

# The Researchers Report 2012

## Country Profile: Romania



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# 1. Key data

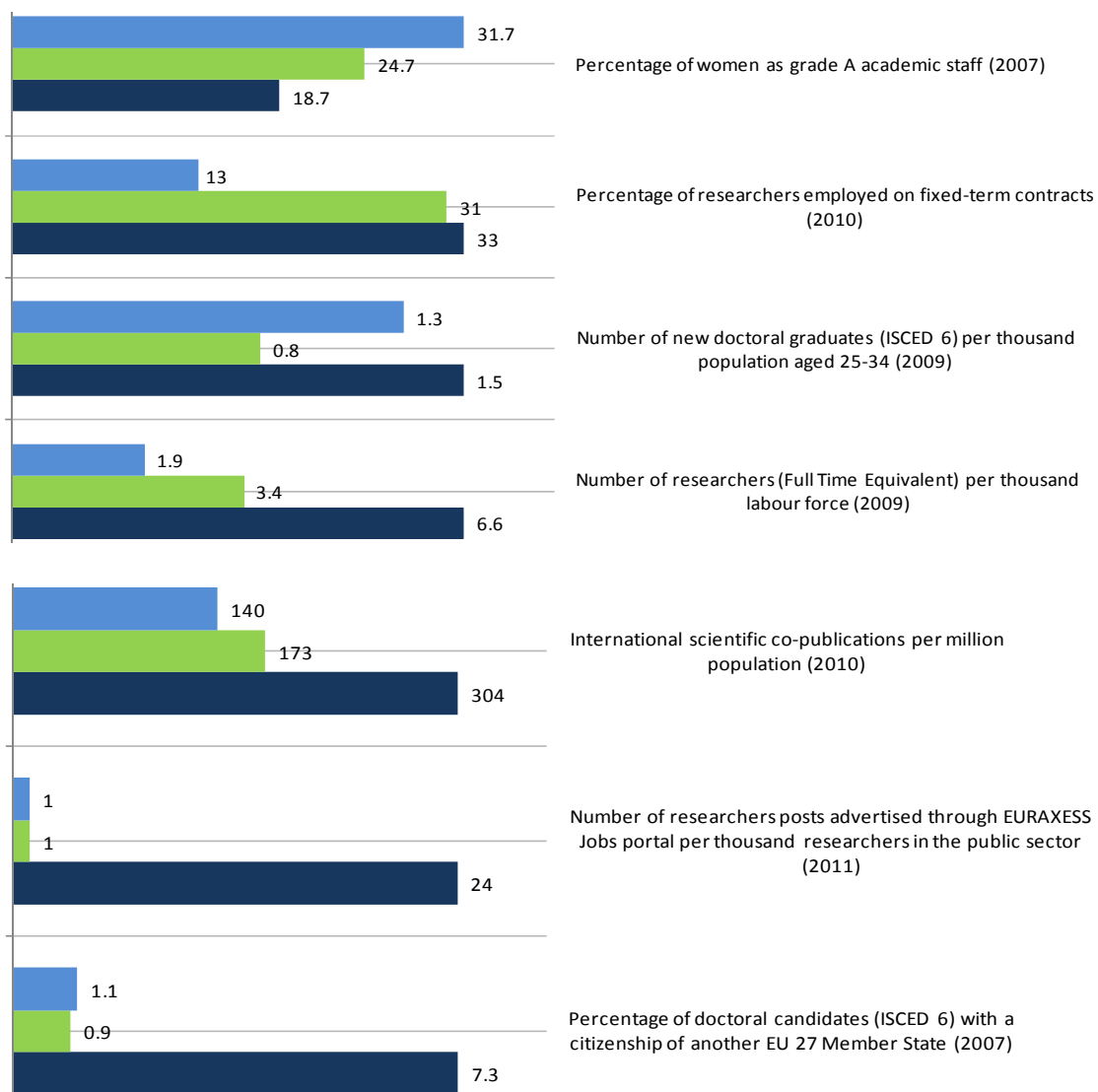
## National R&D intensity target

“In the last decade, the R&D intensity in Romania increased from 0.37 % in 2000 to 0.48 % in 2009. Despite this moderate positive trend, Romania still scores one of the lowest R&D intensities in the European Union. Using a multiannual perspective, the Romanian 2007-2013 Strategy for Research, Development and Innovation has foreseen a gradual increase of the R&D public budget. However, the further planned increase of the R&D public budget in 2009 did not take place, mainly due to the economic crisis. A substantial increase of the R&D spending, both in absolute and relative terms, will be instrumental for Romania in order to raise the economic competitiveness and secure high-quality jobs. Romanian authorities have recognised this and have set an ambitious but achievable target for 2020: R&D intensity is expected to account for 2.0 % of the national GDP in 2020”<sup>1</sup>

## Key indicators measuring the country’s research performance

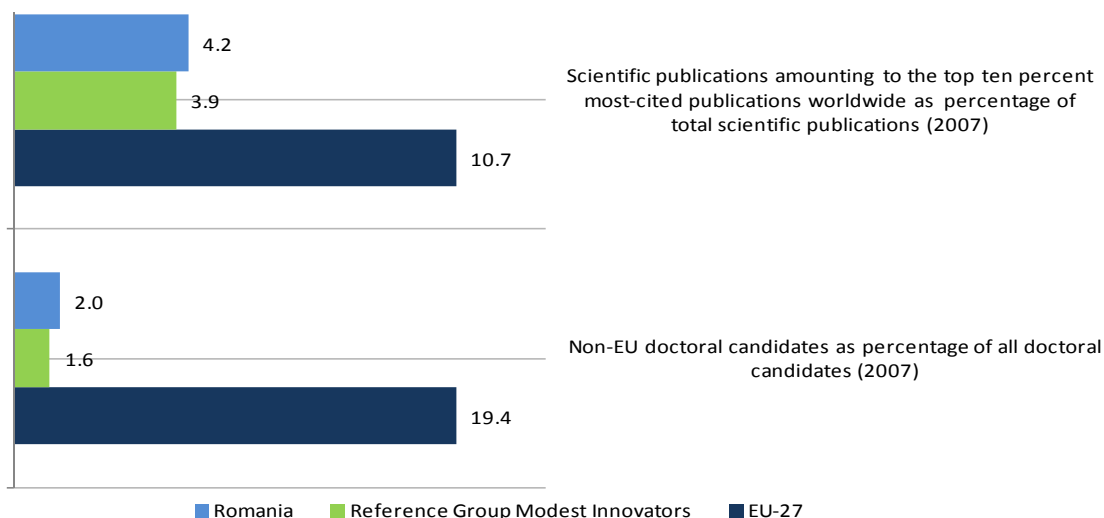
The figure below presents key indicators measuring Romania’s research performance against a reference group and the EU-27 average<sup>2</sup>.

Figure 1: Key indicators – Romania



<sup>1</sup> European Commission (2011), “Innovation Union Competitiveness Report 2011”.

<sup>2</sup> The values refer to 2011 or the latest year available.



Source: Deloitte

Data: Eurostat, SHE Figures, EURAXESS Jobs Portal, Science Metrix/Scopus (Elsevier), Innovation Union Scoreboard 2010

Notes: Based on their average innovation performance across 24 indicators, Bulgaria, Latvia, Lithuania and Romania show a performance well below that of the EU-27. These countries are the Modest Innovators<sup>3</sup>.

### Stock of researchers

The table below presents the stock of researchers by Head Count (HC) and Full Time Equivalent (FTE) and in relation to the active labour force.

Table 1: Human resources – Stock of researchers

Indicator	Romania	EU Average
Head Count per 1 000 active labour force population (2008)	3.10	9.45
Head Count (2008)	30 864	-
FTE per 1 000 active labour force population (2009)	1.94	6.63
Full time equivalent (FTE) (2009)	19 271	-

Source: Deloitte

Data: Eurostat

## 2. National strategies

The table below presents key programmes and initiatives intended to implement the strategic objectives to train enough researchers to reach Romania’s R&D targets, to promote attractive working conditions, and to address gender and dual career issues.

Table 2: National strategies

Measure	Description
<b>National Plan for R&amp;D and Innovation 2007-2013 (2007)</b>	This Plan (implemented under the National RDI Strategy 2007-2013) aims to: <ul style="list-style-type: none"> <li>– improve young researchers’ funding opportunities;</li> <li>– improve researchers’ inbound and outbound mobility;</li> <li>– restructure doctoral programmes;</li> <li>– establish schools of excellence.</li> </ul>
<b>National R&amp;D and Innovation (RDI) Strategy 2007-2013 (2007)</b>	The RDI Strategy aims to consolidate the Romanian Research Area and facilitate Romania’s integration into the ERA. It formulates the following objectives: <ul style="list-style-type: none"> <li>– provide human resources in RDI;</li> <li>– improve the innovative capacity of businesses, especially SMEs.</li> </ul>

Source: Deloitte

## 3. Women in the research profession

In 2007, the percentage of women grade A academic staff was 31.7% in Romania compared with 24.7% among the Innovation Union reference group and an EU average of 18.7%<sup>4</sup>.

<sup>3</sup> European Commission (2011), “Innovation Union Scoreboard 2010”.

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

### EURAXESS Services Network

In 2011, the number of researcher posts advertised through the EURAXESS Jobs portal per thousand researchers in the public sector was 1 in Romania compared with 1 among the Innovation Union reference group and an EU average of 24<sup>5</sup>.

## 5. Education and training

### Measures to attract and train people to become researchers

The table below summarises measures aiming to attract and train young people to become researchers.

Table 3: Human Resources – Key programmes and initiatives

Measure	Description
<b>Agency for the Implementation of Projects and Programmes for SMEs (year)</b>	The agency promotes entrepreneurship training schemes for aspiring entrepreneurs (especially young people and women): <ul style="list-style-type: none"><li>– START Programme for the training of young entrepreneurs;</li><li>– The 2005-2012 Programme for the development of entrepreneurial culture for women managers in SMEs;</li><li>– The 2006-2012 Programme supporting SMEs' access to training and consulting services.</li></ul>
<b>Sectoral Operational Programme Human Resources Development (SOP-HRD) (European Social Fund) (2007-2013)</b>	The programme promotes education and training in support of a knowledge-based economy. It promotes life-long learning, and provides support for doctoral and post-doctoral programmes.

Source: Deloitte

### Doctoral graduates by gender

The table below shows doctoral graduates by gender as a ratio of the total population cohort.

Table 4: Doctoral graduates by gender

Indicator	Romania	EU average
<b>New doctoral graduates (ISCED 6) per 1 000 population aged 25-34 (total) (2009)</b>	1.3	1.5
<b>Graduates (ISCED 6) per 1 000 of the female population aged 25-34 (2009)</b>	1.3	1.4
<b>Graduates (ISCED 6) per 1 000 of the male population aged 25-34 (2009)</b>	1.4	1.6

Source: Deloitte

Data: Eurostat

## 6. Working conditions

### Remuneration

Government Decision No. 475/2007 approving the implementation of the National RDI Plan 2007-2013 (see chapter 2 "National strategies") established ceilings for researchers' salaries.

### Autonomy of institutions

National legislation does not impose online advertising of public research positions. Research vacancies are published in the Romanian Official Journal, newspapers and at the universities' headquarters.

## 7. Collaboration between academia and industry

Knowledge circulation between industry and academia is primarily supported by:

- National RDI Plan 2007-2013;
- University in Society Summer Conference (UNISCO);
- Sectoral Operational Programme on Increasing Economic Competitiveness;
- Programmes supporting research collaboration between national and foreign research organisations;
- Programmes supporting participation of national teams in projects involving inter-governmental research infrastructures;

<sup>4</sup> See Figure 1 "Key indicators – Romania".

<sup>5</sup> See Figure 1 "Key indicators – Romania".

- Programmes supporting individual mobility of researchers.

## **8. Mobility and international attractiveness**

In 2007, 1.1% of doctoral candidates (ISCED 6) were citizens of another EU-27 Member State, compared to 0.9% among the Innovation Union reference group and an EU average of 7.3%. In the same year, the percentage of non-EU doctoral candidates as a percentage of all doctoral candidates was 2% in Romania compared to 1.6% in the Innovation Union reference group and an EU average of 19.4%<sup>6</sup>.

### **Measures aimed at attracting and retaining 'leading' national, EU and third country researchers**

Third-country citizens coming to Romania for the purpose of conducting scientific research must apply for a Scientific Visa (under Directive 2005/71/EC) if they are staying for more than three months.

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<sup>6</sup> See Figure 1 "Key indicators – Romania".