

# FOSTERING THE INNOVATION CAPACITY OF SMES BY ESTABLISHING A CENTRE OF EXCELLENCE AND DEVELOPMENT OF RELATED TOOLS<sup>1</sup>

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**Abstract:** The present paper introduces some of the results of the project InnoPlatform, aimed at facilitating innovation and supporting the commercialisation of innovation in SMEs in Balkan-Mediterranean area with a focus on growth and internationalization. For achieving this purpose a network of Centres of Excellence in Innovation will be established as the knowledge and expertise holders providing advice and guidance to SMEs, consultants and public actors across the region. In addition, a series of practical innovation tools, services, and guidelines to support the innovation capacity of SMEs in the region, will be designed and developed.

**Key words:** SME, innovation capacity, Center of Excellence.

## Introduction

The project “Innovations Platform and Tools for increasing the innovation capacity of SMEs in the Balkan Mediterranean Area” (Innoplatform) aims at improving the competitiveness of the region by advancing existing knowledge on business model innovations and developing a set of tools (InnoTools) and services (InnoScorecard and InnoRegion) for improving SMEs opportunities, capacities, and knowledge in introducing product and process innovations. It is a 2-year Interreg Balkan-MED project funded by the European Regional Development Fund and co-funded by the participating countries. The main project objective is to facilitate innovation and support the commercialisation of innovation in SMEs with a focus on growth and internationalization.

The methodology has been developed in accordance with the specific project objectives that are:

- SO1: to assess the current national and regional environment and its challenges when it comes to innovation, growth and internationalization of businesses;
- SO2: to advance existing knowledge and develop common understanding on business model innovation with a focus on internationalization;
- SO3: to develop expertise, tools and guidelines for strengthening SMEs capacities to introduce product and process innovations;
- SO4: to establish a supporting network of Centres of Excellence in Innovations, to foster transnational cooperation and provide external expertise and support to SMEs in introducing innovations; and
- SO5: to raise awareness on the importance of innovations for the survival, growth and internationalization of SMEs.

According to the SME’s Performance Review (EC DG E&I), the Balkan-Mediterranean region lags behind the EU average when it comes to innovations in SMEs. At the same time according to the Global Competitiveness Index, the region as a combination of efficiency-driven

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(Macedonia, Albania, Bulgaria) and innovation-led economies (Greece and Cyprus) lags behind the averages in both groups. The Balkan-Mediterranean is also regionally uneven and may benefit from a stronger transnational cooperation. The focus is placed on business sophistication and capacity for innovations. InnoPlatform aims to address these challenges by facilitating the innovation and supporting the commercialisation of innovation in SMEs with a focus on growth and internationalization. The topic is addressed under Balkan-MED PA1. Entrepreneurship and Innovation, SO2: Innovative territories and Investment priority 3D – supporting the capacity of SMEs to grow in regional, national, and international markets, and to engage in innovation processes.

### **Methodology for the establishment of Centre of Excellence**

A common concept used in the information technology space characterized as "Centre of Excellence" (CoEs) is that it provides structure, centralized knowledge and specialized resources in a narrow area of expertise or specialty. The CoE aims at promoting the concentration of knowledge in priority technological areas and horizontal linking along the entire chain of knowledge development, which is realized based on strategic partnerships between the public sector, private sector and academia. It, at a most basic level, consists of a team of people that promote collaboration and use the best practices around a specific focus area to drive business results. The InnoPlatform CoE will address the following 5 issues:

- *Support*: For their area of focus (PPP usage in BB deployment), CoE's should offer support to the business lines. This may be through services needed or providing subject matter experts.
- *Guidance*: CoE will provide methodologies, tools and knowledge repositories.
- *Shared Learning*: Training, formalized roles and knowledge exchange within the network of CoEs are all ways to encourage shared learning.
- *Measurements*: CoEs should be able to demonstrate that they are delivering the valued results that justified their creation using output metrics.
- *Governance*: Allocating limited resources (money, people, etc.) across all their possible uses is an important function of CoEs. They should ensure that organizations invest in the most valuable projects and create economies of scale for their service offering.

### **Foundations of an Effective Innovation Centre of Excellence**

All the 6 CoEs planned to be created as part of the InnoPlatform project, will be created as independent units, organizations or associations whose work is related to the servicing of a broader sphere of activities, usually regional or national and will function with the purpose to foster transnational cooperation, and provide external expertise and support to SMEs in introducing innovations. They must be able to perform the following *key functions*:

- Activate cooperation between business units and research organizations to ensure consistency and integration of the strategy into the activities of the relevant initiative (innovation);
- Provide an appropriate framework for managing each innovation initiative;
- Try to set up a clearing house for processes, methodologies, models, tools and technologies;
- Ensure a clear distinction between business strategy and project-based initiatives;
- Serve as an organizational focus for a particular business strategy;
- Provision of training and counselling;
- Success Development and Monitoring - Performance Measurement Criteria and Assessment Systems;
- Central repository for research and realization materials.

At the beginning of the lifecycle, when maturity is lower, it is best for Innoplatform CoE to start with a basic managing body and a cross-functional team that supports a number of business areas. With this CoE option:

- It has the minimum organizational structure capable of providing customers and delivering management objects;
- It has the necessary resources and tools to create the necessary relationships for the Centre to work successfully;
- It creates and maintains policies and standards;
- It creates and maintains a globally shared asset repository;
- It provides expert services to certain clients for business decision-making and project management (BPM);
- It creates and maintains a primary prototyping laboratory.

At the advanced stage of development, a CoE will need to work in a decentralized (advanced) model. Each business line has its own individual CoE branch, subordinate to the CoE Centralized Management. The general structure to which the partners adhere is as follows:

1. Appointment of a CoE steering team to include in its composition -
  - Head of CoE;
  - Financial Leader or Specialist in charge of the CoE's financial activity, as this activity can initially be undertaken by the Lead Partner of the project;
  - Executive Team Leader or Technical Manager (s);
2. Ensuring the administrative area, differentiated for the activities of the centre;
3. Provision of the necessary technical and software tools for the information structure, training and information resources, demonstration centre, conditions for conference connections, etc.
4. In the CoE, the following major teams of specialists should be set up:
  - A team to investigate prospective customers;
  - A CoE Team and the necessary experts on relevant projects to organize and conduct meetings with and between them;
  - A technical team to deal with the technical aspects of certain projects;
  - Organizational Coordinator;
  - Technical contractor(s) - Responsible for providing technical support to the centre - hardware, software, administrative support, etc.
5. Development of the necessary rules, standards, criteria necessary for the successful work of the CoE.

Roles and responsibilities vary depending on the current structure and budget of InnoPlatform CoE, but the resources usually fall into one of the following four categories:

- CoE Leaders, CoE Core Team, Expanded CoE team and teams responsible for each relevant project.
- If a large project cannot be funded, then the CoE can create a small core team that will begin to develop along with the investment from sponsorship or from the SME's subject to innovation and the CoE's value-added InnoPlatform value.
- The management of a fully deployed CoE on InnoPlatform will consist of CoE Manager, Financial Manager, Technical Manager, Enterprise Manager, and Project Leadership Team.
- The management team provides executive assistance and management of the project teams. Since both (financial and technical managers) are represented in leadership, engineers and business work as partners in project assurance.
- The core CoE team consists of the CoE Administrative Manager, Financial Manager, Technical Manager, Business and Entrepreneurship Leader, and Executive Team Leaders. This management team is responsible for the implementation and input from the project teams. They are tasked with standardizing delivery processes and delivering value-added services to the

CoE. They have to take care of ownership and improve best practices and methodologies, enable project team members to participate in certain ventures, find and deliver projects, ensure their funding, participate in their management, control, lead to a successful end, etc.

- Extensive CoE - includes many experts, depending on the size and maturity of the CoE. The expanded team depends on the field of applications and the need for knowledge in the different areas. It is formed dynamically to support the CoE projects. These experts provide feedback to the main team on how they can improve their work.

- Implementation teams for each project - they work under the guidance of Innoplatform CoE and manage the project on the ground. They are responsible for the day-to-day achievements, scope, and results of the projects in accordance with the best practices and methodology defined by the CoE. The project team (s) consists of Project Manager, System Architect (s), Business Architect (s), Small and Medium Enterprises (SME) or startups and QA participants. Some of these participants may be appointed by the partner or a resource provider (technology, know-how, research, information, etc.).

Innoplatform's philosophy is that attracting and collaborating with SMEs and startups gives the best results. This collaborative philosophy of the CoE teams and staff of the SME provides the best effect. The SME or startup staff should be trained with the purpose to be able to develop and implement innovations independently of the CoE. In a typical scenario a SME or a startup asks the CoE for their expertise and support in analyzing company's business processes, products and services and providing know-how and expertise with the purpose to improve the company's business processes and innovation capacity (possibly related to a specific project or to the company's work in general). These activities will be provided by CoE with the top-notch technical expertise and support, as well as a link to services / resources and training from Innoplatform CoE. This includes:

- Access to Innoplatform expert design resources - a live connection with Innoplatform CoE experts who respond to technical design issues and ensure successful project design.

- Direct access to Innoplatform CoE's management team, a team of experts in problem-solving and innovation managers working in different fields that are deployed to support projects.

- Access to specific information, documentation and artifacts of the Innoplatform CoE implementation methodology, design of best practices, project management and testing.

- Extended technical information and support, including technical notes and notes for developers that are not directly accessible to customers.

A CoE is a unit, which reflects the whole company since it collaborates with all departments with the purpose to foster thinking for innovation and the established business processes to be successful and sustainable. Innovation is a very common word nowadays, but many organizations may fail in implementing innovations, although they claim their commitment to be innovative. The CoE creation should comprise the following major steps:

1. The CoE managing board (MB or steering committee) creation;
2. Defining the CoE mission and vision;
3. Develop Strategies for Innovation;
4. Creating an Innovation Culture;
5. Develop the Innovation Process.

This model could be summarized with the following analytical framework, representing the above relationships (Figure 1).

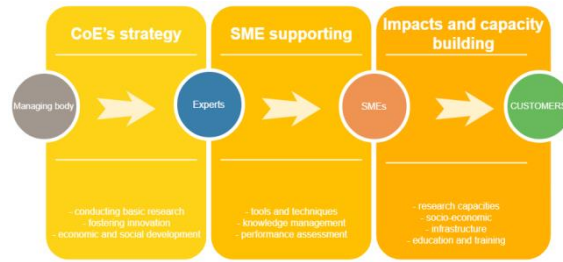


Figure 1. The Centre of Excellence Operational Framework

In order to function properly CoEs need the following important roles to deal with their activities:

- *Domain Experts.* Depending on whether the range of domains the CoE is focused on, subject matter experts in each topic are needed: manufacturing, IT, design, engineering, operations, supply chain, business analysis, etc.
- *Process Experts.* This group consists of experts in methodology, process improvement, business processes, etc.
- *Internal Consultants.* These experts work in areas like innovation and idea management, idea creators, creative Problem Solving, organizational creativity, etc.
- *Infrastructure and Facilitation Experts.* This group consists of experts in IT / engineering, training, etc.
- *Other Experts.* These experts work in other functional areas like finance, human resources, marketing and sales, etc.

The strategic objectives of the Innovation Centre of Excellence are focused in the following directions:

- *Scientific excellence:* to solve scientific challenges in various fields such as nano-technologies, robotics, ICT, green industries, maritime industries, etc.;
- *Technological innovation:* to deliver technological solutions; stimulate entrepreneurship, growth and employment at regional level;
- *Social goals:* to provide the enabling technologies for environmentally sustainable production methods.

The key to these performance goals and operational functions are people, knowledge, processes and collaboration (Figure 2).

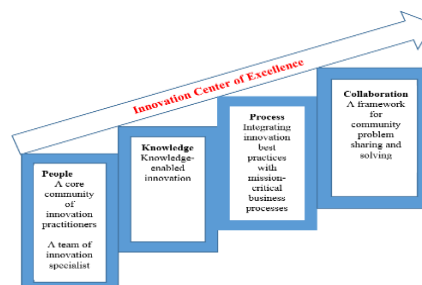


Figure 2. The CoE Major Key Success Factors

### Benefits of the Innovation Centre of Excellence Approach

The affirmation of the Innovative Centre of Excellence among the business community will derive from the implementation of the following economic and social effects:

- Increasing the revenue of potential beneficiaries through: supporting the implementation of new products / services; helping to manage the new product and service investment risk/reward ratio;
- Reducing the cost for potential beneficiaries through: providing specialized research services, requiring special scientific expertise, in developing a new product/service; more accurate estimation of project-based work; reduced product development lifecycle time and cost; reduction of organizational rework and/or duplication of effort.
- Reducing the risk for potential beneficiaries in the process of developing new products/services through: opportunity to share risk in research; exploitation of consistent and proven methodology.
- Increasing the speed of commercialisation of new products / services through: providing information about specialized resources that have an enhanced focus on growth; decreased time to problem resolution; assistance in managing risk-taking; providing dedicated research and prototyping activity.
- Improved communications and change management through: providing centralized coordination and communication across business units; supporting the creation of scientific-technical alliances and consortia; helping to overcome organizational and financial barriers to innovation; providing processes, models or approaches available for moving ideas into execution; increasing the awareness of growth focus and the desire for new ideas; focusing on customer needs and problems; helping to reduce the impact of informational, staff and psychological barriers to innovation; offering specialized training for all good practices, standards and processes.
- Support for training of the workforce to achieve a functioning, competitive, innovation-oriented economic model through: providing training in creative problem- solving; providing training in idea management; providing training on innovation management concepts.
- Developing innovative culture among young people through: stimulating the entrepreneurial spirit and promoting the importance of innovation among students, young professionals and start-up entrepreneurs; raising awareness of good European innovation practices; support for young entrepreneurs, emerging and existing high-tech SMEs through business consultations.

InnoTools is a set of tools designed to help developing new ideas for business and innovation for SMEs.

Identifying and certainly explaining your business ideas is often the most challenging part of communicating your start-up ideas. The business idea can be successful if a good business model is created for it. The business model needs to give a clear answer on questions like:

How will you make money?

How does this compare to your cost base?

Which partners and processes are driving your operations model?

What is your pricing model?

How can your business model evolve/mature over time?

Questions that often lead to complex answers formatted in lengthy text documents that nobody tends to read.

One of the good tools, very helpful to visualize different business model ideas, is the Business Model Canvas (by Alex Osterwalder).

The Business Model Canvas is the most widely used business model design tool across the globe. This tool has developed as a powerful method to capture all elements of a business model: propositions, partners, activities, resources, customer relationships, channels, customer segments, costs and revenue streams. The Business Model Canvas is used in workshop settings, to visualize company business models, to analyze broken industry models and for more creative business model drawings.

At the heart of this tools for model creating lies the idea that the business model innovation should be a shared understanding of what a business model actually is. We need a business model concept that everybody understands: one that facilitates description and discussion. We need to start from the same point and talk about the same thing. The challenge is that the concept must be simple, relevant, and intuitively understandable, whereas not oversimplifying the complexities of how enterprises function.

In the InnoTools we offer a concept that allows you to describe and think through the business model of your organization, your competitors or any other. This concept can become a shared language that allows you to easily describe and manipulate business models to create new strategic alternatives. Without such a shared language it is difficult to systematically challenge assumptions about one's business model and innovate successfully. We will use these business model tools, where one business idea can be described through nine basic building blocks that show the logic of how a company intends to make money.

## Business Model Canvas - organizational strategy and deployment tool

The nine blocks cover the four main areas of a business: customers, offer, infrastructure and financial viability.



### 1. Key partners

For both the start-up and existing organizations it may be important to create alliances with partners. For instance, when fighting the competition and combining knowledge and specialization.

Essential information will be acquired by knowing in advance which partners may constitute a valuable relationship.



### 2. Key activities

By having a good knowledge of the core activities of a company, a good understanding of the value proposition of the organization will be obtained. It is not only about production, but also about a problem-solving approach, networking and the quality of the product and/or service. When the organization knows what the added value for the customer is, a better relationship may develop with existing customers, which may, therefore, be helpful in the canvassing of new customers, thus making it easier to keep the competition at bay.



### 3. Key resources

Resources are means that a company needs in order to perform. They can be categorized as physical, intellectual, financial or human resources. Physical resources may include assets such as business equipment. Intellectual resources include, among other things, knowledge, brands and patents. The financial resources are related to the funds flow and the sources of income and human resources comprise the staffing aspect.



### 4. Value propositions

The value proposition is about the core of a company's right to exist, it meets the customer's needs.

How does an organization distinguish itself from the competition? This distinction focuses on quantity such as price, service, speed and delivery conditions on the one hand, and on the other

hand it also focuses on quality including design, brand status and customer experience and satisfaction.

#### 5. Customer relationships

It is essential to interact with customers. The broader the customer base, the more important it is to divide your customers into different target groups. Each customer group has specific needs. By anticipating the customer needs, the organization invests in different customers. A good service will provide for good and reliable customer relationships that will be ensured in the future.

#### 6. Channels

An organization deals with communications, distribution and sales channels. It is not just about customer contact and the way in which an organization communicates with their customers. The purchase location and the delivery of the product and/or services provided are crucial elements in this. Channels to customers have five different stages: awareness of the product, purchase, delivery, evaluation & post-purchase satisfaction. In order to make good use of the channels and to reach as many customers as possible, it is advisable to combine off-line (shops) and online (web shops) channels.

#### 7. Customer segments

As organizations often provide services to more than one customer group, it is sensible to divide them into customer segments. By identifying the specific needs and requirements of each group and which value they attach to this, products and services can be better geared towards these needs and requirements. This will lead to greater customer satisfaction, which in turn will contribute to a good value proposition.

#### 8. Cost structure

By gaining an insight into cost structure, an organization will know what the minimum turnover must be to make a profit. The cost structure considers economies of scale, constant and variable costs and profit advantages. When it is obvious that more investments must be made than the organization is generating in revenue, the costs will have to be adjusted. Often an organization will opt for deleting a number of key resources.

#### 9. Revenue streams

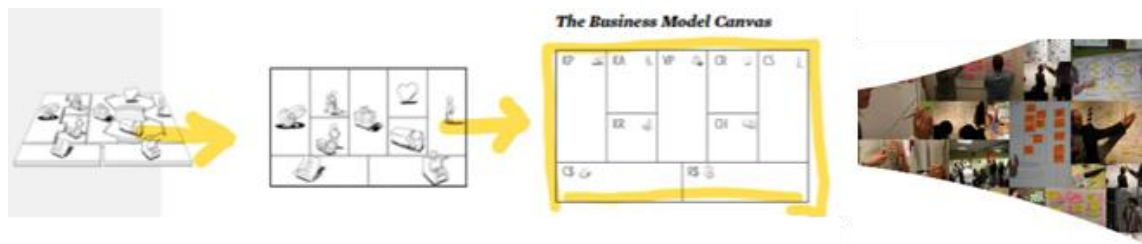
In addition to the cost structure, the revenue streams will provide a clear insight into the revenue model of an organization. For example, how many customers does an organization need on an annual basis to generate a profit? How much revenue does it need to break even? The revenue streams are cost drivers. In addition to the revenue from the sale of goods, subscription fees, lease income, licensing, sponsoring and advertising may also be an option.

### The power of brainstorming sessions

All members of the management team can make excellent contributions to the business model canvas. By fleshing out the business model canvas on a large sheet of paper, the members can enjoy brainstorming sessions with each other, think about the categories and voice their opinions. This will create a good and objective image of the organization and any new ideas can be discussed immediately and possibly be developed concretely.

The nine business model Building Blocks form the basis for a handy tool, which we call the Business Model Canvas. This model is the basis for the InnoModel tool, designed and developed under the project.





*Figure 3. Business Canvas Idea*

The business model design process that we propose has five phases: Mobilize, Understand, Design, Implement and Manage. As previously mentioned, the progression through these phases is rarely linear. In particular, the Understanding and Design phases tend to proceed in parallel. Business model prototyping can start early in the Understanding phase, in the form of sketching preliminary business model ideas. Similarly, prototyping during the design phase may lead to new ideas requiring additional research and a revisiting of the Understand phase. Finally, the last phase, Manage, is about continuously managing your business model(s). In today's climate, it is best to assume that most business models, even successful ones, will have a short lifespan. Considering the substantial investment an enterprise makes in producing a business model, it makes sense to extend its life through continuous management and evolution until it needs complete rethinking. Management of the model's evolution will determine which components are still relevant and which are obsolete.

For each process phase we outline the objective, the focus, and which content in Business Model Generation supports that phase. Then we outline the five phases in more detail, and explain how the circumstances and focus can change when you are working with an existing business model in an established organization.

The business model resembles a blueprint for a strategy to be implemented through organizational structures, processes and systems.

### **Conclusion**

The paper presented some of the results of the project InnoPlatform, aimed at facilitating innovation capacity and commercialisation of innovation in SMEs in Balkan-Mediterranean area. For achieving this purpose the idea of establishing Centres of Excellence in Innovation network is presented, aiming at providing advice and guidance to SMEs, consultants and public actors across the region. In addition, a series of practical innovation tools (InnoTools), services, and guidelines to support the innovation capacity of SMEs in the region, will be designed and developed.

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