

Akdeniz University  
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BUILDING INNOVATIVE SOCIETY: THE EUROPEAN UNION INNOVATION  
POLICY - IS AN INSTRUMENT? OR IS A GOAL?

Joint Master's Programme European Studies Master Thesis

Antalya / Hamburg, 2014

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Bir Araç mı? Yoksa Amaç mı?

Building Innovative Society: The European Union Innovation  
Policy - Is an Instrument? or Is a Goal?

Onay : Yukarıdaki imzaların, adı geçen öğretim üyelerine ait olduğunu onaylarım.

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**LIST OF ABBREVIATIONS**

EU	European Union
IUS	Innovation Union Scoreboard
NII	National Innovation Initiative
SMEs	Small and Medium-Sized Enterprises
R&D	Research and Development
RTT	Regional Technology Transfer Projects
RITTs	Regional Innovation and Technology Transfer Infrastructures and Strategies

**SUMMARY**  
**BUILDING INNOVATIVE SOCIETY: THE EUROPEAN UNION INNOVATION  
POLICY - IS AN INSTRUMENT? OR IS A GOAL?**

The purpose of this dissertation is to review research on the EU innovation policy to determine success factors to build an innovative society. The reviewed studies highlight different factors for the successful implementation of innovation policy. On this extent, this dissertation focuses specifically on the interaction and collaboration between supply side of the EU innovation policy (policy makers) and the demand side (society-individuals) of the innovation policy and elaboration the governance model of EU 2020 Strategy to assess the taking lessons from the Lisbon Strategy's fail. This dissertation argues that EU innovation policy needs to be designed and remain as an instrument to tackle with the grand challenges (real goal) that are stated by the policy makers of the EU. Thus, now, the name of the game is formation of innovation policies with people (society), not for people.

In the light of the findings, this dissertation may stimulate more research in the field of the EU Innovation Policy.

**Keywords:** EU Innovation Policy, the Lisbon Strategy, EU 2020 Strategy, Innovative Society, Social Innovation

## ÖZET

### İNOVATİF TOPLUM OLUŞTURMA: AVRUPA BİRLİĞİ İNOVASYON POLİTİKASI - BİR ARAÇ MI? YOKSA AMAÇ MI?

Bu bitirme tezi, bir ‘İnovatif Toplum’ oluşturmak için gerekli olan başarı faktörlerini belirtmek amacı ile Avrupa Birliği (AB) İnovasyon Politikasını yeniden değerlendirmeyi amaçlamaktadır. Gözden geçirilen çalışmalar, İnovasyon Politikasının başarılı uygulanabilirliği için farklı faktörleri vurgulamaktadır. Bu kapsamda, bu tez; AB İnovasyon Politikasının talep (toplum, bireyler) ve arz taraflarının (politika belirleyiciler) işbirliğinin ve etkileşimlerinin ve Lisbon Stratejisi’nin çöküşünden alınan dersin ölçülebilmesi için Avrupa 2020 Stratejisi yönetim modelinin ayrıntılandırılması üzerinde özellikle durmaktadır. Bu çalışma, AB İnovasyon Politikası’nın, AB politika belirleyicileri tarafından açıklanan gerçek amaçların yani büyük sosyal sorunların aşılması için bir araç olarak dizayn edilmesinin ve bir araç olarak kalmasının gerekliliğini tartışmaktadır. Çünkü, günümüzde, oyunun ismi ‘insanlar yani toplum ile birlikte düzenlenen inovasyon politikalarıdır, onlar için oluşturmak değil.

Bulunan bulgular ışığında, bu bitirme tezi AB İnovasyon Politikası alanında daha fazla sayıda araştırmayı teşvik edecektir.

**Anahtar Kelimeler:** AB İnovasyon Politikası, Lizbon Stratejisi, AB 2020 Stratejisi, İnovatif Toplum, Sosyal İnovasyon



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## INTRODUCTION

*“...The road to the Innovation Union is long and challenging, with big obstacles along the way. But it confirms that the European Union has agreed the right policies to get to the end of that road. Putting the Innovation Union into practice at European and national levels is an economic 'must', as important for sustainable growth...”*

***Máire Geoghegan-Quinn***

*European Research, Innovation and Science Commissioner*

Every society has its own grand challenges that must be dealt with through innovation. And as European Union (henceforth EU) policy-makers attempt to pull up with latest problems. Take the Lisbon strategy that aspired to make Europe the most competitive knowledge-based society by 2010. Years have passed and the European Commission is focusing again on the same aim for the next decade. And countless policy actions are expected in the field of innovation to accomplish smart, sustainable and inclusive growth (Granieri & Renda, 2012). Most people and institutions will benefit from these changes, while others will find themselves greatly suffered by challenges. For anyone concerned with the future, including policy makers and managers in all fields, it is essential to expect what these changes will be, discover how to adapt to them, and if possible devise new policies to use them to their advantage (Cetron & Davies, 2008). In the Lisbon Strategy, the Member States and the European Commission realized that improving innovation policy instruments are keys to responding to grand challenges that society is facing with. ‘*Grand challenges*’ are pertained with essential social and/or environmental problems, and tackling with them effectively is seen as a way to effectuating future economic growth. The EU has adjusted a number of programs to tackle what it has classified as grand challenges (House of Lords, 2012-13). Success may be reached not by narrowly focusing on adjust or re-determine innovation objectives, but instead by supporting all actors to adapt and respond to these grand challenges (Kay, 2010). Europe is facing an innovation emergency, as affirmed also by the European Commissioner for Research, Innovation and Science, M’aire Geoghegan-Quinn in Institute of International and European Affairs Brussels speech in 20 September 2011 as “*A Europe where we pull together, not drift apart*”.

Actually, over the past two decades the disparity between Europe and other regions in terms of growth and competitiveness has been perpetually broadening. Similarly, President Barroso emphasized the need to accelerate investment in future wealth through new sources

of growth, notably “*supporting business and investing in the growth industries of the future like green energy, innovative start-ups and advanced manufacturing* (Barroso, 2011). It is time to innovation emergency, namely, throughout the Union the awareness of the necessity to innovate missions and implementations to regain ‘the social and economic unity’ is rising (Granieri & Renda, 2012). New ideas will be required to combine economic recovery and growth with dealing broader social and environmental issues. Indeed Member States have perceived that ‘innovation will be the key to some of the grand challenges facing our society, such as global warming and sustainable development’ (DIUS, 2008). There is wide range of EU innovation policy underlined on these challenges beyond recent years (Dodd, Franke, & Moody, 2011). While underlining these challenges, the most essential point is not only the ability to draw the lessons from the former policy mixes or country policy models are fit national conditions or not, but also to determine the policy path whether it is still using as an instrument to achieve the main objectives or is becoming an objective. This awareness is the core elements how the Union has responded these grand challenges by utilizing the Innovation Policy as an instrument or forgetting all the beginning aims, goals and just focusing on the chart-based targets, namely as an objective. This division is precious thus success may be reached not by narrowly focusing on setting the innovation policies as objectives, but instead by teaching, reminding the main grand challenges and minimizing the perception differences among the supply and demand side of the innovation policies and also raising the society’s self-perceiving, self-perpetuation, self-rectifying and also self-healing mechanism to preserve the unity in diversity with using the strategies and policies just as instruments or tools to tackle with grand challenges.

*“The complexity of the innovation landscape makes it almost impossible to find a way to measure innovation and compare countries as regards the level of innovation achieved. Measuring innovation today means tracking the existence of all the main actors and all the main ingredients of successful innovation, from the different perspectives of different, sometimes parallel trends such as smart specializations national or regional innovation systems, smart cities or regions...”* (Granieri & Renda, 2012).

Lundvall (1992) defines innovation systems as being originated by a number of relationships between society and the policy makers, where the social interaction shapes the learning processes and the flows of information (Markianidou , Izsák, & Radošević, 2013). More than ever, the number of relationships between the society (the demand side of the policy) and the policy makers (the supply side of the policy) draw a collaborative picture about the flow of information to carry out an innovative society. Thus, learning is a key aspect for the innovative society. *“Success may be achieved not by narrowly focusing on set*

*innovation objectives, but instead by supporting actors and organizations that are best able to adapt*” (Dodd, Franke, & Moody, 2011) and respond to grand challenges as an organic entity. That means acting as a whole to tackle with the grand challenges and remembering always the main challenge is grand and the main objective or goal is to gather all instruments together, make the route plan via policies and implement them. While implementing the policies and sub-instruments, the most essential part is participation of the society into the governance. Seen through this lens, we explain the European Union Innovation Policy-Makers to improve the implementation achievement of the policies as instruments and prevent the policies become the main goal on the extent of multi-discipliner platform, as the combination of Management Studies and EU Studies. Overall, the research roadmap aims to push one-step forward of the understanding of the innovation meaning from technological to societal meaning. Thus, we limited the research with social lenses to show the concept of “technology” has been replaced by the concept of “innovation” (reflecting a widening of the content of the notion). It is a matter of using public demand (or similar) to trigger innovation (Edquist, 2009). We focus on the big picture dynamics. We examine the innovation policy and its reflections on the society and also we make suggestions about how European Community may be turned into innovative society.

The main objective of this paper is to identify the concepts to generate innovation policy based on collaborative dynamics within the European Union.

In the first part of the study, the term “innovation” is examined. Under that part, innovation is defined with its relationship with society. At a first glance, the term always uses as technological improvement, yet we use the ‘innovation’ society oriented.

We did not use content system to separate the study First, Second...Part and its Subtitles, in the place of this; we use an innovative content and subject section system via using consequential content cycle.

In the essence of innovation section, we draw a roadmap as whole picture of the innovation terminology, technological and regional innovation meanings to build an innovative society and the European Union innovation point of view.

In the people are talking in Europe section we mention about the milestone of the European Innovation Policy (also supply and demand side of the policies). This classification is essential to understand the difference between ‘innovative society’ and ‘social innovation’ terms. The more essential for us is, to indwell the meaning of the innovative society term from beginning to end explicitly.

In the Lisbon strategy section, we address the question of European Innovation Policies have originated as an instrument first and then become a goal or an objective in due

course. We need not probe the strategy, instead of this; we attempt to highlight the relevant literature that has found the same result ‘the Lisbon strategy has failed due to the lack of good governance of the European Innovation Policy’ (Granieri & Renda, 2012).

In the Europe 2020 Strategy section, we assay the governance mechanism and its own dynamics. We ascertain the amelioration of the governance of the European innovation policy.

In the Innovation Scoreboard section, we use the charts to look a step further. We concretize the operability of the innovation policy governance whether is or not. Thus, the scoreboard figures show that how much degree the member states have innovated as advanced or medium or less and also it shows that the how deeper the innovation policy has penetrated into the member states and then into the society. We may set the linear proportion between the level of the saturation of the policy implementation of the society and the level of good governance of the policies. Thus, if the good governance exists the penetration of the policy implementations will rise. Due to testify the lack of good governance in the EU 2020 Strategy we added a suggestion part as the title of the Next Generation Innovation Policy section.

Under the Next Generation Innovation Policy section, some ways that may be beneficial for building an innovative European society are evaluated. There are some suggestions that be taken in order to build an innovative society such as changing the concept of innovation governance as new types of collaboration policy in EU.

## CHAPTER 1

### THE ESSENCE OF THE INNOVATION

*“Give a man a fish and you feed him for a day, teach a man to fish and he will feed him-self for a life-time”*

Lao Tzu

Innovation has been an essential topic of study for a number of different disciplines, including economics, business, engineering, science, sociology and so on. Despite the fact that innovation has been examined in a variety of disciplines, the term is often poorly identified and can be sometimes confused with related terms such as invention, design, and technology in a shallow point of view (Urkmeyen, 2013).

The term of innovation is also closely associated with terms such as value, open, capability, knowledge, practices, process, failure, collaboration, knowledge, society, learning, development.... During literature review, it is seen that there are various definitions of innovation. However, different definitions of innovation focus on same properties. Those definitions focus on that innovation is developing a service or product via adding new properties to it. It must be noted that “adding”, “developing” and “existing” are commonly used terms while defining the term “innovation”. In order to name a process as innovation, there must be an existing product or service and it must be developed by adding new properties. As a result of innovation, the service or products becomes better, operates in a better manner and fulfills new demands. In the past decades, there was not a concept for innovation despite existence of innovations. Moreover, there was an increasing prominence.

Talking about innovation, one must mention financing innovation. While developing new products or new services, there is a great need for fund. As a result of spending for innovation, goods and services are developed resulting in developments in human life. Developments are result of creative ideas. Starting point of innovation is creativity. Creativity is however necessary but not sufficient condition for innovation. Innovation is the implantation of creative inspiration (Okpara, 2007).

In business world, innovation attracts people widely and is a term having significant importance. For developed countries, innovation has been a crucial terms in business world. At the end of 20th century, general corporate practice has had a salient objective called innovation. It has been an economic policy and a focus point for search. The focus on economy and technology remained characteristic: indicators and statistics on innovations,

their forms, prevalence and the differences between countries or regions have been based on surveys in the basic population of enterprises (Hochgerner, 2010).

Different definitions and different ideas about innovation is an undesirable situation. It is beneficial to set some standards about concepts and ideas about innovation. Otherwise, there is a lack of coordination among different shareholders. For example, there is a need for cooperation among universities, firms, non-profit organizations etc. when there are contradictions about meaning and approaches it has been difficult to operate collaboratively. Universities and corporations must build a good interaction about innovation. That can be built via only having same norms. When universities and corporations have same ideas operating systems, they will operate synchronized resulting in producing new goods and services. There is a strong relationship among inventors and entrepreneurs. For example, xerography was invented by Chester Carlson. When a good entrepreneur helped Chester Carlson and paid money for that innovation, Xerox photocopying has been a significantly profitable product. This kind of an association among business world and universities is building future (Torun, 2007). Innovation is a process generally carried out by firms. Firms develop a product or service in order to have economic gain. New products, services or processes or developed ones are seen as a result of innovation process held by firms. That developed products may be made of a new material or they may serve for different demands. Innovation is a process about “how” products are produced. For firms, innovation is a policy. In today`s world, companies are aware of importance of innovation in order to survive and gain competitive advantage. According to Edquist, societal and economic significance produced/invented by a firm for the first time can be called as innovation. New services, new products or new processes may be called innovation. New products may be material goods or intangible services; it is a matter of what is produced. New processes may be technological or organizational; it is a matter of how the products are produced (Edquist, 2009).

According to Hippel (2005), there are some kinds of innovation. Each of them may involve either an innovation new to the world (e.g., the introduction of the personal computer or the Internet) or one that is simply new to a particular firm or industry (e.g., the use of electronic communication to manage retail supply chains) The author argues that generally used kinds of innovations can be listed as follows:

- Product Innovation: New products or new services are developed under product innovation.
- Process Innovation: New technologies and techniques are used for production under process innovation.

- **Organizational Innovation:** Implementing new organizational operation systems are developed under organizational innovation

Hippel also states that previously mentioned innovation types may be completely different from previously used service, product or system. There may be two classes of innovation types. They are disruptive (radical) and incremental. Disruptive means innovation of products, services or system completely different from previous versions. On the other hand, incremental innovation means changes seen at previously existing goods, services or systems. Some product or process innovations may result from formal research and development programs, while others may be developed as a byproduct of the production process or through feedback from the production process to formal R&D, while still others may come from interactions with users (Hippel, 2005). Overall, innovation may be seen at anywhere in anytime via any service or product. In today`s world, technology is being developed significantly. Products, services and systems are changing rapidly. All those processes are result of innovation. Innovation is also a central idea in the popular imaginary, in the media, in public policy and is part of everybody`s vocabulary. Briefly stated, innovation has become the emblem of the modern society, a panacea for resolving many problems, and a phenomenon to be studied (Godin, 2008).

Previous pages presented that innovation has direct relationships with some words such as “new, “value” etc. Moreover, innovation has direct relationships with some terms having broader scopes. One of them is growth. At that point, it is wise to study relationship between innovation and growth...

Living standards increase day by day. Increased living standards are result of innovation. Since industrial revolution, people developed new products or added new properties to existing products. As a result of that situation, innovation has increased living standards. Nowadays, innovation has become a vital instrument for competitiveness. Moreover, national progress is highly affected by products developed with innovation. Not only at national level, but it also global growth is affected with innovation. According to OECD Report, it is the application of advances in technology, in conjunction with entrepreneurship and innovative approaches to the creation and delivery of goods and services, which translates scientific and technological advances into more productive economic activity. This results in economic growth if market structures and the regulatory environment enable the more productive activities to expand (OECD, 2007).

There are two ways of developing economy. One of them is increasing number of inputs of production process. The other one is increasing outputs with same amount of input. At the second one, a person must be clever and try new methods in order to increase number



of outputs with same or lower capital, input etc. Both of two ways are important for economic growth. However, an economist is to find out which way is better than the other. At that point, literature presents an important measurement held by Abramovitz. Abramovitz measured inputs of American Economy between the years 1870 and 1950. Moreover, he also measured outputs between the same years. He then made what were thought to be reasonable assumptions about how much a growth in a unit of labor and how much a growth in a unit of capital should add to the output of the economy. It turned out that the measured growth of inputs (i.e., in capital and labor) between 1870 and 1950 could only account for about 15% of the actual growth in the output of the economy. In a statistical sense, then, there was an unexplained residual of no less than 85% (Rosenberg, 2004).

New ideas, knowledge and application of knowledge has become vital for economic growth as seen at the study of Abramovitz. Engine of the economic growth has been innovation especially nowadays. Organizations strictly rely on power of innovation. In order to have a good percentage of growth, organizations accept that innovation is to be at the centre position of their strategies. Most sectors and industries are currently experiencing what is called a "Schumpeterian renaissance": innovation is today the crucial source of effective competition, of economic development and the transformation of society (Torun, 2007).

During innovation process, it is difficult to see a rapid economic growth. Innovation is a process. A company may spend several times in order to gain profit from innovation. After waiting for a long time and supporting innovation profit, growth at productivity will be seen. According to Porter and Kramer (2011), innovation will serve profit not only for a company of a country, but also global economy grows accordingly. Authors express that innovation may redesign capitalism and its relationship with people. Perhaps most important of all, learning how to create shared value is our best chance to legitimize business again (Porter & Kramer, 2011). To create a shared value, all units need to learn how sharing knowledge. To reach this aim spectrum of business operations must open up the innovation process. In economies, some companies develop their own systems and directly interested in innovation. On the other hand, some other companies mainly use developments presented by other sources. Those companies use much of the technology from outside. Some companies use their internally created developments and may reveal their developments free for other countries. Furthermore, evidence from case studies suggests that companies may mix and match different kinds of practices in pursuit of innovation (Cosh & Zhang, 2011). The term open innovation is used for that kind of a situation. Open Innovation has been defined as "...the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively (Vanhaverbeke, 2012).

Open innovation is a new breed of innovation that forces companies to reassess leadership positions. That is about performance result of the strategies used by companies. With traditional view of business strategy, open innovation is a new kind of innovation. Open innovation is a new style and it is a kind of innovation that is open to others. According to Chesbrough and Appleyard (2007), traditional business strategy has guided firms to develop defensible positions against the forces of competition and power in the value chain, implying the importance of constructing barriers to competition, rather than promoting openness. The apparent success of some of these experiments challenges prevailing views of strategy (Chesbrough & Appleyard, 2007).

Open innovation process in a company is directed by a special team in companies. Approach used by those teams must be a top-down strategy. Those teams must deal with Open Innovation culture, Open Innovation procedures, Open Innovation skills and Open Innovation motivation.

Properties of open innovation culture areas can be described as follows:

- **Open Innovation Culture:** An Open Innovation approach must be established within the organization. At that point, top management has a crucial role. First of all, top management must admit importance of Open Innovation. Managers must organize the process. Involvement of top management is vital for successful application of the process. It is a culture because admitting working with other organizations is not something easy and it must be admitted.
- **Open Innovation Procedures:** Open Innovation application is mainly duty of the above-mentioned teams. Despite the involvement of top management, procedures must be directed and applied by the team. Moving people around within an organization may also be used to improve the intensity of internal networks and increase cross-functional working.
- **Open Innovation Skills:** It is difficult to determine right skills for implementation of Open Innovation. Researchers have to study skills needed for application of Open Innovation in a detailed manner. However, everybody may predict some skills necessary for the process. Lack of some skills necessary may result in failure during implementation of Open Innovation process. In order not to face with undesired conclusions, Open Innovation team and other members must be trained about Open Innovation.
- **Open Innovation Motivation:** In fact, Open Innovation motivation can be studied under Open Innovation culture. Mortara et. al. (2009) considers Open Innovation motivation separately. According to the writers, Open Innovation motivation consists

of incentive structure necessary for implementing Open Innovation process in a successful manner (Mortara, Napp, Slacik, & Minshal, 2009).

One of the significant benefits of Open Innovation is knowledge creation. Openness at value creation has a great power and that openness results in knowledge. That knowledge may be used repeatedly or it may be developed. Moreover, knowledge gathered in a pool may rapidly enhance thanks to contributions of individuals. People having beneficial ideas may significantly increase the amount of knowledge gathered in the pool. This kind of a process will reduce the cost of innovation accordingly.

Moreover, addition of experiences of different organization will provide a great amount of experience for all firms sharing the knowledge pool. An important example of Open Innovation is Linux. Operating system is tested and developed by countless people around the world. Experiences of many people contributed to operating system. It is a great knowledge pool benefited and contributed by all shareholders. Skilled programmers all around the world shared all their knowledge resulting in a usable operating system. An innovation community was triggered by the contributors. The resultant OS has been lauded for its superiority over competing “closed” operating systems along the lines of security, configurability, and reliability. The created value is reflected in the extensive adoption of Linux, where the Linux OS constituted over 13 percent of worldwide server revenue by 2007 and has surpassed the Mac OS as the second most widely deployed personal computer OS (Delio, 2004).

Value appropriation and value creation is a desirable benefit of Open Innovation. That is important especially for small firms. Small firms cannot spend much money for innovation activities. As a result of lack of necessary capital, open innovation provides a great amount of knowledge with a small amount of time and money. Partnership with other firms results in shared knowledge and innovation for small firms. Different from big companies such as Xerox, P&G, Philips, Lego, and IBM, small companies successfully share knowledge and develop their products and services in a short time with limited source. ). It must be added that not only small firms but also big firms use Open Innovation. Event giant firms look for ways to benefit from open innovation systems and develop their knowledge. Moreover, participation of giant firms into Open Innovation processes is vital because of huge knowledge of those firms. Their limited financial and human resources and the lack of technological capabilities force them to look for different types of innovation partners (Vanhaverbeke, 2012).

Another important benefit of Open Innovation is ecosystem creation that is also important to create an innovative society and also for its instrument social innovation

strategies implementations. Ecosystem creation is a result of coordination among different organizations. Coordination of firms in a sector results in setting standards. Because of the fact that those standards are set by nearly all firms, it is easy to predict that the whole business ecosystem is shaped in terms of standards (Shapiro & Varian, 1998).

More than creating new ecosystems, Open Innovation also develops current ecosystems. As a result of contribution of many shareholders, currently existing ecosystems develop via new contributions. Standards are also developed and an unconscious innovation process arises. Advancing the ecosystem similarly requires community investment in creating new knowledge and exploring alternative architectures to connect the disparate elements of that knowledge together in cohesive ways (Gawer & Cusumano, 2002).

Briefly, Open Innovation is benefited by both small firms and large firms. It is especially important for small firms. Small firms face many obstacles in terms of innovation because of shortage of necessary knowledge, time and money. That kind of cooperation gathers power of small firms. Small contributions of those firms turn into a huge pool of knowledge open to all firms. Producing high-tech products is hard to implement for small firms. On the other hand, benefits of Open Innovation are crucial for firms in order to develop their systems, services and products (Vanhaverbeke, 2012).

Financial economic crisis and pessimistic ideas in developed countries may be erased via innovation (Berger, 2013).

Innovation plays a crucial role in growth of organizations as well as countries. Turnover and profits are tools used to measure growth. Adding to turnover and profits, knowledge, efficiency, quality and human experience may also be used in order to measure growth. Innovation is a result of turnover and profits, knowledge, efficiency, quality and human experience providing a service or a product that is new or advanced. As previously mentioned, it may be either disruptive or incremental. Whether disruptive or incremental, it is possible to apply innovation to products, processes, or services and in any organization. All levels and all departments in an organization may take part in innovation process and even individuals may deal with individual (O'Sullivan, 2008).

All those attempts develop organizational growth. As seen, innovation is crucial for economic growth. At that point, there are many things to do by governments.

According to Atkinson and Wial (2008), following steps may be taken by a foundation in order to promote innovation:

- ✓ At regional level, innovation must be supported. Grants may be used in order to promote activities such as entrepreneurial support and technology commercialization in order to expand university-industry innovation cooperation,

- ✓ Relationship between universities and companies must be developed. Promoting tools such as grants may be used in order to provide better cooperation among companies and universities
- ✓ SMEs must be supported. Government must assist small and mid-sized firms in implementing best practice processes and organizational forms that they do not currently use.
- ✓ Cluster development must be supported especially using grants.
- ✓ Performance and accountability must be emphasized. Productivity and innovation must be measured.
- ✓ Best firms about innovation must be awarded in order to promote other companies (Atkinson & Wial, 2008).

One may express that there are two ways of economic development. One of them is increasing inputs and outputs in production process. The other is developing techniques resulting in providing more outputs with same or lower input. The second way is known as what we call innovation. In other words, innovation can be defined as providing new or highly developed marketing methods, organizational methods, products or services. Innovation is believed to be the fundamental source of significant wealth generation within an economy. This belief is foundation of the current administration's strategy for the economic recovery (Okpara, 2007).

Fundamental concepts about innovation are same in all parts of life. During innovation process, new ideas are put into outputs increasing customer value accordingly. Both good ideas and bad ideas may be fed at the same time. Every good idea usually replaces an older established one. The goal of every organization is the successful development of good ideas (O'Sullivan, 2008).

One of the most important terms relating with innovation is "new". Innovation is producing or developing something new. Creative inspiration is implemented during innovation process. Another important term about innovation is value.

As seen innovation is a value because of adding something beneficial for customer use. When customer demands are met in a better way thanks to innovation, value is added to that product or service. When the demands of customers are met in a better way, it means that the company had a competitive advantage thanks to innovation. During that process, information gathered fosters innovation process. According to National Innovation Initiative, Innovation is fostered by information gathered from new connections; from insights gained by journeys into other disciplines or places; from active, collegial networks and fluid open

boundaries. Innovation arises from organizing circles of exchange, where information is not just accumulated or stored, but created. Knowledge is generated anew from connections that were not there before (NII, 2013).

Innovation is crucial for preparing better jobs for future. Many people think about innovation that it is a term for engineers and scientists working in companies for developing new technological (hi-tech) products. In fact, innovation is about all workers in any kind of firm whether producing technology or not. If there is a better way of producing or operating, it can be said that an innovation process is held (Atkinson & Wial, 2008).

According to O'Sullivan (2008), innovation is the process of making changes to something generated by introducing something new. In the organizational context; innovation carries out to products, processes, or services. As such, it can be disruptive or incremental, and it can be applied to products, processes, or services and in any organization. It can happen at all levels in an organization, from top management to senior departments and even to the level of the individual (as workers one by one) (O'Sullivan, 2008).

Vokalo (2000) states that such an intangible resource, innovation, is a kind of “capital” for the unit to possess as a competitive advantage. Innovation has been determined as “*an idea, a product or process, system or device that is perceived to be new to an individual, a group of people or firms, an industrial sector or a society as a whole*” (Rogers, 1995).

In a globalized world context, where more factors of production are mobile, the immobile relational resources which are embedded territorially support the reality of functioning network and relationships. Relationships based on collaboration (Syrett & Evans, 2007).

“The academic literature on social innovation goes back to Max Weber who defined the relationship between the social order and innovation by the impact on social change of behaviors...The understanding of social innovation was then referring to innovations in the organization of work and of society. In 1932 Joseph Schumpeter created another theoretical landmark by establishing the fundamental role of innovation and structural change in the organization of society and the role of the entrepreneur as a driver of development” (BEPA, 2011).

Innovation is a difficult process. What is difficult about innovation is the amount of participators in innovation process. Innovation is not a process solely about a firm producing a product or service. There are many participants at the process such as governmental bodies, public organizations, universities, scientific labs, private companies and consumers. All those participants have important roles in the process. Among those participants, individuals (namely the majority group or when they act as one: the society) have an important effect on

innovation. One may think that society is buyers or in other words they are the demand side of the policies, namely the policy makers are producers and supply side of the policies. In this context, innovation is not a simple process held by one or two certain participants. In Today`s economic environment, countries are aware of the importance of participation of society into innovation process. For that reason, many countries try hard to build innovative societies.

*“An authoritative scholar in this field, Joseph Schumpeter, used to define innovation much more broadly, as “the introduction of new goods (. . .) new methods of production (. . .) the opening of new markets (. . .) the conquest of new sources of supply (. . .) and the carrying out of a new organization of any industry. Industrial economists tend to define innovation in terms of productive and dynamic efficiency, i.e., the ability of a society to push the efficiency frontier outwards by finding new ways to use existing resources, or creating new resources that can be added to the production mix...” (Granieri & Renda, 2012).*

Innovation process results in products or services meeting social needs. Processes of social change and basic cultural patterns have relationship while innovations are embedded also via taking political, historical and regional conditions taken into account. While innovation processes are held, social structures and cultural properties in societies must be known by innovators.

Popular trends, social conditions and public union must be in accordance with innovations in order to be usable and be supported by other people. Potential changes in social patterns and intentions of people dealing with innovation process must be in accordance. Innovations must be accepted by public. The effort necessary to assert the new against the old or to make an idea or an invention into an innovation successful in society or on the market is less, if the innovations basically conform to existing expectations. Innovations aiming not at improving (perfecting), but at changing (altering) the status quo have to expect and overcome grand challenges (Hochgerner, 2010). All those properties of innovation show that it has a crucial effect on economic life. Moreover, it is seen that many other terms such as new or better are directly related with innovation. According to Torun (2007), properties of innovation may be summarized as:

- There are different forms of innovation. A product, a service or a process may be innovation. It not important what form is used. If a firm performs better as a result of a new thing, that is called innovation.
- Innovation is not a process held by scientists in labs. Everybody may deal with innovation. If someone produce something new and beneficial, that is called innovation. Anybody may have a new and better idea.

- Innovation and creativity have similar meanings. However, they are not same things. Innovation is something adding value to another thing.
- Improvement is not enough to define innovation solely. Improvement is the refinement of existing methods to get more output from the same input while innovation breaks new ground, giving new outputs from less or different inputs.

Innovation pays in quantum amounts. The impact of innovation results in quantum leaps in value creation that encompasses effective results (Torun, 2007).

*The term “innovation” in the modern sense was used for the first time by Schumpeter (1934) and denoted five cases of innovation the introduction of a new good, the introduction of a new method of production, the opening of a new market, a new source of supply of raw materials and a new organization of industry (Dragan, Dzemyda, & Karciauskas, 2010).*

Schumpeter specified the term of innovation was the implementation of anything new, whether the something new is a product, natural resource, process, and market or market segment...

Schumpeter’s portray on the role of entrepreneurs, as well as the social structure and cultural institutions contributive to facilitate the creation and functioning of these entrepreneurs, diverts in perfectly with the role of innovation for economic development. The base of today’s world development idea can be originated from Schumpeter (Demir, 2009). Namely, at the end of the 20 century it has been finally recognized that innovation is a pioneer that can push modern economies. Countries and global organizations commenced to shape and to gather data interrelated to innovation processes. In the globalization the rise of innovations, political stimulation of scientific researches and development become one of the most significant core elements that impacts on economic status and the prospects of economic development. Efficient combination of innovations and human resource strategies is crucial for emerging economies, where successful catch-up is mainly driven by innovation. In order to reach this aim, there is a need to implement efficient and purposeful policy on European, national and regional levels, which is interconnected with micro motives and attitudes of society. This creates many challenges, thus social, economic and cultural conditions are different in various nations and countries, and needs more specific decisions (Dragan, Dzemyda, & Karciauskas, 2010).

In this context, innovation is not a simple process held by one or two certain participants. In Today’s economic environment, countries are aware of the importance of participation of society into innovation process. For that reason, many countries try hard to build innovative societies. Innovation attributes to a large society consisting regions and nations. Not only regions but also people in entire world are affected by innovation. As a



result of that situation, it can be said that innovation is something closely related with societies. Innovation both provides better products and services to community and economic growth. Shortly, innovation has many direct or indirect effects on societies (O'Sullivan, 2008).

On that sense, the European policy makers should re-discover this organic body and re-consider it as an organic catalyzer for innovation policies. Literature review demonstrates that society effects innovation process in two ways. First of all, society obeys the rules and just gives feedback about policies. It means that, development of innovation policies is shaped taking demands of the society into account. Secondly, especially important for that study, society and its sub-dimensions (as individuals) are direct contributors of innovation processes with their questions, opinions, desires and also needs.

The significance of the innovation policies is rising up not only for policy makers but also among individuals. The more and more people interested in the new developments, fixes or inventions that are brought by innovations. The idea of the innovation spreads all over of the essence of life so innovation is being become as a trend.

The awareness of innovation means individual or collective capability to make something newer, better, faster, smarter or at least less harmful. Thus, contrary to popular belief, the innovation is not only making or something better but also re-making or doing something less damage...to environment, to society, to unity of the humanity...

Namely, the necessity of the collaboration for the innovation is getting a trend, thus people are aware of some policies or implementations are not going well and the individuals should build relationships towards a higher purpose to enable sustainable lifestyles, economic growth, creating a collaborative union, learning that the strength comes from the unity. Thus, if the society can generate the trend of innovation, this trend can shape the policies and policy makers from the very beginning. However, if the policies or policy makers try to be the trendsetter for society, this will lead to increase the gap between policy makers and the society and also the pride of the policy makers as dominant characters.

For the very reason, it seems like a good time to mention and divide the meanings of 'social innovation' and 'innovative society'.



**Figure 1.1 'Social Innovation' is the complementary instrument of an 'Innovative Society'**

European Commission stated in the Guide to Social Innovation 2013 Report “*Today, there is no definite consensus about the term ‘social innovation’. There are range of definitions and interpretations around, in which linguistic nuances and different social, economic, cultural and administrative traditions play a role. For our context, we define social innovations as innovations that are both social in their ends and in their means, remaining open to the territorial, cultural, etc. variations it might take. So, the social is both in the how, the process, and in the why, the social and societal goals you want to reach.*” (European Commission, 2013). According to this report, EU supranational entity defines the social innovation as a ‘process’ and as a ‘social or societal goal’.

We examine this terminology on the extent of ‘an instrument’, thus the main part (goal or process part) must generate, built up an innovative society. Innovative society should mean the society can tackle with the challenges (whether they are small or grand) by itself as ONE or at least as MOST. That means the society is active, dynamic, flexible. The society is in communication with the policy makers by interrogating, benchmarking, experiencing, taking lessons and reminding about the reflections of the policies into the bottom line: individuals. However, the social innovation is more of a society passivation cover, because it is rather “*primarily aimed at improving social outcomes creating public value*” (Cels, de Jong, & Nauta, 2012).

Social innovation is implementation and development of new models, services and products in order to meet social needs. Social demands are getting increased day by day. Increasing social demands can be met only by products or services that are new. Social innovation can be described as improving well-being of people in society. New products and

services may be called as social innovation when they are social in their means and their ends. Not only well-being of society but also individuals` capacity to act in an innovative manner. “Social innovation refers to ‘*new ideas, institutions or ways of working that aim to fulfill unmet social needs or tackle social problems*’ (Dodd, Franke, & Moody, 2011). That means, the policy makers determine and re-determine the problems and the social needs in other words, the trend or tendency of the society. Your problems, your needs... Alternatively, this is the decade strategy and this is the innovation objectives that the society, firms, institutions...

“*Social innovation is in the mouths of many today, at policy level and on the ground. It is not new as such; people have always tried to find new solutions for pressing social needs*” (European Commission, 2013). “The contributions of Schumpeter, Arrow and later authors, among others, *must be praised for highlighting the fundamental relationship between information production and innovation. As a matter of fact, innovation strongly depends on the creation of new information and its translation into new knowledge. Accordingly, a very important part of innovation policy deals with stimulating the production and sharing of information*” (Granieri & Renda, 2012).

For the demand side of the innovation policy to build an innovative society, it may examine as two simulations. On this extent, “Schumpeter’s view on creative destruction revealed that new advances will diminish the value of the preceding technology; hence, destroying the practical application of a previous generation of a product... A disruptive innovation is any new product or process which overtakes the previous generation in the marketplace. Assink identifies the crucial role of innovation in creating value for the originating organization. It should be noted that Assink makes the distinction in the paper between incremental and disruptive innovations” (Demir, 2009). To understand this distinction we simulated demand and supply side of the innovation policy.

Firstly, the society is interrogating about the state of affairs and getting be aware of the improvements, challenges, adjustments. And then become conscious and then request the innovation.



**Figure 1.2 Demand Side of the Innovation Policy SIMULATION I (Incremental Innovation)**

This simulation is mostly suited for social innovation context for a society. In this concept, they are interrogating. That means, the actual status quo is dictated via policy makers and the society have not had an impact on the policy or at least had minimum impact on it.

As second simulation, the society is aware of the challenges and interrogating about the state of affairs and examining themselves, others and supra-national policy makers. Hence, they are living consciously and demanding or requesting the change or innovation as ONE. This simulation is adequate for more disruptive innovation in the innovative society. European Commission has underlined in the Social Innovation Report 2013 “Social innovations are innovations that are not only good for society but also enhance individuals’ capacity to act. They rely on the inventiveness of citizens, civil society organizations, local communities, businesses and public servants and services. They are an opportunity both for the public sector and for the markets, so that the products and services better satisfy individual but also collective aspirations” (European Commission, 2013).



**Figure 1.3 Demand Side of the Innovation Policy SIMULATION II (Disruptive Innovation )**

That means the society is not the one that knows in advance its needs. The people rather know what is not working with the existing solution, namely they have a sound in the governance. Still, the social rules are dictating by the powerful figures, however they can divert, lead or at least adjust the social challenges and shaping the policies.

On the other side of the innovative society, there is the supply side.



**Figure 1.4 Supply Side of the Innovation Policy**

The policy makers have mostly constitutes the supply dimension of the policies. The essential and the forgotten point has always been; the supranational policy mechanism.

The dual essence of the matter, the policy mechanism should have two sides of the innovation; first must have creative destruction and secondly must have smart collaboration techniques without dictating the social rules. That means, policy makers need to observe and peruse the trends of the society and their reactions to the global or grand challenges. Policy makers (as supply side of the policies) need to interact with the demand side of the policy.

According to European Commission, social innovation describes the entire process by which new responses to social needs are developed in order to deliver better social outcomes. This process is composed of four main elements:

- Identification of new/unmet/inadequately met social needs;
- Development of new solutions in response to these social needs;
- Evaluation of the effectiveness of new solutions in meeting social needs;
- Scaling up of effective social innovations (European Commission, 2013).

It is still the dominant structure has been playing a role in the innovation process. Thus, the Commission describes the elements for the passive society. It had better not to identify the social needs by the Commission. The policy makers had better observe the society and determine the needs, then inform the society about the findings and then inquire to the society via many e-platforms or polls to get feedback with needs and solutions not just the needs. After this, two tier questions both side can collaborate to the innovation. Otherwise, the policy-makers are forced into scaling up and up the effectiveness of the social innovation. Indeed, the supply actors are suppressing the society's self-perceiving, self-perpetuation, self-rectifying and also self-healing mechanism to preserve the unity in diversity.

Tracing a new approach to innovation policy needs a much more complete realizing of innovation itself. The definition of innovation is often used to refer to the process of putting in place something new, it may be a product or process. In most discussions, innovation is seen as a single thing or concept, often scientific, technical and/or R&D focused. In truth an innovation can be almost anything– for example new ways of communicating such as clusters, platforms or re-defining the governance (Dodd, Franke, & Moody, 2011).

The most distinctive detail for an innovative society is that the society behaves as change agent and also it needs to be convinced the policy makers that 'it is time to leave current approaches behind and explore new ways of doing things' (Cels S. , 2012).

## CHAPTER 2

### PEOPLE ARE TALKING IN EUROPE: INNOVATION

*“To become the most dynamic and competitive knowledge-based economy in the world by 2010 capable of sustainable economic growth with more and better jobs and greater social cohesion and respect for the environment”.*

The European Council defined the objective of the strategy for the EU in Lisbon in March 2000

December 2008 has been a date for European Union focusing on increasing creativity and innovation. At that date, European Union decided to strengthen its capacity for innovation and creativity. As a conclusion, 2009 European Year of Creativity and Innovation was decided. Aim of 2009 European Year of Creativity and Innovation was promoting creativity and innovation in Europe. Adding to that aim, some other specific objectives of 2009 European Year of Creativity and Innovation can be listed as follows:

- ✓ Developing understandings of people via creativity, fostering openness to change and problem solving,
- ✓ Some cultural activities focusing of various topics such as cultural diversity,
- ✓ Promoting education about creativity and innovation,
- ✓ Promoting cooperation among organizations (Boily, 2012).

Two major priorities of European Commission have been making lifelong learning a reality and promoting creativity and innovation. Those priorities are vital for education strategy until 2020. With the aim of promoting creativity and innovation, 2009 has been designated as the European Year of Creativity and Innovation. 2009 European Year of Creativity and Innovation has been a good tool for highlighting importance of creativity and innovation in Europe. 2009 European Year of Creativity and Innovation not only focuses on innovation in economic products and services of a country but also focuses on personal, social and economic innovation and development (Quintin, 2013). There are many variables related with innovation. Personal attributes (creativity), cultural and interpersonal skills and values effect innovation. As a result, it is wise to shape those variables in order to promote innovation. Aiming that, 2009 European Year of Creativity and Innovation considers education a core element for innovation in Europe. European Council emphasized importance of enhancing creativity, innovation performance and competitiveness again in March 2007.

European Union has important reasons for trying hard to promote innovation. Especially social and economic reasons make it unavoidable to invest in creativity and

innovation for European Union. The Union has to boost its capacity of innovation and creativity. Opportunities and challenges of globalization may only be dealt with creativity and innovation. As a result, despite it was concluded in December 2008, European Union decided 2009 European Year of Creativity and Innovation in December 2006 (European Information Association, 2007). Education is one of the most important elements of 2009 European Year of Creativity and Innovation. It is impossible to support innovation and creativity without education. It is a core element for developing innovation. Talents and creativity must be promoted from early ages. European Union tries hard to promote innovation via education. For example, Lifelong Learning Program may be a good example for supporting creativity and innovation. Other policies and programs in related domains, such as enterprise, the information society, research, cohesion or rural development, will support this European Year where appropriate (European Commission, 2009). The European Year of Creativity and Innovation must be implemented by a national coordinator in European countries. Each member state must prepare a council for innovation and a coordinator must be responsible for the implementation. Attending conferences, event and debates are some of the duties of coordinator (Boily, 2012). Another important event related with innovation is Lisbon Strategy. It was first born out of The Lisbon Special European Council in 2000. On March 23 and 24 of 2000, Europe of Innovation and Knowledge was studied. During that process, Lisbon Strategy was emerged. After a period of time, Lisbon Strategy was revised in 2005 aiming to provide a road map and a set of strategies for the years 2007-2013. Lisbon Strategy 2005 has embraced knowledge, innovation and education. Just like 2009 European Year of Creativity and Innovation, Lisbon Strategy also considers education core element of innovation success (The Lisbon Special European Council, 2005).

Lisbon Strategy also deals with information and communication technologies with trends of globalization. In other words, Lisbon Strategy is a tool of challenging negative effects of globalization and turning those negative effects into a positive manner. Cardiff, Cologne and Luxembourg processes are held for social cohesion, job creation and social growth as a result of Lisbon Strategy (The Lisbon Special European Council, 2005).

Reason of revising Lisbon Strategy in 2005 was a result of unsatisfactory results of decisions taken in 2000. Disappointing results were observed during that first period of Lisbon Strategy. None of the growth, employment and productivity aims were achieved. Consequently, European Commission proposed a revised version with national action plans and simplified coordination plans (Demir, 2009). Main difference between Lisbon Strategy 2000 and Lisbon Strategy 2006 is coordination process. Previously, there was a sub-national coordinating process. That process was changed and national process started. According to

national process, nations and regions have steps to take. Three coordination tools were prepared. They are, the Cardiff process focusing on microeconomic and structural reforms, and bringing up the rear, Luxembourg process relating to labor market policies and the Cologne process dealing with macroeconomic and budgetary measures (Barroso, 2005).

After revising in 2005, European Commission aimed to put knowledge into practice. In 2006, the Commission identified 10 priorities. The ten priorities prepared by European Union were as follow:

- ✓ Education systems supporting innovation,
- ✓ An Institute of Europe for Technology (European Institute of Technology),
- ✓ A desired labor market for researchers,
- ✓ Making research industry links better,
- ✓ New cohesion policy programs aiming fostering regional innovation,
- ✓ Tax Incentives for Research and Development activities,
- ✓ Protecting intellectual property rights,
- ✓ Digital products and services-initiative on copyright levies,
- ✓ Innovation friendly lead markets and promoting innovation via procurement (European Information Association, 2007).

Evaluation of Lisbon Strategy 2000 made above-mentioned measurements compulsory to take. In order to achieve goals, it was obligatory to take extra measures. An important tool that can be used to achieve aims goals is funds. Structural funds are used to promote innovation. Benefits of those funds are vital for competitive advantage of EU stakeholders (Demir, 2009).

Managing the innovation from centre of European Union is something difficult to deal with. Perhaps, that was the reason of unsuccessful result faced at Lisbon Strategy. Difficulty in producing a web for innovation made it necessary to focus on regional innovation. Other countries must not escape from their duties on nationalized innovation strategies. Lisbon Strategy initially softened technological change and domestic innovation for national level. On the other hand, despite the fact that innovation strategies are nationalized, a strong coordination is to be provided among regions (Bartolini, 2005). In summary, it can be said that there was a great optimism about Lisbon Strategy 2000. However, economic slowdown and some unexpected results showed that there was a need for revising Lisbon Strategy 2000. Aims of the strategy were not achieved and there occurred a need for change. As a result of that, European Commission prepared a new Lisbon Strategy in 2006. Aiming to perform better than 2000, Lisbon Strategy 2006 emphasized the importance of regional development



(The Lisbon Special European Council, 2005). Thus, innovation is a core value to develop for a region. Innovation aims to help not only firms but also regions for developing themselves about various topics such as supporting infrastructures, as well as their complementary policies for innovation. To diffuse good practices and encourage interregional cooperation in innovation, promotion is a central part of “Innovation”. The challenge for the European Commission is to contribute to the development of a shared vision of the role of innovation in regional development, without interfering with the specific processes of strategy building in each of the regions. There are various projects under “Innovation”. Those projects are interrelated and some of them are Regional Technology Transfer Projects – RTT, Regional Innovation and Technology Transfer Infrastructures and Strategies - RITTS and Regional Innovation Strategy – RIS. Since 1994, 28 European regions adopt many of those projects. Moreover, there are some other projects such as those applied by many regions in European Union. In European Union, 25 percent of the regions apply minimum one regional innovation project. Regional innovation strategies must be developed by regions themselves.

European Commission declares that, adding to own strategies, regions must develop strategies and innovation beneficial for EU. Those regions must make innovation needed by the community the knowledge produced by regions must be usable for other regions as well.

European Commission tries hard to build a common knowledge pool benefited by all regions. As a result, all regions are forced to share their knowledge. So, cooperation is seen both locally and globally.

Regional innovation is a strategy aimed at supporting regional cooperation in technology development and innovation. In this context, the emphasis is on the agents located in the region. The “Regional Technology Plan Guide Book” classifies the expected regional innovation operational results as following:

- Understandable strategic framework necessary for regional innovation,
- Inter and intra-regional cooperation is supported via creating networks among regions,
- Identification and preparation of a stock of innovation projects in firms
- Strengthening of regional research and technology development and innovation centers
- Advice and orientation in the design of new public / private programs for the promotion of Innovation (Mahdjoubi, 1997).

The term regional innovation and development of regional innovation projects are result of global economic competition. Under competitive conditions, regions have to challenge with other regions in terms of economic development. As a result of that rivalry, regional innovation has become a vital instrument for regions. After realizing importance of

regional innovation, many projects emerge in regions. Results of innovation projects and benefits of clusters proved how regional innovation is necessary for regions. Regional innovation not only stimulates development of firms in a region, but also directly effects development of a region in various areas as well. Learning and firm specific capabilities may result in competitive advantage. Supporting learning and firm specific capabilities with localized capabilities such as skills, institutions, social values and specialized resources, both region and companies in a specific region will develop accordingly and also regional development ensues as competitiveness occurs in places where localized capabilities such as institutional endowment, built structures, knowledge and skills exist. The literature on regional innovation systems has provided substantial description and analysis of relationships between innovations, learning and economic performance of particular regions (Doloreux & Parto, 2005).

Briefly, progress in social or economic platforms must not be supported in national level solely; it is also necessary and beneficial to support innovation regionally.

Typical priorities and their associated lines of actions, emerging from Regional Innovation systems can be listed as follows:

- Via supporting promoting technology transfer, industry or technology-specific competence centers, competitiveness poles involving public and private organizations, Regional Research and Development is enhanced,
- Via supporting SMEs` access to advanced business support services, innovation in SMEs by promoting university-enterprise cooperation networks, business networks and clusters of SMEs and by improving the effectiveness of these services (networks), regional development will be developed,
- Via supporting the economic exploitation of new ideas, fostering the creation of new firms from universities and existing firms, by developing entrepreneurship training in education institutions and creating new financial instruments and incubation facilities, new firms are opened and entrepreneurship is supported,
- Improving human capital for innovation by developing curricula tailored to the innovation system needs in different fields (not only science and technical aspects but also in management of innovation and other fields), fostering mobility between public research and businesses, encouraging companies to recruit innovation specialists, etc. (OECD, 2010)

All those benefits forces regions and countries to support regional innovation. With that aim, European Union established Regional Innovation Monitor Plus. Regional Innovation Monitor Plus provides an area of sharing knowledge and innovation experiences of regions in

European Union. Regional Innovation Monitor Plus is a result of European Union`s Europe 2020 strategy. Regional Innovation Monitor Plus is a platform connecting regions in European Union with the aim of developing innovation with experiences and knowledge of other regions. Countries using Regional Innovation Monitor Plus are Bulgaria, Belgium, Portugal, Poland, Spain, Sweden, the Czech Republic, Denmark, Italy, Slovakia, Finland, France, the Netherlands, Germany, Greece, Romania, Hungary, Ireland, the United Kingdom and Austria (European Commission, 2013b).

There are more than 200 regions taking part in Regional Innovation Monitor Plus. The core of the RIM Plus service is a knowledge base of information on some 200 regions, including an online “inventory” of regional innovation policy measures, policy documents, organizations, a single access point for good practice dissemination on regional innovation policy in Europe, a network of regional experts with thematic specialization and provision of Knowledge hub services, an organization of a series of policy events and a new communication platform for innovation stakeholders (European Commission, 2013b). There are some characteristics of regional development projects. Especially six properties must be seen at regional development projects. They can be described with the terms “regional”, “bottom-up”, “strategic and coordinated”, “integrated”, “multidisciplinary” and “international”. Regional means benefits of the region. Those projects are directly related with benefits of a common region. In other words, projects developed in a region must firstly provide information to the region itself. On the other hand, it must not be forgotten that knowledge developed in the region must also be shared with other regions. Bottom-up means coordination in a region. According to bottom-up characteristic, there must be close relationships among companies in a region and regional and national scientific and technological community. Both firms and other organizations must help each other. Thirdly, strategic and coordinated is based on the environment and long term criteria and placing its policy of promoting research and technology development and innovation within the context of industrial and regional policy. “Integrated” means linking public sector and private sector. Local, regional and national public sector organizations and firms in private sector must help each other. Both organizations must have same aim as developing innovation and increasing regional productivity and competitiveness. In order to reach that aim, there must be a strong link between public service and private sector. Multidisciplinary taking means institutional, economic and technological criteria into account while preparing innovation projects. Lastly, international is about thinking globally. Each project should keep an international perspective in terms of the analysis of global economic trends as well as the need to cooperate nationally

and internationally to be more effective in the fields of research and technology development and innovation (Mahdjoubi, 1997).

Another important point to be discussed is implementing regional innovation projects. There are six steps to be taken for regional innovation projects. They can be listed as:

- Initiating a regional dialogue on innovation,
- Analysis of regional innovation needs and capacities,
- Shaping the innovation strategy with direct involvement of all relevant stakeholders,
- Selection of priorities for innovation support,
- Implementation of the strategy and establishment and
- Use of a monitoring and evaluation system for the strategy.

Initiating a regional dialogue on innovation is the first step. This step is important because of determining main actors in the process. At that step, actors taking part in regional innovation system are identified during that step. The second step is analysis of regional innovation needs and capacities. During that process, strengths and weaknesses of innovation system are evaluated. Which tools will be used in order to monitor innovation projects will also be determined under that step. the exploitation of existing data and knowledge, new analyses, surveys (to firms generally), evaluations, innovation gap analyses, and foresight exercises among other tools are evaluated. Shaping the innovation strategy with direct involvement of all relevant stakeholders is the usage of various channels. Based on the analyses carried out in the previous step, a number of subjects are identified, analyzed, discussed and expanded into more precise challenges and options for policy. During this step as well as in others, benchmarking with foreign experiences is generally performed. Selection of priorities for innovation support is a political step. Budgetary issues come at the forefront here, as they place clear constraints on policy action. The importance of policy mix and sequencing should also be part of this prioritization. Implementation of the strategy is the main part of the process. Action plans, pilot projects and initiatives are developed and implemented. These actions are defined in close coordination with the implementing bodies, and are associated with timelines, responsibilities, budgets, and targets. At establishment and use of a monitoring and evaluation system for the strategy step, monitoring data and methods should have been embedded in the previous steps at the stage of action and program definition. They are put in operation during this step and are used on a regular basis. External evaluations are carried out, less often than monitoring, but results feed back into the strategy for fine-tuning (OECD, 2010).

There are many reasons supporting the idea that innovation may be beneficial when regionalized. In a geographical space, innovation activities take place unevenly. Endowment with industrial sectors and production factors varies in regions. Adding to that, different regions have different properties and innovation factors differs from region to region. Moreover, innovation is not only important for a nation but also important for a region. When a country is developed where a region in this country did not, there will be a contradiction. Lastly, regional innovation projects will provide experience for other regions in a country (Werker, 2004). Shortly, regional innovation is a term taking attention in Europe as well as other parts of the world. It is a term about innovation in a certain region. However, it is seen that it is difficult and unwise to preserve an innovation process in a certain region. Moreover, sharing knowledge with other regions is more and more beneficial for all regions (Doloreux & Parto, 2005).

### CHAPTER 3

#### THE LISBON STRATEGY: INNOVATION

*“To become the most dynamic and competitive knowledge-based economy in the world by 2010 capable of sustainable economic growth with more and better jobs and greater social cohesion and respect for the environment”.*

The European Council defined the objective of the strategy for the EU in Lisbon in March 2000

Today, innovation is basic necessity of economic growth of regions, countries and companies. Policy makers are aware of importance of innovation and people accept the fact that economic progress may be developed thanks to innovation. Another important point widely discussed is that not only innovation but also sharing knowledge is important for economic growth of a country. Even countries that have generally refrained from active industrial policy in recent years now seek new ways to improve the environment for innovation in order to boost productivity and growth (OECD, 2007).

The Lisbon Strategy (named also the Lisbon Agenda or Lisbon Process in the literature) was a progress plan formulated in 2000, for the development of the economy of the European Union between 2000 and 2010. The Lisbon strategy targeted to improve the productivity and competitiveness of the EU economy (Webb, 2009).

In fact, there is a debate about effectiveness about new strategies. According to a report of European Union (2007),

While the 2006 Communication. "Putting knowledge into practice: A broad-based innovation strategy for the EU" lists the previous attempts of the EU to foster a more conducive environment for innovation, firstly, in the 2005 Lisbon Strategy for Growth and Jobs detailing policies and reforms to make Europe's regulatory and economic framework more innovation-friendly; secondly, with the Commission Communication of October 2005 "More Research and Innovation" itemizing 19 fields of action for the EU and the Member States; and thirdly, the National Reform Programs, as based on the Integrated Guidelines of the 2005 Lisbon Strategy, stimulating the Member States to take targeted measures to promote innovation, by utilizing the Structural Funds. Despite these three initiatives, the EU economy persists in failing to meet its innovation potential” (European Commission, 2007). In fact, there is a close relationship between Lisbon Strategy 2005 and 2006 Commission of Communication. It can be said that 2006 Commission of Communication is application process of Lisbon Strategy 2005. It can be said that one of the aims of 2006 Commission

Communication is providing links among countries. So, it will be easy to identify roles and duties of countries. Because of nationalized structure of innovation after Lisbon Strategy 2005, it has become necessary to operate countries in cooperation. For European Commission, 2006 Commission Communication was the process of putting knowledge into practice. Aim was making Europe an innovation based society (Demir, 2009). “The experiences from past and the practices of other countries provide some indications of what might be appropriate tools, but these sources are not flawless. In the dynamic world, the past is not the best guide because framework conditions change and sometimes very rapidly. The best practices of other countries might not be transferable or suitable due to crucial differences in development pattern or culture. This implies that policies could benefit from the additional analysis of various viewpoints, policy dimensions, and elements in order to clarify their impact” (Tõnu, 2011). *“As a matter of fact, there was widespread agreement on the fact that the current European landscape suffered from major problems, mostly due to a lack of good governance. It is therefore no surprise that both public and – even most notably – private spending in research, development and innovation have not even come close to the very ambitious objectives set in Lisbon back in 2000”* (Granieri & Renda, 2012).

In 2010, at the end of the decade indicated by the partly unsuccessful Lisbon strategy, the European Union found itself in the middle of an economic crisis... The “post-Lisbon” strategy, called Europe 2020, delineates three main objectives, seven flagship initiatives and a number of ambitious targets to be reached during the decade and finally in 2020. “The three main objectives are: (a) smart growth, aimed at developing an economy based on knowledge and innovation; (b) sustainable growth, i.e., promoting a more resource-efficient, greener and more competitive economy; and (c) inclusive growth, focused on fostering a high-employment economy delivering social and territorial cohesion”. The main targets of Europe 2020 embody employment, energy, education related and poverty-reduction targets. Significantly, for our purposes, the Europe 2020 strategy reiterates the need to achieve ‘innovation union’ to enhance framework conditions and reach to finance for research and innovation so as to assure that innovative ideas can be turned into products and services that create growth and jobs (Granieri & Renda, 2012). In summary, it can be said that there was a great optimism about Lisbon Strategy 2000. However, economic slowdown and some unexpected results showed that there was a need for revising Lisbon Strategy 2000. Aims of the strategy were not achieved and there occurred a need for change. As a result of that, European Commission prepared a new Lisbon Strategy in 2006. Aiming to perform better than 2000, Lisbon Strategy 2006 emphasized the importance of regional and national

development while Lisbon Strategy 2000 emphasized focusing on center (The Lisbon Special European Council, 2005).

Lisbon Strategy also deals with information and communication technologies with trends of globalization. In other words, Lisbon Strategy is a tool of challenging negative effects of globalization and turning those negative effects into a positive manner. Cardiff, Cologne and Luxembourg processes are held for social cohesion, job creation and social growth as a result of Lisbon Strategy (The Lisbon Special European Council, 2005).

In order to achieve goals, it was obligatory to take extra measures. An important tool that can be used to achieve aims goals is funds. Structural funds are used to promote innovation. Benefits of those funds are vital for competitive advantage of EU stakeholders. At that process, Small and Medium-Sized Enterprises (henceforth SMEs) are taken into account. In fact, they play an important role at innovation targets of Europe. Initiatives of research and technological development and innovation take care of SMEs (Demir, 2009).

Managing the innovation from centre of European Union is something difficult to deal with. Perhaps, that was the reason of unsuccessful result faced at Lisbon Strategy. Difficulty in producing a web for innovation made it necessary to focus on regional innovation. Other countries must not escape from their duties on nationalized innovation strategies. Lisbon Strategy initially softened technological change and domestic innovation for national level. On the other hand, despite the fact that innovation strategies are nationalized, a strong coordination is to be provided among regions (Bartolini, 2005).

In fact, there is a close relationship between Lisbon Strategy 2005 and 2006 Commission of Communication. It can be said that 2006 Commission of Communication is application process of Lisbon Strategy 2005. It can be said that one of the aims of 2006 Commission Communication is providing links among countries. So, it will be easy to identify roles and duties of countries. Because of nationalized structure of innovation after Lisbon Strategy 2005, it has become necessary to operate countries in cooperation. For European Commission, 2006 Commission Communication was the process of putting knowledge into practice. Aim was making Europe an innovation based society. For that aim, all innovation initiatives were to be embraced through a comprehensive framework (Demir, 2009).

In fact, there is a debate about effectiveness about new strategies. According to a report of European Union (2007),

*While the 2006 Communication. "Putting knowledge into practice: A broad-based innovation strategy for the EU" lists the previous attempts of the EU to foster a more conducive environment for innovation, firstly, in the 2005 Lisbon Strategy for Growth and*



*Jobs detailing policies and reforms to make Europe's regulatory and economic framework more innovation-friendly; secondly, with the Commission Communication of October 2005 "More Research and Innovation" itemizing 19 fields of action for the EU and the Member States; and thirdly, the National Reform Programs, as based on the Integrated Guidelines of the 2005 Lisbon Strategy, stimulating the Member States to take targeted measures to promote innovation, by utilizing the Structural Funds. Despite these three initiatives, the EU economy persists in failing to meet its innovation potential (European Commission, 2007).*

In Europe, it is seen that policy makers have some ideas about innovation via 2006 Commission Communication. Now, policy makers are aware of the fact that education and innovation are terms closely related each other. It is useless to prepare an innovation process solely. At that process, both individuals and organizations as consumers must be educated about innovation and consumption decisions about innovation. In 2006 Commission Communication, a comprehensive plan of action was prepared aiming to respond more rapidly and accurately to the preferences and needs of consumers and to make Europe more inventive (Demir, 2009).

## CHAPTER 4

### THE EUROPE 2020 STRATEGY AND THE INNOVATION UNION

*“The most important lesson for Europe to learn is that strength comes from Unity”*

(Brok, 2004)

Talking about regional innovation, attempts of European Union must be analyzed. At that point, there are two important documents of European Union. One of them is EU Report Europe 2020. It is about general perspectives and steps to be taken by European Union during following decades. Europe 2020 focuses on three important approaches. They are “smart”, “sustainable” and “inclusive” growth. The second report discusses and proposes a new process of EU Regional Policy Reform, launched in preparation of the new programming period 2014-20; in particular, the rationale, economic justification, conditionality, process design and delivery style of regional policy itself are discussed, supplying wide material for institutional and political decision (Camagri, Capello, & Milano, 2012).

Local communities, civil society organizations, business and public servants and services are starting point of social innovation. Both public service and private sector considers social innovation as an opportunity. European Union focus on social innovation and pays great attention. Stimulating the knowledge-based society, entrepreneurship and innovation are main points of Europe 2020 Strategy.

Europe 2020 emphasizes securing economic prosperity and competitiveness and discusses innovation in those terms. Yet the associated Innovation Union initiative underlines the way that the effective dealing of strategic challenges such as climate change, health and demographic change should be the aim of innovation policy, as opposed to simply pursuing innovation as an aim in itself.

*“Europe 2020 provides a potential springboard to a broader, more holistic innovation policy across the EU better suited to the strategic challenges”* (Dodd, Franke, & Moody, 2011). “The Commission has, over the years, developed a large number of policies, programs and initiatives that have contributed to empowering citizens and organizations to address social issues and societal challenges in a more effective manner, to help national, regional and local actors, and to shape socially innovative practices and new governance modes” (European Commission, 2013).

During literature review, it is seen that some authors make contributions and criticism to regional development systems in Europe. An author presenting studies about regional development is Camagri.

According to Camagri et. Al (2012): “At the cross-yard of these two streams of reflections, an interesting policy debate was launched, related in particular to the “smart growth” pillar, stressing the need to conceptually integrate the tasks put forward by Europe 2020 Report and the new cohesion policy reform into a common framework. On the one hand, Europe 2020 is seen as lacking a more explicit territorial dimension, a way through which to engage all potential and dispersed actors to contribute to the Agenda with their decision processes, in a bottom-up way. On the other hand, the EU policy reform should be conceptualized in a way to be able to contribute to the achievement of the three pillars (smart, sustainable and inclusive growth) of Europe 2020 Agenda; in particular, the latter might become the occasion for re-launching a knowledge-intensive growth model for Europe on a regional base, supplying operational answers to the request of one of its ‘flagship initiatives’, namely Innovation Union” (Camagri, Capello, & Milano, 2012)

## CHAPTER 5

### THE INNOVATION SCOREBOARD

*“The Innovation Union Scoreboard is an extremely useful source of data that allows for a preliminary identification of some of the specific dimensions along which Europe performs worse than its global competitors, so that the causes of the innovation emergency can become clearer.”*

(Granieri & Renda, 2012)

Innovation Union Scoreboard is an instrument prepared by European Commission after Lisbon Strategy. After adoption of Europe 2020 strategy, Innovation Union Scoreboard is developed. Aim of Innovation Union Scoreboard is assessment of performance of member states about innovation. That is why Innovation in European Union may be examined via data gathered with Innovation Union Scoreboard. European countries are aware of the importance of innovation both in regional level and for the country totally. One of the main titles to be mentioned about innovation policy of European Union is Innovation Union Scoreboard. At that point, it is wise to mention Innovation Union Scoreboard in detail and current data. Aim of Innovation Union Scoreboard is assessment of performance of member states about innovation. That is why Innovation in European Union may be examined via data gathered with Innovation Union Scoreboard (European Commission, 2013a).

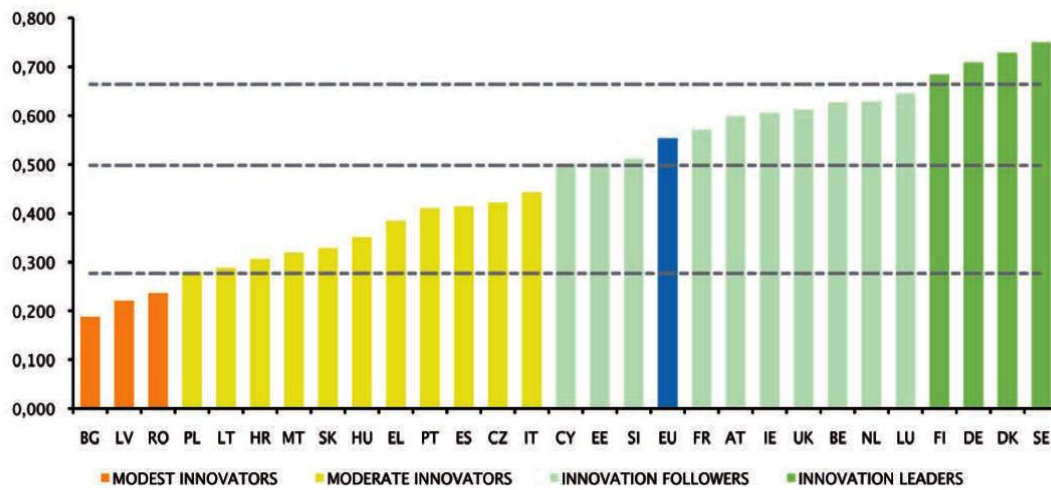
Innovation Union Scoreboard is an instrument prepared by European Commission after Lisbon Strategy. After adoption of Europe 2020 strategy, Innovation Union Scoreboard is developed. Aim of Innovation Union Scoreboard is assessment of performance of member states about innovation. That is why Innovation in European Union may be examined via data gathered with Innovation Union Scoreboard. Together with the Regional Innovation Scoreboard, it forms a comprehensive benchmarking and monitoring system of research and innovation trends and activities in Europe. “Indeed, it is difficult to provide an overall assessment of EU policies on social innovations and their impact on social issues (employment, inclusion, cohesion, equity, etc.), because programs are dispersed and operate only for limited periods of time. Also, social innovation has been part of the explicit objectives of only a few programs, and while evaluation and impact assessment is taken very seriously assessments of effectiveness and interactions to respond to social and societal issues”. (European Commission, 2013).

At that point, it will be wise to examine current performance of European Union in

terms of innovation. In order to observe innovation performance of European Union members, Innovation Union Scoreboard 2013 will be used. Results of Innovation Union Scoreboard 2013 are also important for reflecting effect of economic crisis on innovation policies of member states. Results of Innovation Union Scoreboard 2013 are also important for reflecting effect of economic crisis on innovation policies of member states. During measurement process, data gathered from Eurostat, some other reliable data sources, 12 indicators from 2011, 9 indicators from 2010 and 3 indicators from 2012. Community Innovation Survey 2010 was also used for six indicators. Results of Innovation Union Scoreboard 2013 are also a good way of observing strengths and weaknesses. At that process, performance of 27 members and the Former Yugoslav Republic of Macedonia, Iceland, Croatia, Serbia, Norway, Switzerland and Turkey are evaluated (Doloreux & Parto, 2005). Using Innovation Union Scoreboard, member states are evaluated by 25 different indicators. Those indicators have three main groups and 8 innovation dimensions. Three main indicators are called enablers, firm activities and outputs. Firm activities have three innovation dimensions called human resource, open-excellent and attractive research systems and finance and support. Human resources have three indicators. They are new doctorate graduates, population aged 30-34 and youth with at least upper secondary education. Open-Excellent and attractive research system has three indicators called international scientific so publication, top 10 percent of mostly cited publications and non-European Doctorate students. Finance and support has two indicators called R&D expenditure in public service and venture capital investment (European Commission, 2013).

“Innovation performance in the EU has improved year on year in spite of the continuing economic crisis, but the innovation divide between Member States is widening. This is the result of the European Commission Innovation Union Scoreboard 2013, a ranking of EU Member States. While the most innovative countries have further improved their performance, others have shown a lack of progress. The overall ranking within the EU remains relatively stable, with Sweden at the top, followed by Germany, Denmark and Finland” (European Commission Press Release, 2013).

Figure 1: EU Member States' innovation performance



**Figure 5.1 EU Member States' Innovation Performance (Innovation Union Scoreboard 2014)**

Based on the average innovation performance, the Member States fall into four different performance groups:

- ✓ Denmark (DK), Finland (FI), Germany (DE) and Sweden (SE) are “*Innovation Leaders*” with innovation performance well above that of the EU average;
- ✓ Austria (AT), Belgium (BE), Cyprus (CY), Estonia (EE), France (FR), Ireland (IE), Luxembourg (LU), Netherlands (NL), Slovenia (SI) and the United Kingdom (UK) are “*Innovation followers*” with innovation performance above or close to that of the EU average;
- ✓ The performance of Croatia (HR), Czech Republic (CZ), Greece (EL), Hungary (HU), Italy (IT), Lithuania (LT), Malta (MT), Poland (PL), Portugal (PT), Slovakia (SK) and Spain (ES) is below that of the EU average. These countries are ‘Moderate innovators’;
- ✓ Bulgaria (BG), Latvia (LV) and Romania (RO) are “Modest innovators” with innovation performance well below that of the EU average.

“Sweden has once more the best performing innovation system in the EU, followed by Denmark, Germany and Finland Overall, the performance group memberships remained relatively stable compared to the previous IUS edition with Poland being the only country that changed group membership by advancing from the Modest to the Moderate innovators” (European Commission, 2014).

“Some other countries reach top scores when looking at individual dimensions. Sweden, Finland, Ireland and United Kingdom score best in Human resources; Denmark, the

Netherlands, Sweden and United Kingdom reach top positions in Open, excellent and effective research systems; Estonia, Finland, Sweden and Denmark score top in Finance and support; Sweden, Germany, Finland and Slovenia reach highest ranks as regards Firm investments; Denmark, United Kingdom, Belgium and Sweden are top performers in Linkages and entrepreneurship; Denmark, Austria, Germany and Sweden reach top positions in Intellectual assets; Germany, Luxembourg, Sweden and Ireland are the highest performers in the Innovators dimension; and Ireland, Germany, Luxembourg and Denmark reach the highest results in Economic effects. As each year, there are several upward and downward movements inside each of the performance groups. Denmark and Germany switched ranks within the Innovation leaders” (European Commission, 2014).

Innovation is a process about change and economic competitiveness. In order to gain competitive advantage, speed is a crucial aspect innovation process must have. Producing solutions and new technologies are vital for firms. Adding the importance of the synchronization, it can be said that developments of standards, regulations and public procurement processes must be synchronized with funding programs in order to support innovation (European Commission, 2010).

As important as speed, Synchronization has different forms and there may be different implementations of synchronization. A region`s operations may be synchronized with another region`s operations. There may be many other players in the industry and those challenges may be magnified. According to Davis (2013), understanding what it takes to coordinate critical activities across industry networks can therefore be extremely helpful, particularly in technology-intensive industries, where innovation is distributed and companies are strategically interdependent (Davis, 2013).

## CHAPTER 6

### THE NEXT GENERATION INNOVATION POLICY

*“Innovation cannot be organized by decree. It comes from people, and only people - scientists, researches, entrepreneurs and their employees, investors, consumers and public authorities - will make Europe more innovative.”*

European Commission (*EU Innovation Policy- success but also new challenges*) 2009

*“One of its outcomes, the Innovation Scoreboard, has subsequently emphasized indicators such as productivity increases, patents, and employment levels. **Essentially innovation was seen as an objective rather than tool**”* (Dodd, Franke, & Moody, 2011).

EU innovation policy should not fixate on a particular type of outcome such as technology. It should instead be based on a clear objective to support actions, trends of all types that will lead to innovative ways of addressing both existing problems such as future unknown societal challenges. By developing an innovation policy based on social challenges, the EU would be in a position to take advantage of the skills, knowledge and insight held by numerous communities, voluntary, charitable and social organizations. Given the wide and dual nature of innovation (supply and demand side), policy should not be based on a top-down approach (Dodd, Franke, & Moody, 2011).

Processes of social change and basic cultural patterns have relationship while innovations are embedded also via taking political, historical and regional conditions taken into account. While innovation processes are held, social structures and cultural properties in societies must be known by innovators. Popular trends, social conditions and public union must be in accordance with innovations in order to be usable and be supported by other people. Potential changes in social patterns and intentions of people dealing with innovation process must be in accordance. Innovations must be accepted by public. The effort necessary to assert the new against the old or to make an idea or an invention into an innovation successful in society or on the market is less, if the innovations basically conform to existing expectations. Innovations aiming not at improving (perfecting), but at changing (altering) the status quo have to expect and overcome greater obstacles (Hochgerner, 2010).

Innovations serve many positive attributions. Not only well-being of society but also individuals` capacity to act is effected in a positive manner (European Commission, 2013).

Innovation is a term important for profit-making organizations. Non-profit organizations generally do not focus on innovation. Despite increasing importance of



governmental organizations at innovation processes, main actors of innovation process are commercial firms. Other organizations mainly help firms at innovation process. They affect (change, reinforce, improve) the context in which the innovating firms operate (Edquist, 2009). Innovation is an art of satisfying needs of public as individual. Many of the problems faced by the society may require solutions never used before or many problems may be firstly faced by the society. If a problem has not seen before, it may require a unique solution never used before. It is assumed that the objective can be reached in a better way or sooner through innovation (than without an innovation component). It may also be that the need/problem may not be solved at all without an element of innovation (Edquist, 2009).

“Perhaps as a result of external criticism, the Commission appeared to alter its approach to innovation policy in 2009. At this point the potential for innovation to be used as a cross cutting method to tackle widespread challenges came to the fore. Following a series of thematic Commission Working Documents, a 2009 Communication reviewed Community innovation policy. It opened not by arguing for targets or new legislation, but with an explicit statement that *Innovation cannot be organized by decree. It comes from people, and only people*” (Dodd, Franke, & Moody, 2011).

The first step to be taken while turning the society into an innovative society is building new types of collaboration. Collaboration feeds innovation. In European Union, there is a need for sharing different ideas, experiences and perspectives. Information technologies are good ways of sharing knowledge and communication. Especially open innovation may be used in an effective way for promoting cooperation via power of networks and easy access to knowledge not only in Europe but also globally. European Commission wants to stimulate universities and public research, invest in cultural and creative institutions, create and network innovation labs, reinforce the role of brokers and intermediaries and develop a major prize for innovative localities (European Commission, 2010).

At that point, it is crucial to mention that collaboration and innovation have many things in common with leadership. In other words, a good leadership is needed for innovation. Because of collaboration, there must be a system for leading information sharing among different participant.

The most essential part is turning knowledge society into innovation society is changing the concept of innovation. First of all, it is necessary to understand the concept of innovation. The meaning of the term must be shaped in accordance with the needs of today's world. Without revising the meaning of innovation and understanding what innovation means, it will be impossible to be successful directly. When concept of innovation is changed in accordance with the needs of current period, both inventors and consumers will benefit from

that situation. When a person directly deals with any innovation process exactly understands current meaning of innovation, he/she will be able to contact with consumers and other shareholders. Consequently, he/she will know what consumers and other expect from innovation process (Selman, 1989). As well as gathering information about innovation in European Union, another aim of that study is preparing a perspective about innovative society and knowledge society. Of course, it is a good thing for a society to be a knowledge society. However, that is not enough in today's rapidly changing world. Adding to knowledge, it is wise to be a innovative society. At that part of the study, it is aimed to find ways of turning knowledge society into innovative society. Reviewing the literature, it is seen that there are six ways that can be used for turning knowledge society to innovative society.

In order to promote new types of collaborations for innovation in European Union, European Commission suggests six proposals. They are; creating and network innovation labs, fund collaborations between innovation labs, invest in cultural and creative institutions, organizations and networks, reinforce the role of intermediaries, develop a major prize for innovative localities and stimulate universities and public research centres to be more open and international. Creating and network innovation lab is about making interaction easier for organizations having different properties Aim of creating and network innovation lab is to make it easier. Fund collaborations between innovation labs is to develop, test and scale up solutions to implement the new orientations of EU innovation policy. Invest in cultural and creative institutions, organizations and a network is an interdisciplinary process. Reinforce the role of intermediaries to act as change agents, facilitators and brokers between disciplines, sectors, regions and countries. Stimulate universities and Public research centres to be more open and international, reforming incentive and performance systems, and supporting the development of strategic competences and collaborations between business, research, education and training (European Commission, 2010).

Innovation is not something meaning “innovation for people”. Moreover, it is something “innovating with people”. There must be participation of public organizations, governments, companies and people in any way for effective development of innovation. For example, it is difficult to manage an innovation process without feedback of society. Feedback coming from society, supportive regulations of governments, innovative procurements of public organizations and researches of companies must operate in a synchronized way. Today, innovation is not only producing new products. Innovation processes deal with many important topics such as climate, urbanization, aging, security, the future of youth etc. All those topics are important topics for the entire society with government. That is another important reason of importance of public involvement in

innovation processes (Thenint, 2005). Good governance means understanding that the society desires must shape policies or strategies. European Union also takes care of speed and synchronization at innovation process. Promoting speed and synchronization for innovation, European Union prepares directives and regulations which support innovation. Especially opening up government owned data to facilitate a knowledge infrastructure and changes at procurement are supports of European countries for supporting innovation (European Commission, 2010). Shortly, it can be summarized as there must be synchronization among companies, governments and public in order to establish a more innovative society.

Even today, many people consider innovation as “change” at products or services solely. First of all, it must be understood that innovation is not “change” solely. Change itself is not enough to describe innovation without adding “desirability” and “intentionality”. A service or a product can be described as “innovation” when it is something desirable and when it is produced or developed intentionally (O'Sullivan, 2008). And also innovative activity must add value and it may not be considered separate from European Union's core objectives to tackle with grand challenges. Awaring of importance of innovation, all countries takes several measures for fostering innovation.

One of the most important participants of innovation process is societal. Aiming to perform a good manner of economic growth, people must take part in that significant process effectively. Via with feedbacks and direct contributions, society effects innovation process and development of a region or country consequently.

In other words, it is something important to promote people taking part in innovation process. Nowadays, many countries have attempts to promote society-helping innovators. European Union is an organization trying hard to develop innovation. For the last decade, European Union could not perform an innovation performance as desired. After 2005, the Union decided to operate better in terms of innovation. Several measurements have been taken. Today, the Union knows importance of different participants in innovation process. Society is one of those participants.

The society itself must be innovator for development of European Union. For this, there are some ways to build an innovative society. First of all, that study showed that innovation is understood in a wrong manner. Meaning of innovation must be defined again considering current situation in the world. Secondly, innovation activities must be held fast and there must be synchronization among participants taking part in innovation process. Thirdly, governments must provide a good infrastructure for providing necessary opportunities for people taking part in innovation process. Fourth step to be taken is monetary support for innovators. Governments must support innovators via funds and other tools. Fifth

one is new types of collaboration. There must be clear links among innovators. Participants taking part in innovation process must help each other in various ways. Lastly, standards must be set for innovation activities. It must be noted that there will be many contradictions among activities of different participants in case of lack of standards.

## CONCLUSION

We showed that the innovation is an art of satisfying needs of society as individual with good governance. Thus, many of the problems faced by the society may require solutions never used before or many problems may be firstly faced by the society. Because of this reason, the modes of innovation policies have shifted from the dominant traditional supply side oriented patterns to collaborative demand side patterns, namely from supply-led innovation policies to demand (society) side innovation policies.

The essential point is to remember the main objective is tackling with the grand societal challenges with some instruments altogether. There is wide range of EU innovation policy underlined on these challenges beyond recent years (Dodd, Franke, & Moody, 2011). While underlining these challenges, the most essential point is not only the ability to draw the lessons from the former policy mixes or country policy models are fit national conditions or not, but also to determine the policy path whether it is still using as an instrument to achieve the main objectives or is becoming an objective. This awareness is the core elements how the Union has responded these grand challenges by utilizing the Innovation Policy as an instrument or forgetting all the beginning aims, goals and just focusing on the chart-based targets, namely as an objective. We accept ‘the Lisbon strategy has failed due to the lack of good governance of the European Innovation Policy’ (Granieri & Renda, 2012). Success may be reached not by narrowly focusing on adjust or re-determine innovation objectives, but instead by supporting all actors to adapt and respond to these grand challenges (Kay, 2010). Thus, *“innovation is a very difficult subject for public policy: it is at once a pervasive and elusive subject. It is pervasive since it entails both government and private investment; it penetrates all areas of innovation policy... from supply-side to demand-side policies; and also, because it requires actions at global, European, national, regional and local levels. At the same time, innovation is a very elusive subject because it is hard to define. And also there is no one-size-fits-all solution (Granieri & Renda, 2012)”*. Because of this reason, designing and shaping policy actions to generate tomorrow’s innovation policies comes even more difficult. Namely, old-style regulatory oriented policies or strategies (that are command-and-control regulations) cannot fit the today’s grand challenges.

Traditional approaches could have not move ahead or remained standing, such as the Lisbon Policy and its lack of good governance approaches in all dimensions of the innovation policy. If the sustainability is a meaning for innovation policies, the EU must take the lessons from the Lisbon Strategy. A decade has passed and the EU Commission is working again on

the same target for the next decade. A new dawn is expected towards the EU 2020 Strategy and countless policy action and huge investments are expected in the field of innovation. The Commission has formulated new policies without necessarily assessing the former impacts and learning from the past mistakes. As a result, without changing the meaning of the innovation concept for the EU, from ‘innovation for people’ to ‘innovation with people’, the EU 2020 Strategy will be the second disappointment for building a dynamic and an innovative society. Thus, time is flowing and everything is proliferating, either the society and the policies and policy makers also need to act together or at least interactively coordinated. Without a radical change, we predict that the EU 2020 Strategy with its sub-instruments will be only slightly different, in terms of goals achieved, from Europe in 2011 (Granieri & Renda, 2012).

If there is one single conclusion that can come out of this dissertation it is that a sustainable innovation policy in the EU can be achieved only if made by demand-led governance commitment towards the policies by the policy-makers.

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## DECLARATION OF AUTHORSHIP

I declare that this thesis and the work presented in it are my own and have been generated by me as the result of my original research.

None of the part of this thesis has previously been submitted for a degree of any other qualification at this University or any other institution

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