaning of the term (web-based communities, e-commerce, e-design, e-creativity, etc.) and to deploy it in favour of entrepreneurship.

# **Chapter 5** The Various Forms of Support Services

# 5.1 Aims of Support Services

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 or to build external partnerships in these matters
- → reducing the disadvantages of SME status including size, absence of critical mass, distrust among public procurement contract adjudicators, asymmetrical information (vs. 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)
- → promoting first client search
- → crossing boundaries: sectoral technology (adopting KETs, working with different stakeholders).

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.

Finally, intermediary bodies need to develop regional intelligence services to build the capacity of SMEs to innovate. This will require developing:

- 1. techniques to spot businesses whose innovation capacity is unused/underused;
- 2. the range of advisory services specifically addressing innovation management;
- 3. schemes to match the different stakeholders of innovation;
- 4. techniques to assess trade opportunities arising from research project outcomes.

Business support services may differ quite considerably in terms of their objectives and added-value intensity for users. All are useful but need to be provided appropriately for the sake of efficiency. A hierarchy of value-added intensiveness is suggested below:

- 1. Information
- 2. Awareness
- 3. Coordination
- 4. Accommodation
- 5. Matching/Interfacing
- 6. Diagnosis
- 7. Intelligence
- 8. Advice
- 9. Training
- 10. Partnership
- 11. Transfer and brokerage
- 12. Access to first clients
- 13. Financial engineering
- 14. Standardisation

## **5.2** Panorama of Support Services to Enterprises

We have drawn up a list of support services structured according to the knowledge intensity of the support provided. This list should inspire policy makers to upgrade and broaden their SME support.

# 1. Reception, basic services and information, guidance

- First contact point (touch & go)
- Official registration and documentation
- Dissemination of publications and information packages
- Promotional and awareness activities
- Facility procurement
- Initial diagnosis
- Guidance
- Information about legislation
- Entrepreneurial awareness raising (info days, fairs, ...)
- One-stop-shop

# 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
- Start-up boot-camp and accelerator

# 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 about strengths and weaknesses and need assessment
- Enhancing business relations
- Bringing in direct experience
- Proof of concept
- Rational use of resources
- Increasing the quality of products and services

## 4. Training and management of human capital

- SME management
- Start-up
- Expansion and development
- Reconversion training
- Targeted training
- Business transfers
- Staff recruitment
- Placement of internship university students

### 5. Finance and advanced financial services

- Investment readiness
- Shareholder's equity
- Grants and subsidies
- Loans for specific purposes
  - micro-credits
  - loans with lower interest rates

- Loan guarantees
  - direct quarantees
  - mutual guarantees
- IPR valorisation
- Rescue / restructuration grants
- Loans without guarantee
- Matching with business angels
- Seed capital
- Venture capital
- Corporate venturing
- Reimbursable advance payments for research projects
- University and research centre spin-off funds
- Proof of concept
- Crowd-funding
- Mezzanine funding
- Leasing
- Factoring
- Export credit / insurance

# 6. Business Infrastructure of general interest

- Business incubators
- Industrial or commercial units
- Telecommunications, water, energy
- Logistic, industrial parks and real estate
- Demonstration centre
- Co-working space
- Relay building / estate

#### 7. R&D+I infrastructure

- Technological parks
- Technology sectoral centres
- Fab labs / Living labs
- Growth accelerators (sectorial incubators)
- Prototyping centre
- Design centre
- Intellectual property valorisation centre
- Open innovation portal
- Research facility lease

# 8. 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 enterprise groupings
- Exchange of information on business opportunities and technology partnerships
- Benchmarking of sectors and strategic positioning

## 9. Innovation and knowledge and intelligence management

- Intellectual property (commercial secrets, copyright, industrial design, trademarks, 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
- Open innovation and access to virtual platforms

## 10. Exploitation of the results of public funded R&D activities

- · Awareness of researchers to the economic or social use of the results of their research work
- Scanning the potentially exploitable results
- Maturation of exploitable ideas for patents, licenses or start-ups
- Financing the proof of concept or risk sharing
- Linking researchers and SMEs
- Large-scale demonstration projects
- Knowledge and technology brokerage

## 11. Internationalisation

- Export/import
- Technology cooperation
- Joint ventures
- Foreign direct investment
- Subcontracting
- Inter-clustering
- Outsourcing
- Near-shoring or near-sourcing
- Export credit/insurance
- Participation in fairs
- Third country market intelligence
- Information and counselling
- Cooperation between SMEs and large enterprises
- Trade missions
- Participation in a meet-the-buyer exhibition
- Technology showcase
- Soft landing

## 12. Benchmarking

# 13. Search for first clients

- Soft landing
- Meet-the-buyer fairs
- Technology showcase
- Pre-commercial public procurement

## 14. Taxation

- Start-ups
- Staff recruitment
- Investment in R&D+I
- Investment in equity capital
- Productive investment

### 15. Standardisation

# 16. Other supports

- Stimulation of energy savings
- Adaptation to the environmental rules
- Inclusion of disadvantaged workers

# 5.3 Support Services and the Business Lifecycle

# 5.3.1 Awareness Raising on Entrepreneurship

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:

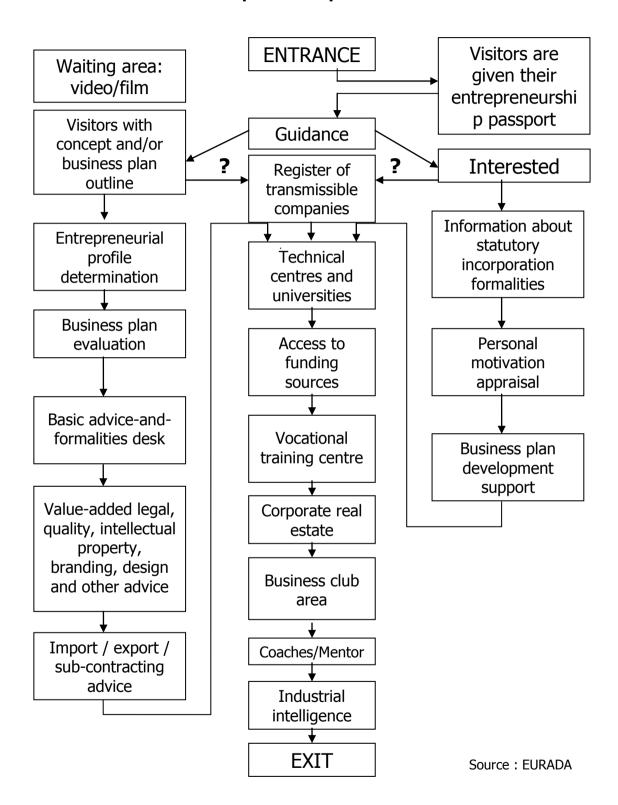
- a) the stigma associated with being employed-unemployed-entrepreneur-bankrupt;
- b) a majority of micro-business developers and even human services companies do not possess adequate managerial skills and are at great risk of bankruptcy in the event of an economic recession.

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.

# **Entrepreneurship fair model**



## **5.3.2** 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.

# 5.3.3 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.

## 5.3.4 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).

#### 5.3.5 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).

# 5.3.6 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 (up-scaling) and process or business model:
- strong market orientation characterised by high-quality products and the ability to listen to and 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.

#### 5.3.7 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.

## 5.3.8 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 5.10 below);
- ✓ Methods for early identification of susceptibility to bankruptcy;
- ✓ Business transfer instruments;
- ✓ Business opportunity reviews for micro-businesses and crafts.
- ✓ Assistance and counselling centre for entrepreneurs facing difficulties on their markets or in the management of their business.

## 5.3.9 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 rational 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 quarantees.

#### 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: <a href="http://www.euroffice-services.eu">http://www.euroffice-services.eu</a>).

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.

#### 5.3.10 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.

## 5.3.11 Access to R&D Programmes

- ✓ Creation of sectorial or cross-sectorial interest groups,
- ✓ Promotion of local academia-industry cooperation and their cross-border networking,
- ✓ Advise and quick check of project ideas,
- ✓ Aid for international partner search,
- ✓ Grants for exploring project feasibility and validation of project ideas,
- ✓ Use of specialised consultants.
- ✓ Provision of training to potential project managers,
- ✓ Support to ERA-Net projects on strategic topics. These projects are excellent springboards for regional actors' participation in FP7.
- ✓ Provision of mentoring and coaching to EU project partners

5.3.12 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 Fab labs Living labs	Incubator Nursery	Industrial parks Technological parks Corporate real estate	Technology transfer centre Technical centre	Transmission fairs
Support services	Awareness Proof of concept Accelerator	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 Crowd-funding	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	First client search Pre-commercial procurement		Internationalisation	Validation
Qualification	Psychology of entrepreneurship Entrepreneurship training	Job creation subsidies			Management support

Source: EURADA

# Chapter 6 What to Take into Account in Order to Modernize the Current Support Services?

## **6.1** The New Environment of Enterprise Competitiveness

Public authorities have at their disposal a set of policies enabling them to help enterprises maximize their competitiveness potential: taxation, education, employment, vocational training, research and development, standardisation, external trade, public procurement. Those policies must constantly be adapted to the evolution of markets and global competition. The improvement of the framework conditions to support enterprises needs strong inter-institutional collaboration in order to avoid asymmetry in the implementation of the strategy's life cycle. In the specific case of a RIS³, most regions have unfortunately no "hands on" on the taxation policy nor on the unemployment one which might limit the steering capacity of RIS³ penholders to orientate the strategy to new niche sectors or emerging markets.

Economy has changed radically in recent years, due first to the impact of trade globalisation enabling some countries to leverage human factor costs to maximise competitiveness and later to the economic crisis, which led to substantially lower levels of employment in certain sectors. In future, economic activities will evolve under the impulse of factors including:

- 1. the integration of services into manufactured goods;
- 2. the ability to generate added value through the integration of industrial subassemblies produced in third countries (near-shoring/outsourcing) having developed unique competitive advantages at the level of specific sections of the value chain;
- 3. nimble responses to consumer expectations;
- 4. the trivialisation of new materials, production methods (3D printing, robotics or even home automation) and commercialisation (B to C, P to P, etc.).

As a result, neither business nor public authorities will be able to use old recipes to seize new market opportunities or support business activities anymore. Besides, the general population will need to review the skills sets needed to operate on a labour market requiring creativity and mathematical savvy as well as the ability to analyse trends and anticipate potential client needs.

To grow – or even simply survive – businesses will have no choice but to innovate. To back their efforts, there is a need for public support services to evolve and for new framework conditions to be defined. The latter need to reckon with the fact that these days, the competitiveness of individual businesses and even of strategic regional industries hinges upon the following parameters:

- the cost of labour, as weighted by its productivity;
- access to external sources of funding;
- · product ranges: either high-end or low-cost;
- inflows of low cost components or services (outsourcing and near-shoring),
- innovative commercialisation, marketing and increased exporting capacity.

In such a situation, it is generally mid-sized enterprises focusing on strategic investment rather than positional advantages that are most worthy of the attention of regional public authorities.

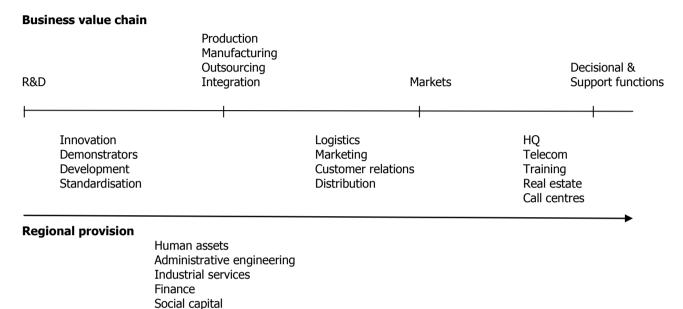
As for regional public authorities, they will need to rely on those niche markets in which businesses and (tech and non-tech) centres of excellence enjoy unique competitive advantages. Such niche markets can be identified in light of their position in their overall value chain, regional talent, the ability to market new ideas and their involvement in international business (exports, partnerships, etc.). Public authorities can build a portfolio-based approach to securing the regional future around such strategic businesses. However, such niche markets are more likely to be found in ICT, materials (chemistry, nano, bio), the green and blue economies, transport & logistics, health & wellness, food & drinks and administrative and other services.

## 6.2 Recent Developments in the Field of Business Strategies

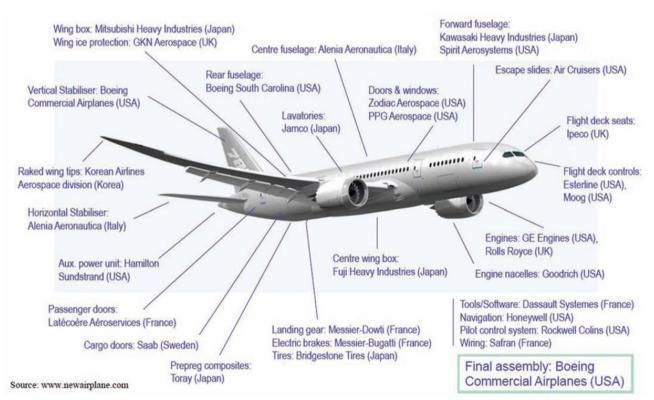
In recent years, major new trends have emerged in the field of business strategies. There is a need to examine them from the perspective of business support service design:

✓ Fragmentation and relocation of the business value chain

Intangible factors



✓ Outsourcing of some production processes or inputs (see the example of Boeing) or even R&D+I activities through Open Innovation



- ✓ Integrating services in manufactured products. In this context, the following trends are in evidence in the field of non-tech innovation:
  - → Services to industry: counsel, marketing, design, software, logistics, geo-localisation technologies, packaging, open innovation, integration of enabling technologies;
  - → Services embedded to products: mobile phone application, financing or leasing a product/ equipment, sharing a product (car, bike, ...), optronic quality control application, offering solutions instead of a product (selling km instead of tyres [Michelin] or proposing mobility instead of cars [Citroën]);
  - → Services to people: tourism, e-commerce, health, culture;
  - → Public support services to enterprises: private-public partnership, precompetitive procurement, e-administration, access to counsel and to funding sources, clusters, ...
- ✓ Increased attention to eco-innovation and rational natural resource utilisation

#### Types of innovation

- Technology R&D breakthrough innovation
- Process innovation
- Service innovation
- Lifestyle innovation
- Business model innovation
- Public administration innovation
- Social innovation
- System and networks innovation
- Innovation through enabling technologies
- Co-innovation

## **Examples of eco-innovation**

- Electric cars, alternative energies, ...
- Cradle 2 Cradle, circular economy, resource efficiency, ...
- e-Administration, smart grids, ...
- Bio-food, short distribution circuit, ...
- Functionality economics, eco-construction, ...
- Green public procurement, ...
- Alternative energy cooperatives, city farms, ...
- City bikes, city car sharing, ...
- "Light, smart, small and green"
- Positive energy village/city (Wildpoldried, D)
- Net zero energy hotel
- ✓ Adjusting the economic model to support technological leaps. The few examples below illustrate this challenge.
  - → Strategic failure: Kodak, Nokia (?), Polaroid;
  - → Strategic success:
    - Amazon the largest online bookstore;
      - book dematerialisation → development of Kindle:
    - Barnes & Noble: physical libraries → Nook;
    - Toyota: hybrid cars;
    - Apple: PCs, laptops, iPad+, Appstore & iCloud.

The lesson to be learned from these examples is that sooner or later, businesses that just maximise existing assets and refuse or neglect to adjust or anticipate, face serious trouble. Public authorities need to quickly come to terms with the consequences of this kind of situation in order to adjust the schemes supporting subcontractor SMEs with a potential to become "phoenix" businesses, i.e. champions of successful sector diversification.

In Rochester (US), home to Kodak, more than 100 SMEs have successfully diversified and have turned the area into a dynamic photonics cluster whilst in Pittsburgh (US), over 330 local enterprises develop services for the steel industry. Will the SMEs of the Walloon Region (B) or Lorraine (F) be able to do the same?

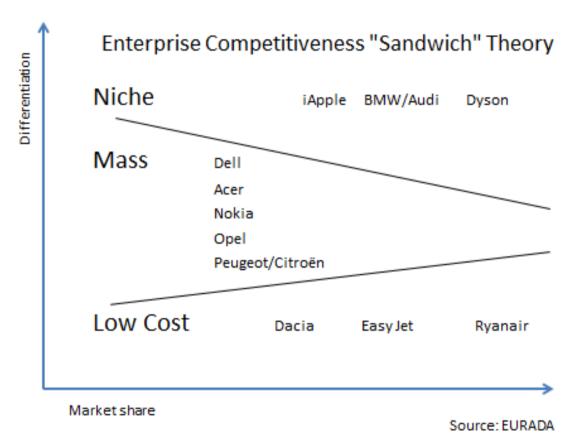
✓ Up-marketing or developing business models based on the concept of low-cost innovation. Sooner or later, businesses that fail to adjust face image issues. This is illustrated in the sandwich theory below.

To help a key industry move up the market, public authorities need to draw inspiration, for instance from the lessons learned by the French luxury industry. Its strategy rests on the development areas below:

- a) In the luxury industry, added value stems from:
  - · authenticity;
  - · scarcity;

- creativity;
- · innovation;
- fast renewal of the product range
- · loyalty.
- b) New markets open through:
  - geographical diversification;
  - product development;
  - unique distribution channels: branded shops and flagship stores or technological showcases;
  - up-marketing product ranges and controlling the entire value chain.

To help businesses adopt a low-cost strategy, support services need to promote process standardisation, mass production, relocation of certain parts of the supply chain and the development of new business models.



- ✓ The need for so-called "tech" businesses to be born global due to the size of their market or the location of their clients or in order to meet their seed and growth capital requirements.
- ✓ Leveraging key enabling/future technologies (robotics, 3D printing).

These trends require adjusting regional support service provision to:

- stimulate dedicated activities: design, e-commerce, software, internationalisation, marketing;
- promote entrepreneurial initiatives: creation of spin-offs or start-ups, commercialisation of new products/services;
- enhance the competiveness of certain sectors: creative industries, tourism, ICT applications;
- intervene on the market: public procurement, market replication, taxation, private-public partnership.
- ✓ Repatriation of previously relocated production. While still anecdotal in volume terms, this trend needs close monitoring to learn the lessons of the reasons and motives of companies doing so. Primary motives seem to include a need to be close to customers, reactivity to market trends, geographical proximity of R&D+I and production activities.

Worth underscoring incidentally is that a number of public administrations are thinking about resuscitating or repatriating industrial activities to their region. To do so, they will need to support businesses in their efforts in the fields of exports, talent (jobs in those production units are always different from the previous ones), and technology, including when it comes to key enabling technology mainstreaming, investment into innovation and knowledge transfer, take up of high value-adding advice, etc.

✓ New types of relations between large companies and SMEs or even start-ups. Whether in the form of increasingly sophisticated subcontracting or joint or open innovation development arrangements, relations between large companies and SMEs are constantly evolving. In some industries, there are ever fewer first-tier subcontractors. In others, SMEs are invited to co-invest into R&D+I to develop next generation products. In others still, large firms leverage their corporate venturing funds to invest equity into start-ups or accommodate start-ups in their own incubators – sometimes called a "growth accelerator" – to support their technological growth. <sup>36</sup>

In other cases, large companies<sup>37</sup> make their unused IP portfolio available to SMEs.

So, there is a need to tailor public service provision to the needs arising from new types of relations between firms. In some cases, this may involve advice and coaching rather than funding.

✓ Expediting the introduction of new products/services. Depending on the industry, businesses derive a more or less substantial share of their turnover from products and services launched in the last three years. According to JRC-IPTS³8 data, in industries including electronics (hardware, equipment and software), healthcare and car manufacturing, these products account for 30% of turnover compared to less than 10% in industries including construction, gas and oil or power. This should encourage decision-makers to review lead times in examining and deciding on grant applications. It should also lead to a review of existing grant application practices based on single annual calls for projects and deadlines!

Overall, the share of new – i.e. less than three years old – products/services in a business's turnover exceeds 30% and 10% respectively in medium and so-called hi-tech industries.

✓ The growing importance of open innovation. It is illustrated by the Irish InterTradeIreland<sup>39</sup> study, which shows that innovative SMEs state that their external contacts vary in decreasing order of effectiveness as follows: clients, suppliers, innovation support agencies, intermediary bodies, business support organisations and universities.

Evidence of growth in external cooperation is provided by the fact that only two out of 17 new drugs being developed by Sanofi pharmaceuticals originated in-house research.<sup>40</sup>

Worth underscoring finally is that one of the advantages of external cooperation is flexibility and that companies that harness this process can make the most of alliances formed according to the different projects they lead or the skills they need to complete individual projects.

To access external knowledge and skills, companies develop a variety of methods. In the pharmaceutical industry for instance,  $^{41}$  such methods include:

- financing university lab projects;
- · sharing R&D portfolios;
- buying molecules at different stages of development from biotech firms;
- setting up corporate venturing funds to invest in start-ups and support their growth;

In other industries, support for SME incubators / growth accelerators is a favoured method.

According to a GE<sup>42</sup> survey of 1,300 CEOs, their top motives to form collaborative ties with other companies include: accessing new technology, penetrating new markets, improving existing

<sup>39</sup> Leveraging the Innovation Ecosystem for business advantage: a cross-border study. December 2012.

<sup>&</sup>lt;sup>36</sup> See J.C. Decaux's incubator focusing on Connected Urban Services.

<sup>&</sup>lt;sup>37</sup> Innovation Mill project by Nokia, Tekes and Technopolis.

<sup>&</sup>lt;sup>38</sup> Innovation and Research in Europe.

<sup>&</sup>lt;sup>40</sup> Le Figaro, 9.1.2013. Charles Edelstenne. *Taille critique ou compétences critiques: La tentation du Meccano* 

<sup>&</sup>lt;sup>41</sup> Les Echos, 14.2.2013. *Les géants de la pharmacie face au défi de l'innovation* ("Pharmaceutical Giants Facing the Innovation Challenge).

GE Global Innovation Barometer 2013

products or services and accelerating the introduction of new ones. As for barriers, they relate to IP issues, mistrust of potential partners (talent poaching) and lack of practice.

- Renewed interest in regional re-industrialisation. This is only possible if it rests on diverse innovation formats including manufacturing sector innovation, which in turn relies on advanced manufacturing technologies focusing on energy and raw material cost control, new materials, key enabling technologies, robotics, use of IT and advanced CAD services. All such innovation must shorten product time-to-market and accelerate adjustment to specific client needs.
- ✓ Importance of the emerging countries as market opportunities, attractiveness for FDI and centres of knowledge. This means that policies to support the internationalisation (not just export) of SMEs become more and more relevant.
- ✓ Emergence of new services developed in the form of interactive specialist market platforms<sup>43</sup>, i.e. business model innovation. Worth mentioning as examples are the six types of platform below:
  - crowd-funding: see Symbid, Kickstarter, etc.;
  - crowdsourcing: see Crowdflower, Freelancer, etc.;
  - micro-manufacturing: see Pomoko, Quircky.com;
  - e-commerce: see Amazon, Google.Aps;
  - open innovation: see Elance, Guru.com;
  - IP market: see Innocentive, Crowd IPR, yet2com, Ocean Tomo...

as well as innovative production methods such as 3D Printing, robotics, cradle to cradle or new materials;

To better adjust to this new environment, businesses need three types of support:

- ✓ knowledge, through networking;
- √ will, through command of new ways to create competitive advantages;
- ✓ power, through access to funding sources and talent and strengthened shareholders' equity.

# 6.3 Acquisition of New Support Services

Based on the lessons learnt from the implementation of the Take it Up project<sup>44</sup>, three options should be looked at when trying to add new services to the regional portfolio of support services. They are based on (a) response to new needs; (b) "pick and plug in" principle; (c) value chain reinforcement in an integrated approach. These three options are illustrated below.

## a) Response to new needs

The need approach is illustrated below by two examples of portfolios of tools around the following two main trends in the field of innovation support services:

- a) To make products lighter, greener and product range up-scaling,
- b) To support partnership (co-development) from knowledge creation to market.

For this purpose, the types of tools proposed are:

## 1) Make products lighter, greener, smarter and smaller

- Innovation design / business plan competition
- Self-assessment guides
- Took kit/box
- Market Forum
- Vouchers
- Online course

 $<sup>^{\</sup>rm 43}~$  See Lisbon Council. The Rise of the micro-multinationals.

<sup>44</sup> CIP cofunded project www.takeitup.eu

## 2) Co-development of innovation

- Co-innovation training
- Toolkit / Handbook
- IPR valorisation
- Vouchers
- Soft landing schemes
- Matchmaking
- Innovation plan competition
- Proof of concept

# b) Pick and plug in (à la carte option)

Any interested penholders/stakeholders choose the tool(s) included amongst the six clusters of support services.

Example of "pick & plug in" tools to be added to a regional support service portfolio				
International	Entrepreneurship	Sustainable economy		
Soft landing Self-assessment Vouchers	Business plan competition Investment early stage Investment readiness Self-assessment Toolkit Toolbox Vouchers	Handbook design of environment friendly products for users Self-assessment Vouchers Business support programme Market Forum		
Social innovation	Tech / Non-tech innovation	Service innovation		
Procurement Crowd-funding Vouchers Business plan competition/guide Incubation Market forum (Bio)entrepreneur boot camp	Innovation academy IPR manual Matchmaking Online course Self-assessment Standard Training Vouchers Market forum First public procurement users	Vouchers Toolkit for creative SMEs Matchmaking pilots (Ecotrofood) Business plan (generic or design one)		

Source: EURADA

## c) Value chain reinforcement in an integrated approach

The integrated approach will be based on the "funnel" model shown below. Penholders/ Stakeholders should take all the tools in order to provide a comprehensive package of services to their local enterprises.

# **Example of value chain reinforcement**

Creating an innovation idea fabric	Entrepreneurial or forging entrepreneurial and innovation ability	Providing development support	Supporting access to finance	Providing market entry opportunities
Number of enterp	rises supported			
<ul> <li>Business plan</li> <li>Innovation business plan competition</li> <li>Online training</li> <li>Entrepreneurial awareness campaign</li> </ul>	Management training     Innovation training     Tool kit/box     Self-assessment     Incubation     Entrepreneur boot camp	<ul> <li>Vouchers</li> <li>Business plan support</li> <li>IPR valorisation</li> <li>Proof of concept</li> <li>Open innovation support</li> <li>Living labs</li> </ul>	<ul> <li>Investment readiness</li> <li>Early stage and equity finance</li> <li>Crowd-funding</li> <li>Business angels</li> </ul>	<ul> <li>Soft landing</li> <li>First users thanks to public procurement</li> <li>Market matching forum</li> <li>Technology showcase</li> <li>Internationalisation</li> </ul>

## 6.4 Administrative Innovation Through Regional Intelligence

Generally speaking, all regional authorities in the EU seriously review their strengths and weaknesses every five or six years with a view to designing or justifying the contents of their ERDF/ESF operational programmes. In between two such efforts, little or nothing tends to happen in terms of updates or impact assessments. The RIS³ methodology now recommends implementing an evaluation scheme enabling regular tweaking of fundamental strategy parameters. To do so, regional authorities may deploy regional intelligence schemes aiming to:

- → constantly anticipate trends in key RIS³ industries and regional business positioning in response to such trends. To this end, tools to monitor technology, market and vocational training needs are needed;
- → immediately leverage information gathered in the interest of key stakeholders including public authorities that finance business support service provision;
- → detect potential high value-added projects including through trans-regional cooperation that will back initial RIS³ choices. Otherwise, the latter may quickly become obsolete;
- → test new SME support scenarios;
- → adjusting community and business support infrastructure and equipment to preserve the competitive advantages identified by the RIS³;
- → monitor regional talent flows to ensure that a critical mass is available;
- → match supply and demand for SME support services as well as trends in demand for or the innovation formats favoured by regional SMEs. A study<sup>45</sup> shows for instance, that businesses in the southern Dutch provinces had innovation projects relating to market (50%), products (45%), organisation (40%) or technology (25%).

These require implementing at regional level:

- 1. practices to syndicate knowledge based on a detailed mapping of key stakeholder skills;
- 2. schemes to share non-competitive strategic information;
- 3. measures to support companies seeking to anticipate trends with a potential negative impact on their region;

9:

Syntens and the Competitiveness and Innovation Framework Programme, January 2011. http://ec.europa.eu/cip/files/docs/consultation-syntens\_en.pdf

4. transparent instruments to follow up applications for support to businesses, clusters and research centres.

Regional intelligence initiatives may rest on real and virtual exchange forums relying on practitioner communities. These forums will exchange information about:

- the impact on key RIS³ areas of change observed in technology, organisations and vocational training;
- responses to perceived market changes by businesses and skills centres identified as embodying individual RIS<sup>3</sup> strategic areas;
- emerging competitiveness links in the value chain of RIS<sup>3</sup> priority industries.
- changes in demand, innovation trends and skills in the key regional sectors and RIS³ priorities by local stakeholders and foreign competitors;
- names and location of innovation early adopters and fast growing enterprises (private and public ones).

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# **European Commission Guides related to RIS<sup>3</sup>**

The Smart Guide to Innovation-Based Incubators (IBI)

http://ipts.jrc.ec.europa.eu/activities/research-and-innovation/documents/innovation incubator.pdf

New Practical Guide to EU Funding – Opportunities for Research and Innovation: Competitive European Regions through Research and Innovation

http://s3platform.jrc.ec.europa.eu/documents/10157/0/new practical guide EU funding opportuniti es R%26I.pdf

Connecting Universities to Regional Growth: A Practical Guide

http://ipts.jrc.ec.europa.eu/activities/research-and-innovation/documents/connecting universities2011 en.pdf

Guide to Broadband Investment

http://ipts.jrc.ec.europa.eu/activities/research-and-innovation/documents/broadband2011 en.pdf

How can cultural and creative industries contribute to economic transformation through smart specialisation?

http://s3platform.jrc.ec.europa.eu/documents/10157/0/120420%20CCI%20Policy%20Handbook%20(FINAL).pdf

Connecting Smart and Sustainable Growth through Smart Specialisation – A Practical Guide for ERDF Managing Authorities

http://s3platform.jrc.ec.europa.eu/documents/10157/0/greengrowth.pdf

Guide to Social Innovation

http://s3platform.jrc.ec.europa.eu/documents/10157/47822/Guide%20to%20Social%20Innovation.pdf

A series of Guidebooks entitled "How to support SME Policy from Structural Funds" is available to those involved in SME Policy as well as regional development. The titles of the Guidebooks published so far by DG Enterprise and Industry are:

Building Entrepreneurial Mind-sets and Skills in the EU

http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.1 entrepreneurial mindsets en.pdf

Facilitating Transfer of Business

http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.3 transfer of business en.pdf

How to use structural funds for SME & Entrepreneurship Policy

http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.6 cookbook en.pdf

Regional implementation of the SBA – Small Business Act for Europe (in preparation)

The Smart Guide to Service Innovation

http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.4 service innovation en.pdf

Using standards to support growth, competitiveness and innovation

http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.2 sme standards en.pdf

An inventory of regional policy measures is available on the Regional Innovation Monitor portal <a href="http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/monitor/">http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/monitor/</a> in the section "Select a Region".

Lessons from a Decade of Innovation Policy, What can we learn from TrendChart and Innovation Union Scoreboard <a href="http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/trendchart/index">http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/trendchart/index</a> en.htm

# **Glossary of Terms used in the Guide**

- **3D printing:** a process to manufacture a three-dimensional object of any shape from a 3D digital model.
- **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 Angels 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.
- **Crowdfunding:** a process whereby a large number of individuals generally web users fund a project via a personal contribution in the form of equity or a loan.
- **Demonstration centre:** place where enterprises can show to potential clients that their product/process can work in real working conditions.
- **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.
- **e-solo-entrepreneur**: individual using e-platforms to produce and sell his/her small-scale product range or hand-made products.
- **Expansion**: growth, bridging or restructuring capital.
- **Fab lab**: prototyping space intended to individuals and enterprises to access a variety of specialised digital machines to manufacture their own prototypes or small ranges of products.
- Factoring: a technique whereby SMEs sell invoices to specialised firms.
- **Financial package**: a combination of different funding sources.
- **First client search scheme**: support given to an enterprise to find its first client or early adopter.
- **Gazelles:** very fast growing enterprises, at least over a three-year period.
- **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.
- **Growth accelerator:** an advisory and matching platform where tech start-ups and investors meet to allow businesses to access financial resources, new markets and specialist expertise.
- **Hidden champion:** enterprise having a good regional or national market position which needs further appropriate support services to grow globally.
- **High added-value support services**: services requiring sophisticated knowledge, for instance intellectual property rights or financial engineering.
- **Incubator:** a support organisation providing tailored services to entrepreneurs and start-ups.
- **Innovative procurement**: new ways to procure products/services (green procurement, two-stage call procedure, negotiated procurement).

- **Interclustering:** cooperation between clusters either active in the same sector or, even better, in complementary ones.
- **Investment readiness**: set of advice given to to entrepreneurs in order to better prepare them to meet with potential investors.
- Large-scale demonstrator: real life testing in order to make sure that potential users and developers can work together.
- Leasing: hire-purchase of capital goods.
- Living lab: a centre enabling users to co-create a product or a service with an enterprise.
- Loans and debt: the main sources of funding for SMEs.
- Market replication: incentive given to help a new product/service already tested penetrate a new market.
- **Meet-the-buyer fair**: matchmaking event based on the demand of major contractors for products/services/solutions or innovation.
- **Mezzanine**: combination of equity and loans. Applicable interest rates are often comparatively high.
- **Non-technological innovation**: innovation in the field of marketing, system/network, organisation, business model...
- **Open Innovation:** a mean for an enterprise to acquire external ideas to innovate.
- **Phoenix enterprise**: enterprise able to rebound just before bankruptcy or after its main client got bankrupt.
- **Pre-commercial procurement:** a mean to procure innovative products/services not already on the market.
- **Proof of concept**: finance provided to a researcher's team to support the validation of their business ideas. Often, the financial instrument takes the form of a grants and subortinated loans.
- **Quasi-equity investment instruments**: instruments whise 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 equity.
- **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.
- **Social capital**: the ability of an enterprise to manage or create knowledge, networks, organisational and cultural assets.
- **Soft landing scheme:** a short-time package of support services allowing an SME to do market intelligent studies abroad.
- **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.

- **Technology Readiness Level (TRL):** a scale consisting of nine levels to characterize the progress in the development of a technology.
- **Technology showcase scheme:** incentive allowing an enterprise to show potential clients that their product/process can work in real working conditions.
- **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.
- **Voucher scheme:** incentive to encourage enterprises to work with service providers and to pay for their knowledge or technology.

## **European Commission**

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