Deloitte.

# Researchers' Report 2014

# Country Profile: Finland

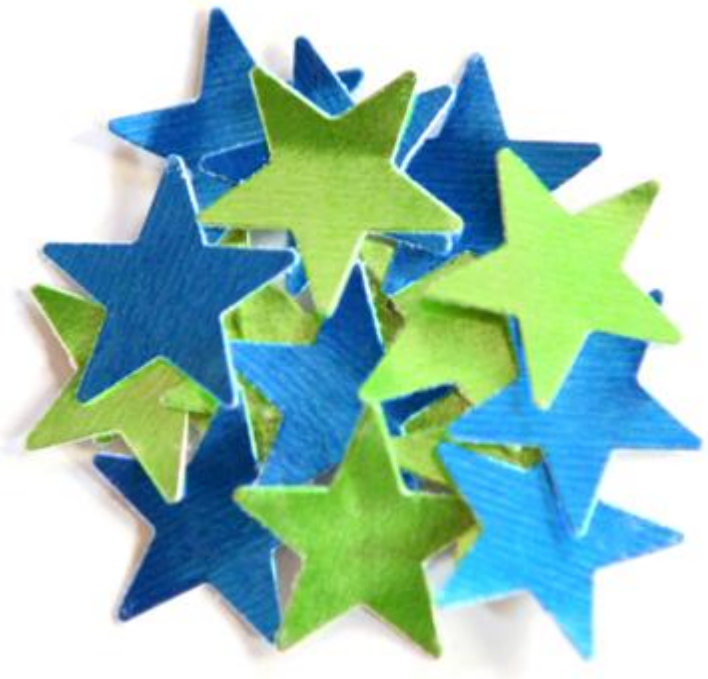


**TABLE OF CONTENTS**

# 1. Key data

## National R&D intensity target

"Total R&D expenditure (combining public and private R&D spending) decreased to 3.78% of GDP in 2011[1] (3.87% of GDP in 2010) which is, nevertheless, the highest value in the EU and close to Finland's national target for 2020 of 4 %. Public R&D investment is however expected to decline in 2012 and 2013, while the on-going decline of the R&D intensive ICT sector will have a negative impact on business R&D intensity. The public R&D budget for 2012 remained at around EUR 2 billion.

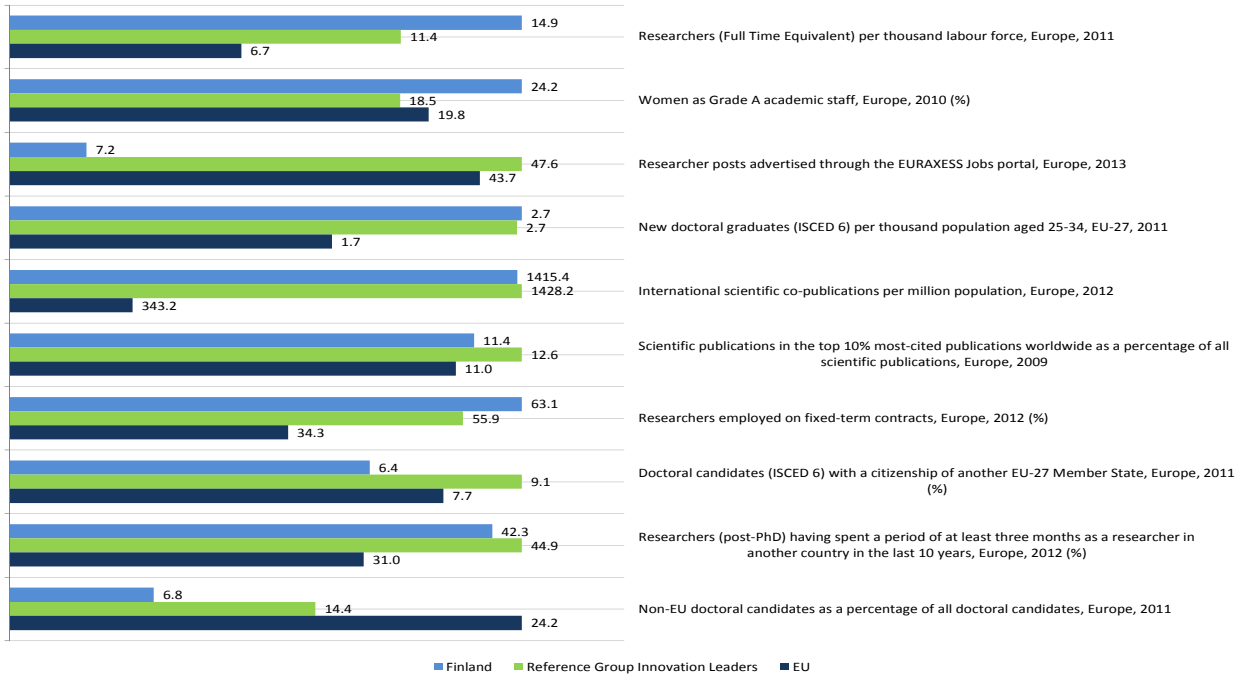
According to the Government's multiannual budget framework adopted in March 2012 it will decrease by 1-2% in real terms by 2015. However, due to the R&D tax incentives put in place by end of 2012, the situation may change significantly as the total public support to R&D (direct and indirect) could increase by up to 5% (in real terms) in 2013 compared to 2012. Finland is the top performer in the EU in terms of business R&D spending (2.67% of GDP in 2011). Aside from the electronics sector, many manufacturing and services sectors have increased their R&D intensities. However, business R&D investments are still highly concentrated in Nokia and a few other large firms. This makes the current good economic position more vulnerable than it appears.

Moreover, high growth firms remain slightly less involved in R&D activities than the business sector as a whole. Public and Private R&D investment receives co-funding support from the European budget. During the ERDF programming period 2007-2013, EUR 862 million are planned to be allocated to research, innovation and entrepreneurship in the Finnish regions (over half of all ERDF funds for Finland). The share of structural funds allocated to R&I has increased during recent years and 50.7% of the funds had been already committed by the end of 2010. Finland also has the objective to increase its participation in the 7th Framework Programme. Up to mid-2012, almost 1 700 Finnish entities had participated in an FP7 project, with a total EC financial contribution of EUR 558 million and a success rate of 22.42% (slightly above EU average of 21.95%)."[2]

## Key indicators measuring the country's research performance

The figure below presents key indicators measuring Finland's performance on aspects of an open labour market for researchers against a reference group and the EU average[3].

**Figure 1: Key indicators – Finland**




[1] In 2012, R&D expenditure was 3.55% (Eurostat, 2014).

[2] European Commission (2013), "Research and Innovation performance in EU Member States and Associated countries. Innovation Union progress at country level 2013"

[3] The values refer to 2013 or the latest year available

Source: Deloitte
Data: Eurostat, SHE Figures, EURAXESS Jobs Portal, UNESCO OECD Eurostat education survey, Innovation Union Scoreboard 2014, MORE2.
Notes: Based on their average innovation performance across 25 indicators, Denmark, Germany, Finland and Sweden show a performance well above that of the EU average. These countries are the "Innovation leaders"[4].

### 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 | Finland | EU Average/Total |
|---|---|---|
| **Head Count per 1 000 active labour force (2011)** | 21.45 | 10.55 |
| **Head Count (2011)** | 57 549 | 2 545 346 |
| **FTE per 1 000 active labour force (2011)** | 14.91 | 6.75 |
| **Full time equivalent (FTE) (2011)** | 40 003 | 1 628 127 |

Source: Deloitte
Data: Eurostat

## 2. National strategies

The Finnish Government has put in place a range of measures aimed at training enough researchers to meet its R&D targets and at promoting attractive employment conditions in higher education and research institutions. The table below presents key programmes and initiatives intended to implement the strategic objectives to train enough researchers to reach Finland's R&D targets, to promote attractive working conditions, and to address gender and dual career issues.

**Table 2: National strategies**

| Measure | Description |
|---|---|
| **Education and Research – A Development Plan (2011-2016)** | In accordance with the Decree on the Development Plan for Education and University Research (987/1998), the Government (the Ministry of Education and Culture) in 2011 adopted a plan for the development of education and university research. The plan covers specific principles and measures on human resources at all levels of education and research, including a concrete chapter on financial aid to students. Lifelong learning and equal opportunities are also covered extensively. |
| **Comprehensive reform of state research institutes and research funding (ongoing)** | The Finnish Government adopted a resolution on the comprehensive reform of research institutes and research funding in September 2013. The objective of the comprehensive reform is to strengthen multidisciplinary, high-level research of social significance. The reform will also seek to free up resources from research support services and fixed structures for redeployment in research activity and, by field of research, to organise research institutes into larger and stronger entities. The aim of this is to achieve stronger multidisciplinary research organisations capable of competing successfully for funding with other European research institutes, as well as improved cooperation between research institutes and universities.<br>Through the comprehensive reform, research and analysis undertaken to support government decision-making will be strengthened by combining and targeting research funding in line with government policy.<br>To deepen co-operation between research institutes and universities, a development process will be launched to be steered nationally and spanning several years. Through this process, research institutes and universities will gradually develop genuine clusters of expertise (agreement-based consortia). The agreement-based consortia of research institutes and universities must have common research equipment, laboratories etc. and engage in close cooperation in research and education (e.g. sharing of mutually complementary competencies, joint professorships and duties and shared staff). |

[4] European Commission (2014), "Innovation Union Scoreboard 2014"

| Measure | Description |
|---|---|
| **Research and Innovation Policy Guidelines (2011-2015)** | The Research and Innovation Policy Guidelines were drawn up by the Research and Innovation Council of Finland. The report sets out measures to improve the quality and effectiveness of Finnish Education, Research and Innovation (ERI) in order to promote Finland's prosperity and competitiveness. The report's objectives are that by the year 2020 the proportion of 30–34-year-olds who have a university degree will be 42% and the proportion of dropouts in the 18–24 age group would remain under 8%. Moreover, the report advocates increasing the ratio of R&D employees with a doctorate to 20% (compared to 14% in 2009). Additionally, the report covers:<br>– Evaluation of graduate schools to be carried out by the year 2013 at the latest;<br>– Development of joint funding of research careers;<br>– Allocation of additional funding to internationalisation, and increasing the number of Academy Research Fellows;<br>– Establishing a tenure track for young, promising researchers; and<br>– Improving the mobility of highly educated people, and especially doctoral graduates, between (research) organisations and sectors in Finland and internationally. |
| **Strategy for Internationalisation of Higher Education Institutions in Finland (2009-2015)** | The Strategy for Internationalisation of Higher Education Institutions in Finland was adopted by the Department for Education and Science Policy of the Ministry of Education (MoE) in 2009. The strategy deals with the need to internationalise Finland's higher education, research and innovation systems to make the country more attractive to young foreign researchers. The higher education institution internationalisation strategy is linked to reforms of the universities, amendment of the Polytechnics Act, structural development of higher education institutions, the national innovation strategy, the national research infrastructure policy and the four-tier researcher career system. |

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 Finland compared with 18.5% among the Innovation Union reference group and an EU average of 19.8%[5].

The Constitution and the Equality Act (2005) are the main bodies of legislation in Finland that rule on matters of equality between women and men. The main stipulations of the Equality Act are:

- The obligation for the authorities to promote equality in all their activities;
- Quotas in national and municipal bodies;
- The obligations of employers and educational institutions, such as through the use of equality plans;
- Prohibition of discrimination;
- Prohibition of sexual harassment or gender-based harassment; and
- Compensation in cases of harassment and discrimination.

The national legislation on equal opportunities is monitored by the Ombudsman for Equality and the Equality Board.

The Finnish government's Action Plan for Gender Equality 2012-2015 collates the most important measures by which the government promotes equality between women and men, and combats gender-based discrimination. The Action Plan is an instrument for coordinating the government's gender equality policy, and it incorporates measures for all the government ministries. In addition to gender mainstreaming, the Action Plan contains objectives and actions in several theme areas. These priority areas include gender equality legislation, working life and reconciliation of work and family life, decision-making and promotion of women's careers, and gender equality in education and research.

The Academy of Finland (and the Finnish Research Councils) promote equality through an Equality Plan which applies to those working under Academy funding, to Academy research post holders (Academy Professors and Academy Research Fellows) and to the staff at the Academy's Administration Office.

[5] See Figure 1 "Key indicators – Finland"

### Measures to ensure a representative gender balance

The Constitution and the Equality Act of 2005 set gender equality quotas in national and municipal bodies. For instance, in the boards of the universities and of the Academy of Finland at least 40 % of both sexes should be represented. In 2011, the Gender Equality Ombudsman of Finland investigated all executive and administrative bodies of universities and concluded that gender equality had been successfully achieved in these bodies[6].

### Parental leave

The table below summarises the maternity allowance and parental allowance provisions.

**Table 3: Parental allowances**

| Measure | Description |
|---|---|
| **Maternity Allowance** | Mothers are entitled to take maternity leave while receiving Maternity Allowance from the Social Insurance Institution of Finland (Kela). They can go on maternity leave 50 days at the earliest before the due date and at the latest 30 days before the due date. Maternity Allowance is paid for the first 105 days (not including Sundays and other holidays). If the employer pays the salary while the mother is on leave, the Maternity Allowance is paid to the employer. |
| **Parental Allowance** | Parental leave begins after the maternity leave. During the parental leave, Kela pays Parental Allowance for 158 working days (a little over half a year). The parental leave can be taken either by the mother or the father, or it can be shared so as to enable them to take turns looking after their child. Both cannot be on parental leave at the same time (with the exception of the parents of multiple-birth children). Both parents can take the parental leave in up to two separate periods of at least 12 working days each. |

Source: Deloitte

Additionally, the Academy of Finland allows for the extension of the funding period if the project funding period ends during the parental leave.

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

### Recruitment system

All Finnish universities post their open vacancies online on their own websites. All open vacancies in the public research institutes are published on http://www.valtiolle.fi.

### Open recruitment in institutions

Higher education institutions (as they are independent employers) have considerable autonomy in recruitment policy. Therefore, the situation varies from institution to institution[7].

The table below presents information on open recruitment in higher education and public research institutions.

**Table 4: Open recruitment in higher education and public research institutions**

| Do institutions in the country currently have policies to …? | Yes/No | Description |
|---|---|---|
| – **publish job vacancies on relevant national online platforms** | Yes | In general, all Finnish universities post their open vacancies on-line. Platforms may vary between universities and fields. |
| – **publish job vacancies on relevant Europe-wide online platforms (e.g. EURAXESS)** | Yes | Many institutions have policies to publish job vacancies on relevant Europe-wide online platforms, including EURAXESS. |
| – **publish job vacancies in English** | Yes/ No | For example, Aalto University publishes all vacancies in English but this is not necessarily the case of every university |
| – **systematically establish selection panels** | Yes | Selection committees are the general rule, although there may be exceptions. |
| – **establish clear rules for the composition of selection panels (e.g. number and role of members, inclusion of foreign experts, gender balance, etc.)** | Yes | Universities have instructions and guidelines for the composition of selection committees especially for tenure track recruitment. However, some guidelines are valid for all academic recruitment. |

[6] For more information, see http://www.stm.fi/vuosikertomukset/tasa-arvo_2011_eng/index.html

[7] The direct links to all Finnish universities can be found in: http://www.minedu.fi/OPM/Koulutus/yliopistokoulutus/yliopistot/?lang=en

| Do institutions in the country currently have policies to …? | Yes/No | Description |
|---|---|---|
| – **publish the composition of a selection panel (obliging the recruiting institution)** | Yes | The composition of the selection committee is public information. |
| – **publish the selection criteria together with job advert** | Yes | In tenure track recruitment the evaluation criteria are linked to the job advert. The same practice applies to all academic recruitment. |
| – **regulate a minimum time period between vacancy publication and the deadline for applying** | Yes | In tenure track recruitment, the minimum period is 30 days. In other academic recruitment, it is not specified. However, since the recruitment is generally international, guidelines similar to those for tenure track are followed. |
| – **place the burden of proof on the employer to prove that the recruitment procedure was open and transparent** | Yes | There are guidelines for internal and external communication at different stages of the recruitment process, especially in tenure track recruitment. In addition, specific recruitment process descriptions are available on university intranets. |
| – **offer applicants the right to receive adequate feedback** | Yes | The applicant has the right to obtain feedback on his/her own evaluation. |
| – **offer applicants the right to appeal** | Yes | The applicant has the right to appeal if he/she suspects discrimination in the selection process. |

Source: Deloitte

### EURAXESS Services Network

In 2013, the number of researcher posts advertised through the EURAXESS Jobs portal per thousand researchers in the public sector was 7.2 in Finland compared with 47.6 among the Innovation Union reference group and an EU average of 43.7[8].

Information on entry conditions, social security and pension contributions, accommodation and administrative assistance is available on the EURAXESS Finland portal[9].

In addition, the InTo Finland[10] website is the service point of the Social Insurance Institution of Finland (Kela) and the Finnish Tax Administration for employees moving to and from Finland. It helps the self-employed, students and companies hiring and recruiting foreign labour. The portal's multi-lingual officials provide information on social security and on taxation matters in Finland, and direct users to the authorities connected to immigration. Finally, the Finnish Immigration Service[11] provides relevant information for incoming foreign researchers.

Some universities have dedicated departments, such as the University of Helsinki's International Staff Services[12] and the Aalto University International Staff Services[13].

## 5. Education and training

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

The Ministry of Education and Culture's target number of newly awarded doctoral degrees is 1 600 annually for the period 2013-16.

In 2013 the Ministry of Education and Culture launched a new initiative on science education. At the heart of this initiative are a working group, a series of workshops for stakeholders and a call for proposals on innovative science education projects (with EUR 1 million funding).

The working group on science education examined the overall field of science education, formulated an understanding of its future and drew up development proposals to promote science education in Finland in the light of international developments. The aim is to stimulate more interest in science and research among

[8] See Figure 1 "Key indicators – Finland"
[9] EURAXESS Finland portal. Available at: http://www.aka.fi/en-gb/Mobility/
[10] InTo Finland. Available at: http://www.infopankki.fi/en-GB/into/
[11] Finnish Immigration Service. Available at: http://www.migri.fi/netcomm/Default.asp?language=EN
[12] International Staff Services. Available at: http://www.helsinki.fi/intstaff/
[13] Aalto University International Staff Services. Available at: http://www.aalto.fi/en/for/international/

children and adolescents, thus safeguarding the appeal of a career in research and, from the viewpoint of competencies, the ability to understand the processes in science and research, and the results they yield.

The working group's mandate covered devising science education measures for a wide forum (e.g. measures for early childhood education and schools, science centres and the LUMA Science Education Centres) and means of encouraging individuals to take an interest in science (e.g. science competitions).

There are already some initiatives to increase young people's interest in (natural) science and technology. The table below lists some measures aimed at attracting and training young people to become researchers.

**Table 5: Human Resources – Key programmes and initiatives**

| Measure | Description |
|---|---|
| **LUMA Centre (ongoing)** | The Ministry of Education together with the National Board of Education, the University of Helsinki and other actors founded a national LUMA Centre in 2003. The national LUMA Centre is an umbrella organisation coordinated by the Faculty of Science of the University of Helsinki to bring schools, universities and industry together. The aim of the LUMA Centre is to promote the learning, study and teaching of natural science, mathematics, computer science and technology at all levels[14]. |
| **Millennium Youth Camp (annually)** | The Technology Academy Finland each year organises the Millennium Youth Camp as part of the organisation of the Millennium Technology Prize (the world's largest technology prize). The Millennium Youth Camp offers young people of 16-19 an overview of Finnish expertise and top-level research in the natural sciences, mathematics and technology. Students network with each other, with individuals in Finnish companies and organisations, and with top scientists. The target of the international Millennium Youth Camp is to find young people interested in mathematics, science and technology, and help them start up a career in these fields. During the one-week-camp, Youth Campers are introduced to a number of Finnish companies and higher educational institutions. In addition to lectures, workshops and visits to Millennium Youth Camp partners, the programme includes project work supervised by top-level experts and carried out in small multinational groups. The 2014 Youth Campers will also meet the 2014 Millennium Technology Prize winner. |
| **SciFest (annually)** | SciFest is an international science and technology festival, which takes place in Joensuu, Finland, in April every year, bringing together thousands of schoolchildren, students and teachers. The aim of the SciFest is for the participants to discover new experiences, attend workshops and learn about science, technology and the environment. The festival is free and open to everyone. The theme of SciFest 2012 was 'The Energy Challenge' as a reflection of the fact that 2012 was the UN International Year of Sustainable Energy for All. The theme in 2013 was 'Together by the Water' as 2013 was the UN International Year of Water Cooperation. The theme in 2014 is 'Critical Structures' to reflect the fact that it the UNESCO International Year of Crystallography. |
| **Tu-Ko-Ke Competion (ongoing)** | *Tutki-Kokeile-Kehitä* (Research-Experiment-Development)[15] is a Finnish science and technology competition for young people from 6-20 years old. The competition is held yearly. |

Source: Deloitte

Finally, the Ministry of Education and Culture grants statutory state aid and discretionary subsidies for projects and organisations relating to education, research, culture, sport and youth work. Science education has been one of the priorities. For example, the Heureka[16] and Tietomaa[17] science centres have been receiving a significant part of their funding through state aid for science education since the 1990s.

## Doctoral graduates by gender

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

**Table 6: Doctoral graduates by gender**

| Indicator | Finland | EU Average |
|---|---|---|
| **New doctoral graduates (ISCED 6) per 1 000 population aged 25-34 (2011)** | 2.7 | 1.7 |

[14] More information available at: http://www.helsinki.fi/luma/english/

[15] For more information, see: http://retro.tek.fi/index.php?id=1157

[16] Heureka. Available at: http://www.heureka.fi/portal/englanti/

[17] Tietomaa. Available at: http://www.tietomaa.fi/index.php?id=1&lang_id=1

| Indicator | Finland | EU Average |
|---|---|---|
| **Graduates (ISCED 6) per 1 000 of the female population aged 25-34 (2011)** | 3.0 | 1.6 |
| **Graduates (ISCED 6) per 1 000 of the male population aged 25-34 (2011)** | 2.5 | 1.8 |

Source: Deloitte
Data: Eurostat

### Funding of doctoral candidates

In 2013, around 20 000 doctoral candidates in total were enrolled at Finnish universities.

According to a study on employment of doctorate holders in Finland (2009)[18], doctoral degree holders who graduated in 2006-07 were funded as follows:

- Doctoral programme: 20% (under employment contract[19]);
- Research and education placement in universities: 22% (under employment contract);
- Employment contract outside the university: 16%;
- Research project funding: 19% (possibly under employment contract);
- Individual stipend/grant: 18%;
- Other (part-time, hobby, free-time interest, retirement benefit): 5%.

There have been no significant changes in funding models since then, so it appears reasonable to assume that this breakdown is still an accurate reflection of the situation.

Eighty per cent of the respondents in the survey listed at least two different funding sources for their doctoral studies.

### Measures to increase the quality of doctoral training

According to the 'National Guidelines for the Development of Doctoral Training' (2011), Universities are encouraged to:

- Offer students equal opportunities and rights in doctoral programmes regardless of their discipline;
- Promote PhD training by integrating at least one Graduate School into the university structure;
- Enhance the quality of graduate education in all disciplines;
- Introduce four-year full-time structured education in all disciplines (target time frame), providing guidance and promoting personal study plans;
- Enhance interdisciplinarity, internalisation and intersectoral mobility;
- Incorporate systematic PhD training in all doctoral programmes, including transferable skills training, theoretical elements, and research; and
- Make careers in research more appealing.

Since 2011, all Finnish universities have been adjusting their doctoral training to these guidelines.

### Skills agenda for researchers

See above "Measures to increase the quality of doctoral training".

## 6. Working conditions

The Academy of Finland has put in place funding instruments aiming to improve researchers' funding opportunities:

For researchers:

- Academy Professors: designed to facilitate full-time scientific research for international top-level researchers for a maximum of five years (monthly salary: EUR 8 900);

[18] Available at: http://www.aarresaari.net/pdf/Asiantuntijana_tyomarkkinoille_netti.pdf (available in Finnish)
[19] Please see Employment Contracts' Act: http://www.finlex.fi/fi/laki/kaannokset/2001/en20010055.pdf

- Academy Research Fellows: targets the most talented researchers to develop their academic leadership skills and to establish themselves as independent researchers for up to five years (monthly salary: EUR 4 900); and
- Postdoctoral Researchers: targets the most promising young researchers who have recently earned their doctorate to advance their professional competency and independence. Funding includes a 36-month salary, personal research costs, and international and national mobility (e.g. travel and a grant for a stay abroad during the Postdoctoral Researcher term).

Special funding targeting researchers:
- Clinical researchers;
- International researcher mobility based on bilateral agreements; and

For research environments:
- FiDiPro (Finland Distinguished Professor Programme) for attracting top scientists to Finland.

### Measures to improve researchers' funding opportunities

According to the Government Programme the funding of higher education is being reformed to better support the objectives of education, including higher completion of studies rates, quicker transfer to work, enhanced administration, improvement in the quality of education and research, internationalisation, and the profiling of higher education institutions in their own areas of strength.

University funding is being linked more closely to improved quality, deeper internationalisation, clearer profiles, greater efficiency and stronger impact. Among other things the university core funding formula is being based on indicators such as PhD degrees awarded to foreign nationals, international teaching and research personnel, scientific publications and competitive research funding.

The role of the Academy of Finland[20] in enhancing international research cooperation will be strengthened and long-term financing will be provided to secure conditions conducive to world-class research. The Academy funding will also be allocated to the priority areas of the Strategic Centres for Science, Technology and Innovation (SHOKs) and for the development of new research openings.

Possibilities for creating a permanent funding model for training will also be explored.

### Remuneration

The Finnish government has not put in place any measures to increase researchers' remuneration levels. The Finnish universities are fully autonomous as employers under the Act on Universities (2010) and thus the Ministry of Education and Culture is not at all involved as a negotiating partner in the employment contracts of the academic personnel.

For further information, see the country profile on remuneration of researchers from the MORE2 study on the EURAXESS website[21].

### 'European Charter for Researchers' & the 'Code of Conduct for the Recruitment of Researchers'

The 'Charter & Code' principles were signed by the Rectors' Council of the Finnish universities and the Academy of Finland in 2009. The principles are being promoted through national higher education and research policy. In addition, in 2012 and 2013 12 of the 14 Finnish universities[22] joined the third and fourth cohort of the European Commission project "Human Resources Strategy for Researchers incorporating the 'Charter & Code'. Six had received acknowledgement from the Commission by mid-2014.

[20] Available at: http://www.aka.fi/en-GB/A/

[21] http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies

[22] The Aalto university, the University of Turku, the University of Jyväskylä and the University of Eastern Finland, Abo Akademi University, Hanken School of Economics, University of Helsinki, Lappeeranta University of Technology, University of Oulu, Tampere University of Technology, University of Vaasa and the University of Tampere.

### Autonomy of institutions

The Act on Universities (2010) has further extended the autonomy of universities by giving them an independent legal personality, either as public corporations or as foundations. The reform will make it easier to operate in an international environment. Its purpose is for universities to be better able to:

- React to changes in the operational environment;
- Diversify their funding base;
- Compete for international research funding;
- Cooperate with foreign universities and research institutes;
- Allocate resources to top-level research and their strategic focus areas;
- Ensure the quality and effectiveness of their research and teaching; and
- Strengthen their role within the system of innovation.

The Finnish government continues to be responsible for funding the public service obligations of the universities even though the universities are no longer within the State budget. In addition, the Ministry of Education ensures through its guidance that university activities comply with the higher education policy aims set by Parliament and the Government.

### Career development

Universities apply a four-stage career system in research and education (doctoral student, post-doctoral fellow, independent senior researcher, professor) to make careers in research more predictable and transparent. A start has been made on implementing tenure track systems in the recruiting processes. While developing their researcher career processes, universities are collaborating with other organisations to enable flexible mobility between employers to facilitate common interests.

### Shift from core to project-based funding

Estimates on the impact of the shift from core to project-based funding on researchers' working conditions are not possible for the time being.

### Social security benefits (sickness, unemployment, and old-age)

Publicly funded fellowships, stipends, grants or equivalent provide sickness, unemployment and old-age benefits for researchers.

## 7. Collaboration between academia and industry

The Development plan for Education and Research 2011-2016 aims to increase research cooperation and mobility between business enterprises, higher education institutions and research institutes across sectoral boundaries.

The following table summarises programmes designed by the Academy of Finland to enhance collaboration between academia and industry, and to foster doctoral training in cooperation with industry.

**Table 7: Collaboration between academia and industry**

| Measure | Description |
|---|---|
| **Academy Project funding (ongoing)** | Academy Project funding is the key funding opportunity provided by the Academy of Finland for research projects. It is designed to promote the quality of research, the diversity of research and its capacity for renewal. Academy Project funding provides researchers with an opportunity to carry out scientifically ambitious research, to achieve new breakthroughs and to engage in high-risk research, simultaneously encouraging inter-sectoral mobility. The funding is granted primarily to teams composed of researchers who have completed their doctorate and may last for four years. |
| **Strategic Centres for Science, Technology and Innovation (SHOKs) (ongoing)** | The Strategic Centres for Science, Technology and Innovation are a unique cooperation platform for innovative companies and spearheading research. The SHOKs are networks of a new type that engage in intensive and long-term work to achieve shared goals. The results are breakthrough innovations of global importance, which can be agilely transformed into growth in business life and wellbeing in society. |

Source: Deloitte

# 8. Mobility and international attractiveness

In 2011, the percentage of doctoral candidates (ISCED 6) who were citizens of another EU-27 Member State was 6.4% in Finland compared with 9.1% among the Innovation Union reference group and an EU average of 7.7%[23]. In the same year, the percentage of non-EU doctoral candidates as a percentage of all doctoral candidates was 6.8% in Finland compared with 14.4% among the Innovation Union reference group and an EU average of 24.2%[24].

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

The 'Academy Professors' funding programme aims to facilitate full-time scientific research for international top-level researchers for a maximum of five years and with a monthly salary of EUR 8 900.

In line with the Strategy for Internationalisation of Higher Education Institutions in Finland, higher education institutions participate actively in EU education and research programmes and in 'Nordplus' mobility programmes of the Nordic and Baltic countries, in the creation of joint Master's degree programmes in the EU and the Nordic countries, and in increasing Nordic research and innovation cooperation. The mobility of researchers, teachers and other personnel is also being promoted.

In addition, the Finland Distinguished Professor Programme (FiDiPro) aims to strengthen scientific knowledge and know-how in Finland, add a more international element to the Finnish research system, bring added value into the national innovation system and support the research-driven profiling of universities and research institutes. Through this programme, universities and research institutes can hire foreign or Finnish professor-level researchers who have worked abroad for extended periods to conduct and promote research in Finland for a fixed period. The Academy, the host university or research institute and any other funding bodies involved jointly agree on the resources, tasks and responsibilities of FiDiPro projects. The visiting FiDiPro researcher must be based at a Finnish university or research institute. The researcher must also be in an employment relationship to that university or research institute. The Academy's funding is awarded for two to five years.

### Outbound mobility

It is part of the remit of the Academy of Finland to promote international networking and activities of Finnish researchers, as well as support them in their international collaboration at foreign universities and research institutes.

The Academy also provides funding for international joint projects through various targeted calls, often as part of its research programmes or in the context of bilateral or multilateral agreements with China (Cas Fellowship to China), Estonia, Germany, India, Japan (JSPS Fellowship to Japan) and Russia, as well as Brazil and Chile.

### Promotion of 'dual careers'

Information is not available at national level. Some institutions may have such policies, but there is no general policy.

### Portability of national grants

Publicly funded grants or fellowships by the Academy of Finland are portable to other EU countries and also to third countries. However, administrative processes remain problematic, thus discouraging researchers from going abroad.

### Access to cross-border grants

National grants or fellowships by the Academy of Finland are open equally to all nationalities subject to the research conducted being to the benefit of Finland to some extent.

[23] See Figure 1 "Key indicators – Finland"
[24] Ibid