

CONSIDERATIONS ON EUROPEAN POLICY OF RESEARCH, DEVELOPMENT, INNOVATION. CASE OF ROMANIA

Roxana Elena Lazăr²²

“Alexandru Ioan Cuza” University of Iași

“Petre Andrei” University of Iași

rxn_ele@yahoo.com

Abstract: *The evolution of the European policy in the field of research, development, innovation reflects the maturity process of the European construction, through the very understanding of the particular role of knowledge in economy. An important aspect is the connection with the acknowledgment of the professional's diplomas, which is based on the principle of automatism, on the mutual trust of the Member States in the qualifications obtained within the territory of any of them, on the tradition regarding the existence of a democratic and elitist education system. The improvement of the quality of education and the avoidance of sideslips are required. For the existence of a functional Euro-market in the field of research, development, innovation the differences between the European Union Member States have to be reduced, before attempting to catch up with the United States of America, Japan or China. Because knowledge is the inexhaustible resource of mankind in general, of the European Union, in particular, we should talk about a Union of Research, as we talk about the Monetary Union, for example. The strategy of economic growth in Romania was based on encouraging the consumers to spend money, but they didn't consider a coherent policy based on innovations.*

Keywords: research, development, innovation, education, knowledge

JEL Classification: A12, D63, D83, K19

1. EUROPEAN POLICY IN THE FIELD OF RESEARCH, DEVELOPMENT, INNOVATION. LEGAL FRAMEWORK

The evolution of the European policy in the field of research, development, innovation reflects the maturity process of the European construction, through the very understanding of the particular role of knowledge in economy. The first step in the regulation of the European policies on research, development, innovation is made by the Treaty establishing the European Atomic Energy Community -

²² * Acknowledgements: drd. Scoala Doctorală de Economie, Universitatea „Al. I. Cuza” din Iași - Proiectul POSDRU/88/1.5/S/47646, lect. Universitatea „Petre Andrei” din Iași.

which deals with a specialized research strictly in the field of atomic energy, placing the community research as an alternative to the national research in this area and which does not set any obligations for the research-oriented Member States; its only purpose is to launch an invitation to every state interested in this field of research. The protection of the public interest at the expense of the particular one at European level is derived from the Treaty provisions which govern the dissemination of knowledge gained from research, free or based on non-exclusive licenses. The development of a research, development, innovation policy is the merit of the Single European Act. Although developed independently in the Maastricht Treaty, the common European policy on research, development, innovation (related to educational policy) is designed to interrelate with industrial policy, trade policy and fiscal policy. The understanding of the role of knowledge in today's economy takes the form of the goal set by the Lisbon Strategy, namely the transformation of Europe into "the most dynamic and competitive knowledge-based economy in the world.

Noting the provisions of the Maastricht Treaty on European research, development, innovation policy (Manolache, 2001, p. 436), the fact that the Member States are left with the responsibility for implementing the common policy in this area, based on the role of the European institutions in this field, we believe that the European Parliament should be granted more power, being undoubtedly necessary to inform it, while an active attitude of this European institution is also imperative. The detachment of the common European policy specificity on research, development, innovation, emphasizes that the broad lines are identical to those of the other common policies and that the main objective is to create a single internal research market.

2. ACKNOWLEDGMENT OF THE PROFESSIONAL'S DIPLOMAS, BOLOGNA PROCESS AND EUROPEAN POLICY IN THE FIELD OF RESEARCH, DEVELOPMENT, INNOVATION

An important aspect in terms of research, development, innovation policy is the connection with the acknowledgment of the professional's diplomas. The acknowledgment of the diplomas within the European Union for all EU Member States, in a simplified manner, based on the principle of automatism, emphasizes the mutual trust of the Member States in the qualifications obtained within the territory of any of them. This is an attempt of preserving both European identity preservation and the tradition regarding the existence of a democratic and elitist education system.

From this perspective, the improvement of the quality of education and the avoidance of sideslips are required. We disclosed in the present work the imminent danger of the Agreement between Romania's Government and the Government of the Republic of Moldova on the mutual acknowledgment of diplomas, certificates and scientific titles, provided by accredited educational institutions in Romania and in Moldova, in terms of achieving the common European policy objectives. In spite of this, we have to consider the fact that the European policy in this field is geared more towards internationalization than to Europeanization. The same trend is evident in the relationship between the European Research Area and European Higher Education Area.

European Research Area interfaces with the European Higher Education Area (Bologna Process), as the research process cannot be seen independently of the higher education area (Suciu M., 2006, p.27). It seems to us that the point of convergence between the European Research Area and European Higher Education Area lies in the emphasis on interdisciplinarity (considering that most positive results in technology and the economic zone are created in the interface of various disciplines). The Bologna system tries to make the European educational system compatible with the education systems from UK, USA, Canada, Australia, New Zealand, India, Pakistan, Asia and Latin America. Basically, in addition to the Europeanization (in the sense of European unity) of education, the Bologna system results in the globalization of education.

3. INTELLECTUAL PROPERTY RIGHTS AND EUROPEAN POLICY IN THE FIELD OF RESEARCH, DEVELOPMENT, INNOVATION

The amendment of the European Convention on patents, in terms of reducing time and costs involved in obtaining a Community Patent is also a priority. They should be reduced at least up to the level of the patents obtained in the United States of America, so that we can speak of a real competition between these two. The European Patent Convention was intended to centralize the request forms and the registration forms of patents at the European Patent Organization. This assumes obtaining a European patent by a single procedure, the costs of patenting being significantly reduced for the applicant in several countries. In case of the European patent, one should address to the European Patent Office.

From a procedural perspective, the European patent system is too costly and too complex. The analysis of a patent application may take up to 44 months, compared with 27 months in the United

States of America. Registering a patent in 13 most popular countries of the EPO costs the inventor 39,675 Euros, compared to 9,856 Euro in the United States and 5,541 in Japan. The cost of translation in eight languages (some of the 13 countries have common language) represents one third of this amount, a bill that increases quickly if one wants protection in all 31 countries, with their 23 official languages.

Therefore two patent systems coexist: a national one, in each EU member state, and a European one, but which doesn't achieve the unification of the laws at European level, being merely a form of cooperation of the Member States in terms of intellectual property rights, and without being part of the community legal order. The community policy on research, development, innovation must be understood as a European revival and regeneration policy, based on an inexhaustible resource - the knowledge obtained during research. The development of the research, development, innovation Euro-market is about the public nature of knowledge. The line between knowledge, as a public good and knowledge as a private good becomes clear only through the understanding of intellectual property rights.

4. FINANCING THE EUROPEAN POLICY IN THE FIELD OF RESEARCH, DEVELOPMENT, INNOVATION

Funding is the key to achieving a strategic target the European Union becoming "the most competitive and dynamic knowledge economy in the world". It is obvious that in the present context, given the results obtained so far, and the failures in this area at European level, this is an impossible task at present. In addition, the fierce competition in this area, with the United States, Japan and China have turned this target from a stable one, into a constantly moving target, impossible to achieve on short term. It is very important Regulation no. 1080/2006 of the European Parliament and Council on European Regional Development Fund (European Parliament, 2006).

For the existence of a functional Euro-market in the field of research, development, innovation the differences between the European Union Member States have to be reduced, before attempting to catch up with the United States of America, Japan or China. From this point of view, we can certainly see the difference between the European policy of research, development, innovation and the other community policies. Thus, the common agricultural policy, the industrial policy etc. pursue a rapprochement between the EU Member States without being focused on reducing the gap between EU

and the other three global competitors. In addition, based on the comparative advantages of each Member State, a specialization for each of it is pursued. In contrast, the common European policy on research, development, innovation is based on the competitive advantages of the Member States in general, and on the human capital in particular. Or, one cannot talk about a specialization of a Member State in this sector, because this would mean violating the non-discrimination principle. Only in this context one can understand the common European policy for research, development, innovation and only by understanding this issue Romania will be part of the Euro-market of research, development and innovation, while the European Union will be able to achieve the Lisbon target.

The EU Member States' economies, characterized today by a high level of income and productivity are characterized at the same time, by a high degree of technological innovation. They use cutting-edge technology, and their output consists of quality products and services incorporating high technology. This is strictly about how much of the GDP they invest in the research, development and innovation sector. Austria, Germany, Sweden, have per capita income and a high wage level, consistent with the way they intend to invest in the sector noted. On the other hand, Romania fails to establish the connection between research, development, innovation and per capita income. Killing this sector means inhibiting the economic growth.

The current economic crisis has affected the research, development and innovation sector in all Member States of the European Union. The development of the previously mentioned sector is contingent on the public or private investment in innovation seeing that, in fact, the economic crisis affected the industry; the enterprises management, the managers' attitude, has undergone transformations since they were under the necessity of cutting the expenses they used to make in innovation, in new products and technologies, and support the existing products and technologies. Even under these conditions, analyzing the reports on innovational politics presented in short above, in relation to the way in which the European Union Member States develop this policy, we can identify:

- leaders in innovation: Denmark, Finland, Germany, Sweden, United Kingdom;
- promoters of innovation: Austria, Belgium, Cyprus, Estonia, France, Ireland, Luxembourg, Netherlands and Slovenia;
- moderate innovators: Czech Republic, Greece, Hungary, Italy, Lithuania, Malta, Poland, Portugal, Slovakia, Spain;
- states which must reduce a strong gap in terms of innovation: Bulgaria, Latvia, Romania.

The improvement of the convergence degree between academic education and the scientific research results promoted at university level and the innovation absorption degree within the meaning of improving the capacity of the socio-economic environment to incorporate innovations is also required. The improvement of this segment depends on the mentality of people (a middle way between the particular way of thinking academically and the businessman style), but also on legislation. The important role is played by the national legislators who must find ways to stimulate enterprises to use, convert and enlarge the knowledge stock obtained through innovation, with the clear aim to broaden the possibility of applying this new knowledge in order to obtain innovative products, processes and services.

5. ROMANIA'S CASE

In Romania the research-development sector is favored to the detriment of the one of innovation (Lazar R., 2010). The governmental support is directed towards the development of the public institutions of research, towards the increase of the number of specialists involved in the research-development activity and less towards innovation. The reduction of the expenses in relation to GDP starting from 2009 was a blow both to the research-development sector and to innovation. We can also add the lack of incentives for innovation in the research-development sector, the reduced capacity to elaborate projects and draw funds and to implement European projects, the misinformation regarding the delimitation of the responsibilities between the National Authority for Scientific Research and the Ministry of the Small and Middle Enterprises, the inexistence of supply and demand as far as innovations are concerned, the poor absorption of innovations by industry, meaning that more money is spent on machine, tools, extern equipment purchase and less for the development of the enterprise intern capacities.

In 2005, a study performed in Romania on 170 enterprises (Voinea L., 2005, p.5) showed the percent of the research-development expenses, observing that it depended on the geographical location of the state, on the specific characteristics of the local market. The existence of the specific departments of research is essential; these determine the introduction of new products, of new technological processes, of new production methods. The development of the research sector pursues the increase of expenses, as well as the increase of the number of employees dedicated to this activity. What is

interesting is the great number of the small enterprises that invest in this sector. This could be due to the great number of the enterprises that work in the software industry.

The involvement of the Romanian state in supporting the expenses of the enterprises in this respect is extremely reduced. Thus, only 2.4% from the companies are supported by the state, while only 2 from 170 enterprises included in the study we mentioned above have tried to obtain European funds. Four out of five Euro invested in this sector come from personal funds, while the credits in this sector are in small number.

Also, very few Romanians are involved in long-life learning programs – only 1.3%, while 40% from the companies that were considered by the study did not invest anything in the training of their own staff. The lack of long-life learning programs makes the adaptation to the structural pressure more difficult, considering the compatibility between the national industry and the world one.

The intern and international competition are essential for the development of this sector.

The ecology, the efficiency and e-government (the increase of efficiency in the public administration) are the directions that have to be followed by the innovational policy from our country.

The strategy of economic growth in Romania, the way it was elaborated after the downfall of the communist regime was based on encouraging the consumers to spend money, on direct foreign investments and on capital flows. Unfortunately, they didn't consider a coherent policy based on innovations. The specialists believe that this is one of the reasons why Romania was and is strongly affected by the economic crisis.

Thus, in 2009, because of the economic crisis they cut down the funds for the research-innovation sector, getting to 0.18% from GDP in January 2009, subsequently increased to 0.27% from GDP, which is still not good enough. Thus, we can say that Romania is one of the last states of the European Union as far as the rate of innovation is concerned. Also, we have to say that we will not refer only to the negative “reminiscences” from this field which existed before 1989, and that we will observe the positive parts from the same perspective and weather they were turned to advantage or not. As an example, we will mention the number of researchers, the research centres from that time, as well as their evolution until now.

The drastic cut down of the research-innovation finances was reflected in the main financial instruments controlled by the National Authority of Scientific Research, as well as in the programs of the National Plan for Research-Development-Innovation, corresponding to the period of time between 2007 and 2013. The consequences of these financial cuts are both complex and negative at the same

time, neutralizing the encouraging signs from the past few years regarding the revival of this sector, the attraction of human capital in this sector, as well as the partnerships between the public sector and the private sector.

Except some debates in this respect, the authorities didn't take a strong official stand regarding the effect of the economic crisis on the research-development-innovation sector, as well as the measures that have to be adopted to counter-balance the negative effects.

CONCLUSIONS

Because knowledge is the inexhaustible resource of mankind in general, of the European Union, in particular, we should talk about a Union of Research, as we talk about the Monetary Union, for example. A greater dissemination of the research results would not only bring notoriety to European researchers and innovators, but also bring about greater competition in the field of research. Competition in research is needed to achieve excellence in this field. Therefore, we also think- as outlined in the Second Report for 2010 of the European Research Advisory Committee - that an annual designation of a "European capital for research and innovation" would be desirable.

Given the different culture of the European Union Member States, the separate systems, filled with tradition both in education and research, we consider the general approach in the Founding treaties appropriate; as for the rest, the issue of research, development, innovation must be subject to the community directives, sparing in this way the acute sensitivity in this area of the European Union Member States.

REFERENCES

- Manolache, O. (2001), *Drept comunitar*, Ed. All Beck, București
- Lazăr R.E. (2010), *The european politics in the field of research, development, innovation. Comparative study*, Journal of legal studies no. 3-4, December 2010, accessed on April 2011 at http://econpapers.repec.org/article/lumrev4r/v_3a3-4_3ay_3a2010_3ai_3a_3ap_3a107-121.htm.

Regulation no. 1080/2006 of the European Parliament and Council on European Regional Development Fund, accesed on November 2010 at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:210:0001:01:RO:HTML>

Suciu M.C. (2006), *Politica inovațională în Uniunea Europeană*, Theoretical and Applied Economics nr. 9/2006

Voinea L., Simionescu L. (2005), *Survey report on research, delopment, innovation and competitiveness in the Romanian Industry*, accesed on july 2010 at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=668882