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Researchers' Report 2013

Country Profile: Iceland



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1. Key data

National R&D intensity target

“Iceland had an R&D intensity of 3.11% in 2009, a relatively high level compared to the EU average of 2.03% (2011). Iceland had already achieved an R&D intensity of 2.95% in 2001. In January 2011, Iceland set an R&D intensity target of 4%, to be reached by 2020, with the private sector contributing 70% of the total and the public sector contributing 30%.

A significant share of total R&D investment in Iceland comes from the public sector. In 2009, the public sector accounted for 44.9% of total R&D investment. The business sector accounted for 52.9%, which shows a decline from 2007 when the share was 54.6%. Insufficient business enterprise expenditure on R&D is one of the key weaknesses of the Icelandic research and innovation system.

In spite of the economic crisis, the government budget for R&D increased by 6.6% between 2011 and 2012. It will be a challenge to maintain this level of increase in public funding for research and development. Mobilising private R&D funding in times of economic crisis is another challenge: the level of private sector funding of R&D in Iceland is considered to be low and has declined since 2007. The government is planning an extra investment of EUR 6 billion for research and innovation for the period 2013-2015 in the context of the recovery plan”.¹

Key indicators measuring the country’s research performance

The figure below presents key indicators measuring Iceland’s performance on aspects of an open labour market for researchers against a reference group and the EU-27 average².

Figure 1: Key indicators – Iceland



Source: Deloitte

Data: Eurostat, SHE Figures, EURAXESS Jobs Portal, UNESCO OECD Eurostat education survey, Innovation Union Scoreboard 2013, MORE2
Based on the average innovation performance, Iceland belongs to the group of Innovation followers showing a performance close to that of the EU-27³.

¹ European Commission (2013), “Research and Innovation performance in EU Member States and Associated countries. Innovation Union progress at country level 2013”

² The values refer to 2012 or the latest year available.

³ European Commission (2013), “Innovation Union Scoreboard 2013”

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	Iceland	EU Average/Total
Head Count per 1 000 active labour force (2010)	23.29	10.17
Head Count (2010)	4 176	2 435 487
FTE per 1 000 active labour force (2010)	15.52	6.64
Full time equivalent (FTE) (2010)	2 782	1 589 140

Source: Deloitte

Data: Eurostat

2. National strategies

The Science and Technology Policy Council (STPC), headed by the prime minister, is the body in charge of R&D policy at a strategic level. At an operational level, the Icelandic Centre for Research (RANNIS) reports to the Ministry of Education, Science and Culture and provides technical support to the STPC while also managing and following up the implementation of most R&D programmes. In addition, the Innovation Center Iceland, which comes under the aegis of the Ministry of Industry, Energy and Tourism, is in charge of technology development, technology transfer to companies and support to innovative businesses.

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

Table 2: National strategies

Measure	Description
Act on Tax Incentives (2009)	The Act allows innovation companies to deduct 15% annually of their annual research and development expenses from income tax liabilities. If the amount of the deduction is higher than the tax liability, the difference is reimbursed. The amount of the annual qualifying research and development expenditure is capped at ISK 50 million (some EUR 327 000) for each company and ISK 75 million (some EUR 490 000) if the service is purchased from other innovation companies.
Building on Solid Foundations: Science and Technology Policy for Iceland 2010 – 2012	<p>The Strategy calls for specific actions to encourage increased participation of industry in financing research, such as tax incentives or strong competitive funds. It recommends:</p> <ul style="list-style-type: none"> – developing public policy to ensure open access of publicly-funded research findings; – evaluating the open access infrastructure necessary for coordinating databases, and accessing them and ensuring permanent reservation; – defining utilisation rights for data derived from public institutions and cooperative inter-sectoral research; – raising general awareness of the importance of open access within the research and innovation community. <p>It also includes several recommended actions for increasing the level of education for people currently on the labour market. They are to:</p> <ol style="list-style-type: none"> 1. use the Graduate Research Fund more to connect universities, research institutions and companies, and connect its allocations to the Research Fund as well as other funds; 2. place special emphasis in the Research Fund on supporting young scientists with generous grants to enable them to initiate and develop their research activities in Iceland; 3. encourage institutions and companies to apply for funding in the 'People' programme within the EU's 7th Framework Programme (Marie Curie); 4. considerably enhance measures, such as lifelong learning on the labour market, guidance and counselling, recognition of real competencies and other solutions that may serve as opportunities and motivations for people and companies to strengthen their position; 5. encourage people to enrol in technical and vocational studies.

Source: Deloitte

3. Women in the research profession

Measures supporting women researchers in top-level positions

In 2010, the percentage of women grade A academic staff was 24.2% in Iceland compared with 15.4% among the Innovation Union reference group and an EU average of 19.8%⁴.

4. Open, transparent and merit-based recruitment

Recruitment system

No formal barriers exist to recruiting non-nationals for permanent research and academic positions. On EURAXESS Iceland, foreign researchers can access information on vacant positions in Icelandic universities and research institutions as well as companies.

EURAXESS Services Network

In 2012, the number of researchers posts advertised through the EURAXESS Jobs portal per thousand researchers in the public sector was 17.3 in Iceland compared with 66.7 among the Innovation Union reference group and an EU average of 40.8⁵.

Iceland's EURAXESS webpage provides information for researchers on social security access and health insurance.

5. Education and training

Measures to attract and train people to become researchers

The Science and Technology Policy Council recommends to “encourage institutions and companies to apply for funding in the ‘People’ programme within the EU 7th Framework Programme (Marie Curie)” and “encourage people to enrol in technical and vocational studies”⁶.

Doctoral graduates by gender

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

Table 3: Doctoral graduates by gender

Indicator	Iceland	EU Average/Total
New doctoral graduates (ISCED 6) per 1 000 population aged 25-34 (2010)	0.8	1.5
Graduates (ISCED 6) per 1 000 of the female population aged 25-34 (2010)	0.7	1.4
Graduates (ISCED 6) per 1 000 of the male population aged 25-34 (2010)	0.8	1.6

Source: Deloitte

Data: Eurostat

Funding of doctoral candidates

The table below presents the funding opportunities by the Icelandic Centre for Research (RANNIS), accessible to doctoral and post-doctoral candidates.

Table 4: Funding opportunities for doctoral candidates

Measure	Description
START Postdoctoral Fellowship Programme (ongoing)	The START programme targets career development of early post doctoral researchers and promotes international mobility for researchers. The START programme is open to researchers from all fields of research who have completed their PhD within the last five years.
The Icelandic Research Fund for Graduate Students (ongoing)	The objective of the Icelandic Research Fund for Graduate Students is to allocate grants to research-related graduate studies undertaken at a university, or in collaboration with research institutions or companies, under the responsibility of the university. This applies both to studies in Iceland and abroad.
The Icelandic Student Innovation Fund (ongoing)	The Fund aims to provide opportunities for universities, research institutions and companies to recruit students (in graduate and postgraduate studies) to undertake

⁴ See Figure 1 “Key indicators – Iceland”

⁵ See Figure 1 “Key indicators – Iceland”

⁶ Building on Solid Foundations: Science and Technology Policy for Iceland 2010 – 2012. Available at: http://www.vt.is/files/S&T%20policy%202010-2012_302180683.pdf.

Measure	Description
	ambitious and challenging research projects during the summer time.

Source: Deloitte

Measures to increase the quality of doctoral training

In Iceland, the Centre of Excellence Programme (2009) was established to create better cooperation and circulation of knowledge between the university, Public Research Organisation (PRO) and business sectors, such as the Centre for artificial intelligence and simulation technologies, the Centre for geothermal research or the Centre for gender/equality research⁷.

Skills agenda for researchers

One of the flagship activities of the Science and Technology Policy Council is “to considerably enhance measures such as lifelong learning on the labour market, guidance and counselling, recognition of real competences and other solutions that may provide further opportunities and motivations for people and companies to strengthen their position⁸”.

6. Working conditions

Remuneration

Salaries for researchers compare relatively well to other similar professions and are differentiated according to the scientific domain. The gap in remuneration between women and men researchers in Iceland is approximately 10%⁹.

For further information, see the new country profile on remuneration of researchers from the MORE2 study (forthcoming, on the EURAXESS website).

‘European Charter for Researchers’ & ‘Code of Conduct for the Recruitment of Researchers’

All seven Icelandic universities have signed up to the ‘Charter & Code’:

- Agricultural University of Iceland;
- Bifröst University;
- Hólar University College;
- Iceland Academy of the Arts;
- Reykjavík University;
- University of Akureyri;
- University of Iceland.

Autonomy of institutions

In Iceland, universities are financed and controlled by the Ministry of Education, Science and Culture. However, the Act on Public Universities (Act no. 85/2008) resulted in a new management structure for university councils in public universities, with the majority of members coming from external bodies. The Rector of each university is appointed by the Ministry of Education, Science and Culture based on a recommendation from the University Council, and for a limited period of time, normally four or five years.

These institutions (both public and private) have private boards and they have a significant degree of autonomy. They can for example decide on such matters as admission requirements, progression of students from one year to the next, certification, etc.¹⁰

7. Collaboration between academia and industry

Growth Agreements, regional development contracts among national government, local business local authorities and regional development agencies, reflect the government’s emphasis on innovation policy, by

⁷ Ibid

⁸ Ibid

⁹ Iceland Country Page. Erawatch, Available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/is/country?section=Overview Accessed 17.04.2012

¹⁰ Ibid

encouraging R&D at regional level via clusters of local SMEs and other businesses, regional and external universities, and research organisations.

The Icelandic Student Innovation Fund aims to provide opportunities for universities, research institutions and companies to recruit graduate and postgraduate students to undertake research projects during the summer.

The main requirements for obtaining a grant are:

- the project must challenge the abilities of the student and her/his independent work methods; and
- the project must have a practical innovation value for the economy, or contribute to academic innovation in the relevant discipline.

8. Mobility and international attractiveness

In 2010, the percentage of doctoral candidates (ISCED 6) who were citizens of another EU-27 Member State was 13.7% in Iceland compared with 17.8% among the Innovation Union reference group and an EU average of 7.8%¹¹. In the same year, the percentage of non-EU doctoral candidates as a percentage of all doctoral candidates was 20.8% in Iceland compared with 16.4% among the Innovation Union reference group and an EU average of 20.0%¹².

Inward mobility (funding)

Iceland is part of the European Economic Area (EEA) which includes free movement of people. Hence, EU citizens do not need work permits to enter the Icelandic labour market. Iceland is also part of the Schengen area. However, Iceland does not participate in the Scientific Visa Package arrangements for long term admission.

Outbound mobility

The ABEL Extraordinary Chair (2009) is an initiative created as part of the project on 'Improving student, researchers' and artist's mobility and cooperation between Spain, Norway, Iceland and Liechtenstein'. The programme aims to promote the temporary incorporation of high level researchers from Spain in research centres in Norway, Iceland and Liechtenstein¹³.

NORIA, the Nordic Research and Innovation Area, is responsible for Nordic R&D cooperation in the fields of research and innovation. This involves Nordic research funding institutions, fixed-term research programmes, Nordic Centres of Excellence, the Top-level Research Initiative (the largest joint Nordic research and innovation initiative to involve the very best agencies and institutions in the Nordic region, and promote research and innovation), grant schemes, and the coordination and planning of major infrastructure investments among the Nordic countries¹⁴.

Portability of national grants

Funding is always allocated to Icelandic organisations and thus, trans-border funding flows from national programmes is not allowed.

¹¹ See Figure 1 "Key indicators – Iceland"

¹² Ibid

¹³ http://www.mat.ucm.es/imi/documents/calls/call_abel_01_2009.pdf

¹⁴ Iceland Country Page. Erawatch, Available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/is/country?section=Overview Accessed 17.04.2012