

# The Researchers Report 2012

## Country Profile: Serbia



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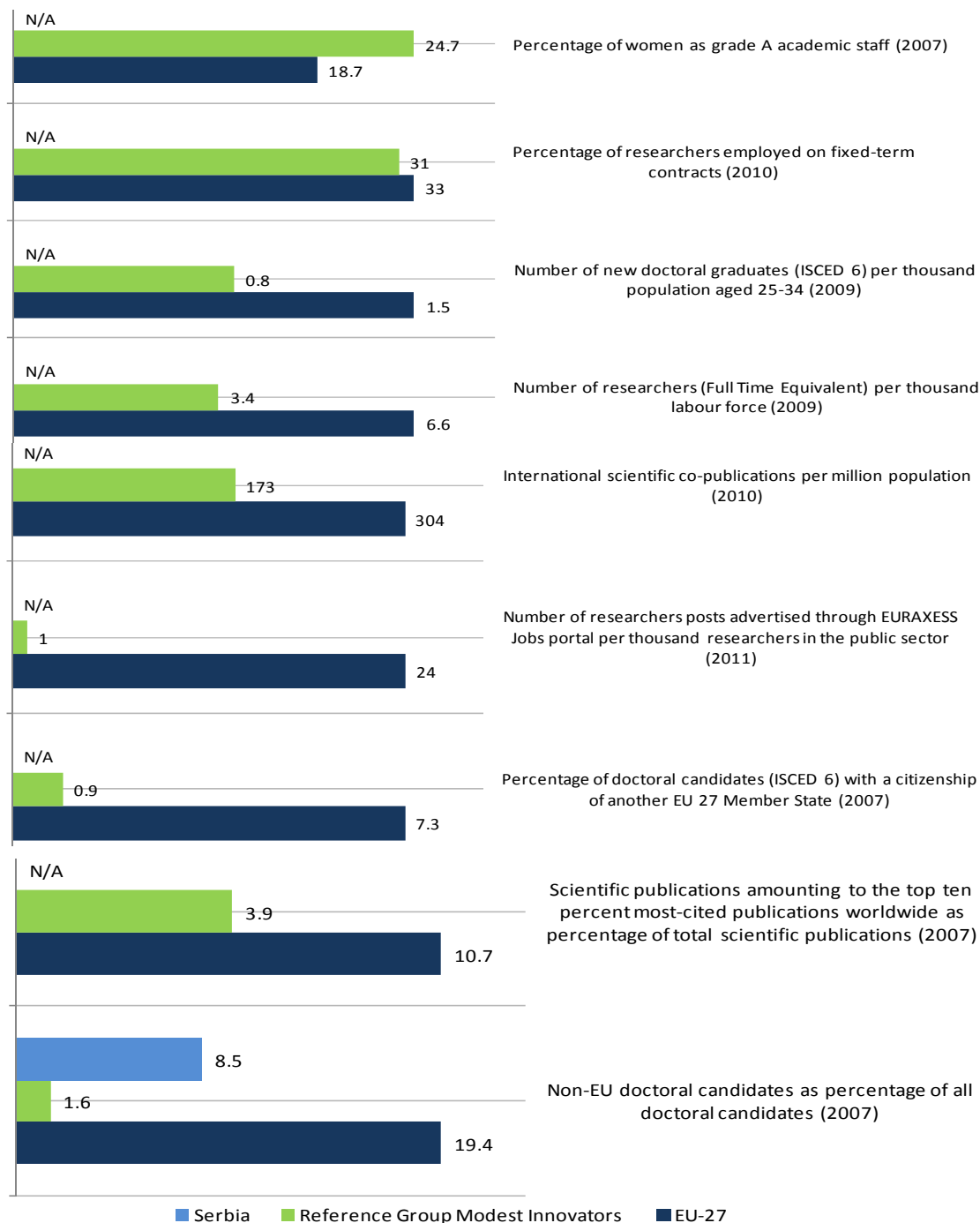
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# 1. Key data

## Key indicators measuring the country's research performance

The figure below presents one key indicator for which data for Serbia is available against a reference group and the EU-27 average<sup>1</sup>.

Figure 1: Key indicators – Serbia



Source: Deloitte

Data: Based on the average innovation performance, Serbia belongs to the group of Modest Innovators with a performance well below that of the EU-27<sup>2</sup>.

<sup>1</sup> The values refer to 2011 or the latest year available.

<sup>2</sup> European Commission (2011), "Innovation Union Scoreboard 2010".

## 2. National strategies

The Republic of Serbia is an associate country of the European Union and by signing the Memorandum of Understanding in 2007, Serbian candidates acquired access to European funding, for instance under the 7th Framework Programme.

The Serbian research system is centralised and governed by the Ministry of Education and Science (MES). The MES was established in March 2011 and is the legal successor of the previous Ministry of Science and Technological Development. The table below presents key programmes and initiatives intended to implement the strategic objectives to train enough researchers to reach Serbia's R&D targets, to promote attractive working conditions, and to address gender and dual career issues.

Table 1: National strategies

Measure	Description
<b>Strategy on Development of Vocational Education in the Republic of Serbia (2005)</b>	The strategy provides a complete picture of the further development of vocational education and training in Serbia. It contains a number of recommendations to be implemented by the Government and the Ministry of Education and Science in legislative activity, institutional development, human resources, gathering information from the labour market, the modernisation of the educational curriculum, the organisation of educational processes and modernisation of schools management.
<b>Strategy on Science and Technological Development of the Republic of Serbia for the period 2010-2015</b>	The overall objective of the Strategy is to develop a national innovation system where scientists reach European standards and promote technological development of the economy. The strategy defines seven national priorities in the area of science and technology. It aims to deal with the fact that a significant number of highly qualified young scientists and engineers leave the country and to attract students to opt for technology and mathematics studies. Finally, the strategy encourages partnership between academia and industry through an Innovation Fund, a new legal framework for intellectual property, incentives and support for innovation activities.
<b>The MES programme for the development of human resources 2010-2015</b>	The investment priorities of the MES programme for the period 2010-2015 are: <ul style="list-style-type: none"> <li>– a human resources programme which will engage individuals in the Serbian scientific diaspora in joint projects and other initiatives;</li> <li>– the <i>Petnica</i> research centre which welcomes young trainees, many of whom become leaders of science research in Serbia;</li> <li>– the <i>Mathematics</i> high school campus in Belgrade, which enrolls the most talented young mathematicians and others interested in natural sciences from across Serbia;</li> <li>– the new science and innovation centre in Belgrade towards popularisation of science in the general public, including young people.</li> </ul> <p>The total budget of the programme is approximately EUR 33 million.</p>
<b>National reports and legislation, including provisions regarding the profession of researcher</b>	
National Youth Strategy, Strategy on Adult Education Development in the Republic of Serbia, Strategy on Career Guidance and Consulting in the Republic of Serbia, Adult Education Development Strategy, Regulatory Reform Strategy in the Republic of Serbia, etc	
Law on Higher Education (2005), Law on Innovative Activities (2010), Law on Intellectual Property Rights (IPR), Law on Scientific and Research Activities (2010)	

Source: Deloitte

## 3. Open, transparent and merit-based recruitment

### EURAXESS Services Network

Approximately 25 research institutions have joined the Serbian Mobility Network by signing the Declaration of Commitment. The portal is fully operational<sup>3</sup>.

## 4. Education and training

### Measures to increase the quality of doctoral training

In the Republic of Serbia, some EUR 60 million has been allocated to establish Centres of Excellence in priority research fields, such as:

<sup>3</sup> Overall progress in EPR implementation, 2009, Annex II.

- Energy and environment (national energy institute and national laboratories for water, soil and air quality);
- Materials science (National Physics, Materials Science and Nanotechnology Laboratory – using the current Institute of Physics infrastructure);
- Agriculture and food (Centre of excellence in Novi Sad using the capacities of the Institute for food technologies)<sup>4</sup>.

## 5. Working conditions

### Measures to improve researchers' funding opportunities

The Ministry of Education and Science is implementing the following programmes to boost research careers and support researchers financially:

- Programme supporting basic research for the research cycle 2011-14 (BR programme);
- Programme supporting research in the field of technological development for the research cycle 2011-14 (TD programme);
- Programme of co-funding for integrated and interdisciplinary research for the research cycle 2011-14 (IIR programme) to support the integration of basic, applied and development research as well as to utilise R&D resources fully, emphasising commercialisation of R&D activities and results;
- Programme of providing and maintaining scientific research equipment and scientific research facilities for the research cycle 2011-14 (SREF programme)<sup>5</sup>.

### Autonomy of institutions

There are seven public universities with 89 faculties and 10 private universities with 60 private faculties. R&D activities in the higher education sector are mostly financed from the government budget.

The autonomy of the higher education system is guaranteed by the Law on Higher Education (2005), which fully implements the Bologna Declaration:

- Academic autonomy – right of teachers to decide on what to teach, how to enroll students, organise the programme of study and organise the HE institution internally;
- Political autonomy – the right to create statutes and other legal documents, the power to appoint the heads of different units (rector, dean, head of department, etc.) and to deal with internal political conflicts;
- Financial and managerial autonomy – freedom to decide on salaries, tuition fees, allocation of governmental funds, look for additional funds, as well as recruit teaching staff, researchers and other staff<sup>6</sup>.

## 6. Collaboration between academia and industry

The Mini Grants programme, funded by the Innovation Fund, aims to stimulate the creation of innovative enterprises and expand employment opportunities for young graduates. The scheme provides support of up to EUR 100 000 per grant for developments in life sciences, new materials and nanotechnologies, environmental and climate protection, energy and energy efficiency, food and agriculture, and information and communication technologies (ICT)<sup>7</sup>.

## 7. Mobility and international attractiveness

In 2007, the percentage of non-EU doctoral candidates as a percentage of all doctoral candidates was 8.5% in Serbia compared with 1.6% among the Innovation Union reference group and an EU average of 19.4%<sup>8</sup>.

<sup>4</sup> Ministry of Science and Technological Development, Republic of Serbia, "Europe and Serbia – Equal Opportunity Partners in ERA", PPT presentation, EURAXESS in Serbia – European, regional, and national perspectives, March 7, 2011, Kopaonik.

<sup>5</sup> Serbia Country Report. Erawatch, Available at: [http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/rs/country?section=Overview](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/rs/country?section=Overview) Accessed 23.04.1012.

<sup>6</sup> Serbia Country Report. Erawatch, Available at: [http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/rs/country?section=Overview](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/rs/country?section=Overview) Accessed 23.04.1012.

<sup>7</sup> Ibid.

<sup>8</sup> See Figure 1 "Key indicators – Serbia".

The Republic of Serbia runs bilateral cooperation programmes with a number of countries (Belarus, China, Croatia, France, Germany, Hungary, Slovakia, Slovenia and Switzerland). This has resulted in the co-financing of R&D projects carried out by teams consisting of researchers from both countries.

Cooperation agreements are going under way with Austria, Czech Republic, Greece, India, Portugal, Russia, Spain and US<sup>9</sup>.

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<sup>9</sup> Serbia Country Report. Erawatch, Available at: [http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/rs/country?section=Overview](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/rs/country?section=Overview) Accessed 23.04.1012.