Europe 2020 Strategy, Cohesion Policy and Greek Regions: Are we "Smart" enough?

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Abstract

Since the beginning of 2010, European Commission has launched the new strategic framework for Europe, which is now known as the "Europe 2020 Strategy". This new strategy has been set as the successor of the so called "Lisbon-Gothenburg Strategy" which was set in early '00 as the strategy for Europe in the 21st century. Actually the two strategies have a lot in common. The main driving forces of Europe still remain the same and some rearrangement in the EU-wide strategic targets has been made. Of course the economic crisis that has emerged forced for a new priority that was set in the "EU 2020" strategy, but the main targeting still encompasses the three corners of the well known sustainability triangle, namely economy, environment and society. The setting of a new strategy arises some questions. Why does Europe need a new development strategy? Was the old strategy successful or not? Was every country in Europe adapted in the old strategy properly? Where there any problems in the implementation of the old strategy? What was the overall outcome of the old strategy in EU Level, in each Member State and in the regions of Europe? Is the new strategy better adjusted to cope with the development problems in European, national and regional level?

Furthermore, European Commission has already asked MS to comply with the specifications of the "Europe 2020 Strategy" in the planning and implementation of the Cohesion Policy's programs in the following years (for the remaining of the 2007 – 2013 period and especially for the 2014-2020 period). This article discusses the above questions and tries to find answers on the rationale and prospects of the new strategy. Also, in a second step we give more emphasis in Greece and Greek Regions that have been not well adapted in the "Lisbon Strategy" as shown in the recent 5th Cohesion Report and other studies. Finally, the article closes with policy recommendations regarding the consistency and interaction between the "Europe 2020 Strategy" and Cohesion Policy, and also some policy recommendations for Greek regional policy and Greek regions.

Key Words: European Cohesion Policy, Greece, Europe 2020 Strategy, Smart Growth.

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1. Introduction

The Lisbon Strategy as a key development strategy in the European Union was set in 2001, was revised in 2004 by adding the Gothenburg objectives taking in mind the environmental dimension of development. The Lisbon Strategy was very strong connected with the EU's Cohesion Policy (Hübner 2005). The implementation of the Lisbon Strategy was attempted mainly through the Cohesion Policy for 2000-2006 and 2007-2013. Various reports on Lisbon Strategy both on its successful implementation and in terms of efficiency, show equivocal results in European Level, while for the Member States the picture is somehow clearer. There is an evident differentiation of countries and regions that were able to implement the Lisbon Strategy and have developmental benefits (European Union 2010a, 2010b). In general, the Lisbon Strategy was characterized by very ambitious goals, less a coherent strategic growth program and more political declaration (Kohler 2010, Rosenbaum 2010).

However, the Lisbon Strategy had a time horizon until 2010 to achieve the targets set. Independently, therefore, on the success or failure to implement the Lisbon Strategy, European Union decided to establish a new development strategy for the period after 2010. This new strategy in named "Europe 2020: Smart, Sustainable and Inclusive Growth" and came into force in March 2010 (European Commission 2010a, Walburn 2010, Pochet 2020). Following, we summarize the key objectives of the "EU2020" strategy, with particular emphasis on the goal of "Smart Growth". The specific reference to this goal is due to the importance of promoting regional development and, secondly, the controversy caused by the insistence of the European Commission proclaimed the Cohesion Policy and Structural Funds as a key instrument for promoting the goal of "Smart Growth". This is because many regions of the Convergence Objective fear of a reallocation of resources of Cohesion in R&D and Innovation at the expense of other key priorities of their regional policies, such as investment in transport infrastructure and networks, development of rural areas, the traditional economy and social cohesion. These issues are discussed in general but with a special reference to the experience and existing situation of the Greek regions.

2. The goal of "Smart Growth" in the "Europe 2020" Strategy

The new EU development strategy, which is a continuation of the Lisbon Strategy, sets general and specific objectives and a range of initiatives, interventions and procedures at EU Level and also for Member States. The EU institutions adopted and implemented the new strategy, which they believe will enhance the competitiveness of the European economy, will improve the welfare of its citizens and give a faster exit from the current economic crisis (Landabaso 2010).

One of the overall strategic objectives of the Union is called "Smart Growth" through the strengthening of education, knowledge and innovation (Rusca 2011, Soete 2010). The goal is interacting with the other two broad strategic objectives of the new strategy. For example, technological progress and innovation have a positive impact on protecting and restoring the environment, saving resources and develop sustainable production methods. Also, they create new sustainable jobs and economic growth, which in turn create more jobs and reduce unemployment and economic and social exclusion (Begg 2010). On the other hand, the objective of Sustainable Development and the means to boost it, promote theoretical and applied research and create a new

green market, suitable for innovative products and innovative processes. Similarly, improving the educational level of the European population is the basis for increasing knowledge and technological progress.

The overall goal of "Smart Growth" must be achieved through specific objectives and flagship initiatives. The main specific objective is to invest 3% of EU GDP (public and private) in R&D and innovation. The flagship initiatives include: The Innovation Union - (refocusing of R&D policy and innovation in major challenges, while bridging the gap between science and the market so that the inventions are turned into products), the Digital Agenda for Europe (Digital Single Market based in very high-speed Internet, all Europeans will have until 2013 to have access to high speed Internet), etc.

The promotion of "Smart Growth" requires special resources and interventions. Thus, the resources of Cohesion Policy, the 7th Framework Program and other Community initiatives must, according to EU guidelines, be directed at promoting this strategic objective. In the same direction other Common Policies should be channeled and the policies of the Member States, which will be reflected in the National Reform Programs.

Of particular importance for the European regions is the coupling between Cohesion Policy and "Europe 2020 Strategy". This is an issue that has preoccupied and still concerns the Committee of Regions and the various associations of European cities and regions, and regional authorities in Member States and especially in the Cohesion Countries. Also, this theme is one of the key points of the consultation on the new programming period of the Cohesion Policy 2014-2020. For these reasons, the next section attempts a brief exploration of the relationship between Cohesion Policy and "Europe 2020 Strategy".

3. The relationship between Cohesion Policy and "Europe 2020" strategy

First, a basic question arises whether Cohesion Policy and "Europe 2020 Strategy" are competitive or complementary (Illes 2011, European Commission 2010b, Committee of the Regions 2010).

The answer to that question requires a conceptual and operational definition of these two policies. First, we can say that a different targeting is obvious. Cohesion Policy aims at the convergence of development levels among EU regions through faster growth of less developed regions, and to effectively address development problems on specific spatial entities (eg, mountains, islands and remote areas, and areas with extreme weather conditions) in order to obtain the necessary territorial cohesion. However, the "Europe 2020 Strategy" does not have a territorial dimension, refers to the entire EU territory, it does not deal with the Cohesion objective and does not cover important aspects of regional development (eg infrastructure, developing rural areas). Differences exist also in the planning and governance of each policy. The "Europe 2020 Strategy" was designed from the top down and not bottom up, as the Cohesion Policy. The first has no Operational Plans and allocated resources, gives emphasis on Community Level and National Government, leaving unclear the Regional and Local Level. In addition, it lacks a clear institutional framework on EU Treaty, or in secondary EU law. On the contrary, the Cohesion Policy is a distinct EU policy, with a clear EU commitment to transfer resources to less developed regions, with a solid institutional foundation (eg the Structural Funds Regulations) and specific and binding principles and procedures.

Therefore, the Cohesion Policy can not be regarded as a binding instrument for "Europe 2020 Strategy". This does not mean that the two development strategies can not have synergies. For example, all targets of the "Europe 2020 Strategy", technological

progress and innovation, sustainable development and inclusive growth are also objectives of Cohesion Policy. What is needed is that the "Europe 2020 Strategy" must take a regional and territorial dimension. Also, as far as Cohesion Policy fosters innovation, sustainable development and social cohesion at regional and local levels, it also promotes them at the Community level. Of particular interest in this article is the importance of "Smart Growth" in the European Regional Policy, namely its importance as a tool to achieve convergence of development levels among of the EU regions.

4. Regional policy and the goal of "Smart Growth"

From reading the Operational Plans of all the European Regions we can find that the promotion of R&D and innovation, in other words "Smart Growth", are the main objectives of Regional Policy, despite the differences that might exist between specific regions and especially between developed and less developed. In general, almost exclusive emphasis on Smart Growth give the already-developed regions, while the less developed have a focus in the some other aspects of development like infrastructure, development of rural areas and in some traditional sectors of production.

It is common knowledge that the "Smart Growth" promotes regional development (Foray and Hall 2009). Both theoretical analysis and empirical research show that regions with a high technological level and a large number of innovations (eg new products, knowledge-intensive technology, new production methods and organization and administration) are more competitive in EU and international level and have a faster growth and promote social cohesion (Audretsch and Feldman 2004, Paci and Usai 2000, Sterlacchini 2006, Polenske 2007). However, the development of regional innovation, as in "Smart Growth" requires: adequate funding sources (public and private) for R&D, dynamic entrepreneurial culture, modern education, R&D and ICT structures to support innovation and technology transfer, an outward-oriented productive model, national and international cooperation networks, high-quality human resources, regional technology policy, etc. (Edquist 2005).

Undoubtedly, and as will be shown below, these conditions are largely existing in already developed EU regions, while missing almost entirely in lagging regions (Tödtling and Kaufmann 1999). Therefore, promoting "Smart Growth" in poor regions of the EU can not easily be achieved and likely to remain a dead issue if we do not create in all regions most of the above conditions.

5. The starting point: differences in innovation performance between EU regions, with particular reference to the Greek regions

In order to determine both the ability of each region to contribute to the strategic goal of "Smart Growth" and to identify regions with the greatest need for the acquisition of innovative conditions deemed appropriate a specific reference to the current conditions of the various Community regions, with particular emphasis on the performance of Greek regions.

First, Map 1 reflects the differing adaptability of EU regions in the Lisbon objectives, the objectives of the previous development strategy of the EU. It can be noted that the regions of the Convergence Objective and almost all the Greek regions experienced significant delays.

Map 2 gives reasonably large differences in performance in R&D and innovation between EU regions (Map 2). In particular, regions with higher than average performance are in countries like Germany, UK, Sweden, Finland, Denmark, Ireland,

France and Northern Italy. The average performance is found in some regions in France, Spain, Italy and Ireland. Almost all regions of Eastern and Southern Europe are below average. In Greece, 7 regions are placed at the lower level of innovation performance, while 5 (Attica, Central Macedonia, Crete, South and North Aegean) are in medium-low level. In conclusion, the vast majority of the convergence regions is strongly lagging behind in terms of technological development from other regions and therefore is not able to contribute significantly to the goal of "Smart Growth".
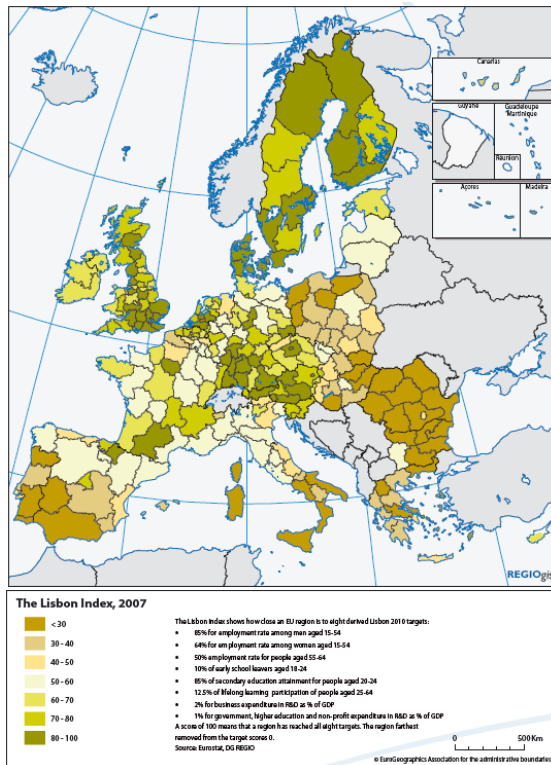
This may be attributed to the absence of conditions for the development of regional innovation. For example, very few Community regions (about one out of ten) cover the specific target of spending 3% of Gross Regional Product (GRP) for R&D (Map 3). The number of regions that spend more than 2% of the GRP is relatively small and overlaps significantly with the regions with high performance. Most regions of the Convergence Objective spend less than 1% of the GRP for "Smart Growth". As for the Greek regions 7 of them spent less than 0.48% of GRP for R&D, while in 5, these expenses are estimated between 0.48% and 0.88%. This means that all Greek Regions are well below the EU average.

Finally, the allocated resources from the Structural Funds for the Programming Period 2007-2013 to support the "Smart Growth" are already higher in developed regions (Map 4). In these areas, more than 1/3 of the Structural Funds are committed to "Smart Growth". On the other hand, in Eastern and Southeastern Europe regions these commitments, with few exceptions, are below 23%. Note that most regions of Spain and Portugal are above average. In Greece, 6 regions allocated to "Smart Growth" less than 19% of the total resources of the Structural Funds, 5 regions are slightly higher (between 19.2% and 21.6%), while only 2 (Thessaly and Epirus) moving around EU average of 23%. Tables 1-9 given in the Appendix, evidently describe this situation and the current conditions in Greek Regions, by presenting available data.

The details of the allocations of Structural Funds show that the Greek Regions and other countries of Eastern and Southeastern Europe are paying more attention to other aspects of competitiveness and development such as infrastructure and networks, social cohesion and development of rural space and the environment from that of "Smart Growth".
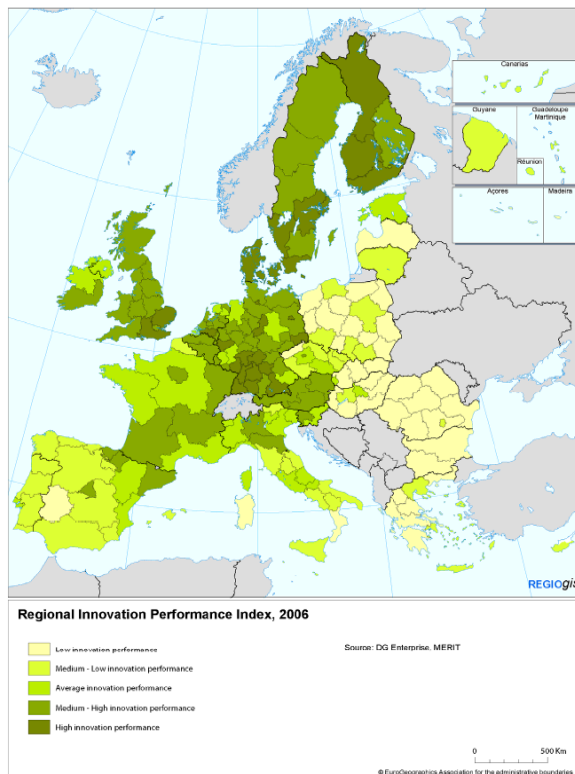
On this basis an increase in regional innovation disparities is expected. The already-developed regions are in a virtuous cycle of technology: high innovation coupled with higher spending for "Smart Growth" cause faster economic growth, which allows even greater spending on R&D. By contrast, the countries of the Community Periphery with low levels of innovation and lower spending are experiencing a vicious cycle of technology.

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Map 1: Lisbon Index, 2007

Source: European Union 2010a

Map 2: Regional Innovation Performance Index

Source: European Union 2010b

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Map 3: R&D Expenditure (% GRP 2007)

Total intramural R&D expenditure (GERD), 2007

% of regional GDP

- < 0.48
- 0.48 - 0.88
- 0.88 - 1.22
- 1.22 - 2.01
- >= 2.01

EU-27 = 1.85
GR, IT: 2005; FR: 2004; NL: 2003
Source: Eurostat
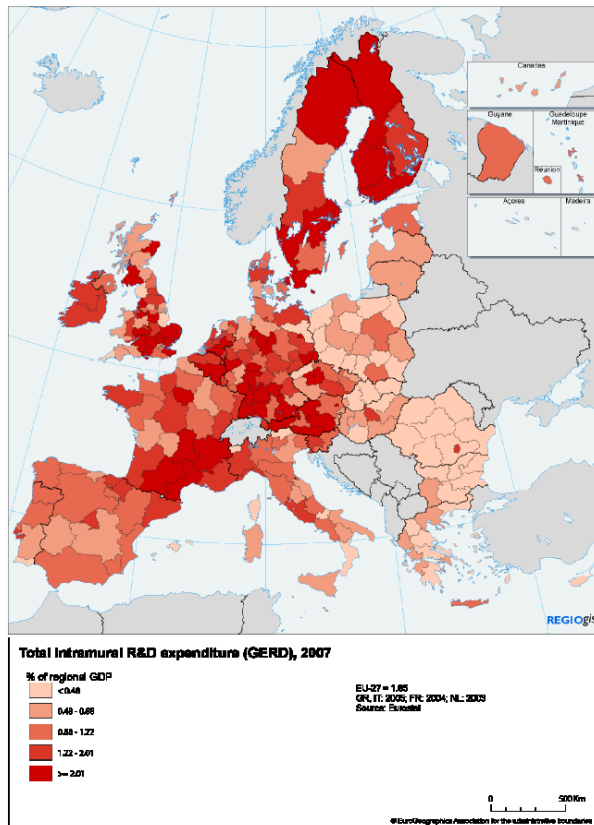
Source: European Union 2010b

Map 4: Cohesion Policy Funding for R&D and Innovation, 2007-2013

Planned investments of Cohesion Policy in RTD, innovation, enterprise environment, 2007-2013

% of total funding

- < 19.2
- 19.2 - 21.6
- 21.6 - 27.5
- 27.5 - 34.2
- >= 34.2

EU27 = 23.0
Funding for RTD, innovation and enterprise amounts
to some €79 billion
Source: DG REGIO

Source: European Union 2010b

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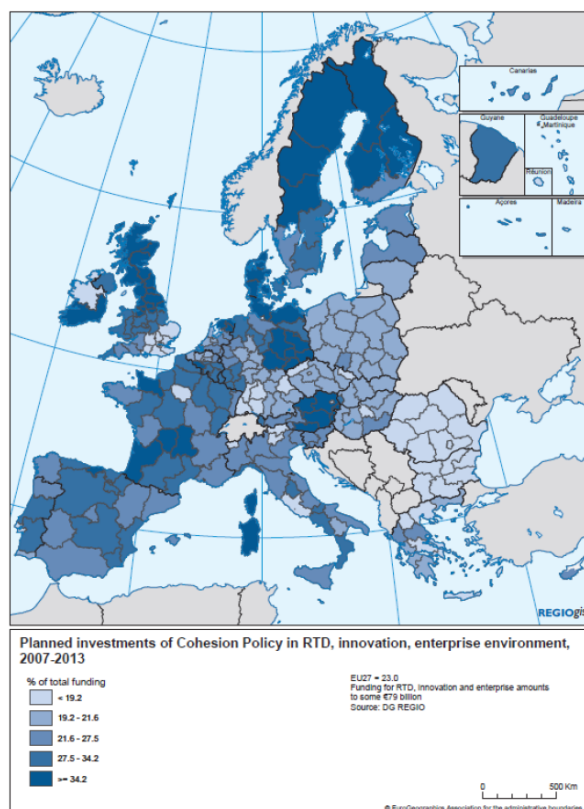
6. Commitments for National and Regional action in the "Smart Growth" Strategy

The current and much more future Regional Policy has to include in its designation, planning and implementation process the goal of "Smart Growth". In particular, a set of common decisions of Member States and Community Bodies gradually shape the context in which National and Regional Development Policy will be applied. The following indicative actions give a path to promote "Smart Growth" in National and Regional level, proposed by the Flagship Initiatives of the "Innovation Union" and "Digital Agenda for Europe".

6.1 Commitments set out in the "Innovation Union" Flagship Initiative

• By 2011, Member States should have strategies for training a sufficient number of researchers to achieve their National targets for R&D and create attractive employment conditions in public research institutions.

• Up to 2015 Member States should have completed or initiated 60% of the construction of European Research Infrastructure Priorities, as identified in the European Strategy Forum on Research Infrastructures (ESFRI). Member States are encouraged to use the resources of Cohesion Policy for this purpose under all Operational Programs (OPs).

• In 2011 the EU together with Member States will examine the regulatory framework in critical areas of innovation, starting with those related to eco-innovation.

• In 2011, Member States should provide an exclusive budget for pre-commercial procurement and public procurement of innovative goods and services.

• Member States should significantly improve the use of existing Structural Funds for research and innovation in assisting individuals to acquire necessary skills to improve the performance of national systems of innovation, implementation strategies and smart skilled transnational projects.

• Member States should start preparing for post-2013 Structural Funds Programs with increased focus on innovation and intuitive skills.

• Member States are encouraged to redouble their efforts to promote social innovation through the European Social Fund (ESF). The social innovation will be mainstreaming in the new generation of ESF.

• By 2012 the EU and Member States should have established comprehensive policies to ensure residence and work of leading academics, researchers and innovative researchers in Europe and attract sufficient numbers of third country highly-skilled personel.

• Member States are required to conduct self-evaluation of research and innovation systems and to identify key challenges and critical reforms as part of National Reform Programs.

6.2 Commitments included in "Digital Agenda for Europe" Initiative

This Flagship Initiative sets specific performance indicators that will be achieved within certain time limits. In particular, key performance indicators for the "Digital Agenda" are:

Promoting Broadband Connections:

- Basic broadband coverage for 100% of EU citizens up to 2013.

- Fast broadband coverage for 100% of EU citizens up to 2020.

- More than 50% of households subscribed to broadband ultra-high speed.

Creating a Digital Single Market:

- 50% of the population should be making online purchases by 2015.

- 20% of the population should make cross-border online purchases by 2015.

- 33% of SMEs should conduct online procurement / sales by 2015.

Enhancing Digital Inclusion:

- Increase the regular use of the internet from 60% to 75% by 2015 and for disadvantaged groups from 41% to 60%.

- Reduce the part of the population that has never used the Internet to 15% by 2015.

Public services:

- 50% of people should use e-government and of these more than half return completed applications by 2015.

To achieve this performance, beyond the need for doubling the public funds, the following indicative activities are being promoted:

• Develop National Operational Plans for Broadband Infrastructures by 2012, to meet the goals of coverage, speed and penetration in the "Europe 2020 Strategy", using public resources in accordance with the EU rules of competition and state aid.

• Take measures, including legal bindings to facilitate investment in broadband infrastructures, such as ensuring the participation of potential investors, rights of way, mapping infrastructure in order to upgrade wiring and cabling in buildings.

• Full use of the Structural Funds and the Rural Development Fund resources that are already committed for investment in infrastructure and ICT services.

• Implementation of the European Spectrum Policy Program, to ensure the achievement of the goal of 100% coverage 30mbps speed Internet by 2020 and the Recommendation on Next Generation Networks.

• Double the total annual public expenditure on R&D in ICT by 2020, from 5.5 billion € to 11 billion € (including EU programs) so as to leverage an equivalent increase in private expenditure from 35 billion €to 70 billion €

• Engage in large-scale pilot schemes for testing and development of innovative and interoperable solutions in areas of public interest financed by the Competitiveness and Innovation Program.

• Application by the end of 2011 long-term policies of e-skills and digital literacy and the promotion of such incentives for the SMEs and disadvantaged groups.

• Mainstreaming of eLearning in National Policies for the modernization of education and training.

• Fully interoperable eGovernment services.

• Immediate and consistent implementation of key Directives to support a Single Digital Market.

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7. Policies and actions to promote "Smart Growth" in Greek regions

Member States and their regions differ significantly in development issues such as Governance, Growth Potential and Innovative Performance. Therefore, in the case of Greek Regions the attempt to promote Regional "Smart Growth" requires the following policies and interventions:

a) Create a new flexible central body for coordination and implementation of new strategy

In Greece there are many organizations dealing with issues of R&D, innovation and new ICT. For example for the issue of promoting "Smart Growth" important role is played by the Ministry of Regional Development and Competitiveness and the Ministry of Education and Lifelong Learning, the General Secretariat for Research and Technology, General Secretariat for Public and Private Investment, the National Council for Competitiveness and Development, Regional Authorities, etc. In a programmatic level is the decisive contribution of the Sectoral Operational Programs (SOPs) such as OP Competitiveness and Entrepreneurship, OP Digital Convergence and OP Education and Lifelong Learning and the 5 Regional Operational Programs and the 7th Research Framework Program. Therefore, there is a wide dispersion of both decision makers and funding sources. For this reason and in order to effectively coordinate actions, avoid duplication, conflict goals and greater thematic concentration it seems appropriate to create one Central Coordinating Body such as the creation of a National Committee for Smart Development.

b) Negotiating objectives: "Smart Growth" in the service of Cohesion Policy and not vice versa

Consultation and negotiation for the new Cohesion policy 2014-2020 is underway. The focus of the discussions, among others, is the question of the relationship between "Europe 2020 Strategy" and Cohesion Policy. The European Commission believes that the new Cohesion Policy must be the most important instrument for promoting the objectives of the "Europe 2020 Strategy". For the Regions of the Convergence Objective this will lead to an excessive concentration of resources in R&D activities and innovation at the expense of other priorities such as creating the necessary infrastructure and the development of rural areas. For this reason and because the goal of economic, social and territorial cohesion is an explicit commitment under the Treaty, it would be prudent "Smart Growth" policy to come in the service of Cohesion Policy, as this is a milestone aim to promote development and not a self-standing goal.

c) Strengthening the "Smart Growth" in the review of the existing OPs

As pointed out above, Member States have committed to incorporate the goal of "Smart Growth" in current Operational Plans. Also, in many Regions funds for R&D and innovation are too low. For this reason, in the review of Operational Plans, which will be held after completion of the ongoing evaluation, "Smart Growth" actions should be enhanced.

d) Developing Regional Strategies for smart specialization with thematic concentration, multilevel governance and linkages with other policies

In order to effectively promote the goal of "Smart Growth" it is appropriate to prepare a comprehensive and coherent strategy for smart specialization based on comparative advantages and potentials of each regional economy. Therefore, these plans differ in the thematic concentration, depending on the structure of each region. As regional economies involve all levels of government (regional, national, European) programming and operational cooperation is a necessity.

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e) Promoting innovation clusters for regional development: innovation as a system

The development of innovation in the broader sense depends on many factors such as funding, structures and infrastructure R&D, entrepreneurship, openness, education, mobility of researchers, the link between research units and enterprises, general economic environment, etc. Thus, many are the actors involved in technology and innovative procedures such as State, Regional and Local authorities, businesses associations, financial institutes, universities, research institutes, researchers associations, managing organizations, etc. Through cooperation and coordination of actions of all those involved is possible to promote regional innovation. Therefore, technological progress involves the emergence and formation in clusters of innovation system in each region and the creation of Innovation Forums in order to decide and monitor the Innovation Policy in each Region.

f) Improving the financial environment for SMEs

The SMEs are the base of each regional economy. These companies are not in a position to develop their own R&D infrastructure. For this reason they need the technology transfer and cooperation with external research units. Thus, it is necessary to finance technological upgrading actions for SMEs through specific programs for technology transfer and know-how, information, technical support, personnel training and employment of specific researchers. In this direction specific tax incentives could help.

g) Promoting lifelong learning in research and innovation

The development of knowledge and technology is rapid. In the new international environment economic restructuring is very fast. Therefore, the research potential of each region should have the possibility of continuous adjustment within specific actions for lifelong learning. In this field the key parameter are universities, research institutes and international cooperation and mobility of researchers.

h) Development of structures and infrastructure for R&D and innovation

Many Greek regions lack adequate research structures and infrastructure or there is often a mismatch between the skills and expertise of the R&D system and of each regional economy or the lack of effective cooperation between universities and enterprises. In the context of regional strategies for smart specialization, existing research structures, facilities and activities should be evaluated, in order to adapt to the needs of each regional economy.

i) Digital Convergence

The Greek Regions show significant differences in the use of modern digital technologies. They are also far from the Community average in this theme. This requires accelerating the implementation of the actions of the OP Digital Convergence and the actions of the axis Competitiveness and Digital Convergence in each ROP.

j) Support through public procurement

Through program contracts between public authorities and institutions on one hand and public research facilities on the other, an increase in R&D and innovation would be anticipated in every region

k) Promotion of European innovation clusters to address common challenges

There are a variety of European initiatives and programs that promote innovative partnerships to address common challenges such as energy efficiency and energy conservation, alternative sources of energy, environmental protection, tackling climate change, health, etc. In all these areas Greek research units could be systematically involved.

l) Claims of more EU funds and EIB for "Smart Growth" in a single funding framework

The EU has significant resources to promote R&D and innovation. However, at the European level there is a proliferation of both decision making and funding sources that often it makes it difficult to gain access to these sources. For this reason and in order to increase transparency, streamline processes and more concentrated action it is appropriate to create a single framework for the funding of "Smart Growth".

m) The National Reform Programs containing a strong regional dimension

As previously stated "Europe 2020 Strategy" does not contain a clear regional dimension. This issue could be resolved within the National Reform Programs, which are able to include measures to promote "Smart Growth" in individual regions.

n) Increase overall funding for research and innovation as a response to economic crisis

The debt crisis in Greece has caused a reduction in government expenditure and public investment. Also, the fiscal consolidation program has led to a strong decline in the Greek economy. The recession is reinforced by a low degree of competitiveness of Greek economy. The exit of the country from recession is possible only by improving its competitiveness in order to increase exports and to attract foreign investment, since the internal parameters of growth such as public and private consumption and domestic investment because of restrictive fiscal and credit policy of Greek banks will continue to show a downward trend. The international competitiveness of firms and regional economies depends heavily on technology and innovation not only on prices. Therefore, in order to exit the crisis, Greece should increase resources for the technological upgrading of enterprises, new investments in dynamic sectors of the economy and for more innovation and openness. These resources may come mainly from the programs of the NSRF, the European Investment Bank, by relevant Community initiatives, the private sector and through the attempted of restructuring government expenditure.

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APPENDIX

Table 1: The Lisbon Index 2007

components	Governement, higher education and non-profit expenditure in Research and Development *% of GDP*	Business expenditure in Research and Development *% of GDP*
Anatoliki Makedonia, Thraki	0,33	0,03
Kentriki Makedonia	0,45	0,13
Dytiki Makedonia	0,11	0,00
Thessalia	0,29	0,01
Ipeiros	0,65	0,00
Ionia Nisia	0,15	0,00
Dytiki Ellada	0,57	0,21
Sterea Ellada	0,03	0,14
Peloponnisos	0,28	0,00
Attiki	0,42	0,29
Voreio Aigaio	0,48	0,01
Notio Aigaio	0,13	0,01
Kriti	0,85	0,08

Source: European Union 2010b

Table 2: Research Funding by Region in 6th and 7th FPs, average funding per head

	6th FP	7th FP
EU-27	100	100
Anatoliki Makedonia, Thraki	10	15
Kentriki Makedonia	86	93
Dytiki Makedonia	6	3
Thessalia	9	33
Ipeiros	31	90
Ionia Nisia	5	1
Dytiki Ellada	89	120
Sterea Ellada	6	21
Peloponnisos	2	5
Attiki	161	233
Voreio Aigaio	47	20
Notio Aigaio	2	0
Kriti	348	306

Source: European Union 2010b

Table 3: The Lisbon Index, 2008

	Lisbon Index (Average score between 0 and 100)	Change in Lisbon Index 2000-2008 % change
Anatoliki Makedonia, Thraki	24,8	5,5
Kentriki Makedonia	38,8	8,4
Dytiki Makedonia	27,7	7,2
Thessalia	33,3	10,2
Ipeiros	37,6	0,3
Ionia Nisia	23,9	2,0
Dytiki Ellada	37,3	6,1
Sterea Ellada	21,0	3,6
Peloponnisos	33,5	4,4
Attiki	45,3	11,7
Voreio Aigaio	18,6	9,1
Notio Aigaio	24,7	15,6
Kriti	42,9	6,0

Source: European Union 2010b

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Table 4: Planned investments of Cohesion Policy in 2007-2013 % of total funding

	R&D, innovation, enterprise environment	Human capital
EU-27	*23,0*	*19,8*
Anatoliki Makedonia, Thraki	20,9	19,4
Kentriki Makedonia	13,0	16,7
Dytiki Makedonia	13,1	16,7
Thessalia	24,0	19,8
Ipeiros	24,1	19,6
Ionia Nisia	19,8	21,0
Dytiki Ellada	19,7	21,1
Sterea Ellada	17,8	13,1
Peloponnisos	19,6	21,2
Attiki	14,1	20,9
Voreio Aigaio	18,3	19,7
Notio Aigaio	8,2	10,7
Kriti	18,3	19,7

Source: European Union 2010b

Table 5: Total expenditure on R&D, 2007 % of regional GDP

EU-27	*1,85*
Anatoliki Makedonia, Thraki	0,36
Kentriki Makedonia	0,59
Dytiki Makedonia	0,12
Thessalia	0,31
Ipeiros	0,66
Ionia Nisia	0,16
Dytiki Ellada	0,78
Sterea Ellada	0,18
Peloponnisos	0,29
Attiki	0,71
Voreio Aigaio	0,48
Notio Aigaio	0,14
Kriti	0,94

Source: European Union 2010b

Table 6: Human Resources in Science and Technology (core), 2008 % of total employment

EU-27	*17,5*
Anatoliki Makedonia, Thraki	14,0
Kentriki Makedonia	18,4
Dytiki Makedonia	15,9
Thessalia	17,6
Ipeiros	16,3
Ionia Nisia	10,7
Dytiki Ellada	16,1
Sterea Ellada	11,3
Peloponnisos	12,2
Attiki	22,7
Voreio Aigaio	15,3
Notio Aigaio	10,6
Kriti	15,6

Source: European Union 2010b

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Table 7: Employment in high-technology sectors, 2008 % of total employment

EU-27	4,4
Anatoliki Makedonia, Thraki	1,1
Kentriki Makedonia	1,7
Dytiki Makedonia	n.a
Thessalia	1,0
Ipeiros	n.a
Ionia Nisia	n.a
Dytiki Ellada	1,1
Sterea Ellada	1,1
Peloponnisos	1,0
Attiki	3,5
Voreio Aigaio	n.a
Notio Aigaio	n.a
Kriti	1,1

Source: European Union 2010b

Table 8: Patent applications to the European Patent Office (EPO), average 2006-2007 Applications per million inhabitants

EU-27	259,4
Anatoliki Makedonia, Thraki	2,5
Kentriki Makedonia	16,1
Dytiki Makedonia	3,4
Thessalia	8,8
Ipeiros	10,1
Ionia Nisia	0,0
Dytiki Ellada	17,0
Sterea Ellada	3,6
Peloponnisos	4,2
Attiki	25,6
Voreio Aigaio	0,0
Notio Aigaio	4,9
Kriti	20,7

Source: European Union 2010b

Table 9: Regional Innovation Performance Index, 2006

Anatoliki Makedonia, Thraki	Low
Kentriki Makedonia	Med-low
Dytiki Makedonia	Low
Thessalia	Low
Kentriki Ellada	Low
Attiki	Med-low
Nisia Aigaiou, Kriti	Med-low

Source: European Union 2010b

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