



# PEER4InnoManage

## Improving Innovation Management Services



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## SUMMARY

*The objective of our peer learning has been to look for renewed insights on how to better deliver Innovation Management services to SMEs. Each one of the partners involved has organised a study visit to its venue to share with the project partners the approaches it uses to deliver services to enhance the innovation management capacities of SMEs. The study visits have included visits to several company clients to gain first hand experience from the SME management team of their understanding of innovation management and the impact of our services on their business. A key selection criterion for the project partners was their use of different diagnostic tools for assessing SME innovation management capacities. We have been able to explore the following tools: IMP3rove Assessment Tool, Innov'scan tool, GROWTHmapper Tool and the GrowthWheel Tool.*

*The project deliverable is a document with two key parts. Part one focuses on the changing nature of innovation, why should we support innovation, how innovation support policies have evolved over time and highlights the importance of managing innovation to enable business growth.*

*Part two is a description of the customer client journey with insights from each of the partners that offers guidance to other innovation agencies wishing to launch a similar service or enhance an existing service by learning from experienced practitioners. In the document annexes we have included a brief description of the four different assessment tools.*

*Our model of the service to enhance innovation management capacities is based upon pre-selecting SMEs, undertaking a diagnosis of their needs which lead to a tailor made action plan, defined by a senior innovation expert. The skills and expertise of the advisor are key to gaining confidence with the management team and getting them actively involved in the implementing the action plan. This could include elements such as defining an innovation strategy, enhancing leadership, building on business intelligence, promoting external collaborations, establishing governance and innovation processes and managing IPR. In addition, the innovation advisor needs to have a deep knowledge of the Innovation Ecosystem, including programs and support services offered to SMEs, to be able to open doors and provide useful connections for the SME, whatever the diagnosis tool used.*

*We recommend that the questions asked during the diagnosis of the business and the subsequent discussions are key to building an effective action plan for the SME. One of our main findings is that the diagnostic tool used for the assessment of the company client has to be flexible enough to be effectively applied to a wide range of companies (size, age, sector etc.) and to be applicable to both young innovative businesses as well as more established businesses that are looking to increase their levels of innovation.*

*Another finding is that Management innovation standards and services are not yet known from SMEs. Therefore, despite all the benefits found in this project, there are no spontaneous / explicit demands from SMEs. It means that the approach and the service process requires incentives to be accessible to SMEs as well as a significant commercial/marketing effort which needs to be*

*considered and taken into account in the different support schemes proposed, while preserving the independence / neutrality vs. funding bodies.*

## INTRODUCTION

### PURPOSE OF THE PROJECT PEER4INNOVATION

The final goal of this project is to share with other innovation agencies agreed insights on how to better enhance innovation management capacity (EIMC) in SMEs in order to boost competitiveness and growth across Europe. This initiative has been addressed to intermediary organisations providing innovation support services like Regional Development Agencies, Chambers of Commerce, Business Accelerators and any other Advanced Services Business providers, but mainly to those partners of the Enterprise Europe Network (EEN) who started providing these EIMC services on 2014 and have found it difficult to start or properly implement this brand new service in their regions.

This is not an academic research work, but a practical learning from peer review among practitioners. We have shared different viewpoints, analysed common problems and agreed on some relevant insights to share with any other institutions willing to start with this EIMC Services or those with the intention to go one step further on that if they are already providing it.

Innovation management capacity, as defined by the European Commission, “is the internal **ability of companies to manage innovation processes from the generation of the idea to its profitability on the market**”<sup>1</sup> and it represents a fundamental characteristic to make SMEs able to create economic impact (competitiveness, growth and jobs).

As a consequence, innovation management capacity is closely related to Europe's **need to reap the full benefits of innovation**, which involves two main challenges. First of all, although Europe includes six of the world's 10 most innovative economies, the continent as a whole is fragmented in terms of its innovation capabilities and includes **economies that remain below potential in translating new ideas into valuable products and services**. Secondly, the **traditional models of innovation** used by most successful and innovative European firms to date **are not sufficient to deliver the growth that is needed in the next years**.

As we have seen in the digital and mobile revolutions, captive research and development (R&D) models managed by large firms are very good at delivering incremental and also radical innovation

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<sup>1</sup> <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/innovation-smes>

within a specific product category to an established set of customers, but are weaker at creating disruptive products and new markets<sup>2</sup>.

## **PARTNER INSTITUTIONS**

Behind this document, there are years of experience and willingness of many expert people to share knowledge with others, **IVACE** (Valencian Institute for Business Competitiveness) from Spain promoted this consortium with **CCI Bourgogne** in France, **Oxford Innovation** in UK and **Væksthus** from Denmark, trying to involve different partner regions from different countries with different approaches, in order to have a wide range of perspectives on the subject to analyse. Two major networks, Enterprise Europe Network (EEN), but also EURADA (European Regional Development Agencies) have been very useful to identify partners with common interests, and now a good channel to share the results.

**Focused on innovative SMEs, IVACE, designs and implements support innovation programs** funded by the European Structural Funds with the final objective of helping SMEs become more competitive. IVACE also **supports SMEs offering services** to reach new markets, increase innovation capacities, advise on intellectual property rights, promote technology transfer and facilitate access to finance. On 2014 IVACE launched the innovation management capacity services to **raise SME awareness on the relevance of investing on the future success of the company by defining innovation strategies, increasing collaborations and improving innovation processes.**

Innovation management as well as the above mentioned challenges represents the core of our partners' activities and their contributions to the field in their respective regions are essentials. According to one of the partners, **CCI Bourgogne, methodologies and specific strategies** are fundamental elements to increase SME innovation. *Innovation doesn't mean only technology*; a SME can innovate **through its method of management, its marketing, economic models or new services that it develops**. Starting from this definition, CCI Bourgogne deploys its main instruments to support the SME innovation, including Innov'Scan, a tool that sweeps all the aspects of innovation to make the enterprises be more competitive - Innov'Scan can also be used by company managers in their office, at home, during travels as a first self-insight or through interviews with a CCI adviser and within a small group in the enterprise for a deeper support.

As the shortcut to specialized knowledge, network and growth, **Væksthus Copenhagen**, another one of the partner, deals with **innovation management supporting businesses who wish to enter**

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<sup>2</sup> Performance, Volume 7, Issue 2, May 2015 "Collaborative innovation Transforming Business, Driving Growth, 2015" [http://www3.weforum.org/docs/WEF\\_Collaborative\\_Innovation\\_report\\_2015.pdf](http://www3.weforum.org/docs/WEF_Collaborative_Innovation_report_2015.pdf)

**new international markets, develop new products and increase profit.** Vaeksthus Copenhagen identifies the business' need for development and offers targeted counselling on the next steps of development. Finally, it enables the business to choose the possibilities that optimize their further development.

“If you want to be a growth business, you need to innovate! That can be innovation in business models, services and processes or the more well-known product innovation”. This is the approach of **Oxford Innovation** to the issue, particularly deployed as following: i) scouting for innovation. ii) searching for partners. iii) securing funds. iv) developing your innovation potential. v) connecting with large companies (Open Innovation).



## PARTNER REGIONS

### VALENCIA

Between 1995 and 2008 the Valencia region has experienced a prolonged period of economic growth based on productive investment and job creation. However the Valencian economy reached in 2008 a turning point marked by two main factors: on one hand the financial crisis and the cycle change, on the other, the loss of international competitiveness. These two factors have led to a deep crisis, especially reflected in high levels of unemployment (around 20%) and strong decrease of growth rates (-3.69% in 2009). Moreover, the relatively high weight in the economy of the construction and tourism sectors has also contributed to make even harder the recovery for the Valencian region.

Regarding innovation performance, the Valencian Community shows relative strengths in those aspects of innovation performance related to public funding: i.e. tertiary education, lifelong learning, and public R&D expenditures. On the other hand, the weaknesses of the Valencian Community are indicated by those measures related to private activities (i.e employment in medium- and high technology manufacturing and services sectors, private R&D expenditures).

Regarding R&D, a strong sector-oriented network of research centres exists within the regional innovation system whose main objective is to bring R&D to private companies. However, there is still a lack of cooperation among firms and the research system, preventing the business sector from taking advantage of the advances made in research. Moreover, firms are often reluctant to cooperate among them due to the strong competition.

The Valencian Community has an active innovation system with a long experience. Considering that the evolution of the European Union, with the convergence of Valencia to the EU average, is reducing the funds that the region traditionally had for its innovation policies, the new situation is demanding greater efficiency in the use of these resources and forcing the regional agents to focus better their performances.

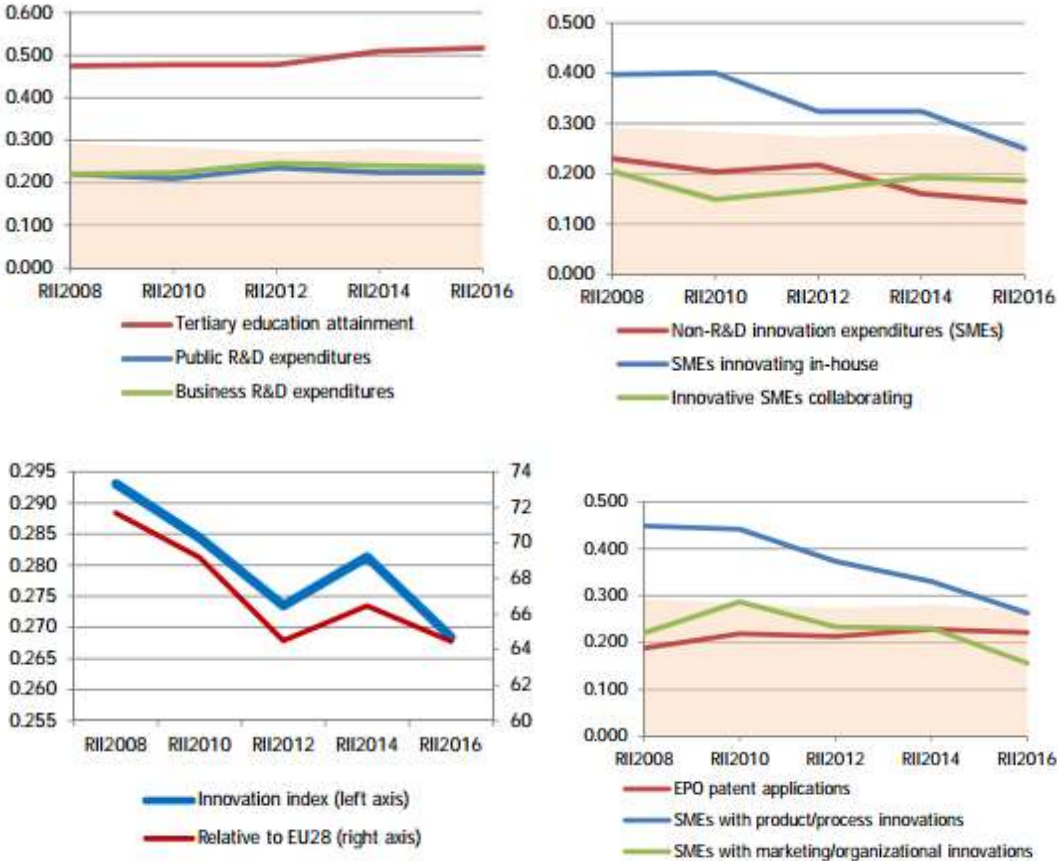
This spider-graph shows Regional competitiveness index in Valencia. It is the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work.

As it is shown in the graph, the parameters for innovation in Valencia are below the EU average.



ILLUSTRATION 1.- SPIDER CHAR – VALENCIA  
EUROPEAN REGIONAL COMPETITIVENESS INDEX

Comunidad Valenciana is a Moderate Innovator. Innovation performance has declined (-5%) compared to two years ago. The radar graph shows that relative strengths compared to the EU28 are in Sales due to new product innovations, Tertiary education attainment, and Public R&D expenditures. The trend graphs on the right show that relative strengths in the regional innovation system (i.e. the indicators which are most above the shaded area showing the region's Regional Innovation Index) are Tertiary education attainment, Sales due to new product innovations, and Exports of medium and high tech products. Relative weaknesses are in Non-R&D innovation expenditures, SMEs with marketing or organizational innovations, and Innovative SMEs collaborating with others.



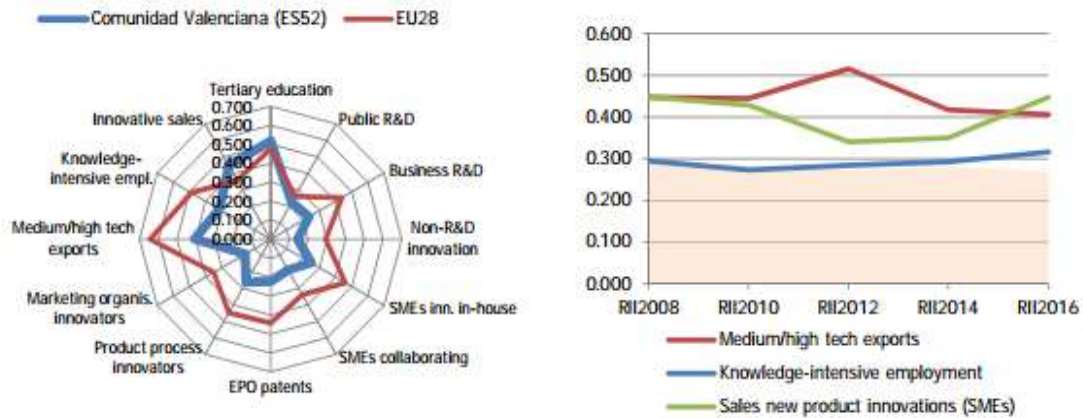
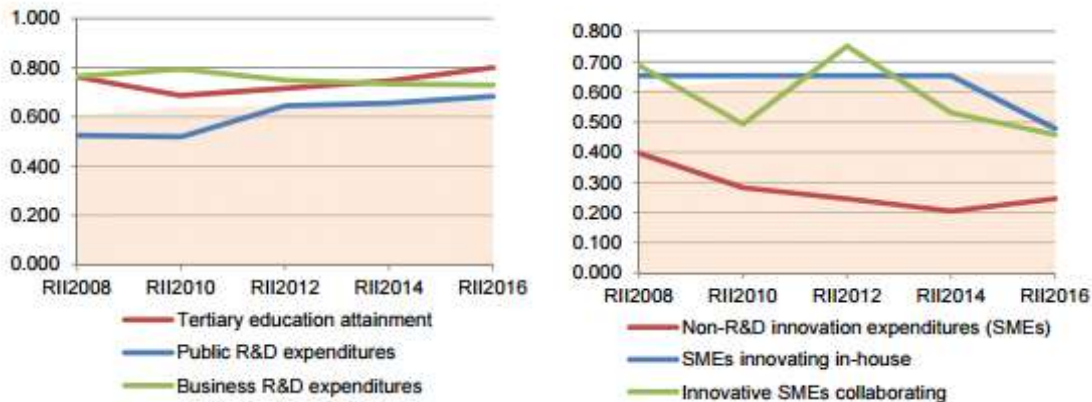


ILLUSTRATION 2.- PARAMETRES FROM REGIONAL INNOVATION MONITOR PLUS

### COPENHAGUEN – DENMARK

The Hovedstaden region is an Innovation Leader. Innovation performance has remained at almost the same level (-1%) compared to two years ago. The radar graph shows that relative strengths compared to the EU28 are in Public R&D expenditures, Tertiary education attainment, and Business R&D expenditure. The trend graphs on the right show that the relative strengths of the region (i.e. the indicators which are most above the shaded area showing the region's Regional Innovation Index) are in Tertiary education attainment, Business R&D expenditures, and Employment in knowledge-intensive industries. Relative weaknesses are in NonR&D innovation expenditures, Sales of new product innovations, and SMEs with marketing or organisational innovations.



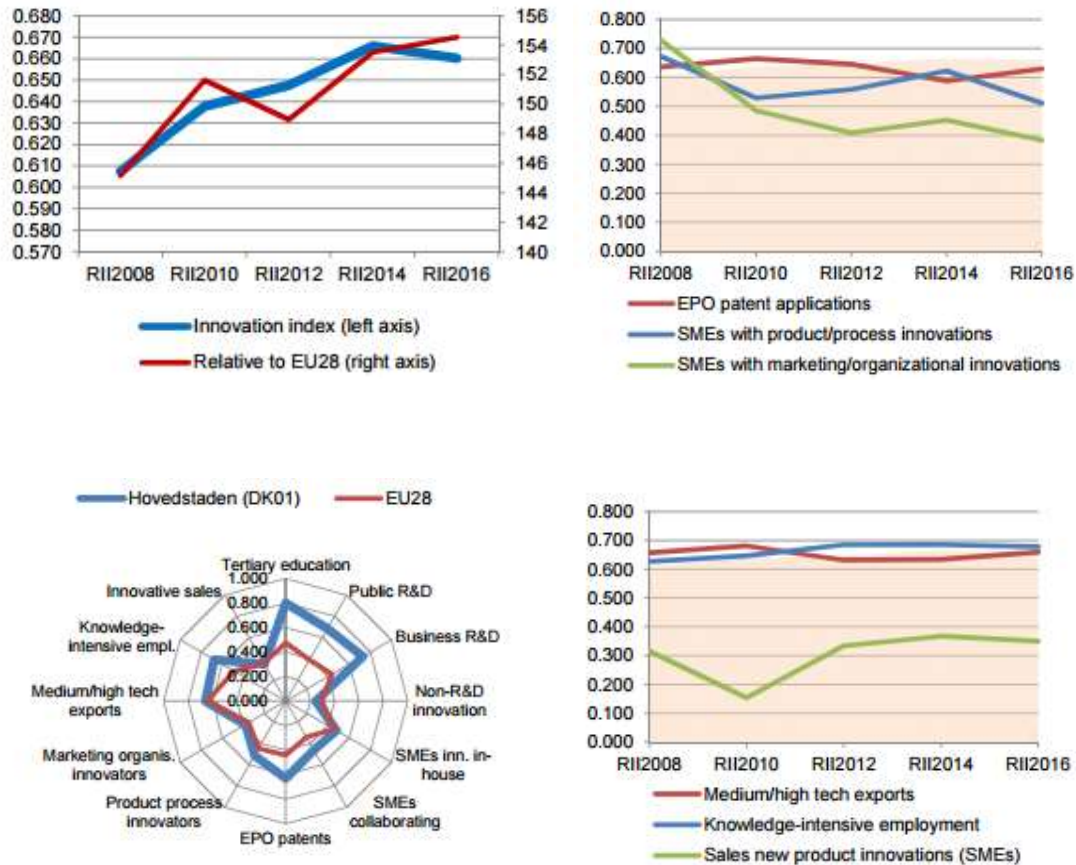


ILLUSTRATION 3.- PARAMETRES FROM REGIONAL INNOVATION MONITOR PLUS

Copenhagen is among the richest metropolitan regions in Europe. GDP per capita is €50,000, which is around 40% higher than the average for Denmark and 53% above the EU27 average, when using purchasing power parity. The Capital Region is the leading region in Denmark with regards to economic performance. The region generates about 40% of the Danish GDP, and 75% of the employment growth in Denmark over the last decade was created in the region.

The framework conditions for innovation are generally strong in the Capital Region, and the region scores high on many framework indicators. For instance, 40% of the population has a tertiary education (52% above EU27 average).

The main challenge for the Capital Region is to ensure that the good framework conditions for innovation manifest itself in a better innovation performance. Better innovation performance is an important part in increasing growth in total factor productivity and thereby labour productivity, where the region has been lagging behind in recent years. Given global competition and pressure

on prices, improving labour productivity will probably be an important factor in assuring the future prosperity of the region.

This spider-graph shows Regional competitiveness index in Hovedstaden region. It is the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work. As it is shown in the graph, the parameters for innovation in Hovedstaden region are above the EU average.

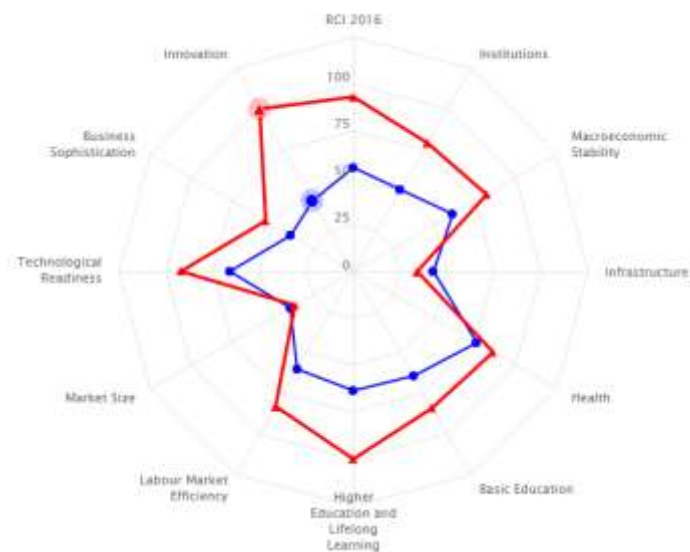


ILLUSTRATION 4.- SPIDER CHAR – HOVEDSTADEN EUROPEAN REGIONAL COMPETITIVENESS INDEX

## OXFORD – UK

The South East region is an Innovation Leader. Innovation performance has decreased (-1%) compared to two years ago. The radar graph shows that relative strengths compared to the EU28 are in Innovative SMEs collaborating with others, Sales of new product innovations, and Tertiary education attainment. The trend graphs on the right show that the relative strengths in the regional innovation system (i.e. the indicators which are most above the shaded area showing the region's Regional Innovation Index) are Innovative SMEs collaborating with others, Exports of medium and high tech products, and Employment in knowledge-intensive industries. Relative weaknesses are in Non-R&D innovation expenditures, Public R&D expenditures, and SMEs innovating in-house.

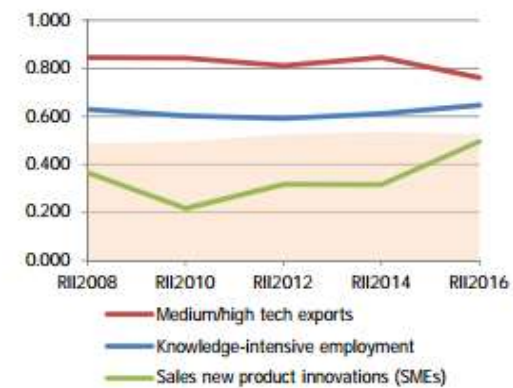
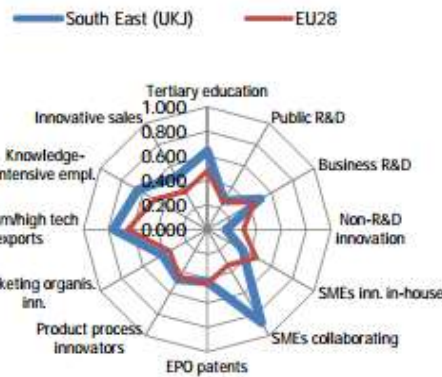
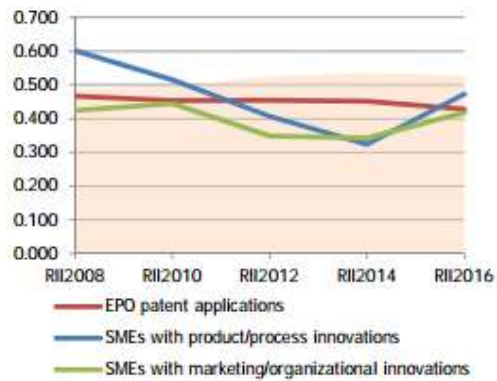
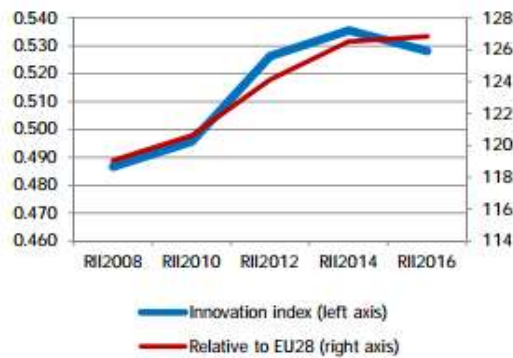
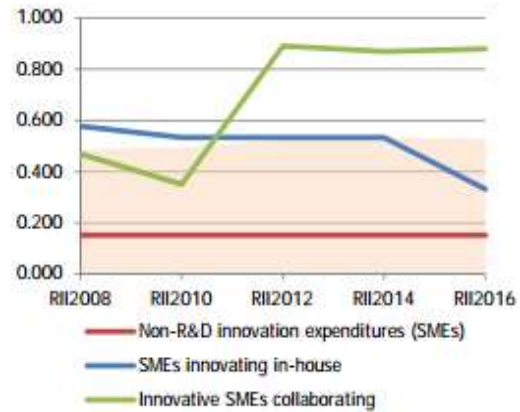
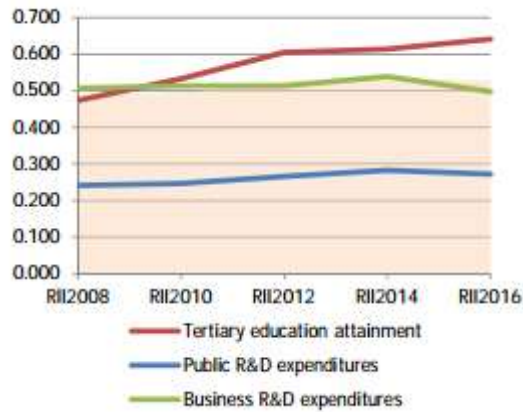


ILLUSTRATION 5.- PARAMETRES FROM REGIONAL INNOVATION MONITOR PLUS

The South East England is one of the larger EU27 regional economies, with an annual economic output (GDP) of around €200b (2008) or around 14% of total UK Gross Value Added (GVA). It is one of the UK's strongest regions in terms of innovation, when looked at from the perspective of classic

indicators like R&D intensity or patent applications per capita. The region also performs strongly at the European level on these indicators.

The South East England faces a very uncertain future as regards regional – level innovation policy, as SEEDA (South East England Development Agency), as well as all English RDAs, was abolished by the incoming UK government in May 2010, and was in transition, running down its various programmes, until its final closure in March 2012. In practical terms, the South East no longer has a regional-level innovation policy.

There is no other organisation with a region-wide remit to promote innovation in the South East. The UK government has called for the creation of Local Enterprises Partnerships (LEPs) to pursue urgent economic development work, which it is proposing to fund through a 3-year, £1.4b national fund. The Regional Growth Fund, as it is called, will award around £0.5n a year in grants to local public-private partnerships throughout England through an annual competition covering, funding any type or kind of project so long as it is demonstrably consequential and addresses locations acutely affected by public sector retrenchment. It has not explicit priorities and no innovation remit.

This spider-graph shows Regional competitiveness index in South East England region. It is the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work.

As it is shown in the graph, the parameters for innovation in South East England region are above the EU average.



ILLUSTRATION 6.- SPIDER CHAR – SOUTH EAST - UK EUROPEAN REGIONAL COMPETITIVENESS INDEX

## BOURGOGNE FRANCHE-COMTE

The current project started with a partner from the former French region of Bourgogne (Burgundy) while it was being merged with the neighbour former region of Franche-Comté to create a newly larger entity named Bourgogne Franche-Comté at NUTS 2 level in accordance with the French Law n°2015-29 of 16 January 2015 redrawing the map of French regions. Consolidated figures are not yet available from the same EU sources as the other regions in this project, hence the reason why Bourgogne – Franche-Comté is observed as two different regions.

Former Bourgogne is located in the “FR Bassin parisien” (FR2) NUTS1 Region (FR26), which is made of six regions: Champagne-Ardenne, Picardie, Upper Normandy, Lower Normandy, Centre and Bourgogne. Bourgogne is the 4<sup>th</sup> out of these six regions, representing 15% both for the population and the GDP of the NUTS1 region. The region comes 5<sup>th</sup> for the GERD and the GERD as percentage of GDP. In the 2014 Regional innovation scoreboard, Bassin parisien is regarded as a moderate innovator. Out of the nine NUTS1 regions, FR2 comes 5<sup>th</sup> for non R&D innovation expenditures, 6<sup>th</sup> for SMEs innovating in-house and 9<sup>th</sup> for R&D expenditure in the public sector.

Former Franche-Comté is part of the Est (France) (NUTS1). According to the Regional Innovation Scoreboard 2014, the Franche-Comté region is ranked as a regional innovation follower, with an innovation performance close to EU average. Franche-Comté is part of the group of Structural Fund low user – with low rates of use of SF under research, technological development and innovation priorities.

Regional strengths relate to R&D expenditure in the business sector as 2.5% of GDP thanks to large firms in traditional industrial sectors such as automobile and plastics industries (1.6% of GDP), the medium-sized firms and the SME account for 0.6% and 0.3% of the GDP, respectively.

Main weaknesses relate to R&D expenditure in the public sector as 0.4% of GDP, SMEs innovating in-house as 56% of SMEs (close to the national average, apart from Paris, of 56%), innovative SMEs collaborating with others as 33% of SMEs, and sales of new to market and new to firm innovation as % of turnover, with a performance below EU average. This can be explained by the limited number of public research organisation units located in the region and the low level of innovative companies among regional SMEs.

This spider-graph shows Regional competitiveness index. It is the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work. As it is shown in the graphs, the parameters for innovation in Bourgogne and Franche Comte regions are similar than the EU average.

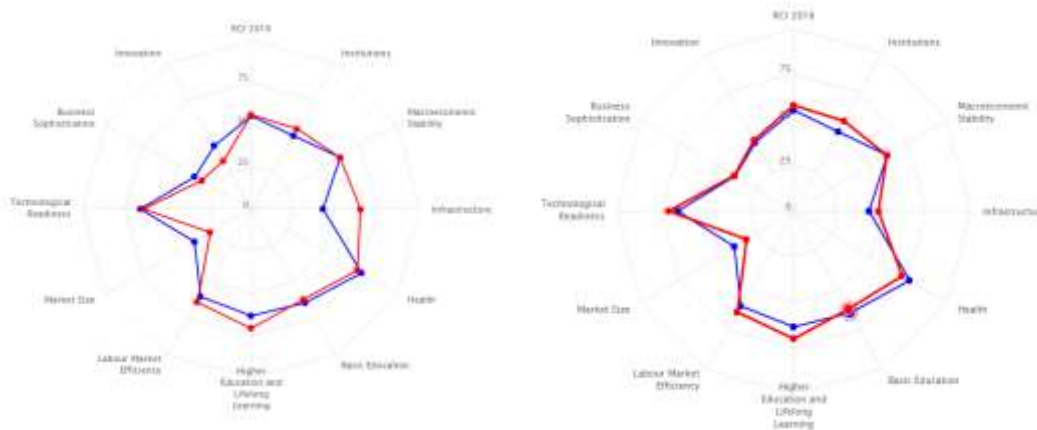


ILLUSTRATION 7.- SPIDER CHAR – BOURGOGNE FRANCHE COMTE  
European Regional Competitiveness Index



Finally, using the last **European Regional Competitiveness Index** published in February 2017, we can compare the regions and their innovation parametres: Basic, Efficiency, Innovation sub-indexes and RCI scores.

Country code	Country name	NUTS NAME	Basic sub-index		Efficiency sub-index		Innovation sub-index		RCI 2016	
			z-scores	rank	z-scores	rank	z-scores	rank	z-scores	rank
DK	Denmark	Hovedstaden – DK01	0,687	32	0,968	7	1,337	4	1,022	6
ES	Spain	Comunidad Valenciana – ES52	-0,165	156	-0,669	205	-0,494	175	-0,491	184
FR	France	Bourgogne – FR26	0,129	111	0,060	128	-0,254	155	0,008	134
FR	France	Franche-Comté – FR43	0,017	128	0,074	126	0,094	123	0,063	126
UK	United Kingdom	Berkshire, Buckinghamshire and Oxfordshire – UKJ1	0,633	42	1,168	2	1,466	2	1,150	2

TABLE 1.- INNOVATION PARAMETRES - EUROPEAN REGIONAL COMPETITIVENESS INDEX

## DESCRIPTION OF THE CONTENT

The document has been structured in two main sections:

- **Strategic reflexions**, that could make any service provider to think about the reasons 'Why' to provide this services, Type of Innovation, which ones could be the main targeted companies, where to focus efforts and how to combine regional, national and European level. As a consequence of the revision of previous relevant issues it can be better defined the Scope, Target and Value proposition for this EIMC Services.
- **Operational approach**, following the 'customer journey', in order to review the whole process putting in the middle the final customer, the company that needs to improve its innovation capacity. We have distilled learning and insights to help any institutions willing to start or renovate a EIMC Service.

At the end, the document contains an **Appendix** describing the **tools** that partners are using; they are just an example of the type of tools that are being used for this purpose. Please note that our objective was not to evaluate tools, and so we did not make neither an exhaustive identification, analysis and comparison of tools; they are shown as examples.

## A.- STRATEGIC REFLECTIONS

### A1.- WHY SHOULD WE SUPPORT SMES TO INNOVATE?

Innovation is not the final objective but a basic pillar to improve business competitiveness, to get better solutions (product or services), to make them in a more efficient way (environmental, energy, cost, material) and to easier reach the market (channels, value added, customer experience).

Innovation is a new discipline that companies need to deal with; last century companies had to learn about marketing, human resources, operations, management, and now they have to know how to include innovation into their business. Innovation is about combining knowledge from different areas, to generate smart ideas that would be transformed into powerful initiatives that will provided added value to the society and better business model for companies (the company recovers for itself a part of the value generated).

In a sentence, we support companies to **Enhance their Innovation Management Capacity to let them compete and grow**, as a consequence, **more and better jobs will be created in Europe**.

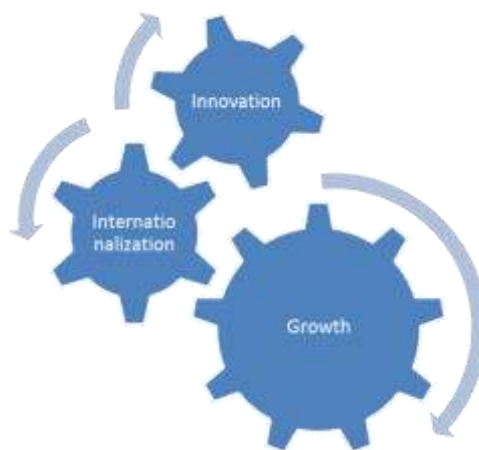


ILLUSTRATION 8.- INNOVATION, GROWTH, INTERNATIONALIZATION

We have taken some research on productivity, internationalization and innovation<sup>3</sup> about UK, but the conclusions have been shared, discussed and agreed to take them as inputs for this document, in order to generate 'strategic thinking' on readers.<sup>4</sup>

Research has shown that innovation and internationalisation can act as drivers for growth among SMEs which in turns boosts productivity. As such, support to enable SMEs to innovate can deliver far more than enhanced innovation performance at a national level and is linked to enabling SMEs to grow and become more productive.

To date, much attention on boosting SME productivity growth has focused on structural factors such as access to capital, leadership and entrepreneurial capabilities and having the right talent.

<sup>3</sup> Unlocking UK productivity – Internationalisation and Innovation - <https://www.enterpriseresearch.ac.uk/wp-content/uploads/2015/11/Internationalisation-and-Innovation-Report-web-pages-.pdf>

<sup>4</sup> This is not an academic research paper but a DOP, to highlight important and relevant issues and insight for the readers.

However, evidence strongly indicates that those businesses that engage in international activity and innovation are more likely to enhance company performance. Specifically:

- Growth rates among SMEs that innovate are significantly greater than those that do not – many studies show a positive relationship between **innovation** and higher growth rates and there is some evidence of a positive relationship between both product and process innovation and productivity growth<sup>5</sup>.
- Innovative SMEs are also more likely to be operating in export markets and as a result lead to economy-wide productivity benefits through dynamic competition in which innovating and exporting firms gain market share at the expense of others.
- Evidence also shows that SMEs contribute a disproportionately large amount of job creation. For example, between 2008 and 2013 a high proportion (85%) of new jobs in the UK were created by firms with fewer than 50 employees<sup>6</sup>.

In summary: SMEs have the potential to contribute to economic growth by stimulating innovation, spurring competition and accelerating job creation.

The 'Scale-up Report' in 2014<sup>7</sup> identified a number of barriers that growth-oriented business face when scaling-up and addressing low productivity. The four key structural factors seen as limiting growth were difficulties in:

1. Supporting the leadership capabilities of SMEs
2. Recruiting the necessary talent and skills
3. Accessing capital to fund expansion
4. Internationalising and innovating

Focusing in on the fourth of these barriers, it is found that SMEs that engage in internationalisation activity drive productivity in four main ways:

1. Stronger competition in overseas markets forces firms to improve their products and processes to remain competitive
2. Exporting SMEs have significant exposure to foreign knowledge and technology which helps to boost their productivity
3. Exporting extends the geographical market over which margins can be earned and, as many costs are fixed, this delivers a greater return on investment
4. Exporting tends to lead to greater diversity in the customer base, thereby helping to stabilise revenues.

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<sup>5</sup> For a review see Roper S, Du J and Love JH (2008) 'Modelling the innovation value chain', *Research Policy*, 37, 961–977; Rosenbusch et al. (2011) "Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs". *Journal of Business Venturing* 26, 441–457.

<sup>6</sup> Anyadike-Danes, M (2014) "Net Job Creation in the UK, 2008–2013" ERC Research Note.

<sup>7</sup> Coutu, S. (2014) op. cit

The importance of innovation<sup>8</sup> for SME productivity growth is also evident. In the UK innovation at the firm, industry and national level<sup>9</sup> accounts for 70% of the UK's long term economic growth and around 51% of labour productivity<sup>10</sup>. This positive relationship between innovation and SME performance displays itself in three main ways:

- In all sectors, product and process innovation leads to greater productivity which has allowed for substantial growth in employment and/or sales.
- Businesses that innovate are more likely to survive. Those businesses engage with innovation are better able to adjust when market conditions become challenging<sup>11</sup>
- Businesses that innovate are more likely to establish external relationships and therefore gain access to external knowledge<sup>12</sup>.

Research has suggested that the strongest boost to productivity growth occurs when exporting and innovation are undertaken together as part of a coherent strategy<sup>13</sup>. The evidence suggests that competition, scale and learning-by-exporting links internationalisation to R&D performance:

- SMEs that innovate are more likely to export than non-innovators
- SMEs that export grow more than twice as fast as those that do not
- Internationally active SMEs are three times more likely to introduce products or services that are new to their sector than those which are focused entirely on domestic markets<sup>14</sup>.

Together, innovation and exporting create the potential to maximise the commercial value of innovations. These joint effects of innovation and exporting lead to economy-wide productivity benefits as the companies involved gain market share at the expense of less productive firms.

Two internal enablers have been identified that encourage SMEs to engage in innovation:

- better access to knowledge and support; and
- a better mindset for growth which increases the business owner's ambition and likely to engagement in internationalisation and innovation activities.

EIMC addresses both of these internal enablers by providing knowledge and support to SMEs to improve their capability to manage innovation which, in turn, builds the confidence of the business

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<sup>8</sup>Innovation here is defined in its broadest sense and relates to the introduction of new products and services, upgrades to business processes and also to changes in strategy, management approaches or marketing

<sup>9</sup> Crepon, A.D., Hughes, A., Lee, P. and Mairesse, J. (1998). "Research, Innovation and Productivity: An Econometric Analysis at the Firm Level". *Economics of Innovation and New Technology*, 7, 115–158

<sup>10</sup> NESTA (2012), *Innovation Index 2012*.

<sup>11</sup> Z Roper, S. and Xia, H. (2014) "Innovation, innovation strategy and survival", ERC Research Paper, No. 17, February 2014.

<sup>12</sup> James, A. et al. (2014) "Small firm-large firm relationships and the implications for small firm innovation: what do we know?" ERC White Paper No. 9, June 2014

<sup>13</sup> Golovko, E. and Valentini, G. (2011) "Exploring the complementarity between innovation and export for SMEs' growth", *Journal of International Business Studies*, 42, 3, p. 362–380.

<sup>14</sup> O Love, J.H., and Roper, S. (2015) "SME Innovation, Exporting and Growth: A Review of Existing Evidence". *International Small Business Journal*, 33(1), 28–48.

owner to set themselves more ambitious growth targets that can be achieved through greater levels of innovation.

### *A.1.1.- EVOLUTION OF INNOVATION SUPPORT POLICIES*

Until the late 1970s, innovation was mostly considered as the transformation of scientific knowledge into industrial products developed by large firms through major technological projects. Only when those large industries were hit by economic difficulties leading to layoffs or the closure of manufacturing plants, did policy maker shift their interest to SMEs. They realized that SMEs were playing a key role in developing employment and creating economic competitiveness. However, unlike larger firms, they lacked the access to financial, technological, human and information resources whilst still playing an important role in the economy.

Recognising that innovation meant technology transfer, and that support for SMEs needs proximity, innovation support policies were developed at regional level throughout Europe during the 1980s, using a significant amount of the resources made available at European level by the Structural Funds, in particular focused on more weaker regions. Regional technology transfer agencies, science parks, or technopoles have thus emerged in many regions with the purpose of diffusing technology from research to SMEs. These policies were often designed with three key elements:

- innovation advice: agency advisors informing the companies and helping them to secure funding for the development of their technology-driven project
- public assistance for SMEs in the form of funding for innovation projects
- regional infrastructure to ensure the transfer of technology

After about 10 years, several studies assessing the efficiency of these policies, came to the conclusion that they had contributed little benefit to economic development, mostly because they were too technology driven, supply-based and inadequately designed to meet the SMEs needs, unable to detect and adapt to each SMEs specific problems and requirements.

Thus, in the late 1990s innovation support policies moved from technology transfer schemes to knowledge-based schemes, where the sharing of knowledge was considered as a new key driver for innovation. Innovation support schemes started to include partnership building and a new concept called “Open innovation” emerged. A new policy trend followed with the launch of clusters and similar networking schemes everywhere in the EU, bringing together regional public institutions and enterprises, but often leading to an even more complex regional innovation ecosystem with multiple actors, not always fully aware of each other’s competences and creating added confusion for SMEs.

Recent studies now suggest that open innovation, although providing significant advantages, may also on balance remain well below the level which maximises innovation outputs. This is mostly due

unbalanced partnerships and information asymmetries between partners, which also prevent a large number of SMEs from benefiting from these policies.

Whatever the evolution, we see that innovation support schemes may work for the most structured and outward looking SMEs which have the capacity to transform knowledge into concrete results in the market. However they remain a small minority of European SMEs and public policies need to be more widely applicable and effective.

In parallel, the reduction in public funding in Europe over the last 8 – 10 years has led to more scrutiny of the value created by new policies with a clear quest for tangible and measurable return on investment in terms of economic development.

Public support policies are now facing two, sometimes contradictory, challenges:

- on the one hand they need to support regional economies to remain competitive and ensure that established companies can evolve and develop their capacity to generate wealth from innovation – (later in the document, we refer to this segment as B mature companies)
- on the other hand, they also need to focus scarce resources on those SMEs who can generate the highest impact or return on investment, in terms of growth or job creation – (Later we refer them as A young scale up companies)

It is now time for new policies which will address both these challenges.

### A.1.2.- DEFINING INNOVATION

New policies assume that a large number of SMEs should have the capacity to innovate. Facts demonstrate that few SMEs are developing new products and very few ones are actively engaged in R&D. However, in the last few years, there has been a recognition that there are many types of innovation and that SMEs that are not engaged in R&D can still be innovative, so innovation has been described in a wider sense.

Innovation as described in the Innovation Union plan broadly means change that speeds up and improves the way we conceive, develop, produce and access new products, industrial processes and services. Changes that create more jobs, improve people's lives and build greener and better societies.

A recent publication of *bpifrance* (the French Public Investment Bank) on the new generation of innovation lists 6 types of innovation:

1. **Products / services / uses innovation:** improves existing products/services/uses or introduces new ones
2. **Process or organisation innovation:** changes the way the company organises its work and its logistic chain
3. **Marketing innovation:** changes the presentation, distribution, pricing, promotion of the product/service offered
4. **Business model innovation:** changes the costs/revenues structure
5. **Technology innovation:** creates or integrates new technologies
6. **Social innovation:** concerns social needs

Each type of innovation can also be assessed by its potential to be **disruptive** (e.g. creating or deeply transforming one of several markets) or **incremental** (e.g. improving competitiveness or profitability of the company without necessarily creating a new market).

Jacoby & Rodriguez, taking Ansoff Matrix, describe innovation as **incremental** (improving existing offer to the same market) vs **revolutionary** (create new offering to new users -

new markets). In the middle, the **evolutionary** innovation, to extend markets and to adapt existing products to new users.

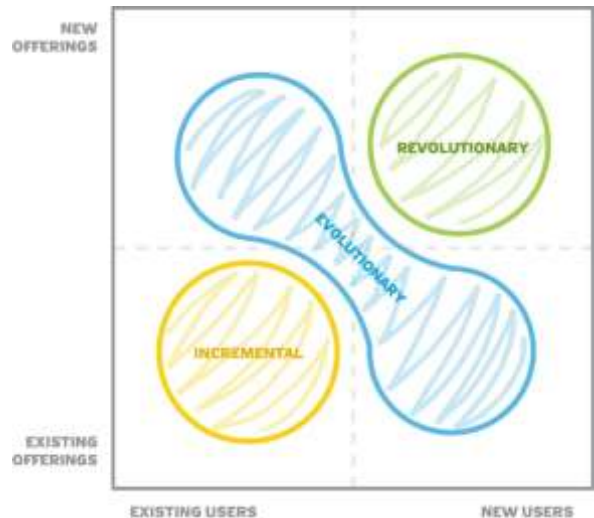


ILLUSTRATION 9 JACOBY & RODRIGUEZ - INNOVATION GROWTH AND GETTING WHERE YOU WANT TO GO



Asheim, Bjørn (2005)<sup>15</sup>, classifies knowledge in three categories, **analytical** (research & development), **synthetic** (technology & engineering) and **symbolic** (design, knowledge markets, ...). It has been demonstrated the relevance of different types of knowledge depending on the sector or activity. In sectors like biotech or pharma, it is key to be very directly connected to research, as this type of knowledge in those segments is crucial for product-service development. In other sector like metalwork mechanics, food, logistics, ... the most relevant type of knowledge to consider to generate innovation may come from the technology, engineering (synthetic) and in any sectors, but on the actions very close related with human interaction other type of knowledge makes the difference, publicity, ICT, design,... (symbolic).

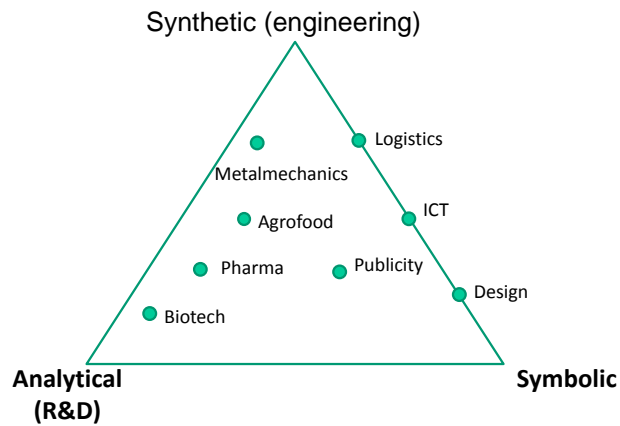


ILLUSTRATION 10.- TYPES OF KNOWLEDGE

This classification of knowledge bring us to the following question: research and development for many years have been pushed from universities and research centres to the companies, via technology transfer centres, start-ups programmes, spin off actions,... but it has not happen the same with the other types of knowledge, **do we have the right means and tools to approach design, ICT or advanced engineering to our companies?**

EIMC services may need to take it into account, as knowledge is one of the basic ingredients (talent) for innovation.

We do not intend to make a historical revision about Innovation definition, Frascati (OCDE), Oslo manual, ... but we want to emphasize on the **wider approach of innovation, in any part of the**

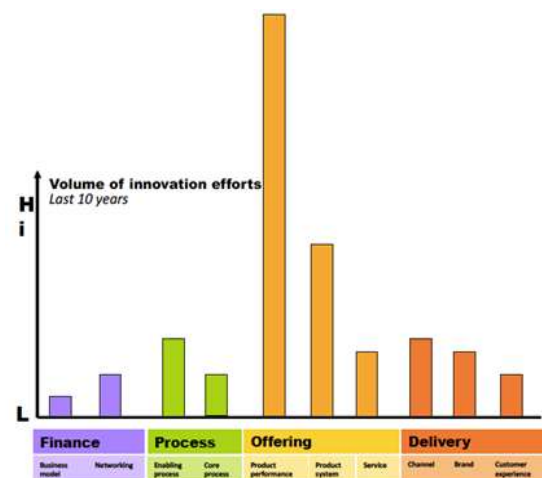


ILLUSTRATION 11.- DOBLIN - EFFORTS ON INNOVATION



ILLUSTRATION 12.- DOBLIN - RETURNS PER TYPE OF INNOVATION

<sup>15</sup> Asheim, Bjørn; Coenen, Lars; Moodysson, Jerker; Vang, Jan (2005) "A wider based Approach", WP 2005/13. CIRCLE, Lund University

**value chain, and coming from different type of knowledge**, not only Research.

If we could analyse the effort vs results obtained on the different types of innovation in our regions, as Larry Keeley proposed with 'Ten types of innovation', we would have a much more clear picture on where to focus efforts. As a generic statement, we take Doblin analysis and our own experience to confirm that focus should be to try to help companies to innovate in **any part of the value generation chain**, not only product design.

**Using these definitions of innovation, it is clear that the vast majority of SMEs in all sectors could benefit from improving their innovation performance and skills in managing innovation.**

### A.1.3.- INNOVATION MANAGEMENT AS A KEY DRIVER FOR IMPACT

Innovation management is the ability to transform changes and opportunities into solutions that generate value in an efficient way, so Innovation is seen as a process to generate impact results: competitiveness and growth.

*European Commission 'Innovation Management' definition: "is the internal ability of companies to manage innovation processes from the generation of the idea to its profitability on the market" EC*

An essential element of creating impact, is to ensure that the support received will be transformed into real benefits for the SMEs. In other words, in order to innovate, a firm must have a clear and shared strategy, must be in the position of generating ideas and have the capacity of filtering out those ideas with less promising outcomes and developing plans to implement those ideas which have the highest potential to provide new products, services or competitive advantage. This requires SMEs to have strong innovation management capabilities.

The terms "innovation management" is now clearly set out in a new standard by the European Committee for Standardisation (2013). For the first time, it shows an innovation process that starts with idea generation and culminates in concrete results. It has moved beyond the outdated idea that investing in R&D is sufficient to generate new commercial products, processes and services.

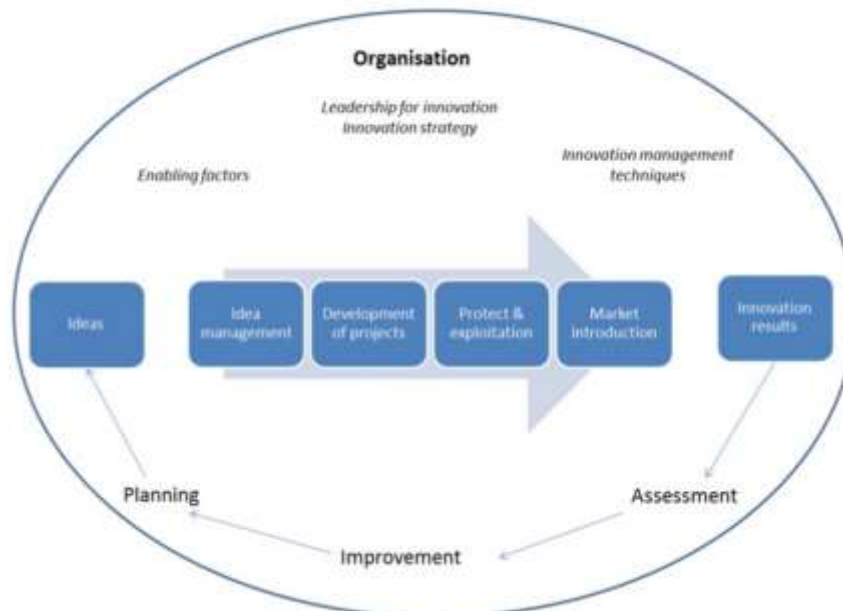


ILLUSTRATION 13.- MODEL CEN TS-16555-1

This sketch represents the cycle for innovation management extracted from the CEN TS-16555-1 standard and highlights in the process new issues such as “leadership”, “management skills” or “strategy”.

Peer4Innomanage partners consider this approach too linear, it could be considered as a minimum level, but the model needs to be adapted to the type of company or sector and the level of matureness on innovation management capacity.

The following stairs proposed by Joaquim Vilà (IESE Business School), describes the different levels of matureness of innovation management capacity in companies.<sup>16</sup>



ILLUSTRATION 14.- MATURENESS STAGES TO INNOVATION EXCELLENCE

**Innovation management has many interesting global effects on the company.** It will impact on the culture, leadership and the way or working; innovation needs to be directly linked to the strategy; it is a collaborative process that will generate added value combining talent, technology, creativity

<sup>16</sup> IESE Insight, Third Quarter 2012, Issue 14 “Normalize innovation to transform your firm”, J. Vilà.

and new business models; innovation keeps always in mind final user, clients and other intermediaries; innovation management allows the company strategy to face uncertainty and even ambiguity environments; innovation management learns from failures and insights discovered in the trial and prototyping process; innovation management has some collateral interesting effects, it attracts talent, better collaborators and event clients and it is an intrinsic motivation argument for the people involved, internal and external.

All these are elements that have not historically been included in the innovation support provided by regional organisations and innovation agencies. As a consequence, they require the development of new skills and new organisation within the regional innovation ecosystems and in particular the innovation agencies. **Innovation advisers must evolve from largely technology based advisors into innovation advisors with a strong grasp of issues such as access to funding, partnership building, IPR and regulations, competitor and market analysis etc...**

#### ***A.1.4.- RAISING SME'S CAPACITY TO MANAGE INNOVATION: A NEW CHALLENGE FOR INNOVATION SUPPORT POLICIES***

As highlighted by several studies, reaching SMEs who are weakly structured and too inward looking should be a major goal for the new innovation support policies and their instruments to increase the growth potential in Europe.

Many SMEs do not have a clear vision or associated strategy and the majority of those that do have a strategy have not documented it in a clear manner. Often this is due to poor management skills within the SME as well as a focus on operational rather than strategic issues. The leaders of small businesses tend to spend too much time working 'in' their business rather than 'on' their business, i.e. analysing, planning and executing their strategy.

Therefore, a key issue is to **help SMEs to define their vision and company strategy, and to do so from the innovation management perspective**. This activity requires high levels of **trust** between the SME leader and their adviser which can only be gradually established if the advisor has sufficient experience, skills and tools to win the respect of the SME manager and convince him/her of the value of spending time in developing a strategy.

The second issue is to **help the SME define its own priorities and develop an action plan** to implement their strategy.

The role of the advisor, in working with the SME, will be :

- making the diagnosis to analyse the particular needs, challenges and issues
- Guiding the SMEs on the strategic thinking
- Assisting the SMEs to define and action plan.
- Monitoring the implementation of the action plan, referring the SME to additional expertise and support when it is required to implement the solution

Through this process, the SME will develop the skills and understanding of tools that will enable them to better manage innovation within their business. This capacity building requires an ongoing relationship between the SME and the advisor, typically over a 6-12 month period whilst new systems, processes or approaches are put in place within the SME. **Implementing such a support scheme in European Regional innovation policies will help addressing this challenge; this task need to be done from the regional level, very close to the company and with the global vision of the innovation ecosystem.**

Evidence has shown that SMEs are typically unwilling to pay for external advice due to three reasons:

- **Accessibility** - they don't know how to easily find an adviser with the right skills to solve their problem.

- **Quality** - they don't have an easy way of assessing the quality of the adviser.
- **Benefits** – they can't assess whether the cost of the advice will be outweighed by the benefits, they don't know how to estimate Return Of Investment.

As a consequence, it is worth to incentive this type of services mainly to SME, to ensure they enter into this new discipline, innovation management.

The European Commission DG Grow has launched a pilot action called Enhanced Innovation Management Capacity of SMEs in 2014 with a service scheme allowing well trained staff from organisations selected on a competitive manner (from the Enterprise Europe Network) to deliver a very similar service (as describe above) to SMEs using part of Horizon 2020 innovation in SMEs budget. This action was continued in the subsequent years although no formal evaluation has yet taken place. This pilot action seeks to solve all three of these problems and encourage SMEs to take advice that will improve their capability to manage innovation

The advantages of this so-called EIMC action is that it provides the opportunity for every region in Europe (the EEN network has an exhaustive regional coverage in EU 28 and beyond) to develop this new type of service while benefiting from the full support of the EC. SMEs can receive up to 7 days of support that is 100 % funded.

The drawback is that EIMC support has been seen as an intervention that can be offered to companies that are not yet mature or structured to secure SME Instrument funding under Horizon 2020. The focus of the current support scheme is on the SMEI support by key account managers which is the priority and as a consequence the EIMC services are viewed as a secondary objective of this dual scheme. This certainly has a negative impact in some regions on the take-up of EIMC support with less budget available.

In some regions, Regional policy makers have recognised the value of it and have invested additional funding to enable EIMC services to be offered to a greater number of companies.

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*For instance in the UK, Innovate UK (the UK's national innovation agency) has invested £12m over three years (£6m from Innovate UK and £6m from ERDF) to enable EIMC to be delivered to an additional 1800 SMEs in the UK*

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### A.1.5.- WHERE TO FOCUS EFFORTS

It is clear that Small and Medium sized companies need help to innovate. Big corporations have the resources and the scale to make it themselves.

Existing companies have a big opportunity to grow and so to generate value and employment, by using innovation and intrapreneurship capacity from their teams.

Many policies are focused to support entrepreneurs and start ups to create a new business, but not that many have the purpose to help companies to improve their innovation & entrepreneurship capacities. The following chart, shows an insight from J.Rao (Babson) & F. Chuan, about how important, relevant and value generator would be to increase innovation capacity and intrapreneurship, and they do recommend to have a global approach, to impact on the culture to transform employees into internal innovator-intrapreneurs to get impact business results.

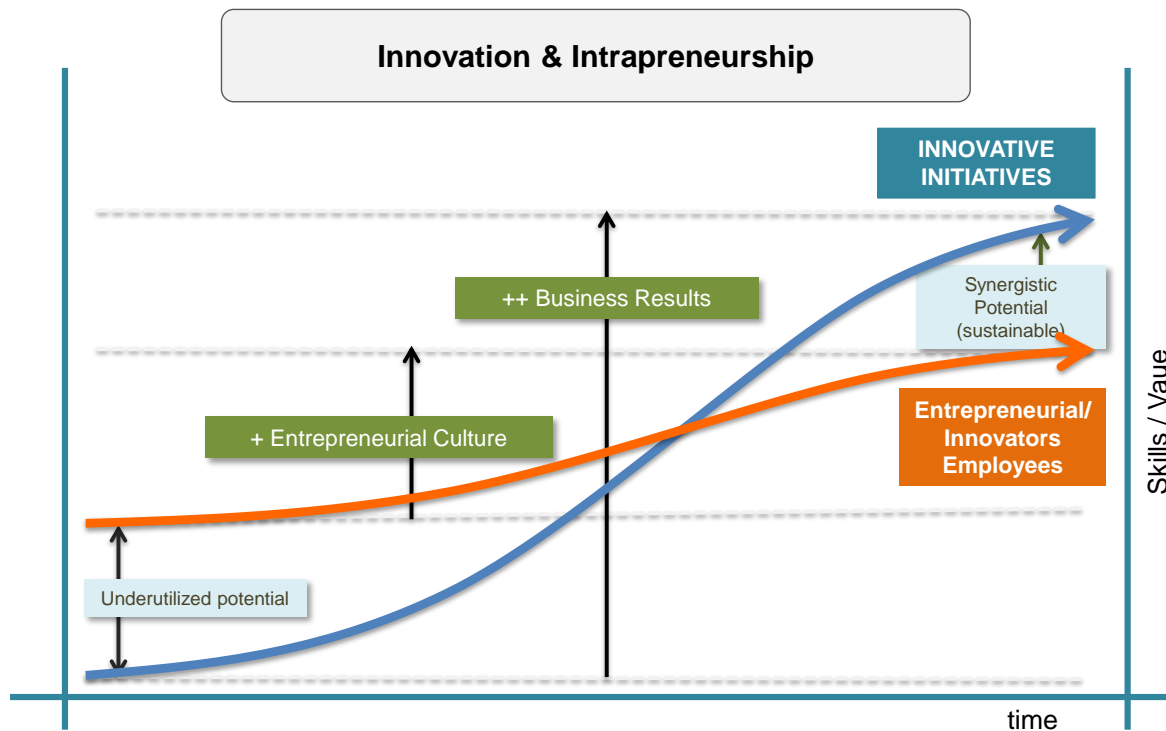


ILLUSTRATION 15.- INTRAPRENEURSHIP BY JAY RAO (BABSON) & F. CHUAN

Peer4Innomanage partners, share this vision about the importance to **focus efforts on existing companies** and to help them to increase their culture on innovation & intrapreneurship. Normally, existing companies, have some other advantages like a management team, knowledge of market, financial resources, administrative back office, ... if they 'start' new business, their impact on growth and employment could be huge.



### ***A.1.6.- CONSIDERATIONS ON THE EFFECTIVENESS OF REGIONAL, NATIONAL AND EU SUPPORT FOR INNOVATION<sup>17</sup>***

Innovation happens inside the companies but also in close relation with the ecosystem, mainly the local-regional level (innovation neighbourhood) so, the service to Enhance Innovation Management Capacities should be provided by **local-regional support agencies**, located very close to companies and with a privileged position on the innovation ecosystem.

Those institutions have the responsibility to stimulate and coordinate the relation among actors on the ecosystem, research centres, technology transfer mechanism, entrepreneurship, scale up and SME policies, funds & grants.

Most common type of policy interventions are grants or subsidies which reduce the cost and risk of undertaking innovation.

The results of 77 studies of the relationship between subsidies and R&D spend, concluding that 'approximately 60 per cent of the studies find that public subsidies are complementary and thus add to private R&D investment' (Zuniga-Vicente et al. 2014, p.38).

Empirical analysis relates to the period 2004 to 2012, covering five waves of the UK Innovation Survey and Spanish PITEC, show that in England the shape of innovation policy was largely determined nationally but implementation, particularly in terms of support for SMEs, was operated through the Regional Development Agencies.

Both potential misallocation effects, and the compensatory tendency of regional support are likely to mean that regional schemes are likely to dominate national initiatives in terms of their impact on the probability of undertaking innovation, i.e. at the extensive margin.

In particular **regional or local support initiatives** are positively associated with the probability of undertaking process, organisational, strategy, management and marketing innovation (in the UK) and product, organisational, management and marketing innovation (in Spain).

Therefore, regional strategies implemented by **local-regional support agencies** have broader objectives linked to local growth and productivity and regional initiatives play a key role in supporting broadly-based innovation and the commercialization of innovation.

Innovation based on research / high technology could require Policies at European or National level, because 'high standard on research or technology' would be a requisite, but with a broad and

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<sup>17</sup> Baker, Bettina; Roper, Stephen; Love, James H; "The effectiveness of regional, national and EU support for innovation in the UK and Spain". Enterprise Research Centre & Warwick Business School. ERC Research Paper 52, Novembre 2016.

wide definition of innovation, the regional and local level is the right one to define and implement policies very connected to the needs of companies, to their culture, compatible with the rest of the innovation ecosystem.

Regional support it seems impacts different aspects of innovation to that of national and EU funding.

This undoubtedly reflects both the contrasting objectives of regional, national and EU support initiatives as well as rigidities in the allocation processes of regional and EU funding.

Regionalised support is most influential in increasing the probability of undertaking both process and organisational innovations, so regional initiatives support broadly-based innovation.

National initiatives impact only on the probability of product or service innovation.

Study cases, show that in the UK, national support influences the novelty of innovation – again perhaps linked to the competitive allocation mechanisms – **but only regionalised support influences the market success of innovation.**

On the other side, National innovation support is associated with a higher probability of product or service innovation, and the degree of novelty of product or service innovations.

In Spain both national and regional support influence both novelty and innovation success with stronger national policy effects.

Anyway, it has to be remarked that the probability of innovation – of all types – is positively linked to scale, design spend (Filipetti 2010), exporting (Love and Roper 2015), external partnerships (Moon 2011), in house R&D (Love and S 2001; Love and Roper 2005) and innovation related investment in external knowledge, market intelligence and equipment.

Furthermore, the differential impacts of national and regional support measures emphasize the importance of earlier calls for caution in the over-centralisation or over-decentralisation of innovation support measures.

## A.2.- FRAMEWORK

### A.2.1.- SCOPE

We describe here some characteristics for the ideal service to be provided, so, those institutions designing a new EIMC services or willing to improve it, could inspire themselves where efforts should be devoted:

- **Customized**, one to one service, fully adapted to the needs of a company and the particularities of its sector and market characteristics.
- **'Innovation for Growth'**. Helping those companies with more potential for growth with innovation, so optimal efficiency and effectiveness (impact on more and better employments and taxes)
- **'Effectiveness of the Innovation Ecosystem'**. To generate and keep a deep relation between a advisor and a company, to help that company to go through the ecosystem, using funds, grants and added value provided from the company's perspective.

### A.2.2.- TARGET

This is a very important issue to face from the institution providing EIMC services. In fact, selecting where to focus the scarce efforts is not an easy question, and may have several answers depending on the local context, the co-existence of other institutions or even private companies providing these type of services, the maturity of the companies and many other significant elements, so please take these suggestions as 'relevant' issues to bother about, and only consider them as inspiring ideas.

In the case of Peer4Innomanage partners, we have agreed (after some deep discussions) those two segments as our 'preferred' target, and obviously this was a simplification of the reality to take decision on how do we 'sell' our services to each 'target group' and therefore how to define a better service to offer them.

- **Segment A – Scale Ups**: encompasses **young innovative companies** (have existed for less than 10 years and spent at least 15% of its total costs on R&D) that are already trading in the market for at least 1 year and they have possibilities/ambition to grow and become international. They have grown fast during the first two years.

**Note:** we are not considering as target those younger start-ups, still in the phase to search and find a repeatable and scalable business model<sup>18</sup>

- **Segment B** encompasses **established/mature companies**, 'operational focused' meaning those companies that are running a daily business with a stable structure and generating the necessary cash to keep going but their profitability could be decreasing and/or their market are showing threats to decline.

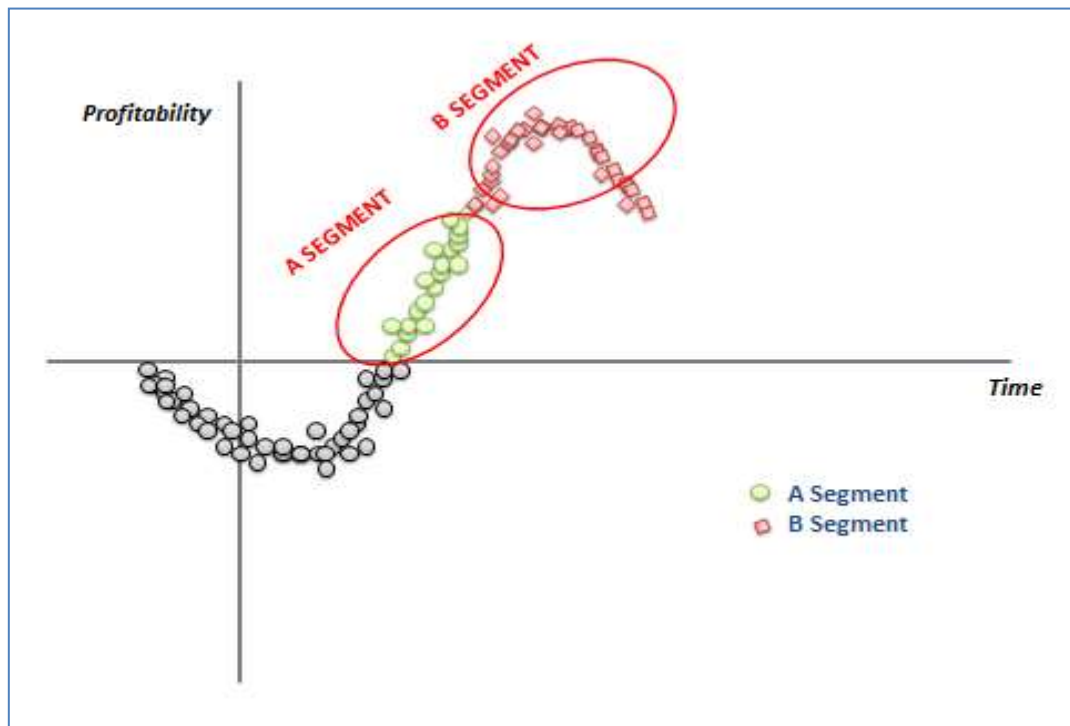


ILLUSTRATION 16.-TARGET SEGMENTATION

<sup>18</sup> Steve Blank definition

### A.2.3.- SPECIFIC NEEDS AND VALUE PROPOSITION

#### MANAGEMENT MATURENESS

After having had several workshops and meetings trying to find out which are the most relevant challenges of SMEs and Start\_Ups, **we have discovered that this is not a question of age, but of size, management & governance.**

We took Larry GREINER scheme (1972) that describes the most critical turning points on companies; he explained the evolution of the company by using two axis, **Size** and **Age** and combined it with the **management style**.

At the **start up phase** entrepreneur uses his/her own creativity and resources to start; then a **very small firm** with up to 6-7 employees is born, at this point, the Tribal Management style it's enough and they keep growing until the size of the company arrive to an autonomy crisis; Distribution of responsibility and a small management team led by the entrepreneur could guide the company to the following step, **up to 50**; then crisis of control requires to implement a management group and to share leadership.

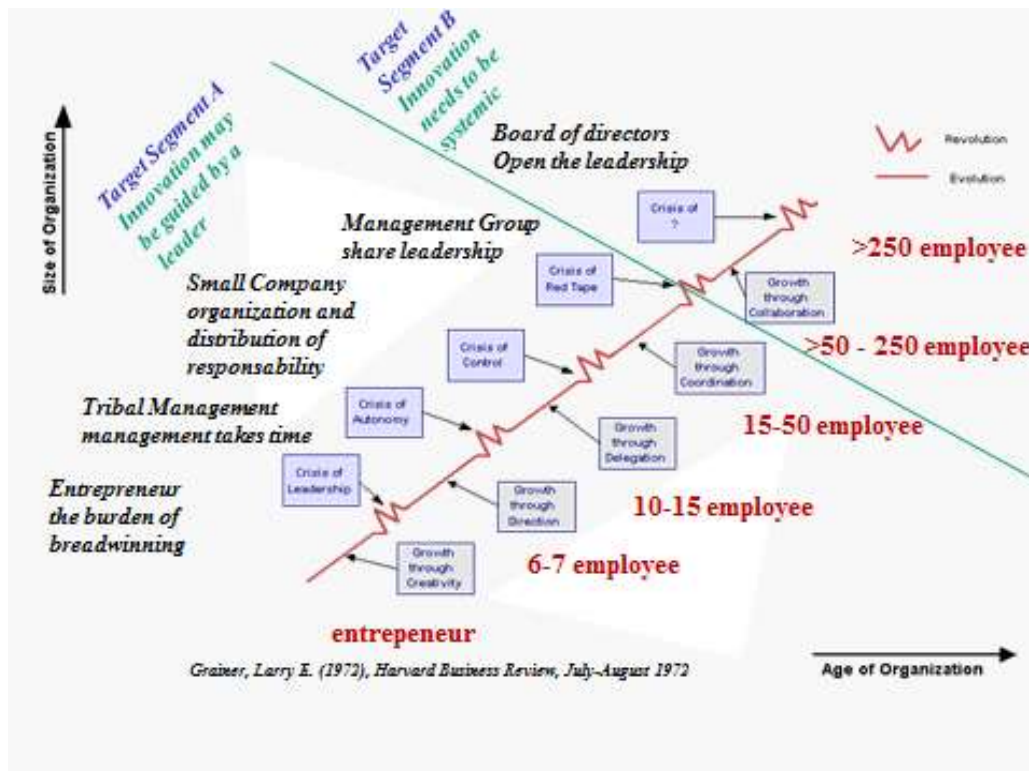


ILLUSTRATION 17.- LARRY GRAINER MODEL

## Do we have the leaders we need (top management and medium level)

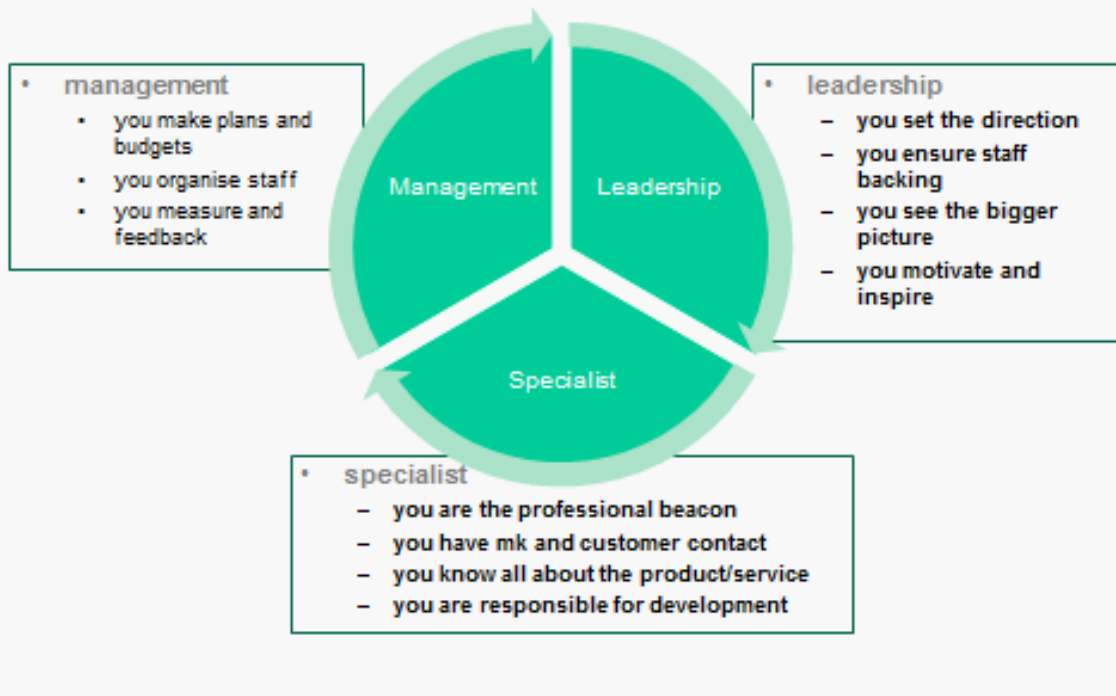


ILLUSTRATION 18.- MANAGEMENT STYLES

A more detailed analysis of the different **management styles** during the life cycle of companies, gave us some basic 'insights' to keep in mind in order to define the focus and the value proposition for each segment. It is quite common that at the very beginning (entrepreneurs and micro – start ups) the founder team have those three roles, **Specialist** (they are the ones with a better product, technology and market vision), **Management** (doesn't exist) and **Leadership** is very basic guiding a Tribe. Those companies are not ready to start to enhance their innovation management structure, because they need to solve other urgent areas.

**'A' companies**, start to have a distinction on those three roles, different specialist cover different areas of knowledge, market, technology, finance, product development,...'A' companies do have a **management** structure and they develop **leadership**. **Innovation management** should be structured and defined when the company has already a minimum management structure (A & B companies but not entrepreneurs or micro companies)

Companies grow and they need to evolve on the sophistication of their management and leadership. So it is very common that **'B' companies**, may need a **revision of the 'culture'**, also a new type of **shared leadership** and a **highly structured system to manage innovation**.

## VALUE PROPOSITION

Going deeper into this 'critical point' we have realised that there are slight differences on the characteristics and the needs of those groups of companies, that should be taken into account in the process of define the value proposition for each segment.

**'A scale up companies.** In most cases, present all or most of the following situations:

- they have had a successful innovation product and they have reached an initial market niche
- talent and people recruited belong to the entrepreneur environment, university colleagues, friends,...
- they have the possibility to grow in other market segments
- some of them have been able to raise funds from public instruments or even private, but very little have access the second round (which normally would require a new management structure)
- they may need to fine-tune their business model to be able to grow
- they need to change management style, up to now, the manager has been an 'specialist' person, and they have been learning during this small period about the other required skills, management and leadership

Most of the problems they have are related to management, leadership and finance, and not to the need to implement a systemic approach to innovation:

- They are actually trying to turn a single innovation project into a sound, profitable business.
- They do not have the urgent need to make innovation systemic, as they do have other prior areas of management to improve.

**Value proposition:**

- They need a 360° approach in the diagnostic and also Action Plans normally have a wide range of field: attracting appropriate growth capital, collaborating with established companies, building on leadership, new management structure required, market access ...

**'B' established companies in 'comfort zone' or declining – mature markets.** In most cases, present all or most of the following situations:

- they have a **sound business** structure and are well positioned in a market niche.
- they detect that others are doing better than themselves
- they have the feeling that they need to diversify and enter into new markets and/or they need to renovate their value proposition
- they need to structure an innovation system and also improve their culture to be able to generate or renovate business

### Value proposition:

- **Innovation Strategy.** Include innovation into their business strategy
- **Innovation culture.** Increase innovative and entrepreneurial culture
- **Systematic approach.** Define the innovation system, processes, governance, outputs.
- **Ecosystem.** Interact with the innovation neighbourhood, research centres, advanced providers, support institutions, public funds, grants...

The following chart tries to show how a systematic approach for innovation is required, either for B and A. A companies, with a proven value proposition, after the very initial steps, need to focus efforts to grow. B companies, need to make efforts to stretch their mature markets, but also to generate new products/services/value propositions that would become the future substitutes of actual markets. It is often desirable that companies generate a new supply that is phagocytic with their mature markets, to advance competitors.

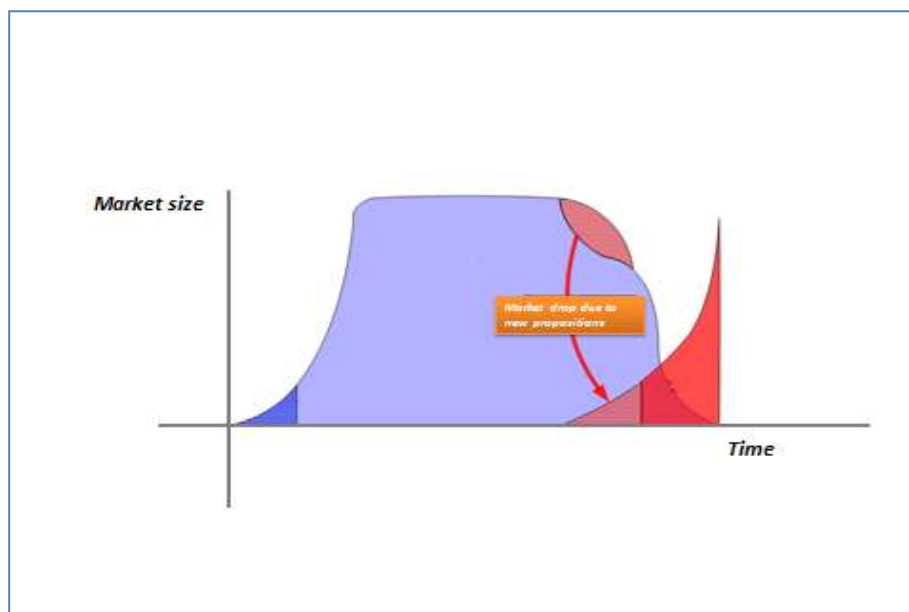


ILLUSTRATION 19.- MATURE & EMERGING MARKETS



## B.- OPERATION APPROACH

### B.1.- CUSTOMER JOURNEY

	A2	B
<ul style="list-style-type: none"> <li>Engaging</li> </ul>	<p>A companies are very closed and already linked to the innovation ecosystem. i.e. they may be fundraising,...</p>	<p>Not so usually linked. Not actual 'customers'.</p>
<ul style="list-style-type: none"> <li>Diagnosis</li> </ul>	<p>Diagnosis tool should cover 360°:</p> <ul style="list-style-type: none"> <li>Growthmapper, Growthwheel, Innov'Scan</li> </ul>	<p>Innovation system review:</p> <ul style="list-style-type: none"> <li>IMPROVE</li> <li>Growthmapper, Growthwheel, Innov'Scan</li> </ul>
<ul style="list-style-type: none"> <li>Action Plan</li> </ul>	<p>A companies, need to review all business areas, sales, marketing, distribution, production, providers, logistics, IT, financial, cash flow, human resources, and even their Business Model; their need is normally summarized as 'Growth' and 'Improving management to become a sound business'. The diagnosis, then needs to be able to go through all those areas, 360°.</p>	<p>Second group (B), are mature companies, normally with long experience, with a management team and fine-tune processes, but needing to introduce innovation as a discipline into their organization. Diagnosis, could be focused on Innovation Management Capacity and the pillars affecting to it.</p>
<ul style="list-style-type: none"> <li>Measuring Results</li> </ul>	<p>Same approach to A, B</p>	

TABLE 2.- CUSTOMER JOURNEY SUMMARY

### B.1.1.- ENGAGING

‘A’ target companies, are very close connected to the innovation ecosystem, they are linked to Incubators, accelerators, Science Parks, BICs, and so they are an easy segment to reach; we describe them as ‘connected to the ecosystem’.

ENGAGING			
		Start Ups - A	Traditional Companies - B
<b>Defining target companies</b>		Start Ups to Scale them Up	Sound business to help them innovate and grow
<b>Marketing</b>		Channels: <ul style="list-style-type: none"> <li>• Incubators accelerator, Science Park, BIC...</li> </ul> Type of actions: <ul style="list-style-type: none"> <li>• Events (not many)</li> <li>• Grants, Calls, Awards...</li> </ul>	Channels: <ul style="list-style-type: none"> <li>• Clusters, Tractor Companies, ...</li> </ul> Type of actions: <ul style="list-style-type: none"> <li>• Events (not many)</li> <li>• Cold calls</li> <li>• Telemarketing specialists getting 1<sup>st</sup> appointment with Right person</li> </ul>
<b>Engagement</b>		Mid term commitment <ul style="list-style-type: none"> <li>• Devoted time to follow up and keep confidence</li> <li>• Human engagement</li> </ul>	Customer-service provider relation

TABLE 3.- ENGAGING

The type of actions to get them involved in EIMC services may be: events, grants, calls, awards. We have detected events offering saturation and so, EIMC events, should be very narrow oriented to companies in A, and complemented with direct contacts through the intermediary institutions in the ecosystem that is closest to the company.

Partners experience recommend to consider the ratio among cost to organise event vs results. Depending on the capacity to attract target companies in the region, this type of action may help to detect potential future beneficiaries, but most times, companies are saturated of multiple events.

Direct contact, requires telemarketing actions and here the challenge is to get the right person; it may help peer prescription.

‘B’ companies, mature ones with the potential need to innovate, are not that easy to reach. Normally, they are not ‘users’ of grants, calls... and so it is necessary to have a different set to actions to get them involved. Sometimes, cluster organizations if they are relevant, may help to co-organise specific events or at least to be prescribed by them and so not to use ‘cold calls’. Some

partner have had very good experience, using specialized telemarketing companies that will get 'first appointments' with the right person to present the EIMC programme.

The type of engagement depends mainly on the host organization strategy; the ideal situation is to get a mid term commitment, as getting the trustee of the company takes time and impact coming from innovation will also delay on time; the problem here is that in most cases EIMC service is being financed by a programme that covers a limited time and so there are no human resources for this long term commitment and follow – up.

In some cases, the engagement is established as a customer-provider relation, but then, you can not easily evaluate the mid term impact.

### B.1.2.- DIAGNOSIS

The process of defining the diagnosis may combine different elements and methodology.

In some cases, there is a 'standard' tool that allows to easily collect information from several people at the company. Some tools are designed to collect information from most people at the organization, others are more focused on the management team. There are tools that do have a very wide approach, and so they allow to make a 360º analysis of the company, while others are more focused on the Innovation Management Capacity.

DIAGNOSIS & ACTION PLAN		
	Start Ups - A	Traditional Companies - B
<b>Approach</b>	Senior expert from host org. + Top management <ul style="list-style-type: none"> <li>• 360º Business Review:               <ul style="list-style-type: none"> <li>• Sales, Marketing, Distribution</li> <li>• Production, providers &amp; logistics</li> <li>• IT</li> <li>• Financials, Cash Flow</li> <li>• Human Resources &amp; leadership</li> <li>• Business Model</li> </ul> </li> </ul>	Senior expert from host organization - Innovation Manager <ul style="list-style-type: none"> <li>• Innovation review               <ul style="list-style-type: none"> <li>• Innovation strategy</li> <li>• Culture &amp; organization</li> <li>• Innovation cycle...</li> </ul> </li> </ul>
<b>Tool</b>	Easy to use <ul style="list-style-type: none"> <li>• door opener</li> <li>• allow 360º</li> <li>• not too much time consuming</li> </ul>	Benchmark relevant <b>ALERT</b> <ul style="list-style-type: none"> <li>• Benchmarking useful for policy making but it should not interfere when adding value to company.</li> <li>• Effort vs Added Value should be clear for the company (best value for time in the company)</li> </ul>

TABLE 4.- DIAGNOSIS

There are no 'automatic' tools that could generate individual recommendations or able to build an action plan. The expert assessment is key and mandatory.

From the ground experience, we have realized that there is a difference on the needs from Young Innovative Companies (A target) compared to Mature Established Companies (B target);

First ones (A) need to review all business areas, sales, marketing, distribution, production, providers, logistics, IT, financial, cash flow, human resources, and even their Business Model; their need is normally summarized as 'Growth' and 'Improving management to become a sound business'. The diagnosis, then needs to be able to go through all those areas, 360°.

Second group (B), are mature companies, normally with long experience, with a management team and fine-tune processes, but needing to introduce innovation as a discipline into their organization.

Diagnosis in B target could either be focused on Innovation Management Capacity and the pillars affecting to it or 360°.

### **B.1.3.- ACTION PLAN**

The Action Plan is highly connected to the type of diagnosis that has been applied. It is a task that needs to be done by the same expert people that have had the opportunity to deeply analyse the company, its present situation and the envisaged future.

It is highly recommended to review and agree which are the priority actions to be implemented by the management level of the company.

Usually there are two dimensions of actions:

- Some of them are directed to **enhance innovation capacity** of the company, solving gaps, overcoming barriers,
- Others with the intention to **implement innovative projects** (in any part of the value chain)

The process to generate an Action Plan is the same, but it is relevant to consider the following issues:

- **A companies**
  - It is mandatory to have the top management involved during the process, in the diagnosis, and specially also in the definition of the Action Plan, as it normally will affect to many areas of the organization. 'A' companies may need to improve to EIMC, but also in other areas of management like leadership, financing, marketing, production, internationalization and even business model.
  - In most cases, 'A' companies lack of a concrete and defined Strategic Plan that could inspire innovation efforts. It is also frequent that 'A' companies, they do have an initial 'powerfull innovation project, product-service' and their major need is to go wider on the market and not to remain in the very initial niche they have started. So the need is much oriented to market profitable growth and internationalization.
- **B companies**
  - This type of companies, with a proven sound business and a developed management structure, many cases are facing the challenge to include innovation as a new discipline in their organization. Usually they have had innovation projects and somehow they have experience on how to manage innovation. Missing points are normally in the following areas:
    - Governance and systematic management of the innovation process
    - Culture of innovation and intrapreneurship
    - Leadership
    - Strategic Management to focus and inspire innovation effort

- Top management should be involved in the diagnosis, but during the definition of the Action Plan, other managers from different areas, Innovation, Marketing, Human Resources, Process, ... could be involved.

There are different ways to define an Action Plan, obviously depending on the ‘Diagnosis tool and methodology’ that had been used.

Please note that there is an intimate relation between Diagnosis – Action Plan, but always the process to follow has the same steps:

- 1<sup>st</sup> step : **evaluate** the actual situation on relevant topics (Strategy, Leadership, Knowledge Management,...). Each topic, contains several items to review. The process will help to detect which are the key weakness to solve
- 2<sup>nd</sup> step: **prioritize** with issues should be solved first
- 3<sup>rd</sup> step: define an **action plan** with actions at short, medium and long term, defining also which are the achievement & indicators to get

Action plan may be presented as a ‘road map’, to order the efforts of the company to go one step further on their innovation capacity. It defines short and medium term actions to be done, establish milestones and detect where ‘special’ expertise or external resources could be needed.

It is a tool to help companies to ‘use’ and interact with the innovation ecosystem, and so, it is important that the expert providing it, would have a deep knowledge of who could help the company to do what.

Mentoring role is highly recommended to be done by the expert that helped the company to define the action plan, so there is a neutral external revision of the progress that the company does itself or even with the support of other experts or innovation services providers.

Without the intention to make an exhaustive list, but to provide a clear idea of which are the most demanded and provided types of services in Action Plans, hereafter we have built a reference table.

TOPIC	ITEM	Strength/Improve	When	Who	Milestone
<b>Strategy</b>	Business Strategy Innovation Strategy				
<b>Market</b>	Access to international markets Digital marketing				
<b>Organization</b>	Innovation Governance Embedding entrepreneurship				
<b>Processes</b>	Process improvement Funnel				
<b>People</b>	Enhancing Innovation Culture				

TOPIC	ITEM	Strength/Improve	When	Who	Milestone
	Skilled people				
<b>Management</b>	Leadership Lean management Team management IMS Innovation management system				
<b>Finance</b>	Investment readiness Fundraising Access to private investment				
<b>Knowledge &amp; Business Intelligence</b>	Prospective & Trends Protect & exchange Knowledge - IPR Big data Innovation KPI Value mapping				
<b>Ecosystem</b>	External collaboration Alliances Access to knowledge and talent				

TABLE 5.- ACTION PLAN – MOST DEMANDED SERVICES



ILLUSTRATION 20.- EIMC SERVICE STEPS

TOPIC	ITEM	COMMENTS
<b>Strategy</b>	Strategic Plan Innovation Strategy Plan	Companies usually do not have a Strategic Plan that inspires innovation effort. Normally if the Strategic Plan exists, it has been defined to achieve all objectives and goals, it has been developed on the ‘actual’ business and it keeps the company in its ‘comfort zone’. In many cases, companies need to ‘stress’ and to define more challenging objectives to promote innovation. You can get that, but reviewing the Strategic Plan and to push company to a new desired future. This new style of Strategic Planning needs to manage ambiguity, unknown unknowns, and so to ‘explore’, ‘learn’ and build new opportunities, this is being called ‘emerging strategies’



		There is another common way to manage and focus innovation effort, by setting 'strategic innovation axis', which are the 'challenges' that the company is willing to explore, this is the Innovation Strategy Plan.
<b>Market</b>	Access to international markets Digital marketing Design Trademark	One of the main challenges for our SMEs is to have the capacity to grow. Access to markets is still a common barrier to overcome. Globalisation in practical terms has not been as it looked at the very beginning, and today we have clear evidences that making business abroad is difficult, the world is 'not so flat', on top of that, countries are protecting their business. Access to international markets, Europe and the rest of the world is key to collect value from innovation efforts, but it needs to be strategically analysed and structured. Digital tools and marketing may lower down costs to access markets.
<b>Organization</b>	Innovation Governance Embedding entrepreneurship	SMEs have weaknesses in their governance model, how they do take decisions. In innovation it happens quite often and so it is important to separate the daily urgent decisions from the important bets on innovation projects. It is very common as well to see small firms that are not able to 'transform' into reality all their innovation projects, so it is crucial to implement intrapreneurship capacities, embedded into the organization.
<b>Processes</b>	Process improvement Design Funnel	Companies rarely have clear defined processes to manage innovation. This is about managing ideas, maturing them, defining experiments, learning, sharing, experiment with customers... As a first step, companies normally implement a Funnel or Stage & Gate process to manage innovation, but it is important to underline that the funnel can kill the most breakthrough ideas.
<b>People</b>	Enhancing Innovation Culture	Innovation is not only about Strategic Challenges, ideas and funnel; persons are a key element as the only ones with the capacity to generate ideas and to bring them to reality are humans. So companies need to develop a complete plan to Enhance Innovation Culture, and so to generalize some principles, values and practices much more oriented towards innovation & entrepreneurship. Some diagnosis tools allow to measure skills and competences in the people at the organization, so Human Resources Department can generate a plan to improve them.
<b>Management</b>	Leadership Lean management Team management IMS Innovation management system	Companies in the process to grow, they are frequently challenged to evolve and to improve their management style. Top managers need to learn to delegate and empower people, medium management need also to change their leadership to motivate people, team management are one of the most demanded skills. Innovation system, do require new lean management techniques. If the company do not improve how it manages the

		<p>people, innovation will not germinate or grow.</p> <p>This new style of management is key to enhance an innovation culture in the organization, as the way we direct and reward people, establish the principles, values and practices.</p>
<b>Finance</b>	<p>Investment readiness</p> <p>Fundraising</p> <p>Access to private investment</p> <p>Customers financing</p>	<p>Financing innovation is very difficult specially for SMEs. In many cases, it is important to help companies to prepare their project or even the company to be able to get investment. It is also very common the need for help to access public funds at national or European level, as money exists but the process to access is quite complex, programmes, forms, consortia,...</p> <p>Private investment has their own channels and characteristics, companies may need expert assessment.</p> <p>Best finance is the one coming from customers, so companies have to explore how to use this also on their growth and innovation strategy.</p>
<b>Intelligence</b>	<p>Strategic Thinking</p> <p>Protect &amp; exchange Knowledge - IPR</p> <p>Business Intelligence</p> <p>Innovation KPI</p> <p>Value mapping</p>	<p>Companies need to manage knowledge, either if it is internal or external. Surveillance, foresight on tech, market and global trends is relevant, but the organization need to transform that general information into knowledge to nourish intelligence and so to come up with better decisions, Strategic Thinking is the ability to develop.</p> <p>Knowledge in any format needs to be exchanged, IPR, contracts, talks, agreements, and most of the times, SMEs have not have internal experts on that.</p> <p>Another dimension that needs to be improved is how to measure impact and value generation coming from the innovation efforts, so to have indicators to evaluate.</p>
<b>Ecosystem</b>	<p>External collaboration</p> <p>Alliances</p> <p>Access to knowledge and talent</p>	<p>Innovation doesn't occur internally in a isolated organization, each time innovation happens due to the creative combination of 'partial' inputs coming from several organizations that do interact in a ecosystem. In this innovation neighbourhood is important to know how to cooperate with externals and which are the best partners to go further and establish long term alliances.</p> <p>Talent and knowledge can be borrowed in many formats, sometimes start-ups bring new ideas-solution to firms, others skilled people from another sector comes with 'new way of seeing' that may provide a different perspective, young graduates or even teachers/researchers from universities (mobility programmes),... company needs to learn how to take advantage from the ecosystem.</p>

TABLE 6.- COMMENTS ON MOST DEMANDED SERVICES

### B.1.4.- ACTION PLAN

The implementation of the Action Plan, presents different scenarios, depending on the nature of the institution providing EIMC services.

Most Regional Development Agencies and other intermediary organizations providing general support services to companies, do not implement directly the support services described in the action plan. Other specialised innovation support institutions may have the experts and means to direct provide those services.

Peer4innomange partners consider that Diagnosis and definition of the action plan should be provided by **senior experts**; the tools and methodologies help to have a systematic approach to this service, but as a ‘family doctor’ (GP), the expert in direct contact with the company needs to have many years of experience and a good knowledge of the ecosystem. If the institution doesn’t have these profile of expert people with ground experience with companies, they should be borrowed and a small but very specialised team created.

ACTION PLAN & DELIVERY	
Support service implementation	HOW TO DELIVER
	<ul style="list-style-type: none"> <li>• DIRECT               <ul style="list-style-type: none"> <li>• Internal Staff</li> <li>• <i>Value proposition</i>= Internal expertise for advanced services.</li> </ul> </li> <li>• INTERMEDIARIES               <ul style="list-style-type: none"> <li>• Innovation vouchers</li> <li>• Certified / labeled: Experts, coaches, mentors...</li> <li>• Organizing workshops with experts.</li> <li>• B2B meeting among companies &amp; experts</li> <li>• <i>Value proposition</i>= Selection of the best expertise attending to predefined parameters.</li> </ul> </li> <li>• SIGN POSTING               <ul style="list-style-type: none"> <li>• Mapping the “Lasagna”                   <ul style="list-style-type: none"> <li>• Technology transfer</li> <li>• Investors</li> <li>• Sectorial experts</li> <li>• Market channels,...</li> </ul> </li> <li>• <i>Value proposition</i>= knowledge on the regional ecosystem</li> </ul> </li> <li>• <b>Monitoring – follow up</b></li> </ul>

TABLE 7.- HOW TO DELIVER

The use of **Intermediaries**, is quite often, and it allows to create a pool of experts on the most relevant needs of the companies. Different mechanisms could be implemented in order to

guarantee the quality of the service provider and also so be able to fulfill all the needs and gaps of the companies. Some RDA have implemented innovation vouchers, other certified or labelled experts, coaches, mentors. Others generate market places, B2B meetings, brokerage or workshop to help companies to find the right specialised service provider.

It is quite often to use ‘**signposting**’ to other expert entities in the Ecosystem, like Technology Centres, Tech Transfer, Investors, Clusters, Mk,...

In any case, ‘**Monitoring**’ and ‘**Follow – up**’ should be done by the expert that made the initial diagnosis and action plan.

In most cases, the institution providing EIMC services need to prescribe or involve other experts and organization in the implementation of the action plan. EIMC is being supported by public funds, and so there are two basic principles to ensure:

- Transparency and equal opportunities for service providers to participate
- Quality assurance. It is important to collect company feedback, but also experts feedback, so to get both perspective.

ACTION PLAN & DELIVERY	
Support service implementation	HOW TO DELIVER
	<ul style="list-style-type: none"> <li>• <b>DIRECT</b> <ul style="list-style-type: none"> <li>• Internal Staff</li> <li>• <i>Value proposition</i>= Internal expertise for advanced services.</li> </ul> </li> <li>• <b>INTERMEDIARIES</b> <ul style="list-style-type: none"> <li>• Innovation vouchers</li> <li>• Certified / labeled: Experts, coaches, mentors...</li> <li>• Organizing workshops with experts.</li> <li>• B2B meeting among companies &amp; experts</li> <li>• <i>Value proposition</i>= Selection of the best expertise attending to predefined parameters.</li> </ul> </li> <li>• <b>SIGN POSTING</b> <ul style="list-style-type: none"> <li>• Mapping the “Lasagna”                             <ul style="list-style-type: none"> <li>• Technology transfer</li> <li>• Investors</li> <li>• Sectorial experts</li> <li>• Market channels,...</li> </ul> </li> <li>• <i>Value proposition</i>= knowledge on the regional ecosystem</li> </ul> </li> <li>• <b>Monitoring – follow up</b></li> </ul>

TABLE 8.- HOW TO ENGAGE

Quite often, someone could think to combine this EIMC service with other grants or financing instruments to help companies to implement what it is defined in the action plan or roadmap for EIMC.

Obviously, this could be a plus, but our recommendation would be to keep those separated, to avoid the transformation of this advanced added value services to SME, into a call where to apply for funds.

## **B.2.- MEASURING RESULTS**

### *B.2.1.- Macro level – performance indicators*

Any public policy instrument should demonstrate effectiveness. As innovation is not the final purpose but a mean to reach some other general development goals like growth, employment, competitiveness... we need to be able to establish a relation between the effect of innovation in the companies that have been supported with these type of policies.

We have found a very interesting model to measure impact in Denmark. At national level, a new programme was created to increase growth on existing companies, Vaeksthus<sup>19</sup>. The programme has created 5 regional centres to provide support to both start-ups and business with ambitions towards growth and reaching a new heights of success. Those centres provide a full set of support services to accelerate companies growth.

The way to demonstrate results is by comparing growth indicators (like turnover, profitability, employment, exports,...) between the companies that have received support services from Vaeksthus and the average of a sample of similar companies (same profile, sector, size,...).

In order to implement such system, the national stats institution provides the 'control group' to be able to make the comparative analysis.

'Control group' is composed by closely resembling companies but not receiving the support.

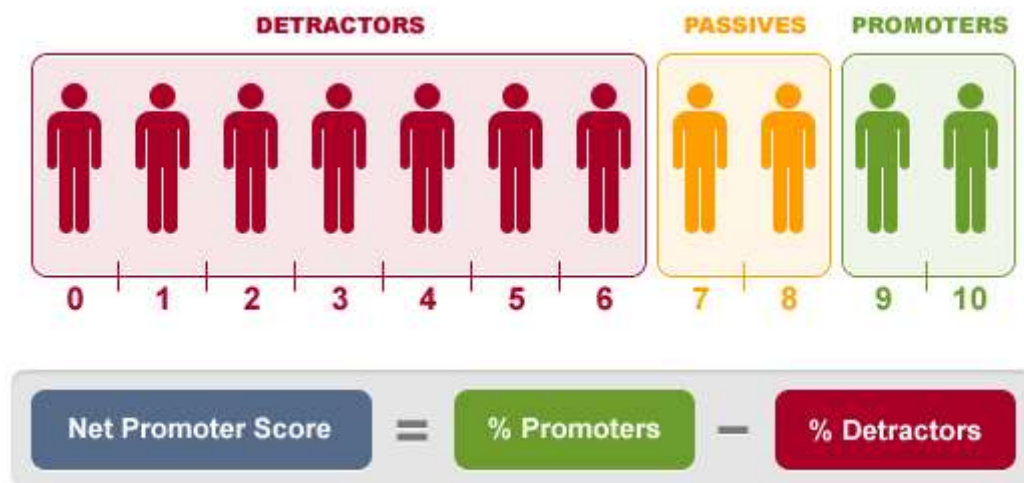
Any public policy instrument should demonstrate effectiveness. As innovation is not the final purpose but a mean to reach some other general development goals like growth, employment, competitiveness... we need to be able to establish a relation between the effect of innovation in the companies that have been supported with these type of policies and the 'Control group'.

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<sup>19</sup> <http://startvaekst.dk/vhhr.dk/english-vhhr>

### B.2.2.- Micro level – efficiency of EIMC service

After having reviewed many different combinations of indicators trying to measure the quality of the service provided, and also trying to suggest a simple but powerful method, we wish to highlight the relevance of indicators based on the concept of 'net\_promoters\_score'.



EIMC is a consultancy service, and so using final customer satisfaction as a tool to measure the quality and efficiency of the service provider is a very good approach. On top of that, it has an added value, as it will reinforce the role of 'promoter' that satisfied companies may provide, by bringing other colleagues to the service (cooptation), and that is one of the most effective engagement strategies to follow.

It is time for you to improve innovation capacity in local companies, and so to increase Europe opportunities for future.

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**Peer4InnoManage partner sites:**

- IVACE: [www.ivace.es](http://www.ivace.es), [www.seimed.eu](http://www.seimed.eu)
- CCI BOURGOGNE: [www.bourgogne.cci.fr](http://www.bourgogne.cci.fr)
- OXFORD INNOVATION: [www.oxin.co.uk](http://www.oxin.co.uk)
- VAEKSTHUS: [www.vhhr.dk](http://www.vhhr.dk)

## APPENDIX – VAEKSTHUS PERFORMANCE INDICATORS EXEMPLE

The five Vaeksthus organisations (Business Development Centers) in Denmark operate according to a contract between the municipalities and the Vaeksthus in each of the five Danish regions. This contract is based on a national agreement between the Danish Business Authorities and the Association of Municipalities.

These contracts specify the level of activity as well as the quality and the impact of these activities for each Vaeksthus.

Performance targets and measurements of results for 2016

1.	Overall	Target
Target	The Vaeksthus organisations shall generate an added value of at least 3 times the public investment in the organisations.	
Measurement	For every Danish Krone, DKK, a return of at least 3 DKK is expected. The Danish Business Authority measure this by Dec. 31. 2016 based on data in the central CRM system, the central user evaluation system and data from the Danish Statistical Bureau.	

2.	Activity target
Target	The Vaeksthus organisations shall render advice and motivate 4.000 companies to grow.  With 2.000 of these companies the Vaeksthus shall establish a growth map and sign up the company for evaluation. The other 2.000 companies participate in workshops, conferences and informational meetings.
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on data in the central CRM system.

3.	Activity	target
Target	Each Vaeksthus must refer at least 80% of the companies provided with a growth map to relevant private or public services. At least 70% of the must be to private organisations.	

Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on registrations in the central CRM system of companies, growth plans and referrals.
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<b>4.</b>	<b>Quality</b> <span style="float: right;"><b>target</b></span>
Target	At least 70 % of the companies having received a growth mapping evaluate that interaction with Vaeksthus, has had a medium or high impact on their development
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on questionnaires send out to all "Growth Mapping" companies from the central user evaluation system during 2016

<b>5.</b>	<b>Quality</b> <span style="float: right;"><b>target</b> – <b>net promoter score</b></span>
Target	A net promoter score of at least 60 shall be obtained among companies having received a Growth Map and the evaluation questionnaire.
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on questionnaires send out to all "Growth Mapping" companies from the central user evaluation system during 2016. Each recipient will be asked how likely it is – on scale 0-10 – that they will recommend Vaeksthus to other company owners. The net promoter score is calculated by deducting the number of companies scoring 0-6 (demoters) from the number scoring 9-10 (promoters).

<b>6.</b>	<b>Impact</b> <span style="float: right;"><b>target</b> – <b>employment</b></span>
Target	Companies that have received a Growth Map and the evaluation questionnaire, shall increase the number of employees by 10 % more than measured at a control group of comparable companies compared over a two year period from 2014-2016
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on data calculated by the Danish Statistical Bureau.

<b>7.</b>	<b>Impact</b> <span style="float: right;"><b>target</b> – <b>turn over</b></span>
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Target	Companies that have received a Growth Map and the evaluation questionnaire, shall increase their turnover by at least 15 % more than measured at a control group of comparable companies compared over a two year period from 2014-2016
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on data calculated by the Danish Statistical Bureau.

8.	Impact target - Export
Target	Companies that have received a Growth Map and the evaluation questionnaire, shall increase their export by 10 % more than measured at a control group of comparable companies compared over a two year period from 2014-2016
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on data calculated by the Danish Statistical Bureau.

9.	Impact target – number of growth companies
Target	The number of growth companies using Vaeksthus services is increased by 15 %
Measurement	The target is measured by the Danish Business Authority by Dec. 31. 2016 based on the number of growth companies which has used Vaeksthus services during a period of 5 years 2012-2016. Growth companies are businesses that in a 4 year period from 2013-2016 have experienced a growth of at least 20% in two consecutive years and have at least 10 employees.

TABLE 9.- EXAMPLE OF IMPACT INDICATORS

In each of the Vaeksthus organisations bonuses are linked to performance by teams and individual employees to support the effort to achieve the performance targets.

## APPENDIX – CALCULATION OF SOCIO-ECONOMIC YIELD OF INVESTMENTS IN “VÆKSTHUSET”

### INTRODUCTION

This fact-sheet describes methods, deductions and basis for calculation of the socio- economic yield in investments in Væksthuset cf. ”Evaluering af Væksthusene, IRIS Group, April 2013 (kapitel 7).

This calculation of the socio-economic yield consists of a total of four steps:

- Step 1: Quantitative effect evaluation - Væksthuset’s effect on user-companies’ turn-over.
- Step 2: Calculation of direct economic effects for Væksthuset users for per user-year.
- Step 3: Calculation of over-all effects incl. induced reduction and multiplying effects.
- Step 4: Socio-economic yield - investments set against achieved effects.

This fact-sheet will proceed through the calculations step by step. The ambition is to offer Væksthuset’s managements and analysts as well as other interested parties an insight into the applied method and thereby a more solid ground for interpreting the results of the socio-economic yield of investments in Væksthuset.

### QUANTITATIVE EFFECT EVALUATION - VÆKSTHUSET’S EFFECT ON USERS’ TURN-OVER.

The first step is intended to show whether Væksthuset has a positive effect on growth of turn-over for user-companies

- **Calculations basis:** The starting point for measuring the effect is to take into account all companies having used Væksthuset in the period from 1st semester 2008 through 1st semester 2011<sup>20</sup>
- **Control group design:** For each user-year a control group is designed of companies similar to user-companies concerning key parameters such as size, branch, geographical situation, ownership, and track record of growth (going back 3 semesters before becoming a Væksthuset user).

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<sup>20</sup> Some user companies are not found in listings from Danmarks Statistik. Among the companies that used Væksthuset in the period 2008 - 1st semester of 2011 only about 3000 companies could be found in the listings of Danmarks Statistik. These 3000 companies form the basis for measuring the effects

- **Growth of turn-over:** Growth of turn-over is calculated each semester for respectively the group of users and their corresponding control groups. This is done every six months for four semesters' usage of Væksthuset
- **Increase in growth:** Increase in growth among users is obtained by subtracting the half-yearly rate of growth by semester of the control group from the half-yearly rate of growth of the user group. This is done every six months concerning all user-years and their corresponding control group.
- **Weighted average:** Using the results concerning increase in growth for each user-year the average increase in growth of each of the four semesters after usage of Væksthuset is calculated. The increase in growth is calculated as a weighted average where each user-year counts with a weight corresponding to the user-year's share of the total number of users for the period 2008-2011, (see box 7.1 for number of companies in each user-year).

Table below indicates the cumulated increase in growth among user-companies covering a period of four semesters following the date of becoming a user of Væksthuset.

	1st	2nd	3rd	4th
Cumulated increase in growth	4%	6%	7%	11%

TABLE 10.- CUMULATED INCREASE IN GROWTH (OF TURN-OVER) AMONG USERS OF VÆKSTHUSET, SOURCE: DANMARKS STATISTIK AND OWN CALCULATIONS. CALCULATIONS COMPRISE USERS OF VÆKSTHUSET IN PERIOD 2008-2011 (1ST SEMESTER)

## CALCULATION OF DIRECT ECONOMIC EFFECTS

The following step in the calculations concerns estimation of the achieved increase in growth for a full user-year of a total of 2650 Væksthuset users.

To begin with the estimate of the annual turn-over of an average user-company is calculated. We start out with all the companies that are included in the measuring of the effect and find that companies that use Væksthuset have an average annual turn-over of 9,4 M Danish Kr

We assume that Væksthuset every year offer unbiased sparring and guidance to 2650 companies. This number corresponds to the target for results in Væksthuset 's 2012 contract for results. Considering this the total turn-over of a user-year of Væksthuset users is calculated as follows:  
 2650 users x 9,4 M kr. = 24 788 M kr. in turn-over of a user-year of Væksthuset users.

Table 10 shows that the average cumulated increase in growth in year 1 is  $(4\% + 6\%)/2 = 5\%$  and in year 2 is  $(7\% + 11\%)/2 = 9\%$ . Hereby the total increase in growth for one year of users of Væksthuset in respectively year 1 & 2 can be calculated. Cf. top row of table below.

	Year 1	Year 2	Total
Increase in growth of turn-over	1239 M kr.	2231 M kr.	3470 M kr.
Corrected for selections bias (50%)	620 M kr.	1116 M kr.	1736 M kr.

TABLE 11.- ESTIMATION OF VÆKSTHUSET'S EFFECT ON TURN-OVER AMONG A USER-YEAR OF VÆKSTHUSET USERS

We presume that this increase in growth cannot in total be attributed to the use of Væksthuset. The reason for this is that Væksthuset's proposition are aimed at companies with growth potential and ambitions to generate growth. Even though considerable efforts have been taken when designing control groups to be very much like users of Væksthuset concerning quantitative measuring of effects. But even so it has only been possible to make corrections for observable historic conditions.

A higher proportion of companies with growth potential and ambitions for growth is to be expected in the group of Væksthuset users compared to the control group. (In statistical terms this is called selection bias). Thus the quantitative estimation of effect will tend to over evaluate the isolated effect of Væksthuset's activities.

Our analysis of the selection bias-problematics shows that between 42% and 58% of the total increase in growth can be attributed to the intervention of Væksthuset. That is to say that in average 50% of increase in growth can be attributed to Væksthuset. The lower row of table 11 shows the effect of Væksthuset for user-companies concerning their turn- over, after correction for selection bias.

#### **Basis for calculation concerning selection bias:**

To judge the extent of selection bias we have confronted the outcome from questionnaires of our survey with the quantitative effect measuring. At first we divided the users of Væksthuset into three groups according to their replies in the questionnaires.

- Group 1 (no additionality) are companies that indicate that use of Væksthuset has no effect upon the development of the company.
- Group 2 (moderate additionality) are companies that indicate that use of Væksthuset has some or much effect upon the development of the company but only experience to a certain extent that usage of Væksthuset lead to new acknowledgements and increased ambition.
- Group 3 (high additionality) are companies that indicate that use of Væksthuset has some or much effect upon the development of the company and at the same time experienced that usage of Væksthuset lead to new acknowledgements and increased ambition, etc.

These three groups are approximately of the same size and in our calculation we have adopted the assumption that they each constitute one third of the user group.

Subsequently we did a quantitative estimation of effect for each of these three user groups. At first matching control groups were created and then the increase in growth over six months was set against the control groups calculated as described in section above.

The quantitative analysis shows that all three user groups get the same increase in growth over a period of three semesters.<sup>4</sup> At this point we have made the following assumptions - concerning Væksthuset's share in the increase of growth:

- Væksthuset contribute with 75 to 100 percent of increase in growth in the group with high additionality (group 3)
- Væksthuset contribute with 50 to 75 percent of increase in growth in the group with moderate additionality (group 2)
- Væksthuset contribute with 0 percent of increase in growth in the group with low additionality (group 1)

As each of these user groups covers a third of all the assisted companies, an upper and lower limit for the contribution of Væksthuset in the achieved increase of growth for an average Væksthuset user-period can be calculated:

- Low estimate:  $(75\% + 50\% + 0\%)/3 = 42\%$  percent
- High estimate:  $(100\% + 75\% + 0\%)/3 = 58\%$  percent

This means that Væksthuset in an average Væksthuset user-period contribute  $(42\% + 52\%)/2 = 50\%$  of the total achieved increase in growth

## CALCULATION OF TOTAL EFFECTS – INCLUDING INDUCED REDUCTION AND MULTIPLICATION EFFECTS

To calculate the total increase in growth generated by Væksthuset the turn-over figures must be converted to added value.

Seen against a background of informations about the branch classification of Væksthuset users we have calculated a conversion factor for the average Væksthuset user corresponding to an increase in added value of 36 percent of the total increase in turn- over <sup>5</sup>. The result of this conversion from turn-over to added value is seen below in the top row of table below.

	Year 1	Year 2	Total
Added value (36% of turn-over)	223 M kr.	402 M kr.	625 M kr.
Induced reduction (30%)	- 67 M kr.	- 120 M kr.	- 187 M kr.
Net increase in added value	156 M kr.	281 M kr.	437 M kr.



Multiplication effect (50%)	78 M kr.	141 M kr.	219 M kr.
Total generation of value	234 M kr.	422 M kr.	656 M kr.

TABLE 12.- ESTIMATION OF SOCIO-ECONOMIC CREATION OF VALUE BY VÆKSTHUSET OVER A TWO YEAR PERIOD

A part of the achieved increase in added value is obtained against a reduction of production in other companies. That is to say that a certain induced reduction of economic activities in other parts of the economy occurs. We estimate that this induced reduction effect to be 30 percent 6. The middle row of the table shows the net increase in added value corrected for induced reduction.

The increase in added value obtained by user companies has a string of induced positive multiplication effects upon the rest of the economy. We assume a multiplication factor of 50 percent 7. The bottom row of table 12 shows the total generation of value after taking into consideration both induced reduction and multiplication effects.

It thus becomes apparent that Væksthuset contributes with an increase in added value of 656 M kr. over a two-year period for an average user-year.

### **SOCIO-ECONOMIC YIELD – INVESTMENTS SEEN AGAINST ACHIEVED EFFECTS**

To evaluate whether a 656 M kr.yield over a two year period is acceptable, the yield should be set against the initial investment.

The total budget for Væksthuset is 327 M kr. annually. Of these 250 M kr. are estimated to be spent on initiatives focusing on increased growth for user companies. Taking this into consideration it becomes possible to calculate an estimate of the total socio- economic yield of investments in Væksthuset as:  $656 \text{ M kr.} / 250 \text{ M kr.} = 2.6$ . This expresses that 1 kr. invested in Væksthuset over a two year period generates 2.60 kr. socio-economic value.

### **CONVERSION FROM GENERATION OF VALUE TO FULL-TIME JOBS**

The total generation of value to which Væksthuset contributes can also be measured in full-time equivalent jobs. This is done by calculating an estimate for increase in added value per full-time equivalent job for an average Væksthuset user.

Seen on the background of accountancy statistics from Danmarks Statistik and informations about Væksthuset users branch classification follows an estimate of 640,000 full-time equivalent jobs.

By dividing the increase in added value generated by Væksthuset by the estimate for increase in added value per full-time equivalent job one obtains an estimate of the number of full-time jobs that the activities of Væksthuset contributes to generate.

A two year period generates 659 full-time equivalent jobs (FTE). This figure is arrived at in this way:  
 $(422 \text{ M kr.} / 0,64 \text{ M kr. per FTE}) = 659 \text{ FTE}$ .

If 659 FTE are set against 250 M kr. invested in Væksthuset it corresponds to an investment of approximately 380,000 kr. per full-time equivalent job.

## CLASSIFICATION IN THREE GROUPS OF VÆKSTHuset USERS HAVING RESPECTIVELY LOW, MODERATE AND HIGH ADDITIONALITY.

Væksthuset users were classified in three groups according to the importance of their Væksthuset period for growth and development of their companies. The classification in three groups is made according to users' replies to question 9 in the evaluation questionnaire below.

### 9 To which degree has the usage-period of Væksthuset influenced the development of your company?

Fields that do not apply should be ticked "nil"

	high	some	low	nil	unknown
User-period has contributed to uncover <u>unacknowledged</u> challenges, possibilities or needs of company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User-period has contributed to <u>strengthen and improve the overall strategy of company</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User-period has contributed to <u>increase long-term growth-ambitions of company</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User-period has contributed to <u>strengthen business concept</u> (product, business model, market position etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User-period has contributed to <u>strengthen client relations, sale and/or marketing</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period has contributed to <u>strengthen/professionalize company organization</u> (comprising managing structure, business procedures, recruiting etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User-period has contributed to <u>strengthen the running of company</u> (comprising production, it-systems, managing economy, documentation etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 9 consists of 7 sub-questions. Sub-questions 4-7 are focused on concrete effects contributing to generate an increased added value following the usage of Væksthuset. This is to show whether the usage of Væksthuset lead to a stronger business concept, better client-relations, professionalization of the organization and/or improved running. Sub-questions 1-3 are focused on uncovering whether the usage of Væksthuset contributed to new acknowledgments, stronger growth strategy, and heightened growth ambitions.

Criteria for classification in three groups are as follows:

**Low additionality (Group 1):** Criterium: replies: "low", "nil", "unknown" in sub-questions 4-7

**Moderate additionality (Group 2):** Criterium 1: replies: "high", "some" to at least 1 sub-questions 4-7  
Criterium 2: replies: "some", "low", "nil", "unknown" to sub-questions 1-3

## **APPENDIX – ASSESSMENT TOOLS**

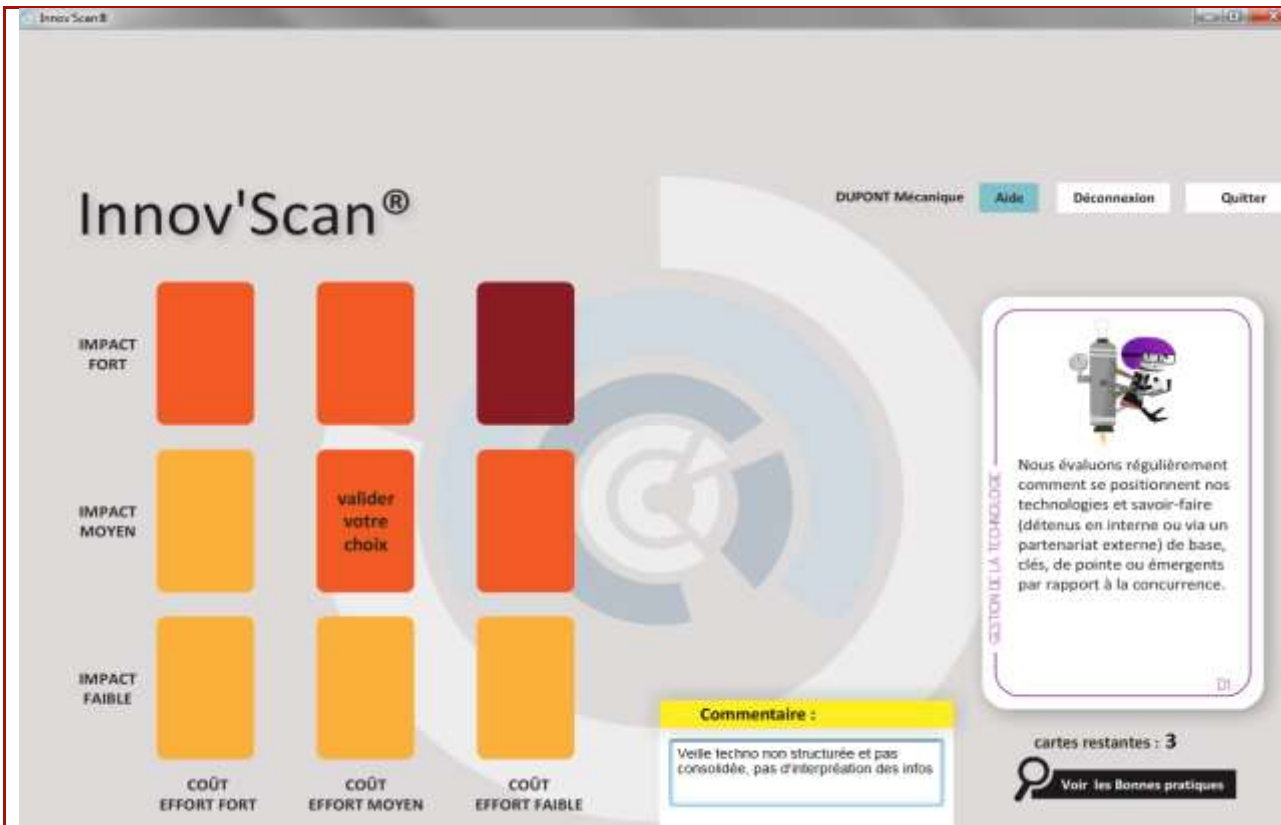
- CCI – Innov`Scan
- OXINN – Growthmapper
- VHHR – Growthwheel
- IVACE – IMP3rove

## APPENDIX 1.1.- INNOV'SCAN

<b>Innov'Scan</b>	
<b>Url</b>	www.
<b>Short description</b>	
<p>Innov'Scan is a tool designed to increase the capacity and efficiency of innovation management in companies. Innov'Scan is a software running under Windows.</p> <p>Innov'Scan is not used as a self-assessment tool.</p> <p>Using Innov'Scan as a support, the advisor list a series of 64 ways to better manage innovation which are directly linked to the CEN TS 16555-1 standard. Each way corresponds to an assertion which is illustrated by a play card projected on a screen. For each card/innovation assertion, the advisor asks the manager and his main collaborators what they do (or what employees do) in their company vs. the assertion.</p> <p>So the innovation management advisor can audit how innovation is managed in the company and how things are done. For each assertion, the advisor helps the group (or the manager) decide in which category ranging from 1 to 5 the company can be ranked (see diagram). 1 corresponding to a complete disagreement and 5 to a complete agreement.</p>	



According to the quotation the group has made, Innov'Scan identifies a list of innovation management ways (represented by cards) that really need to be implemented. This list can generally contain 15 to 20 items, so priorities have to be made. To help the manager define his priorities, Innov'Scan displays a matrix (see picture below). At this point, it is important that the group fully agrees with the priorities otherwise, the action plan will be less likely to succeed.



Back at the office, results of the diagnostic are produced. The output of Innov'Scan is following:

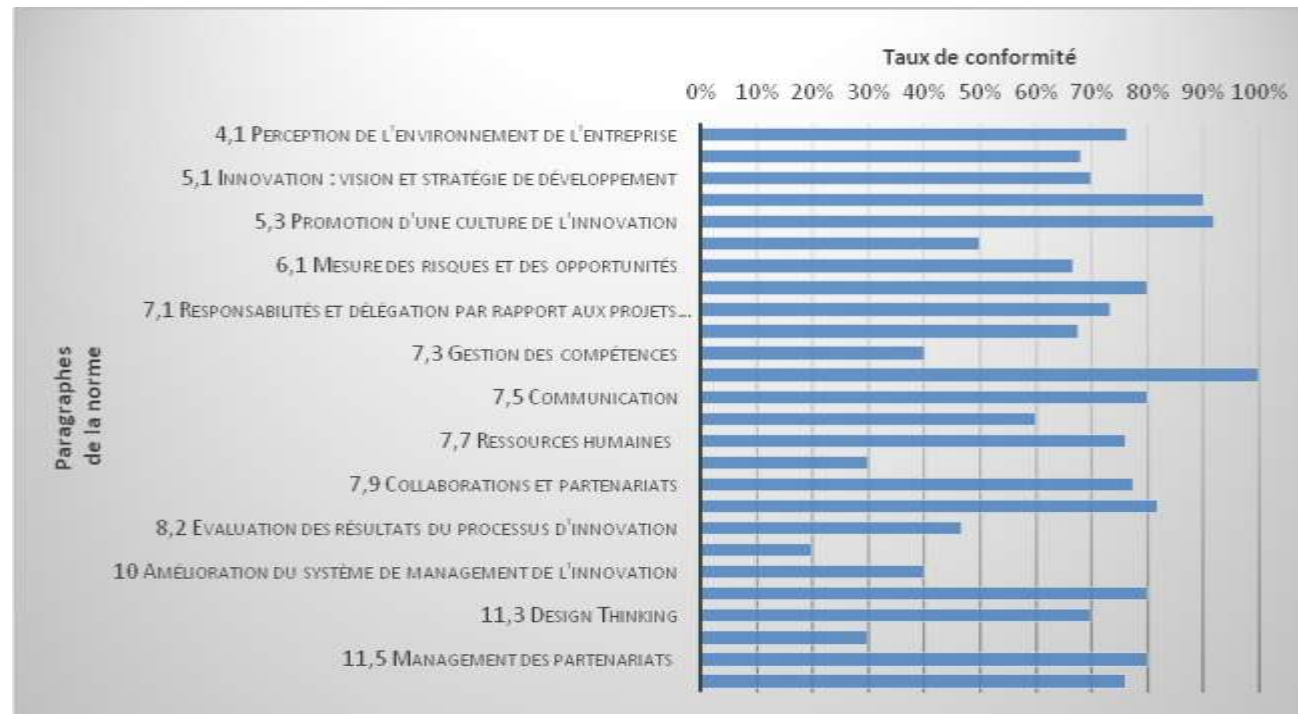
- a factual report containing all comments made by the company on the text of each card,
- proposals for priority actions with a first set of recommendations for their implementation,
- a diagram showing the level of compliance of the company with the CEN TS 16555-1 standard
- fully documented innovation management methods with correspond to the company priorities. (Note that Innov'Scan portfolio of documented innovation management items is an absolutely unique feature).

These documents are the basis of the action plan which we elaborate with the manager and his staff in the further step.

## Output

The production of a diagram showing the level of compliance of the company with the CEN TS 16555-1 standard is an additional feature that is used to confirm or complete the list of priority.

Below an example of the compliance graphic with the standard.





Innov'scan is before all a tool which support the advisor, but the latter's role is the most important



### Strenghts

- 360° focus on the involvement and impact of all functions within the company in the innovation approach (which fits with the Innovation Management standard). The tool is also a very learning tool for the company making them aware of innovation characteristics
- Allows an in-depth exchange with the company making the advisor more efficient for follow-up
- Innov'scan is adapted for a use with a group of participants (manager + staff typically) which increases a shared vision of the company during the exchange as well as develops an innovation culture in the company.
- Innov'scan highlights the required priority actions which the group participants cannot deny.
- Innov'Scan is compliant with CEN/TS 16555-1 and adapted to all company sizes (from the micro-business / start-up up to large SME)
- The tool is open enough to adapt to the advisor's style and to allow the collection of a large amount of relevant information used for the action plan.

**Weaknesses**

- Innov'scan is rather made for industrial companies (rather than commercial or service) whatever they are producers or suppliers
- The production of a report is not instantaneous nor fully automatic
- Company positioning is unique, so they do not necessarily look for comparison. The tool does not provide average marks according to sectors or activity
- The tool no longer benefits from IT support and is thus not transferable.

## APPENDIX 1.2.- GROWTHMAPPER

### Growthmapper

#### Url

<http://www.growthmapper.co.uk/>

#### Description

Oxford Innovation developed and own the GROWTHMapper® business assessment tool, which has so far been used by more than 14,000 SMEs. This tool gives businesses the opportunity to assess their strengths and weaknesses, and gain an understanding of the differences of opinion between the senior management team of the business. The outputs of the tool are used by trained and accredited advisors or business coaches to identify the key issues affecting the business and to define the coaching and business support that follows.

There are currently three GROWTHmapper questionnaires:

- **Start-ups:** assesses business performance
- **High growth:** assesses business performance
- **Innovation management and high growth:** assesses business performance and innovation management capabilities

The Innovation Management and High Growth GROWTHmapper (called Innovation GROWTHmapper) is used by all advisors delivering EIMC support in the UK. This includes those advisers working on the ERDF/Innovate UK funded projects as well as those advisers delivering support funded via EASME/Innovate UK as part of the EEN service.

The Innovation GROWTHmapper was developed by Oxford Innovation in partnership with Innovate UK (the UK's national Innovation Agency) to assess all the areas covered by the Innovation Management standard PD CEN/TS 16555-1:2013. It not only assesses the overall business performance but also drills down into innovation management to provide a detailed assessment of the business's capabilities in this arena. It is worth noting that the assessment is based on responses provided by the senior staff of the company and therefore it represents their perspectives on their company's strengths and weaknesses. The adviser uses this report in discussion with the company to explore areas of strength and weakness and identify priorities for support. These priorities are used to shape a defined programme of support that the EIMC

adviser will deliver to the company. At the end of the EIMC support, or 6 months after support began, the company is invited to retake the GROWTHmapper assessment. This enables a comparison of the company's performance before and after it received support.

### **Analysis**

The Innovation GROWTHmapper assesses general business performance in the following metrics:

- Strategy
- Cash
- Marketing and Sales
- Leadership
- Access to Finance
- Innovation
- People and Skills
- Operations
- Sustainability
- Change

Additionally, it assesses innovation management in five key areas (aligned with the areas of focus of the Innovation Management standard PD CEN/TS 16555-1:2013). The key innovation management areas are:

- Organisational context
- Leadership
- People and Planning
- Innovation process
- Performance and Improvement

GROWTHmapper asks users a series of questions about their business under each category. Each question is an 'Agree / Do not Agree (or understand)' answer, meaning the diagnostic is quick and easy to complete, taking 10-15 minutes.

### **Output**

The GROWTHmapper tool takes the data and generates two reports - one for the client, and one for

the Adviser. The Adviser report has more detailed insight included. The report shows how the company rates on the different metrics, and examines the different perspectives of the senior team.

Example GROWTHmapper assessments of general business performance and also innovation management are shown below.



The outputs of the tool are used by trained and accredited business coaches/advisers to identify the key issues affecting the business and to shape the coaching and business support that follows. The results of the GROWTHmapper tool are reported anonymously, meaning that the company can explore areas where the senior team may have differing views without complication.

Companies are also invited to complete GROWTHmapper again at the end of their coaching support, and a comparison of the results is used to assess where the company has improved and, if so, in which areas. The GROWTHmapper™ review also aids a focused assessment of appropriate next steps for the SME beyond the support offered by EIMC.

**Innovation management assessment summarised in one new, additional chart**



**Strenghts**

- It is quick and easy to use. It can be completed in 10-15 minutes via a website at a time that is convenient to the individual and it does not require an advisor to be present.
- It is suitable for all sizes of SME from companies with less than 5 employees to those with over 100 employees.
- It gathers individual input from each member of the senior management team which allows the diagnostic to quickly identify areas where there is poor communication or differences of opinion in the team which are holding back growth
- Answers are gathered in a safe and anonymous way. This allows the adviser to draw out underlying issues and problems in the business which individuals may be reluctant to raise in discussion.
- It assesses all aspects of the business, giving a broad overview of the business's strengths and weaknesses and potential barriers to growth, as well as examining innovation management capabilities.

- The client report presents the assessment primarily in charts which are very easy to understand and give a clear visual picture of strengths and weaknesses.
- It has been used by over 14,000 SMEs allowing results of an individual company to be compared with the cohort of companies.
- It can be used before and after support to give an indication of the areas where the business has improved its capabilities

**Weaknesses**

- It is designed to be used by an experienced business adviser or coach and requires a certain amount of experience to be able to use the results effectively with the SME
- It provides the starting point for a discussion and coaching relationship between the advisor and the SME. It is therefore dependant on that relationship working well
- The assessment does not include any advice or recommendations for next steps. This is developed through discussion between the adviser and the SME.
- It does not have a formal benchmarking capacity, meaning that each business can only be assessed in isolation rather than against industry / size norms.
- The simplicity of the questions means that the assessment does not capture nuanced views. Any nuance must be drawn out by the adviser during discussion of the GROWTHmapper results.

## APPENDIX 1.3.- GROWTHWHEEL

### **Growthwheel**

#### **Url**

- [www.growthwheel.com](http://www.growthwheel.com)
- [www.growthwheel.com/beta](http://www.growthwheel.com/beta)
- [www.growthwheel.com/brochure](http://www.growthwheel.com/brochure) (4 languages)

#### **Short description**

##### **History**

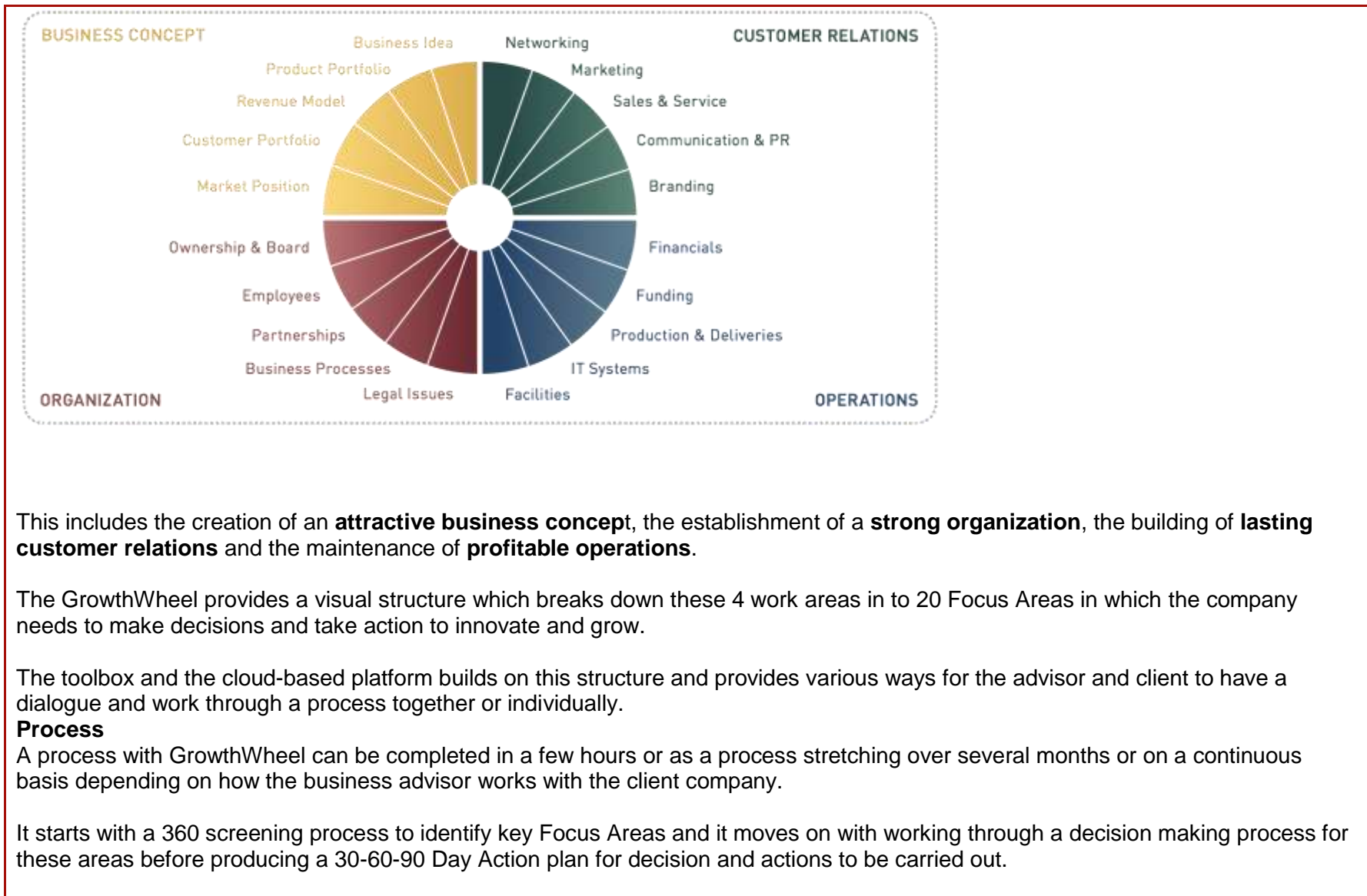
The GrowthWheel Framework was first developed by GrowthWheel International ApS in Denmark in 2008 in a private-public partnership with the Danish Business Authority (Ministry of Economics and Growth), who wished to implement a uniform and standardized methodology for the five national Growth Houses and the business support centers in all municipalities nation-wide.

Today GrowthWheel continues to be used by more than 400 business advisors in Denmark, and world-wide additional 1,700 business advisors from 34 countries have adopted GrowthWheel, which has also been translated into 8 languages. The certified business advisors have applied GrowthWheel with more than 200,000 SME's, including many who continue to use the toolbox on an ongoing basis after the process with the advisor has come to an end.

##### **Core idea**

The core idea in the GrowthWheel is that growth and innovation requires a holistic 360° view on all work areas of the business.





## Tools

The GrowthWheel Toolbox and is a hybrid platform which works both on paper and as a cloud-based software service.

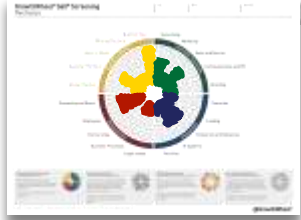


be used in different working environments (individual, workshops) and by preferences and digital skills.

The toolbox contains 4 core tools that advisor can use individually or in combination:

### **360 Screening Tool to get focus**

This tools is used by advisors and clients to **get focus** and define the scope of work.



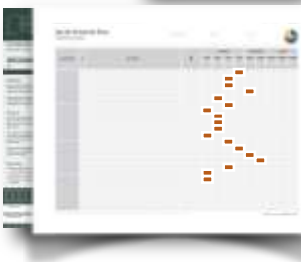
### **Frameworks to set agenda**

This tools helps advisors and clients **set agenda** by help of visual tools that dives into the 20 Focus Areas and provides inspiration for topics for discussion and items for decision.



### **Decision Sheets to make decisions**

This tool helps support the process to **make decisions** by use of 100 different Decision Sheets which out alternative options and allows the client and advisor to creatively explore the options.



### **30-60-90 Day Action Plan to Take Action**

This tools make sure that the advisor and client concludes with ways to **take action** on the issues that the process have brought forward so the client can leave with an action plan, and so the advisor have a tool to follow up.

## Output

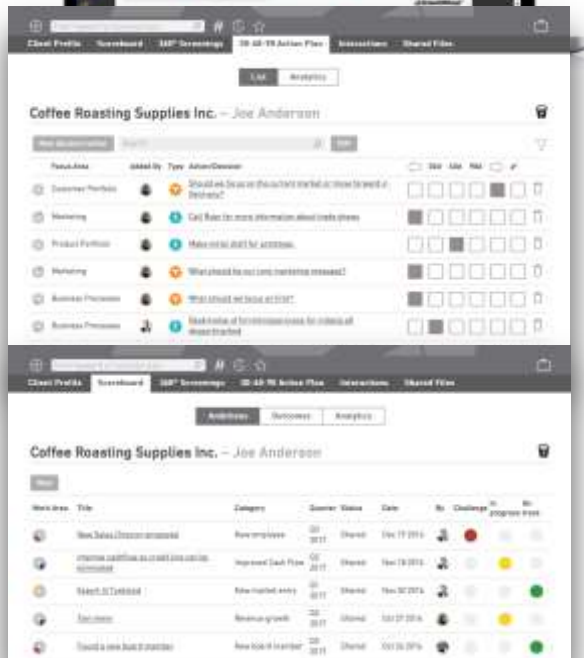
The output from the process with GrowthWheel can be one or all of the following:



### 360 Screening Tool with 1-5 Focus Areas

The first output from the process is a 360° Screening of the business that has identified 1-5 “Focus Areas” for the company to work on to grow or innovate.

The screening can be made for the 1) company’s progress, 2) current opportunities or 3) competencies, and will result in a selection of 1-5 Focus Areas which the company should work on next to grow or innovate.



### 30-60-90 Day Action Plan

Upon identifying the key Decisions and Actions for the key Focus Areas the Online Platform can produce a 30-60-90 Day Action Plan where users can sort and filter activities, and also produce reports of completed activities.

This process is assisted by a digital library of 100 visual Decision Sheets which provides a framework for a creative exploration and discussion about specific decisions and actions.

### Scorecard for Ambitions and Outcomes

With the Scorecard feature advisors and clients can keep track of the progress of ambitions with a simple traffic light indicator which show if an ambition is on track, in progress or a challenge.

For each ambitions its possible to add decisions and actions to the 30-60-90 Day Action plan. When ambitions turn in to Outcomes they can be tracked as well for reporting of results and achievements

## Visual Analytics and Big Data

In addition to the reports above the GrowthWheel Online platform is providing visual analytics for each individual client as well as aggregated data for all an advisors clients and all clients in an organization, a network or a country.

If a network has 50 business advisors with 50 clients each and if each client track just 20 decisions per month the organization will have a data pool of 600.000 decisions and actions with meta data to provide analytics on the actives and results from the client pool. Over a few years this turns into millions of data records.

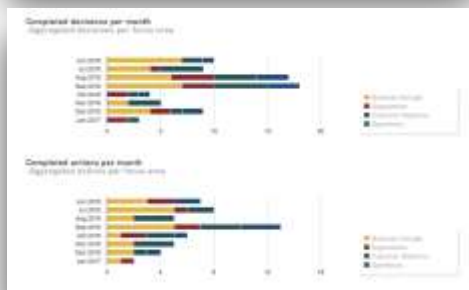
Three examples of reports from GrowthWheel Online are these:



### Distribution of decisions and actions

This report show the types of decision and actions clients are working on and the number which has been completed.

The pie chart divides the task in the four Work Areas of the business or business in the network.



### Execution of decision and actions over time

This report show how many decisions and actions client have registered as completed over time.

The stacked bar chart shows the total execution across all Work Areas of the business or businesses in the network.



### **Outcomes per quarter and category**

This report shows a count of number of quantitative results and qualitative achievements the client company has achieved per quarter and how these are distributed in various categories.

The report can be used to benchmark performance of individual businesses, or groups of businesses in various cohorts.

### **Strengths**

- 360 degree analysis on company progress, business opportunities and entrepreneurship skills to help define decisions and actions
- Has been used by over 2,100 certified business advisors in 34 countries and applied to over 200,000 SME's since 2008.
- Can be customized individually to the advisors preference and the clients needs and used with individuals or groups, and with owners, board members, managers or employees in companies in all life stages, in all industries and with 1 to 100 employees.
- Clients can be invited and be on boarded in 15 min. through video introductions and online guidelines.
- Produces a cloud-based and PDF-version 30-60-90 Day Action Plan for both decision and actions to work on.
- Full CRM functionality including time-tracking and external e-mail integration to manage client relationship in the cloud
- Analytics and visual reporting printable in PDF-format on results and achievements for individual clients or group and aggregated data for consultant, organizations or entire networks/countries

- Automated follow-up notifications for both client company and business advisor to support the workflow.
- Can easily be used in combination with other tools, such as the Business Model Canvas, Lean Startup Principles and Customer Development Methodology.
- Hybrid platform which works both on paper, PDF, and as a cloud-based platform for PC, tablets or phones, so it support consultants and client companies with various digital skills.
- Monthly software releases with new features and hotline with live or online support to consultant and clients.

### **Weaknesses**

- Using GrowthWheel requires a 2 day Certification Course for consultants, in person or as e-learning.
- Using GrowthWheel requires consultants to commit to a 2 year minimum license.
- The GrowthWheel Toolbox is only available in 8 European languages at this point.
- Does not produce a conversional business plan, but merely an operational action plan.
- Dialogue tools that works best for the entrepreneur when consulted by an advisor in the process.
- Does not yet have benchmarking features to compare businesses to each other or to industry number

## APPENDIX 1.4.- IMP3ROVE

### IMP3rove

#### Url

#### Short description

IMP<sup>3</sup>rove is a tool that enables companies to measure their innovation management performance against 5 dimensions, namely: Innovation Strategy; Innovation organisation and culture; Innovation life cycle processes; Enabling factors; and Innovation results. The IMP<sup>3</sup>rove Assessment is offered as an online questionnaire comprising 47 questions and an analysis of the responses are used to generate a benchmark report comparing the performance of an individual company against a sample of similar companies based on company size, age class, geographic footprint, and NACE industry classification. The benchmark also compares the company's innovation management performance against so-called Growth Champions, defined as the 10% fastest growing companies who have completed an IMP<sup>3</sup>rove Assessment.

Hereafter we give a brief description on the content of each one of the 5 innovation management dimensions:

**1.- Innovation Strategy:** gives the firm direction and focuses all innovation management activities in order to maximize impact. It includes 6 questions to find out whether there is an innovation strategy aligned with the business strategy and vision of the company, if it is shared and disseminated, if innovation projects are consistent with the strategy, and if the innovation under development is balanced in terms of short-long term, costs, risks.

**2.- Innovation Organisation and Culture:** covering the orientation of organisation and its networks towards innovation management, and whether innovation management is embedded in the firm's culture. It includes 7 questions looking for the spirit and readiness for innovation, external collaborations and the intensity of innovation partnerships. It also looks at the fit between the company and its collaborators and markets addressed.

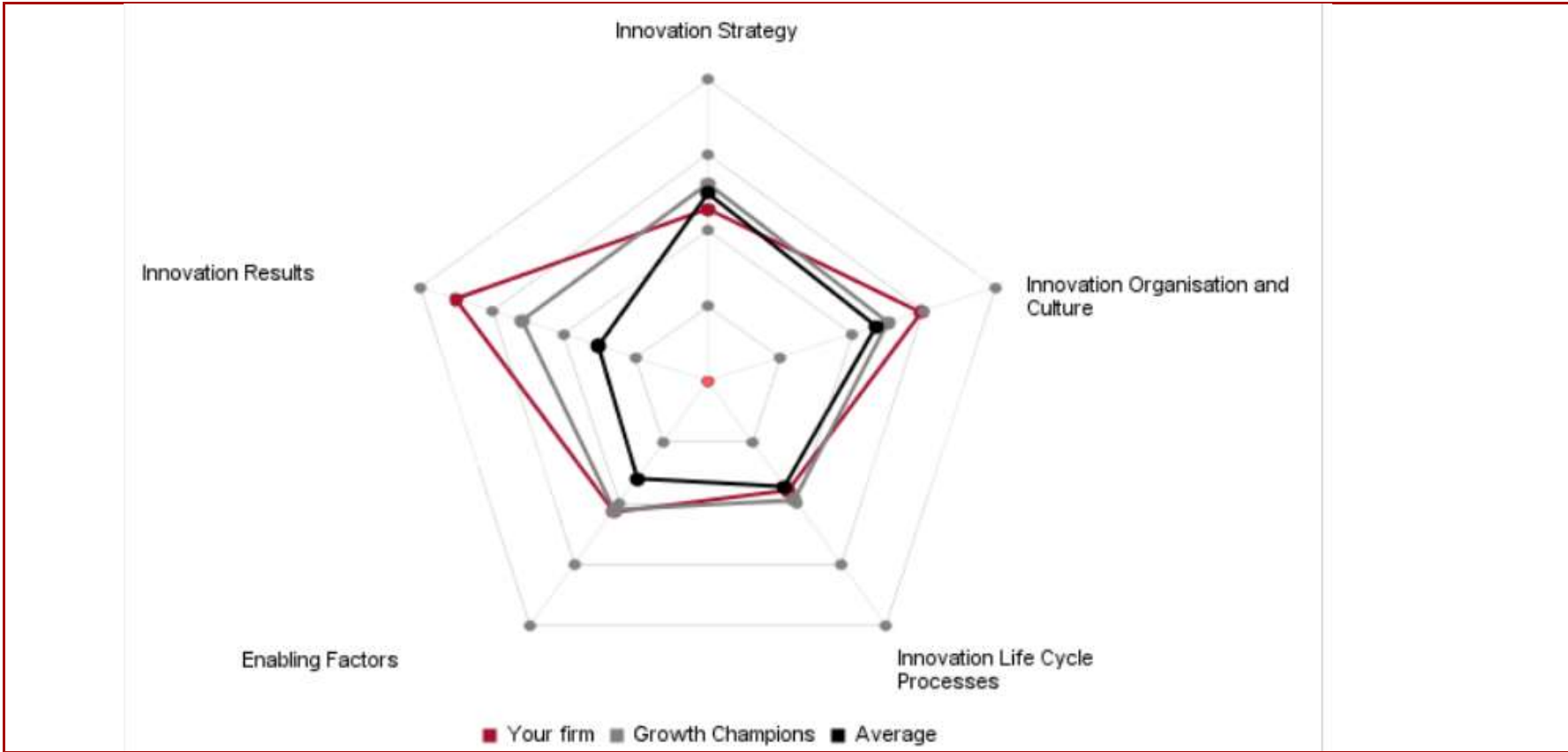
**3.- Innovation Life Cycle Processes:** covering the integration and management of innovation life cycle processes including idea management, product/service and process development, launch and continuous improvement. It includes a total of 14 questions including 7 questions which address the length of the innovation life cycle, time to market, time to profit, success rates of radical and incremental innovation projects,



assessment of innovation processes and feedback from suppliers, customers, clients, users, sales, production, and external collaborators. There are 3 further questions exploring idea generation and management, one question on development processes and lastly 3 questions on successful innovation launches, integration of customer information and continuous improvement.

**5.- Enabling Factors:** covering a variety of factors such as project management, intellectual property rights, human resource management and design management which can leverage innovation and business results. It includes 9 questions on incentives and rewards, exploitation of patents, projects and targets, budget dedicated to long term projects, and 4 questions on design management and its impact.

**6.- Innovation Results:** dealing with the output of innovation management activities and the impact on indicators of business success, e.g. income from sales and operational profit. This section includes 11 questions, which examine the evolution of income growth over the last 4 years (disaggregating grants and exports), sales due to new products and services, innovation expenditure, EBIT, EBIT due to innovations classified by type of innovation (product, service, process, organisation and business model), costs reductions due to innovations, growth in number of employees and a qualitative question concerning the company's own appreciation on how their innovation management performance could be improved.



## Strenghts

- **Benchmarking the company's performance.** Once this questionnaire is completed, the company can request a customised, automatically-generated IMP<sup>3</sup>rove Benchmarking Report, which is available within 30 minutes. The sample of companies included in the benchmarking can be defined individually for each IMP<sup>3</sup>rove Assessment Report based on company size, age class, geographic footprint, and NACE industry classification. The IMP<sup>3</sup>rove Benchmarking Report compares the company's individual performance with the average sample and the Growth Champions (10% fastest growing companies in sample).
- The assessment or evaluation of a company's innovation management performance covers all the areas of the **international standard** (CEN/TS 16555 und CWA 15899).
- The IMP<sup>3</sup>rove assessment includes a set of **quantitative questions on the "Innovation Results"** section captures numerical information to assess business growth and profitability and link these results to its innovation performance.
- The 47 detailed questions of the IMP<sup>3</sup>rove assessment, creates a **common understanding of the definition of innovation management** between the advisor and the company.

## Weaknesses

- The IMP<sup>3</sup>rove assessment **requires very detailed information which many SMEs do not have available** therefore the answers have to be estimated and become subjective. In general most SMEs do not have sufficiently sophisticated management information on innovation management to be able to answer many of the questions in the IMP<sup>3</sup>rove assessment. This can decrease the willingness of the company to engage with the whole process.
- Excessive **disaggregation in many of the answers make it easy to lose sight** of the really critical issues. Besides it does not provide too much added value. (Section 3 Q11. Development process definition for 5 different types of innovation: product, service, process, organisational, business model; Section 4 Q7, 8 and 9 on design management and impact on any phase of the innovation life cycle and on different innovation results measures).
- There are questions that **ask about the same issues in different sections** of the questionnaire and could be simplified by creating a single question (Section 1 Q6 on commercialising ideas, selling ideas and patents and Section 4 Q2 on exploitation of patents; also Section 3 Q14 and Section 4 Q4 both ask about indicators defined and reached).

- There are some **questions that would fit better in different sections** (Ex. Section 4 Q1 on Incentives and rewards would fit better on the section 2 Innovation Organisation and Culture and besides Q6 and 7 in Section 2 regarding matching of spoken languages would fit better in Section 4 Enabling Factors). A more intuitive classification of questions would make the feedback session and discussion of the report with the company much easier.
- It is **not possible to access the aggregated data of companies in a particular region** or to analyse the data of companies within a region. As the EIMC service is delivered by partners on a regional basis, it is a weakness of the tool that partners cannot use the data to understand regional strengths and weaknesses in order to inform future policy development.

