

The Researchers Report 2012

Country Profile: Romania



Deloitte.

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1. Key data

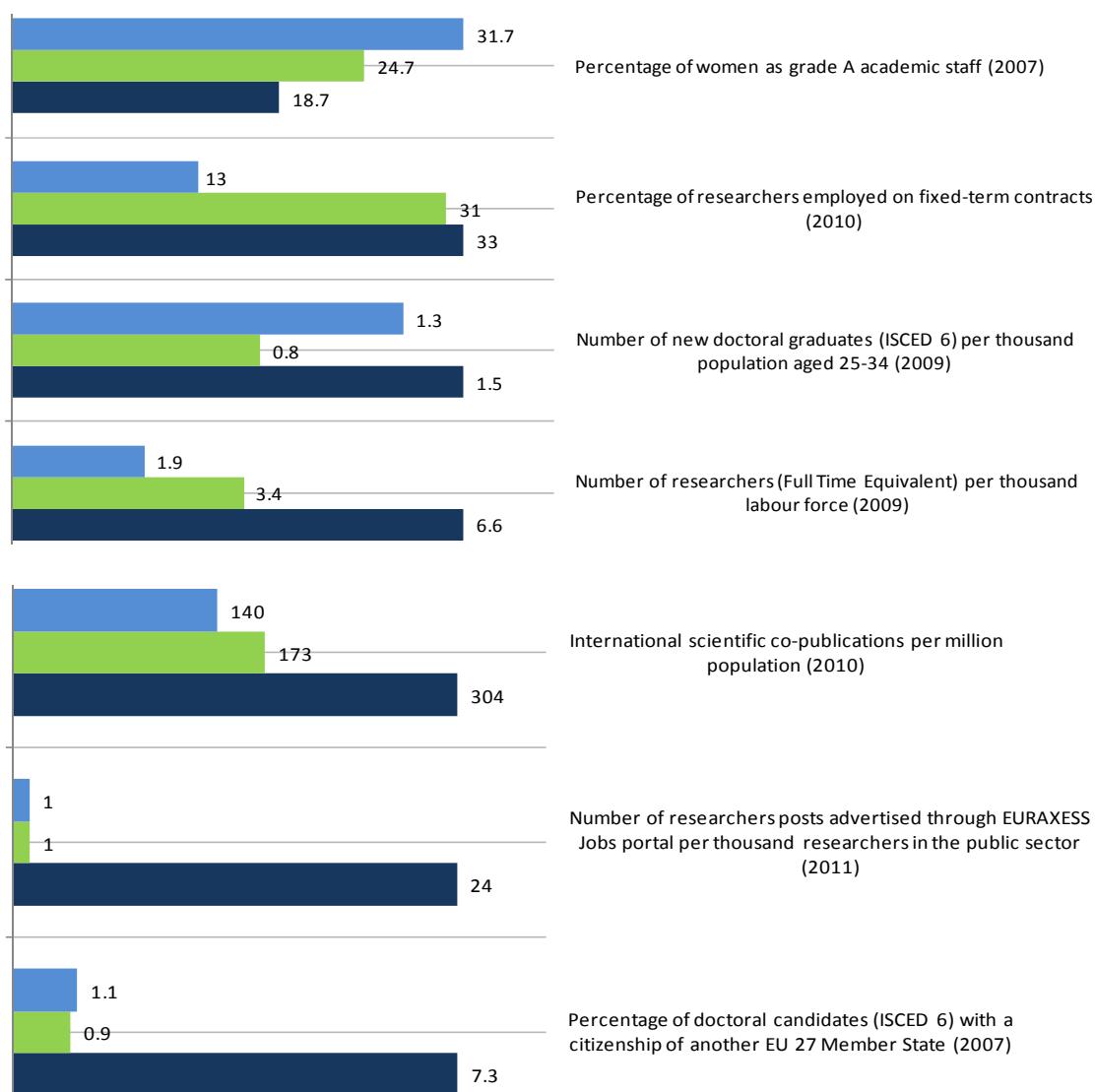
National R&D intensity target

"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"¹

Key indicators measuring the country's research performance

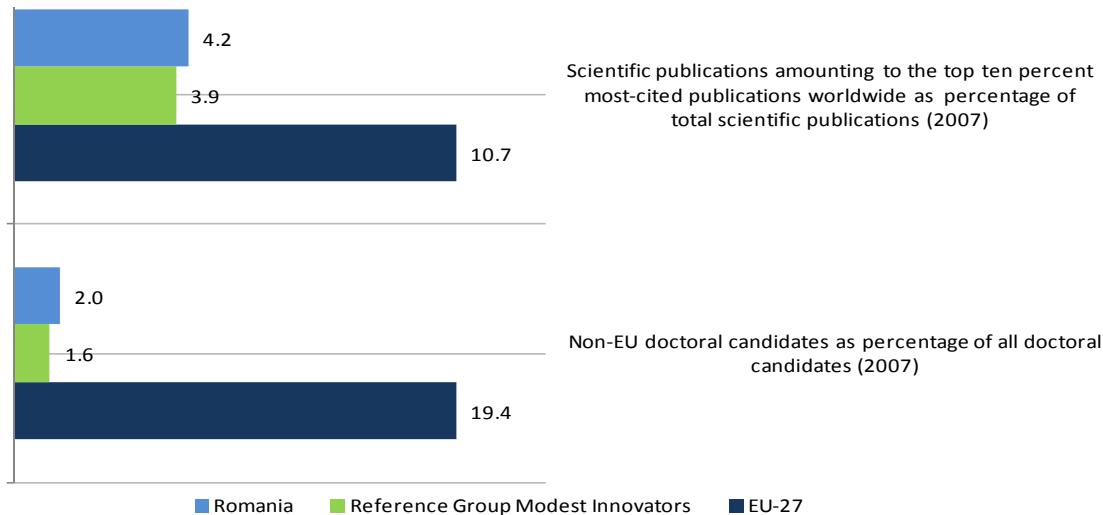
The figure below presents key indicators measuring Romania's research performance against a reference group and the EU-27 average².

Figure 1: Key indicators – Romania



¹ European Commission (2011), "Innovation Union Competitiveness Report 2011".

² 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 Innovators³.

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
National Plan for R&D and Innovation 2007-2013 (2007)	This Plan (implemented under the National RDI Strategy 2007-2013) aims to: <ul style="list-style-type: none"> – improve young researchers' funding opportunities; – improve researchers' inbound and outbound mobility; – restructure doctoral programmes; – establish schools of excellence.
National R&D and Innovation (RDI) Strategy 2007-2013 (2007)	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"> – provide human resources in RDI; – improve the innovative capacity of businesses, especially SMEs.

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%⁴.

³ 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 24⁴.

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
Agency for the Implementation of Projects and Programmes for SMEs (year)	The agency promotes entrepreneurship training schemes for aspiring entrepreneurs (especially young people and women): <ul style="list-style-type: none">– START Programme for the training of young entrepreneurs;– The 2005-2012 Programme for the development of entrepreneurial culture for women managers in SMEs;– The 2006-2012 Programme supporting SMEs' access to training and consulting services.
Sectoral Operational Programme Human Resources Development (SOP-HRD) (European Social Fund) (2007-2013)	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
New doctoral graduates (ISCED 6) per 1 000 population aged 25-34 (total) (2009)	1.3	1.5
Graduates (ISCED 6) per 1 000 of the female population aged 25-34 (2009)	1.3	1.4
Graduates (ISCED 6) per 1 000 of the male population aged 25-34 (2009)	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;

⁴ See Figure 1 "Key indicators – Romania".

⁵ 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%⁶.

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.

⁶ See Figure 1 "Key indicators – Romania".