

**Government of Montenegro**

**Ministry of Education and Science**

## **Questionnaire**

Information requested by the European Commission to the Government of Montenegro for the preparation of the Opinion on the application of Montenegro for membership of the European Union

– ADDITIONAL QUESTIONS –

### **25 Science and research**

Minister:

**Vujica Lazovic**



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**CHAPTERS OF THE ACQUIS – ABILITY TO ASSUME THE OBLIGATIONS OF MEMBERSHIP**

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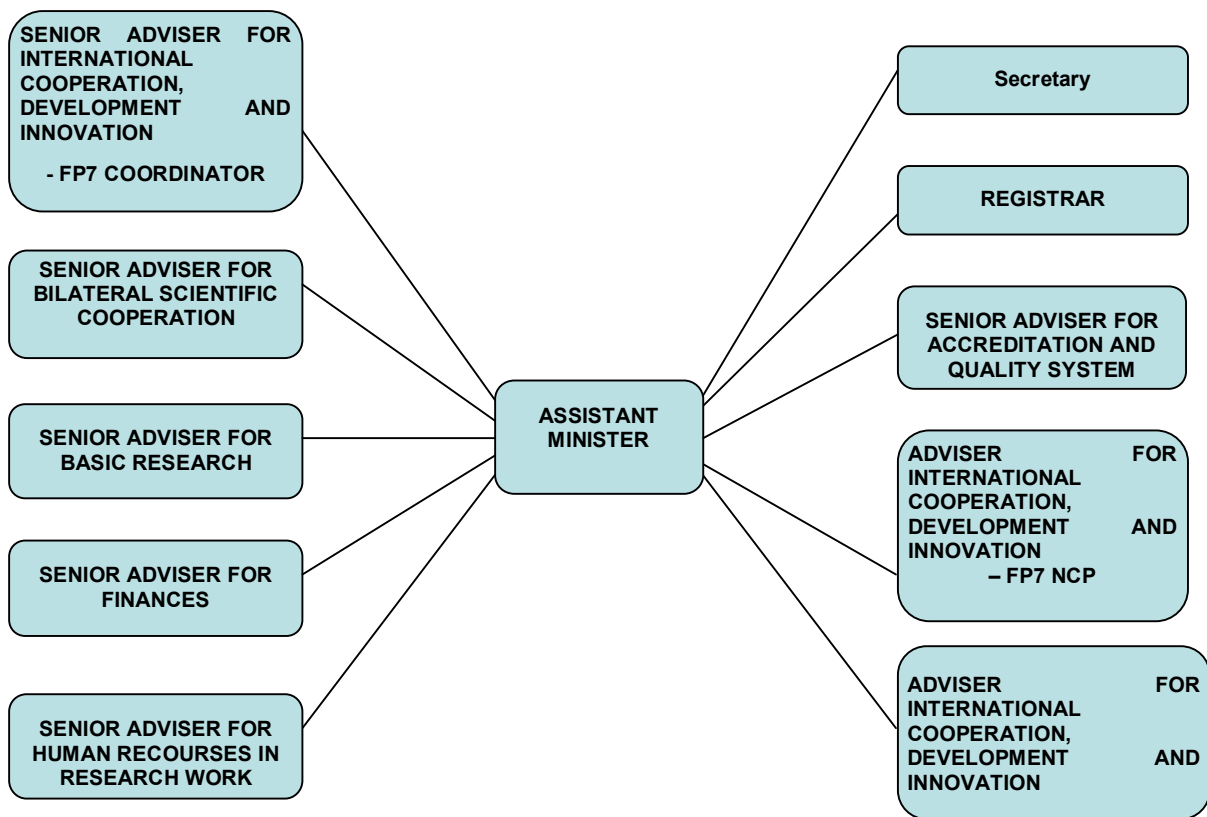
## **25: Science and research**

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### I. Research policy

#### Organisation of research at national level

1. (Ref to Q. 1): What are the human resources of the department for science and research within the Ministry of Education and Science?



**Department for Science, Research and Technological Development**

**2. (Ref to Q. 3): Which objectives from the Strategy for Scientific – Research Activities have been achieved by the end of 2009?**

With the view of fulfilling the tasks established by the Strategy, the following objectives have been achieved:

- the Government of Montenegro has been provided with the professional framework, recommendations and support in specific activities undertaken with the aim of creating and improving the conditions for performing scientific and research work, and the competent ministries have been acquainted with the necessity of investment into the scientific and research activity. This has been realized by the Initiative of the Ministry of Education and Science for the cross-sectoral cooperation and joint co-financing of the **priority sectors** in research, as defined in the Strategy, such as: Science and Education, Natural and Cultural Heritage, demographic structure, national identity and language, Ecology, Tourism, Agriculture, Health of the Population and Energy.

In line with the Strategy, the Initiative proposed that the abovementioned areas should be taken into consideration during the planning of the annual allocation of the budget funds, through the line ministries for the programmed co-financing of the relevant science-and-research institutions, as well as of the realisation of the major developmental projects in the before mentioned areas, with the maximum engagement of the national human resources in the field of science (Ministry of Agriculture, Forestry and Water Management, Ministry of Tourism, Ministry of Spatial Planning and Environmental Protection, Ministry of Culture, Sports and Media, Ministry of Economy, Ministry of Health, Ministry of Labour and Social Welfare, Ministry for Information Society). Furthermore, it has been proposed that the Ministry of Economy should offer an additional support to the bank sector in the realisation of research and development projects and also help create favourable conditions for foreign investment in research and development.

Having regard to the significant reduction of the budget funds planned for this purpose in 2010, the Ministry of Education and Science has started this Initiative with the aim of achieving the maximum with the available funds and in order to minimize the negative effects of the financial crisis in the field of science, research and technological development.

Implementation of the Initiative for cross-sectoral cooperation and joint co-financing of the priority sectors in research established by the Strategy has been postponed for the time after the financial crisis. However, it has resulted not in the reduction of the funds allocated for science, research and technological development, but in allocating the same amount as in 2009 through the Ministry of Education and Science;

- the role and the importance of human resources for the development of science have been emphasized, in particular through the professional development of young researchers and their inclusion into the European Research Area (ERA). This has been emphasized through the instrument for conducting research, the Public call for co-financing of the scientific and research activities from the State's budget, referring to: scientific and research projects (national, bilateral and participation in multilateral projects) and professional development of the researchers both in the country and abroad. Target groups are researchers from public and private sectors, with a special stress on the professional development of young researchers;
- having regard to comparative natural, technological and human advantages of Montenegro, the most important fields of scientific and research work have been identified in the **priority sectors** in research defined by the Strategy and financed by the national scientific-and-research projects, such as: Science and Education, Natural and Cultural Heritage, demographic structure, national identity and language, Ecology, Tourism, Agriculture, Health of the Population, Energy;
- the international cooperation has been encouraged at all levels of scientific and research activities through participation in the multilateral projects: FP7; NATO Science for Piece and Security Programme; EU CIP Programme (EU Competitiveness and Innovation Programme) –



EIP (entrepreneurship and innovation component), as well as through bilateral scientific and technological cooperation;

- A plan to reform statistics in science and research has been made by means of using TAIEX and activities of the WBC INCO.NET project, according to which the statistical survey in 2011 should be carried out in compliance with the EU criteria (COMMISSION REGULATION (EC) No 753/2004 of 22 April 2004). The activities on defining the form of the new statistical questionnaire and methodological guidelines have been preformed. The Statistical Office and the Ministry of Education and Science participate in this process; and

- Through coordination of the "Researchers' Night " project, realized as an FP7 project, the Ministry of Education and Science offered a marketing support to the research community of Montenegro for the promotion of its research work in public, which is also one of the measures established by the Strategy.

### 3. Ref to Q. 4):

#### **- Are there plans to establish Centers of Excellence and if so, in which areas?**

There are no plans at present to establish Centres of Excellence in Montenegro.

The Law on Amendments to the Law on Scientific and Research Activity, which should be adopted by the end of 2010, shall normatively regulate the possibility of establishing Centres of Excellence.

In addition to this, the Ministry estimated that there are reasonable grounds for proposing the development of the feasibility study for setting up of the Centres of Excellence through IPA programme for 2011 and the state budget.

#### **- What will Montenegro do to attract participation of private institutions and organisations in public research?**

Even though, pursuant to Article 36 paragraph 2 of the Law on Scientific and Research Activity (Official Gazette of the Republic of Montenegro 71/05), the private institutions and other legal and natural persons may acquire financial resources from the state budget, provided they implement scientific and research programme in accordance with the Strategy, no significant interest has been expressed so far to apply with research projects to the calls announced by the Ministry.

Participation of the private institutions and organisations in research is stimulated additionally by means of tax and customs duties relief, on the basis of procurement of scientific and research equipment from abroad, based on:

- Article 41 of the Law on Scientific and Research Activity, which stipulates that "the equipment used in scientific and research activities which was received as a donation from a foreign country or bought in a foreign country may be relieved from taxation and value added tax on the basis of opinion provided by the Ministry".
- Article 25 paragraph 1 point 12 of the Law on Value Added Tax (Official Gazette of the Republic of Montenegro 65/01, 12/02 and 76/05),
- Article 184 paragraph 1 point 1 of the Law on Customs (Official Gazette of the Republic of Montenegro 7/02, 38/02 and 72/02),
- Article 2 of the Instructions of the Ministry of Finance on the manner of implementation of the procedure regarding the exercise of the right to exemption from value added tax in

cases when this is envisaged by an international agreement or contract (Official Gazette of the Republic of Montenegro 34/03)

In addition to the mentioned tax and customs relief, which regards import of the equipment necessary for research, the Ministry will make an initiative that the Government of Montenegro considers modalities of additional stimuli for private sector's investment (additional tax relief, priorities during the programmes realisation by state funds for research, stimulation of patents, innovations, new products, etc.)

The Ministry encourages participation of private institutions and organisations in multilateral projects funded by the European Commission.

An example of a successful private-public partnership is TEMPUS project "Development of business training in Montenegro", coordinated in Montenegro by the private university "Mediterranean", with the following partner institutions: University of Montenegro, Chamber of Commerce of Montenegro and the Ministry of Tourism.

Grant holder is University of Debrecen in Hungary, with the partner institutions: Budapest Business School, Scottish Agricultural College and the Wageningen University, Netherlands.

The project shall be realized during the period of two years, and its implementation started on 1 December 2009.

**- Are there plans to establish technology centers and science parks? In case yes, what is the indicative timing and are there already draft business plans existing?**

Since no technology centers and science parks have been established in Montenegro so far, the Ministry estimated that there are reasonable grounds for proposing the development of a feasibility study for establishing technology centers and science parks through IPA programme for 2011 and the state budget.

## **Financing of Research**

**4. (Ref to Q. 7-8):**

**a) How many international reviewers have been chosen between 2007 and 2009?**

For the period 2007-2009, apart from the reviewers from Montenegro, the Ministry also engaged 15 international reviewers, i.e. 5 reviewers per year.

**b) Is the Ministry keeping statistics on projects funded and if yes, could you please provide the following data:**

**- What is the success rate of projects funded, based on proposals submitted?**

At the last call for financing national research projects announced in 2008, 76 projects were submitted for evaluation. Out of them 66 new projects were accepted for financing while 10 were rejected due to negative evaluation. The success rate with respect to the number of applications was 86.84%.

A total of 74 projects were financed in 2008 - 66 new ones and 8 projects contracted upon call for proposals from the previous year, 2007.

**- How many projects are being funded at national level per year?**

Review of the national scientific and research projects funded in the period 2007 – 2009.  
for various fields of sciences

No.	The field of science	2007	2008	2009	Total
1.	Natural and Mathematical Sciences	4	20	20	<b>44</b>
2.	Technological Sciences	2	21	21	<b>44</b>
3.	Biotechnical Sciences	1	15	14	<b>30</b>
4.	Medical Sciences	-	4	3	<b>7</b>
5.	Social Sciences and Humanities	1	14	12	<b>27</b>
<b>Total number of the funded projects</b>		<b>8</b>	<b>74</b>	<b>70</b>	<b>152</b>

On the basis of Article 39 of the Law on Scientific and Research Activity, The Ministry of Education and Science announced calls for funding scientific and research projects in 2007 and 2008. The call for financing new projects was not announced in 2009, as the funding of the projects accepted in 2007 and 2008 continued.

- in 2007, 8 projects were accepted for contracting and funding through the call. 9 young researchers, doctoral students, were engaged in them, as fully employed in the institutions carrying out these projects for the period of 3 years, by the end of which they must attain their doctoral degrees,
- in 2008, 66 new projects were accepted for contracting and financing through the call, and in total 74 projects were funded (8 approved in 2007 + 66 new projects as of 2008 call) and
- in 2009, the continued funding for 70 projects that were accepted through the calls in 2007 and 2008 was approved. In this year, there were four funded projects less than in 2008 since one project was finished, two projects are temporarily discontinued due to objective circumstances and one project was refused continuation of funding for the reasons of negative evaluation of the report on the first research year.

**- What is the average size of project/funding?**

Year	2007	2008	2009
Number of the funded projects	8	74	70
The average value of the projects at the annual level	19.460 €	14.900 €	14.600 €

### III. European Research Area

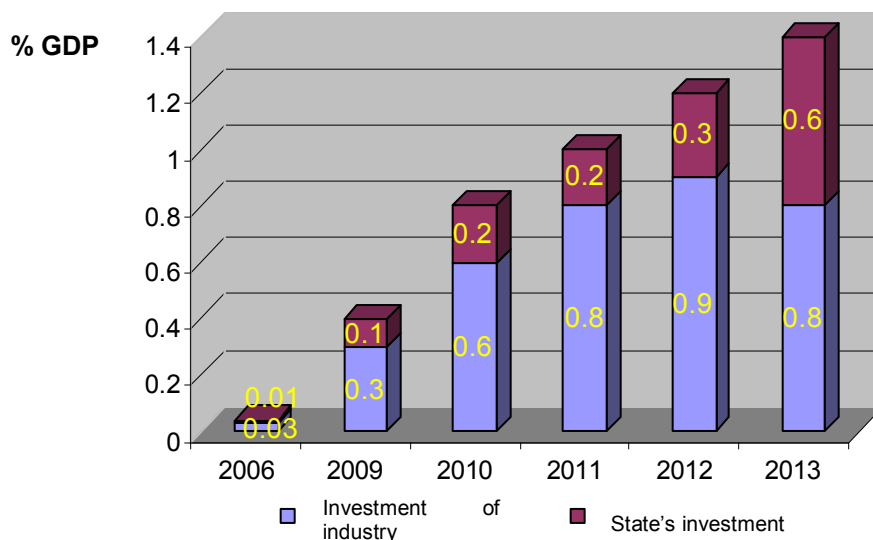
#### Investing in research

##### 5. (Ref to Q. 17):

- How does Montenegro intend to achieve its target of 1.4% of GDP investment in research by 2013?

The Strategy proposes the following dynamics for the increase of investment into research, technological development and innovation for five-year period: 2009-2013.

**Graph: Proposal of increase of investment into the SRA (scientific and research activities) by 2013.**



**Table: Proposal of increase of investment into the SRA by 2013**

YEAR	2009	2010	2011	2012	2013
State's investment (% GDP)	0.1	0.2	0.2	0.3	0.6
Investment of industry (% GDP)	0.3	0.6	0.8	0.9	0.8
Total investment in the RTD (% GDP)	0.4	0.8	1.0	1.2	1.4

Having regard to the present financial crisis that brought about the stagnation of the State's investment and the lack of investment of industry, Montenegro intends to prepare a special Action Plan by the middle of 2011, which would help attaining the goal of 1.4% GDP investment into research by 2013.

Through the means of promotion of scientific programmes and stimulation of research, Montenegro will attempt to raise awareness of the importance of science and its contribution to the increase of the living standard in the country, as well as to the building of the knowledge-based society.

In case that certain aims of the Strategy are proved to be unrealistic during the drawing of the Action Plan, both the individual and the total level of investment into the SRA (scientific and research activities), previously envisaged, shall be redefined.

**- What is the effective level of public spending since the National strategy was adopted in August 2008: have targets set for 2009 been met?**

year	2008	2009
Gross Government expenditure on RTD (the level of the public investment)	2.38	3.05
% GDP	0.077%	n/a

Source: Ministry of Education and Science, Montenegrin Academy of Sciences and Arts, University of Montenegro, Office for International Scientific, Educational, Cultural and Technical Cooperation.

The objectives of the Strategy achieved by the end of 2009 are described in detail in the answer to the second additional question of this chapter.

**- How will Montenegro measure progress and follow-up/monitor?**

The measuring of the progress and monitoring will be carried out by comparing the expected and the achieved results, which will be included in the information on realization of the aims and tasks established by the Action Plan for implementation of the Strategy on Scientific and Research Activities, submitted by the Ministry to the Government every year for consideration and adoption.

**6. (Ref to Q. 19): Which measures will be taken to stimulate investment in research by private sector?**

Apart from the existing tax relief referring to the import of the equipment necessary for research activities, the Ministry will make initiative that the Government of Montenegro takes into consideration modalities of additional stimuli for investment of the private sector into research by the end of 2010 (additional tax relief, priorities in the realization of the programmes by means of financial support from the state's funds, stimulation of patents, innovations, new products, etc.)

**Human Capital building and Mobility of researchers**

**7. (Ref to Q. 20): Does Montenegro intend establishing a plan to increase the number of researchers? Are there any related actions under consideration?**

At present, Montenegro does not have a special plan for the increase of the number of researchers, even though all activities undertaken by the Ministry of Education and Science refer to the enlargement of that number.

In its secondary legislation, the Ministry introduced the instrument for employment of the Doctors of Sciences who have not been elected in academic or scientific titles, engaging them exclusively in the scientific projects, which is an altogether new instrument that had not existed before.

If the activities of the Ministry and the established instruments fail to bring about the increase of the number of researchers by the end of 2011, during 2012 Montenegro will define, by a special Action Plan, additional instruments of stimulation in order to encourage the rise of the number of researchers.

**8. (Ref to Q. 24): Please provide total number of researchers/scientists in Montenegro and what percentage this constitutes in relation to total workforce.**

Total number of researchers in 2008	766
Total workforce in 2008	186166
Percentage	0,4 %

*Source: Statistical Office of Montenegro*