



DG Research and Innovation

Researchers' Report 2014

A selection of good practices



Deloitte.

Table of Contents

Table of Contents.....	2
Table of tables.....	3
Introduction	5
1. The stock of researchers in Europe.....	6
2. Women in the research profession.....	8
3. Open, transparent and merit-based recruitment.....	16
4. Education and training	18
5. Working conditions in the research profession	25
6. Collaboration between academia and industry.....	30
7. Mobility and international attractiveness	35

Table of tables

Table 1: Government measures to promote science throughout the education system - Ireland.....	6
Table 2: Raising the attractiveness of PhD studies by granting employee status – Norway.....	6
Table 3: Industrial-PhD scheme – Norway (NEW)	7
Table 4: Training of members of university boards by the Ministry of Science, Research and Economy - Austria (NEW)	8
Table 5: FEMtech – Women in Research and Technology - Austria	8
Table 6: Gender Contact Person – Belgium (NEW).....	9
Table 7: The Milada Paulová Award - Czech Republic	9
Table 8: Gender-balanced recruitment at IFREMER - France	9
Table 9: TRIGGER, University Paris Diderot – France (NEW)	10
Table 10: Measures to improve the gender balance and the position of women in research - Ireland (NEW).....	11
Table 11: Paid maternity leave for post-docs - Italy	12
Table 12: Gender Balance in Senior Positions and Research Management – Norway (NEW)	12
Table 13: Parent-bridge programme – Foundation for Polish Science - Poland.....	12
Table 14: National Committee on Women in Science - Slovenia	13
Table 15: The Athena SWAN Charter for Women in Science – United Kingdom	14
Table 16: EURAXESS Austria - Austria	16
Table 17: Reform of the F.N.R.S. (<i>Fonds National de la Recherche Scientifique</i>) recruiting system - Belgium	16
Table 18: EURAXESS Estonia - Estonia	17
Table 19: EURAXESS Ireland - Ireland	17
Table 20: Support Programme for Young Researchers - Belgium	18
Table 21: Workshops for supervisors – Croatia (NEW).....	18
Table 22: The České Hlavičky Contest - Czech Republic	19
Table 23: Doctoral Schools - Estonia.....	19
Table 24: Measures to improve researchers' skills and competencies - Ireland.....	20
Table 25: Strategic Educational Pathways Scholarships Scheme - Malta	21

Table 26: Centres of Excellence - Norway.....	21
Table 27: International partnerships with US Universities – Portugal.....	22
Table 28: Programmes for Young Researchers - Slovenia	23
Table 29: RCUK School-University Partnership Initiative (SUPI) – United Kingdom (NEW).....	23
Table 30: RCUK Statement of Expectations for Doctoral Training – United Kingdom (NEW)	24
Table 31: Promotion of the ‘Charter & Code’ principles - Austria	25
Table 32: Promotion of the ‘Charter & Code’ principles - Croatia.....	25
Table 33: The Sapere Aude Programme - Denmark	26
Table 34: Academic Freedom Act - Germany	26
Table 35: Initiatives to Support Research Careers – Ireland (NEW)	27
Table 36: Vitae realising the potential of researchers - United Kingdom.....	28
Table 37: The Concordat to Support the Career Development of Researchers - United Kingdom.....	29
Table 38: Unity through Knowledge Fund (UKF) – Croatia (NEW).....	30
Table 39: Industrial PhD and post-doc Programmes - Denmark	31
Table 40: Fraunhofer Gesellschaft - Germany	32
Table 41: Cooperation 2011 - Partnerships of Production and Research Institutions in Focused Research and Technology Sectors - Greece.....	32
Table 42: Measures to develop more partnerships between industry and academia - Ireland	32
Table 43: Young Researchers in the Economy Programme - Slovenia	33
Table 44: Doctoral collaboration with Industry - United Kingdom.....	33
Table 45: Scientific Visa package - Croatia.....	35
Table 46: The Researcher Taxation Scheme - Denmark	36
Table 47: Mobility Programme HUMAN-MB08 - Hungary.....	36
Table 48: Scientific Visa package - Ireland.....	36
Table 49: Combined professorial positions - Norway.....	38
Table 50: Welcome programme – Foundation for Polish Science - Poland	38

Introduction

In its 2011 questionnaire, Deloitte asked the members of the ERA Steering Group on Human Resources and Mobility (SGHRM) to identify up to five Good Practice examples in a standardised format in a number of pre-defined categories.

For the purpose of the *Researchers' Report 2014*, Deloitte presents here 50 Good Practices, of which eleven are new entries. The selection takes into account:

- national context;
- geographic distribution;
- maturity of the country in the research profession; and
- potential exploitation of the example (application to other countries and contexts).

The Good Practices are presented according to the topics of the *Report*:

1. The stock of researchers in Europe;
2. Women in the research profession;
3. Open, transparent and merit-based recruitment;
4. Education and training;
5. Working conditions in the research profession;
6. Collaboration between academia and industry;
7. Mobility and international attractiveness.

A Good Practice is defined as a measure and/or policy representing the most effective way of achieving a specific objective. To be considered a Good Practice, a measure and/or policy must be:

- well developed, implemented and evaluated;
- successful (showing positive results in relation to a specific objective);
- verifiable (showing evidence of effectiveness and/or success achieved);
- have a possible multiplier effect or potential for transferability to other (policy) areas.

1. The stock of researchers in Europe

Table 1: Government measures to promote science throughout the education system - Ireland

Title of the measure	Government measures to promote science throughout the education system
Category	The stock of researchers in Europe
Country	Ireland
<p>The Irish government has introduced the following policy measures to attract and train young people (primary, secondary, higher education) to become researchers in line with its National Strategy for Science, Technology and Innovation (SSTI) 2006-2013 by:</p> <ul style="list-style-type: none"> - revising the primary school curriculum and introducing science to all primary schools (since September 2003) to help children develop scientific skills. In concrete terms, 89% of students sat Science in the Junior Certificate examination in 2011; - revising the syllabus in Junior Certificate science (since 2003). The revised syllabus was supported by a comprehensive programme of professional development for teachers, and investment of some EUR 16 million in 2004 in resources and laboratory facilities; - promoting the Discover Science and Engineering (DSE)¹ national science awareness programme at primary and secondary level, which in the longer term will feed into the third level, (i.e. universities and Institutes of Technology) and the PhD level. The programme promotes an awareness and understanding of the importance of science and engineering in a modern knowledge-based economy and develops effective ways of engaging students, teachers and the public in science, technology and innovation; - funding the STEPS Engineers Ireland Programme (2005) to encourage primary and post-primary students to explore the world of science and engineering through various initiatives, including an extensive Champions Programme, Engineers Week, student seminars, scholarships, summer camps, videos and career profiles, mathematics tutorials, and a Maths and Music show. <p>All universities and Institutes of Technology have school liaison programmes and open days to increase young people's interest in science, technology, engineering and mathematics (STEM) subjects.</p>	

Table 2: Raising the attractiveness of PhD studies by granting employee status – Norway

Title of the measure	Raising the attractiveness of PhD studies by granting employee status
Category	The stock of researchers in Europe
Country	Norway
<p>In Norway, the most common form of funding for PhD candidates is through employment in an ordinary fixed-term position. Ordinary employment contracts account for approximately 93-95% of doctoral candidates in Norway. Some of them take their PhD while working in a research institute, hospital or university college in a permanent position.</p> <p>The Norwegian government does not provide a researcher's 'statute'. However, legislation gives researchers employee status and they enjoy the same rights as employees, including social security, pension rights, maternity and paternity leave, full kindergarten coverage etc. Social security and pension rights are regulated by law. Salaries and career prospects as well as additional social security rights are set out in collective agreements.</p> <p>The Norwegian educational system attracts research students from all over the world (35% in 2012, compare to 33% in 2011, of candidates awarded PhD degrees were citizens of another country). This can be attributed to the a good funding system for PhD candidates, an advanced research infrastructure, national Centres of</p>	

¹ An independent evaluation of DSE in 2009 by an International Panel noted that DSE represents very good value for money and plays an important role in encouraging young people to study science and technology. Following specific recommendations, Maths has been included in the scope of DSE and it has been refocused on second level education, as a support for Project Maths. DSE has been within Science Foundation Ireland since the spring of 2012.

Title of the measure	Raising the attractiveness of PhD studies by granting employee status
Category	The stock of researchers in Europe
Country	Norway
Excellence (SFF), Centres of Research-based Innovation (SFI), Nordic Centres of Excellence (NCoE), thematic research networks (FME) as well as the existing industry-academia collaboration schemes.	

Table 3: Industrial-PhD scheme – Norway (NEW)

Title of the measure	Industrial PhD
Category	The stock of researchers in Europe
Country	Norway
<p>The Industrial PhD scheme managed by the RCN provides support to companies operating in Norway hiring an employee seeking to pursue an ordinary doctoral degree at a degree-conferring university or university college. The funding period is three years. Small and medium-sized companies may also apply for an operating grant to cover up to 50 % of the additional costs related to costly laboratory testing connected with the research fellow’s doctoral work.</p> <p>Companies may also seek funding for overseas research grants at the applicable rates. The fellowship is at 50% of the established current rates for doctoral research fellowships. A company may receive funding for a doctoral research fellowship for a three-year period.</p> <p>These PhD’s are regarded as popular, effective and unbureaucratic, and have attracted a lot of attention abroad. At the end of 2013, there were 187 projects. The scheme was evaluated in 2012 with the conclusion that it has been very successful.</p>	

2. Women in the research profession

Table 4: Training of members of university boards by the Ministry of Science, Research and Economy - Austria (NEW)

Title of the measure	Training of members of university boards
Category	Women in the research profession
Country	Austria
<p>Since the 2009 Amendment of the Universities Act 2002, women must fill 40% of university boards. To support and strengthen this implementation the Ministry of Science, Research and Economy provides training to members of university boards. The main aim of the training is to raise awareness, as well as to promote fair and quality- oriented decision-making on gender balance. Sixty training courses were successfully held in 2013. An evaluation of this initiative was conducted in 2013.</p> <p>The company that carried out the training on behalf of the Federal Ministry of Science, Research and Economy conducted a self-evaluation in the form of an anonymous questionnaire. A third person from the same company not involved in the training measure then assessed this questionnaire.</p> <p>The most important findings of the evaluation:</p> <ul style="list-style-type: none"> - This measure proves that the 40% female quota is an effective instrument for increasing the share of women in decision-making positions; - Of 60 participants, 57 underlined the effectiveness of this training and believed it should continue; - The training promotes the availability of women for university boards; and - The training supports sustainable cultural change in academic research institutions. <p>It is planned to continue this project beyond 2013.</p>	

Table 5: FEMtech – Women in Research and Technology - Austria

Title of the measure	FEMtech – Women in Research and Technology (part of the Talents Programme)
Category	Women in the research profession
Country	Austria
<p>The Austrian government in the framework of the ‘Talents Programme’ (2011) supports RTD talent (particularly women) by offering traineeships for pupils and providing financial support for (regional) education projects in schools in the fields of mathematics, informatics, science and technology.</p> <p>In particular, it finances traineeships for female students (FEMtech Traineeships Initiative and traineeships for pupils), encourages networking (FEMtech Network), enhances visibility of women experts (FEMtech Female Expert Database), promotes the achievements of successful women in research (FEMtech Female Expert of the Month), offers career support (FEMtech Career Initiative), supports research projects (FEMtech Research Projects Initiative) and seeks to improve women’s career opportunities in science and technology (FEMtech Dissertations until 2013). It also supports cooperation between academic institutions, research institutes and private companies with schools and kindergartens (<i>Talente</i> regional cooperation projects).</p> <p>In 2013, 1 504 traineeships of boys and girls (38% girls) were funded under the “discover talents” action line. The budget is some EUR 1.5 million per year. FEMtech Traineeships supported 490 students in STEM through a budget of EUR 3.7 million.</p> <p>Overall around 4 000 people were reached by the two traineeship activities: pupils and female students, their tutors in the companies, their parents and so on.</p>	

Table 6: Gender Contact Person – Belgium (NEW)

Title of the measure	Gender Contact Person – Belgium
Category	Women in the research profession
Country	Belgium
<p>At the beginning of 2014, the Wallonia-Brussels Federation allocated a EUR 150 000 budget to finance a “Gender contact person” (<i>Personne de contact genre</i>) in each Wallonia-Brussels Federation university. These people will be in charge of gender matters within their university.</p> <p>Their missions will be:</p> <ul style="list-style-type: none"> - write an annual report on the gender balance in each Wallonia-Brussels Federation university; - ensure networking between all the people involved in gender issues in the university, at regional and national level, and also at the international level; - ensure better visibility for gender matters within the universities; and - propose, in collaboration with the academic authorities, an action plan to foster the gender balance in the universities of the Wallonia-Brussels Federation. 	

Table 7: The Milada Paulová Award - Czech Republic

Title of the measure	The <i>Milada Paulová</i> Award
Category	Women in the research profession
Country	Czech Republic
<p>In 2009, the Czech Ministry of Education, Youth and Sports introduced the <i>Milada Paulová</i> Award for life-long achievement in science for female researchers. The award aims to recognise publicly and financially the research achievements of prominent Czech female researchers in a particular discipline, including the fields of pedagogy, supervision, cooperation with civil society and the industrial sector.</p> <p>In particular, it aims to:</p> <ul style="list-style-type: none"> - highlight the excellent scientific achievements of Czech women researchers (bearing in mind the name of the first woman to win the right to lecture at a university (1925) and who also became the first female Professor (1939) in the Czech Republic, historian Milada Paulová); - show general support for women in science; and - inspire junior women researchers or students who are considering a career in science. <p>Each year the award is dedicated to a different field of science.</p>	

Table 8: Gender-balanced recruitment at IFREMER - France

Title of the measure	Gender-balanced recruitment at IFREMER
Category	Women in the research profession
Country	France
<p>IFREMER (<i>Institut français de recherche pour l’exploitation de la mer</i>) [marine research institute] in 2008 signed an ‘Agreement on Professional Equality between Men and Women’ to promote attractive employment conditions. The three-year agreements signed between the IFREMER and the labour unions recognise the importance of professional equality, in particular in terms of access to employment, professional training and career development (mobility, promotion, salary) as well as work-life balance.</p> <p>The first agreement ran until 2011 and has been renewed until 2014. Its goals are to:</p>	

Title of the measure	Gender-balanced recruitment at IFREMER
Category	Women in the research profession
Country	France
<ul style="list-style-type: none"> - ensure gender balance in recruitment, promotion, and committees; - encourage trade unions to achieve gender balance; - ensure that no gender factor will be taken into account in career development; and - establish a monitoring committee to oversee implementation of the agreement. <p>IFREMER supports the percentage of women promoted every year being at least equivalent to the percentage they represent in their category. Recruitment salaries are based on qualifications (diplomas) and experience. These guarantee identical pay between men and women.</p> <p>IFREMER has also established specific measures so that when working in the field (at sea and on ships), women can lead missions as easily as men. IFREMER integrates work-life balance in its agreements with labour unions, thus ensuring fair career development, through various initiatives, such as:</p> <ul style="list-style-type: none"> - flexible working hours; - video conferences or conference calls in preference to travel; - meetings between 9:00 am and 5:00 pm, and not on Wednesdays (when children do not go to school in France) or school holidays; and - part-time work (equal salary, equal promotions and bonuses, equal level of responsibility). <p>IFREMER also contributes financially to baby-sitting costs up to EUR 200 per child.</p>	

Table 9: TRIGGER, University Paris Diderot – France (NEW)

Title of the measure	TRIGGER, University Paris Diderot
Category	Women in the research profession
Country	France
<p>Paris Diderot is a partner in the TRIGGER (Transforming Institutions by Gendering contents and Gaining Equality in Research) project, coordinated by the Department for Equal Opportunities of the Presidency of the Council of Ministers (DPO) in Italy. It began in January 2014 and will continue until December 2017 but is based on Diderot’s previous involvement in gender equality policies. It is funded through the European Commission’s FP7 Science in Society Programme (Call FP7-science in society-2013).</p> <p>TRIGGER provides financial support to gender equality policies and a gender action plan devised by the university, which originated in 2010 with the signing by the University of a Charter for Equality (http://www.univ-paris-diderot.fr/sc/site.php?bc=accueil&np=pageActu&ref=3499).</p> <p>Therefore, TRIGGER reinforces this self-tailored action plan geared at introducing gender-aware management at all levels in the university; it promotes the experimentation of innovative measures for the practical gendering of the priority-setting and design process of scientific research and technological innovation to test their actual potential in triggering far-reaching and deep change.</p> <p>The key themes covered by the action plan are:</p> <ul style="list-style-type: none"> - Actions promoting change in organisational cultures and behaviours; - Actions promoting work-life balance; - Actions supporting early-stage career development; - Actions challenging gender stereotypes in S&T and consequent career distortions; - Actions aimed at gendering S&T contents and methods; 	

Title of the measure	TRIGGER, University Paris Diderot
Category	Women in the research profession
Country	France
<ul style="list-style-type: none"> - Actions promoting women’s leadership in the practice of research; - Actions promoting women’s leadership in the management of research; - Actions promoting women’s leadership in scientific communication; and - Actions promoting women’s leadership in innovation. 	

Table 10: Measures to improve the gender balance and the position of women in research - Ireland (NEW)

Title of the measure	Measures to improve the gender balance and the position of women in research in Ireland
Category	Women in the research profession
Country	Ireland
<p>In response to the persistent and historic gender imbalance among research staff in Ireland, Science Foundation Ireland launched a dedicated ‘Women in Science & Engineering’ Programme in 2005, which contained three strands:</p> <ul style="list-style-type: none"> - to recruit more women and girls into STEM careers and education; - to enable highly skilled women researchers to remain in STEM careers, and; - to encourage and assist top-level researchers to return to work following a career break. <p>A result of the SFI programme was the establishment of the Centre for Women in Science & Engineering Research (WiSER) at Trinity College Dublin in 2006. WiSER works to retain and advance women in academic SET and increase the numbers of highly accomplished women researchers at the forefront of scientific innovation in Ireland and internationally.</p> <p>In recent years momentum has built nationally to address the under-representation of women in research and academia. Three Irish universities are currently engaged in FP7 projects dedicated to structural change for gender equality: INTEGER (TCD); FESTA (UL); and GENOVATE (UCC); while the Irish Research Council and Higher Education Authority are collaborating in GENDER-NET, which aims to promote gender equality in research institutions and the integration of the gender dimension in research.</p> <p>A National Network for Gender Equality in Academic and Research Careers was established in 2012/13, having arisen out of work carried out under the “Through the Glass Ceiling: Career Progression Programme and Strategy for Female Academics and Researchers” project based at University College Cork, which in November 2012 published “Recommendations for Actions towards Gender Equality in Academic and Research Careers in the Higher Education Sector”. The recommendations set out in its report echo the priorities defined by WiSER at an institutional level and formalise a system of national collaboration to drive forward structural change.</p> <p>This collaboration has most recently been cemented with the establishment of the Athena SWAN Irish National Forum, which comprises representatives of the seven Irish universities, the RCSI, and the main funding bodies (HEA, SFI, IUA and IRC), and is advancing a proposal to extend the UK-based Athena SWAN Charter for Women in Science to Ireland.</p> <p>Science Foundation Ireland in December 2013 launched a funding scheme to support women returning to science careers. The grants are being provided from 2014 to encourage more women with science degrees to remain in research or return to it after a break or career pause. Awards worth about EUR 150 000 lasting two years will be offered with support for childcare costs and the possibility of part-time working. An initial 100 fellowships will be offered but more may be available if demand is higher.</p> <p>The impact of these initiatives has not yet been evaluated.</p>	

Table 11: Paid maternity leave for post-docs - Italy

Title of the measure	Paid maternity leave for post-docs
Category	Women in the research profession
Country	Italy
<p>Researchers may be entitled to maternity leave, depending on the type of contract with the host institution. Maternity leave is generally provided for in temporary contracts in accordance with the conditions defined by national laws and regulations.</p> <p>Since 2011, the Government Act, which sets the annual amount of financial resources allocated to the state-owned universities, has also included a specific budget of EUR 3.5 million to guarantee the salary of postdoc women researchers who interrupt their contract during maternity leave. Research institutions enjoy the right autonomously to provide additional benefits to women researchers.</p>	

Table 12: Gender Balance in Senior Positions and Research Management – Norway (NEW)

Title of the measure	Gender Balance in Senior Positions and Research Management (BALANSE)
Category	Women in the research profession
Country	Norway
<p>The Research Council has established an initiative called Gender Balance in Senior Positions and Research Management (BALANSE), with a total budget of 10 million NOK (some EUR 1.4 million) in 2013. The scheme aims to increase the share of women in senior and leading positions in research. The Research Council is implementing the 'Charter & Code' principles in documents, calls and contracts, with an emphasis on the recruitment of women to leading positions in projects funded by the Council. This may influence funding decisions.</p>	

Table 13: Parent-bridge programme – Foundation for Polish Science - Poland

Title of the measure	Parent-bridge programme – Foundation for Polish Science
Category	Women in the research profession
Country	Poland
<p>The Parent-bridge programme (POMOST Programme) aims to enable the best researchers who are raising young children to return to advanced research work as well as to enable pregnant women to carry out research projects, which are financed from external sources. The programme is co-financed from EU structural funds under Action 1.2 'Strengthening the human resources potential of science' of the Innovative Economy Operational Programme 2007–2013.</p> <p>The Parent-bridge programme provides beneficiaries working in fields of bio/tech/info research with two types of support:</p> <ol style="list-style-type: none"> 1. Return Grant for projects to be carried out by researchers of either sex raising young children. The return grant targets researchers who hold at least a PhD and work in a Polish research unit or are employed there at least during the duration of the project. Potential candidates are women with a child up to the age of 4 (or the age of 7 in case of adoption or multiple birth) and men who have taken paternal leave or interrupted their work for a period of at least 6 months, on condition that they return to research work after the leave (or interruption) prior to but no earlier than 12 months before the application deadline. The grant includes: a) a research grant (e.g. the salary of the project director, research costs, research materials and international costs) and b) stipends for up to three researchers (higher education students or PhD students selected via competition) supervised by the project director. Their monthly stipends are of PLN 1 000 (some EUR 230) or PLN 3 000 (some EUR 700) respectively. The project to be carried out may last from 1 to 3 years and it may be carried out on a part-time basis; 2. Support for Women conducting research projects during pregnancy, where the nature of the work 	

Title of the measure	Parent-bridge programme – Foundation for Polish Science
Category	Women in the research profession
Country	Poland
<p>could affect their pregnancy. The support for pregnant women covers primarily the costs of hiring (or delegating) a researcher to take her place for conducting necessary research tasks which she is unable to perform herself during pregnancy. This form of support is addressed to women who hold at least a master's degree, take part in research projects financed from external sources (e.g. other researchers' projects, their own research projects) and work in health-sensitive conditions (e.g. contact with radiation or chemicals, use of dangerous equipment, frequent travelling).</p>	

Table 14: National Committee on Women in Science - Slovenia

Title of the measure	National Committee on Women in Science
Category	Women in the research profession
Country	Slovenia
<p>The Slovenian Ministry of Higher Education, Science and Technology in 2001 established a National Committee on Women in Science. The National Committee has an Annual Work Plan and reports annually to the Ministry. It is an advisory/expert body. It has 15 members from different institutions and scientific disciplines and its main focus is collecting data and raising awareness, networking of researchers from different scientific disciplines dealing with gender issues, and cooperation with other relevant organisations in Slovenia and the Helsinki Group on Women and Science².</p> <p>The Slovenian government has strengthened the role of women in science in line with the national Action Programme on Gender Equality and the Research and Innovation Strategy of Slovenia 2011-2020.</p> <p>The Strategy recognises the necessity of adopting measures for gender equality, changing the current legislation, and focusing on the role of gender in research, education and in the management of institutions. With the support of the National Committee for Women in Science, Slovenia will launch promotional activities and follow the principle of ensuring balanced representation of both genders when appointing working bodies within the competency of the ministry responsible for education and science, as well as when preparing legal acts and other strategic documents.</p> <p>Under the Work Programme of the National Committee for Women in Science for 2012, the following measures were to be implemented:</p> <ul style="list-style-type: none"> - support to programmes and projects that enhance participation of women in science and research; - support to research in the field of gender equality (with special reference to equality in working conditions); - establishment and monitoring of EU indicators with relevance for integration of the gender equality principle into policies and programmes for research; - continuous monitoring of strategic and legal documents in the field of research, along with their implementation, and of statistical data on women in science; and - in-depth analysis of difficulties in the recruitment of women in the academic and research spheres, with special consideration for their professional positions, promotions and equality of opportunity. 	

² The Helsinki Group on Women and Science was established in November 1999 as part of the Commission action plan "Women and Science: mobilising women to enrich European research". The group's mandate is to exchange experience and inform the Commission about policies and measures implemented at local, regional, national and European levels to promote gender equality in science. For more information about the group's mandate, see: http://ec.europa.eu/research/science-society/document_library/pdf_06/mandate-final-march2007_en.pdf

Table 15: The Athena SWAN Charter for Women in Science – United Kingdom

Title of the measure	The Athena SWAN Charter for Women in Science
Category	Women in the research profession
Country	United Kingdom

The Athena SWAN Charter³ is a scheme which recognises excellence in employment practice for recruiting, retaining and promoting women academics and researchers in Science, Technology, Engineering, Maths and Medicine (STEMM) employment in higher education. The Athena SWAN Charter was founded in 2005 and is owned by the Equality Challenge Unit (ECU)⁴. As well as recognising good practice in higher education and research, it also improves the representation of women academics and researchers in STEMM. Any higher education institution which is committed to the advancement and promotion of the careers of women in STEMM in higher education and research can apply for membership.

The Athena SWAN Charter operates through an awards scheme. Within three years of joining the Charter, universities are expected to apply for a Bronze university award. Universities must achieve a Bronze award before individual departments can apply for recognition in their own right. Only then, can university departments apply for Bronze, Silver or Gold department awards, depending on how far advanced they are in identifying gender problem areas and implementing initiatives to address them. Once a number and range of SET departments hold awards, the university is then able to submit for a Silver university award. Award winners can use the appropriate Bronze, Silver or Gold logo in their recruitment and publicity materials.

Athena SWAN Charter awards are only valid for a period of three years, after which institutions and departments must submit a renewal award application, or submit for the next level award. Benchmarking data is required as part of both new and renewal award submissions, covering a period of three years at least, with five years required for Silver renewal and Gold awards. It is therefore possible to collate and review this data over time to identify trends in female representation. These can be used to measure how well institutions and departments are meeting the Athena SWAN aims and objectives.

In 2005, there were 10 founder members of the Charter. By 2007, membership had increased to 28 institutions. Forty-four institutions had signed up to the Charter by 2009. Currently (2013), 95 higher education institutions are members of the Charter, representing over 70% of all eligible institutions in the UK.

The first Athena SWAN Charter awards were presented in 2006 to universities. By 2013, there were more than 250 award-holding institutions and departments, with four Gold department awards.

As part of the Charter, a research study was conducted looking at the impact Athena SWAN awards have had within institutions and departments since the first awards were given in 2006. This research consisted of a series of interviews and focus groups with vice chancellors, pro-vice-chancellors, heads of faculty/school/department, academics and researchers, and equality and diversity practitioners at five Athena SWAN award-holding institutions in the UK. The research identified impact in terms of organisational structure and culture change, with increases in the proportion of women, better representation of women on committees, improvements in the transition from postdoctoral researcher to first academic post, improved working practices to support career progression, and growth in women’s networking across institutions. In addition to this, many reported that the good practice they are implementing generally benefits all staff and

³ The principles underpinning the Charter are:

- To address gender inequalities requires commitment and action from everyone, at all levels of the organisation.
- To tackle the unequal representation of women in science requires changing cultures and attitudes across the organisation.
- The absence of diversity at management and policy-making levels has broad implications which the organisation will examine.
- The high loss rate of women in science is an urgent concern that the organisation will address.
- The system of short-term contracts has particularly negative consequences for the retention and progression of women in science, which the organisation recognises.
- There are both personal and structural obstacles to women making the transition from PhD into a sustainable academic career in science, which require the active consideration of the organisation.

⁴ Equality Challenge Unit (ECU) works to further and support equality and diversity for staff and students in higher education across all four nations of the UK, and in further education in Scotland.

Title of the measure	The Athena SWAN Charter for Women in Science
Category	Women in the research profession
Country	United Kingdom

contributes to improving the working environment and culture within their institutions.

These findings were published in 'Measuring success 2011'⁵. A second, independent impact report has since been published (2014) to further investigate the impact of Athena SWAN in higher education institutions in the UK. Researchers at the University of Loughborough looked at:

- The effectiveness of the Charter in advancing women's careers in STEMM; The sustainability of the changes that higher education institutions are making as a result of their participation in Athena SWAN; The impact of the Athena SWAN Charter in changing the culture and attitudes across the participating higher education institutions to address inequality and unequal representation, and the suitability of Athena SWAN processes for use in complex and busy institutional environments.

Their findings are that:

- staff in award-holding departments and institutions report greater career satisfaction; opportunities for development; knowledge of promotion processes; and fairness in workload allocation; the application process and awards have provided credibility, focus and impetus for gender work that was already taking place within HEIs; the requisite data collection processes have enabled HEIs to identify challenges to gender equality that are particularly relevant to them; institutions that had applied for an Athena SWAN Award report it was because it was the 'right thing to do' and because of their commitment to gender equality; the visible representation of more women in key positions and senior roles was a widely reported positive change; but that delivering cultural change remains extremely challenging in any HEI.

Interest in the Charter has increased greatly since the announcement made by the Chief Medical Officer, Professor Dame Sally Davies, which directly links specific National Institute for Health Research funding to university departments achieving Athena SWAN Silver award status. International institutions (USA, Canada, Australia, and across Europe) have also shown considerable interest in being included in Athena SWAN or in developing something similar, and a pilot expansion of the Charter to research institutes not affiliated to universities is underway.

Many institutions taking part in Athena SWAN have extended the methodology to non-STEMM disciplines, and ECU is currently trialling a gender equality charter mark for the arts, humanities and social sciences.

The gender equality charter mark aims to address gender inequalities and imbalance in the arts, humanities and social sciences, in particular the underrepresentation of women in senior roles. The charter mark covers academic staff, professional and support staff, men, women and gender identity.

The charter mark utilises the experience and methodology of the Athena SWAN Charter for Women in science, technology, engineering, maths and medicine. The Athena SWAN Charter will continue to operate as it currently stands, with a view to bringing it together with the gender equality charter mark in the future.

ECU is currently running a trial award rounds with 36 departments in 10 institutions. The participants are working towards making submissions for the trial award round by 30 April 2014. The formal launch of the charter mark is expected to be around October 2014.

⁵ Available at <http://www.athenaswan.org.uk/sites/default/files/Athena%20SWAN%20Impact%20Report%202011.pdf>

3. Open, transparent and merit-based recruitment

Table 16: EURAXESS Austria - Austria

Title of the measure	EURAXESS Austria
Category	Open, transparent and merit-based recruitment
Country	Austria
<p>Austrian Universities must advertise research job vacancies (for scientific and research staff) internationally, i.e. at least EU-wide (Amendment 2009 to the Universities Act).</p> <p>The Austrian Ministry of Science, Research and Economy actively promotes the EURAXESS Jobs portal via brochures, flyers, and newspaper advertisements in order to raise awareness of the European job database among universities and public research organisations. The Austrian EURAXESS Services Network – consisting of two Bridgehead Organisations and a number of EURAXESS Service Centres – provides information and assistance in the following subject areas: research funding, research job opportunities, legal issues (visa, work permits, entry and residence conditions, social security, tax issues), administrative and cultural issues (housing, language courses, child-care, etc.), the Austrian research landscape (wide scope of research institutions and activities across Austria), women in science (promotion of women, strategic information, activities, databases), potential research partners, access to other countries’ EURAXESS portals, and contact details of EURAXESS Services Centres.</p> <p>In 2013, Austrian organisations posted 1042 jobs on EURAXESS Jobs (in comparison to 779 jobs in 2012 and 525 jobs in 2011).</p>	

Table 17: Reform of the F.N.R.S. (*Fonds National de la Recherche Scientifique*) recruiting system - Belgium

Title of the measure	Reform of the F.N.R.S. (<i>Fonds National de la Recherche Scientifique</i>) recruiting system
Category	Open, transparent and merit-based recruitment
Country	Belgium
<p>The Wallonia-Brussels Federation’s <i>Fonds de la Recherche scientifique</i>-FRS-FNRS (Fund for Scientific Research) has reformed its recruitment system right across the selection process. In detail, the reform:</p> <ul style="list-style-type: none"> - eliminates the age criterion formerly applied to applicants for FRS-FNRS mandates; - provides pre-defined evaluation criteria that are communicated to the candidates in advance; - provides candidates with feedback; - develops an evaluation procedure for the selection of projects that involves more external experts from outside the Wallonia-Brussels Federation; - advertises the calls for candidates and the mechanisms for obtaining a mandate in FRS-FNRS/Associated Funds more widely on different internet portals (FRS-FNRS, EURAXESS, etc.); and - provides a renewed internet portal containing information of better quality on the FRS-FNRS procedures (mechanisms, calls, results, etc.). 	

Table 18: EURAXESS Estonia - Estonia

Title of the measure	EURAXESS Estonia
Category	Open, transparent and merit-based recruitment
Country	Estonia
<p>In Estonia, most publicly funded research jobs are published online. Depending on the institution, either all or a selection of the vacancies is also advertised in English on the institution’s website. The EURAXESS Jobs portal is increasingly used in cases where universities are specifically looking for someone from abroad to fill the position.</p>	

Table 19: EURAXESS Ireland - Ireland

Title of the measure	EURAXESS Ireland
Category	Open, transparent and merit-based recruitment
Country	Ireland
<p>All publicly funded (and research-active private) organisations are encouraged to advertise research positions on the EURAXESS Ireland portal (www.euraxess.ie) and can request access to the national and EU researcher CV database.</p> <p>The main impact of EURAXESS Ireland has been the increase in open advertising of research positions both in Higher Education Institutions and, in recent years, in the private sector. The portal had activated 43 739 job searches as of March, 2014, with 457 Job applications made directly via the portal application facility and 3 783 organisation profile searches. A total of 8 358 jobs had been uploaded and the extranet which supports the EURAXESS Jobs facility had been activated 5 589 times. By the end of 2013, 7 090 queries brought to EURAXESS Ireland had been resolved. There were 5 546 registered users on the national portal and 200 458 visits to the portal had been recorded.</p> <p>In order to encourage greater use of the EURAXESS services by the private sector, a new EURAXESS Business portal has been developed, which was launched in May 2013. This is a dedicated entry point for companies to the EURAXESS services and focuses on advertising jobs, the CV database and the Fast Track visa scheme. In addition, there is a search tool where companies can seek out business and R&D funding opportunities. This search facility is honed to the company’s location, specialty and size. The number of private organisations using the portal has increased by 97% since the launch of the EURAXESS Business portal and funding database.</p>	

4. Education and training

Table 20: Support Programme for Young Researchers - Belgium

Title of the measure	Support Programme for Young Researchers
Category	Education and training
Country	Belgium
<p>In 2011, the Flemish Community introduced the Support Programme for Young Researchers with an annual budget of EUR 4 million. The Programme targets young researchers, providing them with training, career development incentives and support for participation in international events and job fairs. The Programme aims to train young researchers (in doctoral schools), guide them throughout their career and reinforce their international orientation.</p> <p>The objectives of the programme are to:</p> <ul style="list-style-type: none"> - train young researchers (in doctoral schools); - develop careers and open up career prospects; - reinforce the international orientation of researchers' careers; - cooperate within Flanders. <p>In 2013, a first evaluation carried out by the Expertise Centre on R&D monitoring showed that the money had been used by the universities to reinforce their HR policy for young researchers and create more opportunities for training and career development. In 2013, this scheme became a permanent funding programme for the universities.</p> <p>The evaluation in 2013 looked into the implementation of the funding by the universities in 2012 and 2013. Steps were taken to organise courses (methodology, transferable skills) and activities on career planning and guidance, and to make these structural. The priorities in the first stage were the organisation of the doctoral schools and the training of doctoral students, with a gradual shift towards external communication, attention for postdoctoral researchers and collaboration between doctoral schools. Career guidance of doctoral and postdoctoral researchers is becoming more important, as are initiatives to further international and intersectoral mobility. The universities agree that the funding is substantial and offers much needed financial support for initiatives they were setting up on their own.</p>	

Table 21: Workshops for supervisors – Croatia (NEW)

Title of the measure	Workshops for supervisors
Category	Education and training
Country	Croatia
<p>As part of the new Doctoral Studies Rulebook of the University of Zagreb, the university in 2010 made it mandatory for all new supervisors to attend the workshops organised by the university. The goal was to introduce new supervisors to all the relevant skills and good practices in the field of supervision of PhD candidates in order to address common problems of PhD supervision. These had become evident in practice, and also emerged through a number of surveys with PhD candidates.</p> <p>Workshops are organised as two-day events, with around twenty participants per workshop. Participants are chosen from all scientific fields and all university constituent parts, while the selection is made by the central PhD office on a "first come, first served" basis. Due to the limited capacity, only assistant professors with no PhD candidates or only one are invited. There is no fee for participating in the workshops.</p> <p>Since 2010, University of Zagreb has organised nine workshops, with more than 150 new supervisors participating. Workshops are centred on advice in terms of the 'do's and don'ts', and the tricks of the trade of Ph.D. supervision in the context of the university. Participants are actively engaged in the workshop process, which is seen as playing an important role in bringing together good practices that already exist and building on styles and acts of supervision that participants are already practicing on the basis of experience and</p>	

Title of the measure	Workshops for supervisors
Category	Education and training
Country	Croatia
<p>intuition. Workshops are an important tool in discussion on recognising the problems and risks of PhD candidates. The goal is to make an inventory of distinguishing features of strong and weaker candidates and develop remedies to strengthen candidates who are in trouble.</p> <p>Workshops are held by experts from Austria and the Netherlands, while the next step will be to train new trainers at host universities who can take over this type of specialised education. This would enhance existing capacities and also reduce the costs of the workshops.</p>	

Table 22: The České Hlavičky Contest - Czech Republic

Title of the measure	The České Hlavičky Contest
Category	Education and training
Country	Czech Republic
<p>The <i>České Hlavičky Contest</i> aims to inspire, encourage and support talented young people to pursue a career in science, and, mainly in the fields of engineering and natural sciences. It targets children in their final years of primary school as well as high-school students. It is organised by the <i>Česká Hlava</i> Project, the Prague University of Economics, the Ministry of Education, Youth, and Sports, the Association for Youth, Science, and Engineering (AMAVET), and the Association for Supporting Talented Czech Youth, as well as by other partners, and provides awards and financial tools to attract and inspire people to become researchers.</p> <p>As part of the annual nationwide contest, prizes are awarded to the participants in five categories. A jury composed of representatives of associations, universities, and scientific institutions selects the winners. Each winner receives a financial prize, a diploma, and an original “České Hlavičky” award. The winners are also present at a press conference and a gala soir�ee.</p>	

Table 23: Doctoral Schools - Estonia

Title of the measure	Doctoral Schools
Category	Education and training
Country	Estonia
<p>Doctoral schools were set up in 2005. In 2009, thirteen new Doctoral schools were selected for the period 2009-15. Their aim is to improve the quality of tutoring of doctoral candidates and to increase the efficiency of doctoral studies in Estonia through interdisciplinary, international and national cooperation. Apart from mobility opportunities, winter and summer schools, and study programmes, doctoral schools propose transferable and social skills training to promote interdisciplinary research and enhance the cooperation between universities and the private sector.</p> <p>From 2010, students who have interrupted their doctoral studies are welcome to continue and finish their studies – i.e. they are given a second chance. Those resuming doctoral studies may participate in doctoral schools. These help them find supervisors and participate in summer schools, conferences and mobility activities provided by doctoral schools. Two partners at least need to be involved: an Estonian university, a R&D institution, the public sector or companies.</p> <p>The doctoral schools are project-based and are funded by the European Social Fund. The total budget is EUR 16.9 million for 2009-2015.</p>	

Table 24: Measures to improve researchers' skills and competencies - Ireland

Title of the measure	Measures to improve researchers' skills and competencies
Category	Education and training
Country	Ireland
	<p>The seven Irish universities, the Institutes of Technology and the Royal College of Surgeons in Ireland are committed to strengthening their graduate research capacity with a concomitant increase in graduate students. Over 90 per cent of Irish higher education research takes place in Ireland’s universities and they are lead participants in achieving the national policy of increasing the country's research output and increasing Ireland’s innovative capacity through investment in graduate education.</p> <p>The IUA Deans of Graduate Studies Group (previously the SIF-funded Fourth Level Network) is a key enabler of structured Graduate Education in Ireland. This Group collaborate closely in developing rounded PhD education and research training programmes for all students, to ensure that students graduate with the right qualities for engagement with, and leadership of, a changing and complex knowledge-rich society. The Group works with the funding agencies and government to ensure that national targets for numbers and quality of doctoral graduates can be reached, and supports the development and delivery of PhD programmes, working to build Ireland’s international profile in graduate education, while informing national and international developments.</p> <p>The majority of Irish Higher Education Institutions have introduced structured PhD frameworks. The key principle underpinning the Irish structured PhD is a series of measures to ensure high-quality supervision, support and ongoing assessment of the progress of the student, with a particular emphasis on the provision of training and coursework, both at disciplinary level and with a view to developing generic and transferable skills which will benefit the student during and after their studies.</p> <p>In recognition of the need to provide professional skills training as part of structured doctoral education, the Irish Universities PhD Graduate Skills statement was published by the Dean of Graduate Studies Group, which describes the desired learning outcomes and skills that PhD students might develop during their studies. These guidelines recognise that advancement of knowledge through original research is the core component of PhD education, but that PhD education must also facilitate additional skills development opportunities.</p> <p>In 2013, the EURAXESS Ireland website developed and launched a PhD “landing page” to provide information to those interested in pursuing a PhD in Ireland - http://www.euraxess.ie/phd/default.aspx.</p> <p>The IUA Deans of Graduate Studies Group has developed a statement to communicate to students, supervisors and employers the skills and attributes of a PhD graduate http://www.euraxess.ie/phd/Page.aspx?SD=155. This also aims to aid students, graduate schools, graduate programmes and other advisory committees in establishing skills development needs and training structures.</p> <p>The group established an Inter-institutional Collaborative Agreement setting out the inter-institutional arrangements to support inter-institutional cooperation on national research programmes http://www.ucd.ie/registry/academicsecretariat/docs/iua_collab_g.pdf. Originally agreed in 2010, the Agreement was renewed for a further three years in 2013. This collaborative agreement has supported researchers in their applications to national and European funders to support themed structured PhD programmes.</p> <p>The IUA Deans of Graduate Studies Group is working closely with the HEA toward the development of a ‘National Framework for Doctoral Education’ which is due to be launched in 2014.</p> <p>A national review of doctoral education is planned for some time in 2014/15.</p>

Table 25: Strategic Educational Pathways Scholarships Scheme - Malta

Title of the measure	Strategic Educational Pathways Scholarships Scheme (STEPS)
Category	Education and training
Country	Malta
<p>The Strategic Educational Pathways Scholarships Scheme (STEPS) (2009-2012) provided scholarships to individuals wishing to pursue postgraduate studies at both Master and Doctorate level, either in Malta or overseas. It was funded through the EU Structural Funds (the European Social Fund) for the financial period 2007-13 with a budget of EUR 10 million. Funds were increased in 2012 and 2013.</p> <p>A total of 886 scholarships were awarded at Master and Doctoral levels. Of a total of 82 doctoral scholarships awarded, 38 were in Science, Technology, Engineering, and Mathematics (STEM) subjects. At Master’s level, the number of scholarships awarded in this area was 220.</p> <p>In 2013, the Strategic Educational Pathways Scholarships (STEPS) scheme was replaced by another European Social Fund (ESF) co-funded scheme called Master it! The number of scholarships awarded at Master’s level was 330, of which 140 were in STEM subjects.</p>	

Table 26: Centres of Excellence - Norway

Title of the measure	Centres of Excellence
Category	Education and training
Country	Norway
<p>The Centres of Excellence (SFF) scheme is a national programme under the auspices of the Research Council. In 2012, around NOK 200 million (some EUR 27 million) were spent on top-up financing of 21 Centres which are affiliated with Norway's top universities and premier public research institutes.</p> <p>Similarly, the Centres for Research-based Innovation (SFI) scheme provided NOK 155 million (some EUR 21 million) for top-up financing of 21 Centres in 2012. The SFIs are centres of excellence which include a frontline knowledge-based industrial partner. The objective is to enhance the capability of the business sector to innovate by focusing on long-term research based on forging close alliances between research-intensive enterprises and prominent research groups.</p> <p>Finally, NOK 132 million (some EUR 18 million) were spent on 11 virtual network Centres for Environmentally-friendly Energy Research (FME). These centres are time-limited research networks focusing on long-term research of high international calibre in order to solve specific challenges in the field.</p> <p>Norway also contributes to the Nordic Centres of Excellence (NCoE) instrument. NCoE is a network of centres of excellent Nordic groups of scientists from three or more Nordic countries collaborating within a defined field of research. Norway also contributes to the Nordic Centres of Excellence (NCoE) instrument. NCoE is a network of centres of excellent Nordic groups of scientists from three or more Nordic countries collaborating within a defined field of research. These include the following 5 year programmes, the Top level Research Initiative with NOK 435 million (some EUR 52 million), Education for tomorrow NOK 75 million (some EUR 9 million) and the eScience Globalisation Initiative NOK 115 million (some EUR 14 million). In 2013, the Norwegian contribution to the budget of the common pot for these programmes was NOK 100 million (some EUR 12 million).</p> <p>The common objective of all Centres is to promote excellence in certain areas by offering generous funding for a substantial period of time on the basis of competition among applicants.</p> <p>The SFF centres of excellence have increased agglomeration and research ambition levels in the research community, affected the division of labour among Norwegian research-performing organisations and increased researchers’ international collaboration. They have clearly affected university strategy: they were sufficiently large that universities had to fit them into their current activities and to make plans for how and whether to continue the centres at the end of their funding period. In this sense, they have had a positive influence on universities’ research management capabilities. (Evaluation: A Good Council 2012, p 84.)</p>	

Table 27: International partnerships with US Universities – Portugal

Title of the measure	International partnerships with US Universities
Category	Education and training
Country	Portugal
<p>The strategic programme of international partnerships in science, technology and higher education was initiated in 2006. The first doctoral and advanced studies programmes were officially launched in September 2007. They bring together several Portuguese universities and leading universities worldwide, including MIT, Carnegie Mellon University and the University of Texas in Austin. The objective of the project is to strengthen the internationalisation of higher education and S&T as a way to stimulate the integration of national institutions in emerging scientific networks at international level.</p> <p>The following programmes are still ongoing:</p> <ul style="list-style-type: none"> - <i>The MIT-Portugal Programme in the field of ‘engineering systems’</i>: the programme attributes special emphasis to the complex processes associated with industrial production, sustainable energy, bio-engineering and transport systems. Overall, the programme involved over 340 master and doctorate students at the beginning of its third year in September 2009. Through the joint programme with MIT, co-operation with the Sloan School of Management was strengthened through an international MBA programme, ‘Lisbon MBA’. This involves co-funding from seven major Portuguese companies and banks in a way that will stimulate new research and the quality of education in management sciences in Portugal; - <i>The Carnegie Mellon Portugal Programme</i>: the programme focuses on information and communication technologies, in particular the so called ‘Future Internet’ technologies and services, involving dual professional masters and PhD programmes by Portuguese institutions and the Carnegie Mellon University. Overall, the programme involved about 170 master and doctorate students at the start of its third year in September 2009; - <i>The Carnegie Mellon Portugal Programme</i>: the programme has launched three new innovation networks, whose goal is to consolidate and expand the successful cooperation among all partner institutions and industrial affiliates: 1) Security and Critical Infrastructure Protection (NET-SCIP); 2) Future Internet Services and Technologies (NET- FIT); and 3) Services and Technologies for Interactive Media (NET-STIM); - <i>Under the University of Texas in Austin-Portugal ‘Collaboratory for Emerging Technologies, CoLab’ (March 2007)</i>: the programme focuses on collaborative research in advanced interactive digital media and integrating advanced computing and applied mathematics. Overall, the programme involved about 70 doctorate students at the start of its third year in September 2009; - <i>The Harvard Medical School-Portugal Programme on translational research and information (May 2009)</i>: the programme establishes a new collaborative framework to foster translational and clinical research programmes, and the development of a new infrastructure for delivering medical information. <p>Unprecedented in Portugal, these programmes have facilitated the creation of effective thematic networks (since 2007) involving a large number of Portuguese institutions with the objective of stimulating their internationalisation through advanced studies projects and sustainable schemes to stimulate new knowledge and exploit new ideas in collaboration with companies and internationally renowned institutions.</p>	

Table 28: Programmes for Young Researchers - Slovenia

Title of the measure	Programmes for Young Researchers
Category	Education and training
Country	Slovenia
<p>The Young Researchers Programme, funded by the Slovenian Research Agency, aims to increase the number of students pursuing PhD studies, and incorporates specific measures to promote research in science, technology, engineering and mathematics (STEM) subjects.</p> <p>Young researchers participate in basic or applied research projects during their postgraduate studies. They also sign regular, fixed-term employment contracts. The Agency finances their salaries, social contributions, and the material and non-material costs for research and postgraduate study. The Agency has since 2006 (each year) provided financing for more than 1 200 young researchers. Funds for the training of young researchers are allocated for a fixed term of up to a maximum of three years and six months for a PhD programme.</p> <p>The average annual cost of financing one young researcher is approximately EUR 30 000. A postgraduate student who wishes to become a young researcher has to apply for employment with a mentor at a Slovenian research organisation who has been successful in the Call for mentors for young researchers.</p> <p>The programme is a long-lasting tradition in Slovenia with very good results in terms of increasing the number of researchers in the country. The measure was first introduced in 1986 and since then, there have been two milestones in its implementation; in 1994 and in 2008 when the results were analysed and changes were consequently introduced into the programme.</p>	

Table 29: RCUK School-University Partnership Initiative (SUPI) – United Kingdom (NEW)

Title of the measure	RCUK School-University Partnership Initiative (SUPI)
Category	Education and training
Country	United Kingdom
<p>The RCUK School-University Partnerships Initiative (SUPI) is a three-year initiative, begun in 2013, to create structured and strategic mechanisms for universities to work in partnership with secondary schools and further education colleges. This partnership will support researchers' direct engagement with students and bring contemporary and inspirational research contexts into formal and informal learning to enhance and enrich the curriculum.</p> <p>The initiative, worth GBP 3.5 million (EUR 4.3 million), with half the funding from RCUK and matched funding from universities and their partners, supports 12 SUPI partnerships at Imperial College London, Queen's University Belfast, and the universities of Aberystwyth, Bristol, Cardiff, East Anglia, Exeter, Lancaster, Manchester, Southampton, Strathclyde, and the Open University, with coordination, support and dissemination provided by the National Coordinating Centre for Public Engagement (NCCPE). An action learning project will ensure sector-wide dissemination and engagement. SUPIs will:</p> <ul style="list-style-type: none"> - Inspire the next generation by facilitating engagement between secondary school students and researchers to bring contemporary research into formal and informal learning contexts to enhance the curriculum and raise ambition; - Reach secondary school students from a diversity of backgrounds and abilities, and engage the widest possible range of teachers and schools in ways which have maximum impact on teaching quality and learning; - Provide researchers with opportunities and training to engage with secondary school students and develop their transferable skills as outlined in the Researcher Development Framework (RDF); - Support secondary schools and universities to work together to create structured, strategic, sustainable and equitable mechanisms for school-university engagement which increases the breadth and quality of interactions between researchers and students. <p>The SUPIs began work in 2013, so are at an early stage of their delivery plans, but are engaging with a wide</p>	

Title of the measure	RCUK School-University Partnership Initiative (SUPI)
Category	Education and training
Country	United Kingdom
number of schools and local partners. SUPIs are also using this funding to leverage additional resources from other sources.	

Table 30: RCUK Statement of Expectations for Doctoral Training – United Kingdom (NEW)

Title of the measure	RCUK Statement of Expectations for Doctoral Training
Category	Education and training
Country	United Kingdom
<p>The UK Research Councils (RCUK) partnership’s ambitions are to develop highly- skilled researchers to achieve impact across the whole economy and to develop the next generation of researchers to maintain national capability. RCUK have developed a Statement of Expectations for Doctoral Training⁶ which lays out common principles for the support of all Research Council students. These are aligned with the seven principles for Innovative Doctoral Training:</p> <p><i>Research Excellence</i> – Training Strategy in line with the Organisation’s research strategy. The emphasis is on ensuring excellence and quality.</p> <p><i>Attractive Institutional Environment</i> – Ten expectations, covering supervision, career advice, training and development, and widening horizons.</p> <p><i>Interdisciplinary Research Options</i> - Excellence is the key criterion regardless of discipline. Inter-disciplinarity is a feature of RCUK training mechanisms. The Researcher Development Statement expects researchers to gain the knowledge, understanding and skills needed to engage with, influence and impact on the academic, social, cultural, economic and broader context.</p> <p><i>Exposure to industry and other relevant employment sectors</i> - Four Expectations: Encourage collaboration, Value opportunities to work in a non-academic environment, Understand role of research both within the organisation and in the wider context. RCUK have published a Joint vision for collaborative training.</p> <p><i>International networking</i> - Experiences outside the "home" Research Organisation, for example with other academic collaborators, in non-academic environments or overseas are encouraged.</p> <p><i>Transferable skills training</i> - Professional and transferable skills form a fundamental part of doctoral training. Careers may be outside academe, so there is a focus on employability, as well as developing the higher-level capabilities outlined in the Researcher Development Statement.</p> <p><i>Quality Assurance</i> – All UK universities have to meet the Quality Assurance Agency Quality Code for HE section B11: Research Degree requirements.</p>	

⁶ <http://www.rcuk.ac.uk/researchcareers/postgrad/Pages/home.aspx>

5. Working conditions in the research profession

Table 31: Promotion of the 'Charter & Code' principles - Austria

Title of the measure	Promotion of the 'Charter & Code' principles
Category	Working conditions in the research profession
Country	Austria
<p>The promotion of the 'Charter & Code' and broad implementation of their principles at Austrian universities was part of the 2010-12 and 2013-2015 performance agreements with universities. In Austria, 18 universities have signed the 'Charter & Code', as have three funding organisations, three umbrella organisations, four research organisations, three universities of applied sciences, one private university, one representative from industry and the former Austrian Federal Ministry of Science and Research. The implementation of the 'Charter & Code' is part of the National Action Plan for Researchers (2009).</p> <p>The Medical University of Graz was the first Austrian university to receive HRS4R (Human Resources Strategy for Researchers) acknowledgement from the European Commission. It has been followed by the FWF, the University of Natural Resources and Life Sciences (BOKU) and the University of Salzburg.</p>	

Table 32: Promotion of the 'Charter & Code' principles - Croatia

Title of the measure	Promotion of the 'Charter & Code' principles
Category	Working conditions in the research profession
Country	Croatia
<p>The implementation of the 'Charter & Code' principles is publicly promoted and supported by the Ministry of Science, Education and Sports, and the Agency for Mobility and EU Programmes. The promotion of the 'Charter & Code' principles is also foreseen in the Action Plan for Mobility of Researchers and the Action Plan to Encourage Investment into Science and Research. To date, all public research institutions (including higher education institutions), the Croatian Academy of Sciences and Arts, the Croatian Science Foundation and three research organisations from the private sector have endorsed the 'Charter & Code' and they are working on improving their HR strategy for researchers in accordance with those principles. The Ministry, together with the Agency for Mobility and EU Programmes, offers support and information about the implementation process.</p> <p>The objectives of promoting the 'Charter & Code' principles are to:</p> <ul style="list-style-type: none"> - improve researchers' working conditions in accordance with common European principles (as set in the Charter & Code); and - execute the actions foreseen in the Action Plan for Mobility of Researchers and the Action Plan to Encourage Investment into Science and Research. <p>Fourteen public research organisations have completed the HRS4R process and received the acknowledgment of the European Commission, making Croatia second most successful country (following the United Kingdom) in relation to the number of institutions awarded with the HR Excellence in Research logo.</p>	

Table 33: The Sapere Aude Programme - Denmark

Title of the measure	The <i>Sapere Aude</i> Programme
Category	Working conditions in the research profession
Country	Denmark
<p>The Danish Council for Independent Research (DFF) offers a comprehensive career programme for excellent research, the <i>Sapere Aude</i> programme. The Council's initiative provides encouragement for individual and talented researchers to conduct their own research programme independently and to develop international networks.</p> <p>The programme deals with the following three career stages: DFF-Research Talent, corresponding to post-doctoral level; DFF-Starting Grant, typically corresponding to Associate Professor level; and DFF-Advanced Grant, typically corresponding to Professor level. Grants are between EUR 270 000 and EUR 1.3 million and are available both to Danish researchers and researchers from abroad.</p> <p>Sapere Aude was initiated in 2010 and DFF has funded 162 DFF-Research Talents, 104 DFF-Starting Grants, and 14 DFF-Advanced Grant in total in the period to 2013.</p> <p>The programme is due to be evaluated in 2015.</p>	

Table 34: Academic Freedom Act - Germany

Title of the measure	Academic Freedom Act
Category	Working conditions in the research profession
Country	Germany
<p>The Academic Freedom Act (<i>Wissenschaftsfreiheitsgesetz</i>) entered into effect on 12 December 2012. As a result, non-university research institutions will have more freedom in matters of finance and staffing, the acquisition of shares in companies and in construction projects. Bureaucracy will be minimised, competences will be pooled and authorisation procedures will be accelerated. The legislation is rooted in the positive experience gained in the pilot phase of the Academic Freedom Initiative (<i>Wissenschaftsfreiheitsinitiative</i>).</p> <p>The Academic Freedom Act creates the possibility of paying scientists higher salaries and benefits than in the past (extra pay or bonuses, for example), provided non-public funds are applied for this purpose. These funds may, for example, come from foundations, donations or capital gains. By providing the opportunity to offer more attractive salaries, German research institutions' ability to recruit highly qualified people from other countries or from the private sector and also prevent a brain drain is considerably enhanced. This reform can also be applied to employees who are not researchers themselves but work in a science-related field and make a significant contribution to a research project. This development is crucial for Germany as a base for academic, scientific and research activity and for its international competitiveness.</p> <p>In 2013 the implementation process made extensive progress. For example, the modifications needed to the institutions' terms of reference in cooperation with the <i>Länder</i> entered into effect. Furthermore, the institutions had to develop guidelines in order to make certain measures applicable to themselves. The implementation of the measures of the Academic Freedom Act correlates with the reporting commitments of the research institutions.</p> <p>The earliest that it will be possible to determine the effects of the different measures will be when evaluating the reporting system in 2014.</p>	

Table 35: Initiatives to Support Research Careers – Ireland (NEW)

Title of the measure	Initiatives to Support Research Careers
Category	Working conditions in the research profession
Country	Ireland
<p>A number of Higher Education Institutions have introduced initiatives to support the research careers of non-tenured researchers (R2 and R3). For example, University College Dublin (UCD) has introduced the UCD Research Careers Framework, which establishes a structured and supportive skills and early career development model for Post-Doctoral Fellows at UCD. Details can be found at http://www.ucd.ie/researchcareers/.</p> <p>As a more detailed example of these initiatives, University College Cork (UCC) have committed to the following:</p> <ul style="list-style-type: none"> - In 2011, UCC implemented a Researcher Employment and Career Management Structure which provides a clear developmental structure for researchers including Research Assistant, Postdoctoral Researcher, Senior Postdoctoral Researcher, Research Fellow, Senior Research Fellow and Research Professor, and policies on Recruitment, Contract Management, Salary Administration, and Training and Development. - Research positions are filled through an open, transparent and competitive process that is based on research excellence and merit. - The University has implemented formal salary scales for research roles. - UCC has developed staff categories and job descriptions for researchers employed in roles supporting research projects, programmes or areas in an administrative, technical or clinical capacity. - UCC will facilitate the establishment of a Working Group on Research Integrity and Research Ethics and the University Ethics Committee will develop mechanisms for embedding good research practice into the culture of all scholarship, and promote awareness of research integrity and research ethics issues, including support for the promotion of good research practice to postgraduates and staff engaged in research. - The University Performance Development and Review System will be reviewed and modified to ensure researchers undertake a review discussion with their Principal Investigator or Supervisor. The University will seek to identify an electronic/web based system to facilitate and support the career development planning process. - UCC will support and integrate career development planning for Postdoctoral Researchers, emphasising diversity of career paths. - UCC will provide resources to support career development for research staff and enable researchers to manage their own careers, including web-based resources. - The University will provide individual consultations to Postdoctoral Researchers during the course of their employment. - The University Staff Enhancement and Development Committee will establish a working group to identify institutional requirements and develop policy for researchers who wish to develop skills in teaching and learning. - UCC will encourage and promote participation of researchers on College and School committees to ensure researchers have an opportunity for involvement in relevant decision-making bodies. - UCC will also review and consider the availability of facilities for researchers through the Colleges. <p>The impact of these initiatives has not yet been evaluated.</p>	

Table 36: Vitae realising the potential of researchers - United Kingdom

Title of the measure	Vitae realising the potential of researchers
Category	Working conditions in the research profession
Country	United Kingdom
<p>Since 2008 Vitae has provided national and strategic leadership to improve career development and working conditions for researchers in higher education, working in partnership with higher education institutions, policy makers, stakeholders, employers and individual researchers. Vitae has supported the implementation of the UK's Concordat to Support the Career Development of Researchers.</p> <p>In 2010, Vitae launched the new Researcher Development Framework (RDF). Through this Framework, thirty major UK organisations (e.g. Funding Councils, Research Councils, Quality Assurance Agency, the unions and Universities UK) articulate a strategic agenda to train and support high-level researchers to further improve their skills and competencies.</p> <p>The RDF is currently being implemented in the UK and international higher education institutions and underpins the professional development of researchers. Vitae have produced stakeholder briefings, an online RDF Planner for universities and researchers, and guidance on how to map training exercises, courses and programmes to the Framework. Higher education institutions can develop their strategies and operational training and development programmes to cover a range of domains included in the new Researcher Development Framework, which has been used in Africa, Australia, Europe and the US.</p> <p>Vitae also possesses an exhaustive database of 400 best practice training examples and 120 examples of evaluation activities which link to an impact framework for measuring training and development outcomes. It also offers several materials and courses on entrepreneurship, knowledge exchange, leadership, public engagement, information literacy, career development and teaching.</p> <p>Among the key successes of the programme up to 2013 were:</p> <ul style="list-style-type: none"> - establishing a process for UK institutions to gain the European Commission's HR Excellence in Research Award. By early 2014, 72 UK organisations had the Award as part of a wider strategy to sustain the UK's reputation as an attractive destination for researchers. - establishing a suite of programmes, widely used by universities to develop postgraduate researchers and research staff. These resources are mapped against the Researcher Development Framework, and include a comprehensive range of training courses and resources relating to the RDF, for example, RDF lenses on specific aspects of researcher development, such as leadership, teaching, enterprise and employability. - a programme of international activities to build capacity for researcher development including strategic needs analysis, training and development and infrastructure. - unprecedented knowledge and understanding of the career intentions, experience, destinations and impact of researchers, including developing a classification of distinct doctoral occupations, data on the mobility of early career research staff, and publishing UK data on the experiences of research staff and research leaders. <p>Vitae has published a number of impact and evaluation studies, including the impact Framework (with 120 examples of evaluations related to developing researchers), the Three-year Review of Progress in Implementing the Concordat to Support the Career Development of Researchers as well as reviews of Vitae's activities and achievements. (See also www.vitae.ac.uk)</p>	

Table 37: The Concordat to Support the Career Development of Researchers - United Kingdom

Title of the measure	The Concordat to Support the Career Development of Researchers
Category	Working conditions in the research profession
Country	United Kingdom
<p>The Concordat to Support the Career Development of Researchers has since 2008 constituted an agreement between the employers (universities) and research funders (Research Councils, funding councils, major charities, etc.) on good management and quality working conditions for research staff. Vitae, the organisation championing researchers and research staff, leads in the implementation of the Concordat in the UK and assists higher institutions exchange knowledge and good practices.</p> <p>The Concordat Strategy Group reviews the implementation of the Concordat against a range of benchmarks; a report is also submitted to government.</p> <p>A three-year review of the implementation of the Concordat was published in March 2012⁷ and notes that “despite being a voluntary instrument, the Concordat is having a significant impact across the higher education sector”. The intention to implement the principles of the Concordat is now widespread in institutions, and the corresponding infrastructure is increasingly in place. The extent and depth of implementation is greatest for the principles on recruitment and selection, recognition and value, and equality and diversity.</p> <p>Established major surveys are run every two years in the UK, i.e. the Careers in Research Online Survey and the Principal Investigator and Research Leaders survey. Both provide benchmarking and data at institutional level; UK aggregate reports are published by Vitae.</p> <p>Despite being a voluntary instrument, the Concordat is having a significant impact across the higher education sector. There is now a widespread intention to implement the principles of the Concordat in institutions, and the corresponding infrastructure is increasingly in place. The extent and depth of implementation is greatest for the principles on recruitment and selection, recognition and value, and equality and diversity – all themes where there is existing legislation or there are specific national guidelines for employment practice.</p> <p>Details of the impact of the Concordat to Support the Career Development of Researchers can be found in the Three Year Review of Progress available at www.vitae.ac.uk.</p>	

⁷ Available at: <http://www.vitae.ac.uk/CMS/files/upload/Vitae-Concordat-three-year-review-report-April-2012.pdf>

6. Collaboration between academia and industry

Table 38: Unity through Knowledge Fund (UKF) – Croatia (NEW)

Title of the measure	Unity through Knowledge Fund (UKF)
Category	Collaboration between academia and industry
Country	Croatia
<p>The Unity through Knowledge Fund (UKF) was established in 2007 by the Ministry of Science, Education and Sports (MSES) on behalf of the government of the Republic of Croatia. The Fund operated within the Science and Technology Project, which was financed by a loan of the World Bank.</p> <p>Using the motto ‘Connectivity – Cooperability – Creativity’, the Unity through Knowledge Fund’s mission has been to unite scientific and professional potential in Croatia and its diaspora in the development of the knowledge- based society.</p> <p>The UKF encourages the competitiveness of national research at an international level, fosters research that creates new values in the Croatian economy and funds projects that help the development of research infrastructure in Croatia.</p> <p>The objectives of the Ministry of Science, Education and Sports (MSES) through the Second Science and Technology Project are to (i) improve the capacity of Croatia’s R&D and innovation institutions to implement the Europe 2020 Strategy for increased investments in R&D through efficient absorption of EU funds, and (ii) develop a pipeline of public and private R&D projects, including research groups, that could qualify for financing through EU structural funds.</p> <p>Within the Fund’s activities, there are three distinct programmes, which are designed to achieve different, complementary goals within the scientific system. From its establishment until January 2014, the Fund had financed 109 scientific and technological projects, 18 of which were still under way as of early 2014.</p> <p>These are unique programmes that have directly enabled the transfer of knowledge and technology from leading international scientific institutions to Croatian universities, institutes, and to small and medium-sized businesses in the Republic of Croatia. Institutions with which cooperation has been created represent research and scientific centres of excellence in the relevant fields. Over 180 international scientific-research institutions are participating in UKF projects.</p> <p>The programmes have contributed to the transfer of knowledge and the development of careers of young researchers, who will in the future take leading roles in the Croatian and international scientific community as well as in the economy. In particular this contribution to the development of human capital is among the most significant accomplishments of the programme implemented within the Fund.</p> <p>Thanks to the use of a systematic and transparent selection methodology, the Unity through Knowledge Fund has supported high-quality scientific research groups that have been additionally strengthened with the support of the Fund by receiving the necessary knowledge and competence to enable participation in very competitive calls for proposals of European and international scientific communities. Newly acquired knowledge and skills, as well as networking with excellent world scientific research institutions, has enabled scientist groups to take a far more competitive approach and therefore improved their ability to attract European and other international financial sources, especially within the Seventh Framework Program of the European Union (FP7) for research and technological development. The projects financed within the Fund have had a high degree of success among the applications for FP7 calls for proposals, with a success rate of around 35%. The Fund invested EUR 3.6 million in the acceptance of projects, and an additional EUR 9.03 million was extracted from the FP7 programme for the Croatian partners’ entitlements.</p> <p>With the implementation of the programme, the Fund encouraged the international mobility of scientists in order to take the maximum possible advantage from knowledge and technology transfer through the establishment of cooperation.</p> <p>Activities have also been undertaken to enhance intersectoral mobility between the scientific community and industry with mobility of public sector scientists to the private sector and vice versa. Fifty-four partners from industry have invested EUR 756 526 in UKF projects.</p>	

Title of the measure	Unity through Knowledge Fund (UKF)
Category	Collaboration between academia and industry
Country	Croatia
<p>In accordance with the goals of the Lisbon Strategy and the Europe 2020 strategy, the Fund has especially stimulated projects that included investments of the private sector in research and development and has assumed the role of one of the key actors orienting the Croatian science system in accordance with principles of good practice at an international level.</p> <p>The performance of the UKF programmes were evaluated as highly satisfactory by the World Bank and a new loan resulted. This which became effective in August 2013. In 2009, the UKF was selected as a good practice by the International Labour Organization for promoting the linkages between migration and development and by the European Regional Economic Forum for developing human capital and managing migration.</p>	

Table 39: Industrial PhD and post-doc Programmes - Denmark

Title of the measure	Industrial PhD and post-doc Programmes
Category	Collaboration between academia and industry
Country	Denmark
<p>The Industrial PhD scheme (since 1971) and the Industrial post-doc scheme aim at encouraging researchers to move from the public to the business sector:</p> <ol style="list-style-type: none"> 1. The Industrial PhD Programme aims to offer doctoral training in cooperation with the industry sector. The Industrial PhD Programme is a three-year research project and research training programme with an industrial focus conducted jointly by a private company, an industrial PhD student and a university. Universities and students of all nationalities may be accepted. The student is employed by the company and enrolled at the university. Public organisations and institutions may also apply for approval of an Industrial PhD project in cooperation with a University, as long as the project lives up to the general requirements described in the programme guidelines. <p>The company hires the Industrial PhD for the three-year duration of the project as a full-time employee on ordinary terms for salaried employees. The salary is agreed between the student and the company, but must correspond as a minimum to the pay rate of the collective agreement for PhD students employed by the Danish state. The company receives a subsidy to cover roughly half the student's salary, and the enrolling university receives a subsidy to cover tuition fees. The Programme includes a compulsory business course so that students understand the commercial aspects of research and innovation projects;</p> 2. Industrial post-doc programme: under this initiative, new doctoral graduates carry out research with financial and technical support from both a university and a company. The researcher has to spend some time working in the company and some time in the university. The project must focus on creating concrete results. This scheme stimulates the interaction between universities and the private sector, including all sizes of companies and from all technology areas. It is expected that the new career opportunity at the university will lead to more national and foreign students applying for a PhD in Denmark. 	

Table 40: Fraunhofer Gesellschaft - Germany

Title of the measure	Fraunhofer Gesellschaft (FhG)
Category	Collaboration between academia and industry
Country	Germany
<p>In accordance with the Fraunhofer's mission, the majority of its staff are integrated in projects and work on finding innovative solutions, often in direct contact with businesses. Following several years at Fraunhofer institutes (working on various projects – including international projects, completing a PhD; management experience, etc.), Fraunhofer staff often move to positions of responsibility in business or the science system.</p> <p>The <i>Fraunhofer Gesellschaft</i>⁸ supports application-based research in cooperation with the private sector. Students are offered the possibility of pursuing a PhD in applied research in close collaboration with industry.</p> <p>The number of PhD degrees supported by Fraunhofer was 2 603 in 2012 compared to 1 204 in 2007.</p>	

Table 41: Cooperation 2011 - Partnerships of Production and Research Institutions in Focused Research and Technology Sectors - Greece

Title of the measure	COOPERATION 2011 - Partnerships between businesses and research bodies in specific research and technological sectors
Category	Collaboration between academia and industry
Country	Greece
<p>The COOPERATION 2011 Programme targets domestic partnerships between productive-commercial businesses of all sizes, research centres, institutes, higher education institutes, technological, public and other bodies for the implementation of R&D projects in specific manufacturing and services sectors. Businesses and research bodies are the key beneficiaries, whereas the rest participate as technology/services/products end-users.</p> <p>The objectives of the COOPERATION 2011 Programme are to:</p> <ul style="list-style-type: none"> - enhance collaboration between businesses and research bodies through common implementation of research and technological projects; - foster green development, competitiveness and outward orientation of Greek businesses; - improve Greek citizens' quality of life; - strengthen and upgrade the skills of the research workforce; and - establish international cooperation through networking and collaboration with entities from European and other countries. 	

Table 42: Measures to develop more partnerships between industry and academia - Ireland

Title of the measure	Enterprise Partnership Scheme
Category	Collaboration between academia and industry
Country	Ireland
<p>The Enterprise Partnership Scheme is an innovative initiative whereby the Irish Research Council, in partnership with private enterprises and public bodies, awards co-funded postgraduate scholarships and postdoctoral fellowships to the most promising researchers in Ireland.</p> <p>The Scheme offers researchers the opportunity to gain additional beneficial experience and insight into the commercial arena while completing their research. It provides industry with flexible and easy access to an</p>	

⁸ The *Fraunhofer Gesellschaft* is composed of 80 institutions, about 18 000 employees with an annual budget of EUR 1.7 billion.

Title of the measure	Enterprise Partnership Scheme
Category	Collaboration between academia and industry
Country	Ireland
<p>exceptional pool of competitively selected, high-calibre researchers, and the opportunity to build links with relevant academic research groups. It facilitates the establishment of new relationships and the strengthening of existing ones between enterprise and academia while offering financial support to researchers at an early stage of their career development.</p>	

Table 43: Young Researchers in the Economy Programme - Slovenia

Title of the measure	Young Researchers in the Economy Programme
Category	Collaboration between academia and industry
Country	Slovenia
<p>Young Researchers in the Economy of the Slovenian Technology Agency (TIA) is designed to introduce more highly educated staff into private companies and stimulate companies to hire young graduates to enhance their R&D and innovation activities.</p> <p>The service is mainly financial, providing co-financing for salaries and some materials costs for a young researcher who is employed in a company while pursuing a PhD at the university. Through this support the young researcher engages in research work with mentoring by both the company and university. The programme is run by the TIA in the 2007-2013 financial cycle and is co-financed by the European Social Fund. The beneficiaries are enterprises and technology centres – as employers of young researchers, and research organisations and universities – as providers of formal education.</p>	

Table 44: Doctoral collaboration with Industry - United Kingdom

Title of the measure	Doctoral collaboration with Industry
Category	Collaboration between academia and industry
Country	United Kingdom
<p>The UK Research Councils (RCUK) partnership has developed various mechanisms and approaches to help the HEI sector respond to high-level skills demands and to ensure that industry is actively engaged in the identification, development and delivery of training activities. The partnership aims to achieve the following objectives:</p> <ul style="list-style-type: none"> - deliver high skilled people; - drive innovation in knowledge exchange through enhancement of knowledge and skills' exchange; - ensure mechanisms are in place to encourage people exchange between the research base and user partners at all career stages. <p>Research Councils' training advisory boards and committees include members from relevant industrial or user sectors, allowing employers to help shape not only the overall training agenda but also to advise on technological areas and wider employability skills. RCUK postgraduate training mechanisms that enable strong input from business, industry and other user sectors include:</p> <ul style="list-style-type: none"> - CASE (Collaborative Awards in Science and Engineering) and CDAs (Collaborative Doctoral Awards) encourage collaborative partnerships between research organisations and public or private sector organisations. During a CASE or CDA studentship, the student enhances their skills training and broader learning by spending 3-18 months with the collaborating body in a workplace outside the academic environment; - Knowledge Transfer Partnerships promote KTPs to postgraduate students. Recently qualified graduate students are employed by a business partner to support knowledge and expertise transfer via a 	

Title of the measure	Doctoral collaboration with Industry
Category	Collaboration between academia and industry
Country	United Kingdom
<p>strategic project launched together with the higher education or research institution;</p> <ul style="list-style-type: none"> - Industrial Doctorate Centres (IDCs): these are four-year programmes combining PhD-level research projects with taught courses where students spend about 75% of their time working directly with a company; and - Innovation Vouchers for SMEs: National SMEs have the opportunity to apply for a GBP 3 000 (some EUR 3 700) voucher to purchase academic support by employing researchers in the field of technology and innovation. 	

7. Mobility and international attractiveness

Table 45: Scientific Visa package - Croatia

Title of the measure	Scientific Visa package
Category	Mobility and international attractiveness
Country	Croatia
<p>EURAXESS Croatia has established productive cooperation with all state bodies involved in removing obstacles to the mobility of researchers: the Ministry of Science, Education and Sports; the Ministry of the Interior; the Ministry of Foreign and European Affairs; and the Croatian Institute for Health Insurance. Furthermore, these bodies have also been brought together during meetings of the Committee for Researchers' Mobility.</p> <p>Thanks to this cooperation, it was possible to successfully implement the 'Scientific Visa' package. In addition, it was possible to identify some of the mobility obstacles, and to remove them afterwards.</p> <p>All these measures aim to:</p> <ul style="list-style-type: none"> - Include all decision-makers in the efforts to fully integrate Croatia into the ERA and, at a national level, remove obstacles to researchers' mobility; and - Establish broad collaboration among diverse policy makers and government bodies. <p>Since February 2009, the Ministry of Science, Education and Sports has issued 82 hosting permits. Croatian research organisations are very satisfied with the procedure. Furthermore, EURAXESS Croatia assisted the first foreign researcher to be fully employed and elected to a scientific position. In addition, thanks to the recognition of EURAXESS by the authorities, it is able to provide reliable information and has seen a continuous increase in questions from foreign researchers and their hosts, thus becoming a true partner in researchers' mobility. The achievements can be attributed not only to the lobbying efforts of EURAXESS Croatia but also the authorities' willingness to recognise the importance of researcher mobility.</p> <p>In order to be appointed to a scientific position in a public research organisation, a researcher needs to register with the Ministry of Science, Education and Sports – this Registry used to list Croatian citizenship as one of the requirements, but this has been removed, opening up the Registry, and thus scientific positions, to researchers from other countries.</p> <p>Another example of this successful cooperation is the fact that the "Foreign Researcher's Guide to Croatia", published by the EURAXESS Service Centre, is now integrated into the websites of all Croatian embassies around the world, alongside a link to the Croatian EURAXESS portal.</p> <p>Open recruitment in public research institutions is also one of the achievements. According to the latest Act on Scientific Activity and Higher Education, an appointment to a research position within public research organisations must be based on a public call published in the Official Gazette of the Republic of Croatia, on the official internet website of the research organisation as well as on the official internet website for job vacancies of the European Research Area (the EURAXESS Jobs portal).</p> <p>The deadline for submission of applications now stands 30 days, unlike the previous eight days. Employment in all types of public institution and public institutions of higher education is based on a public call so that all citizens are guaranteed equal access to public services. A public research organisation may prescribe additional requirements for the appointment by its internal acts in addition to those stipulated by the Law on Scientific Activity and Higher Education, subject to compliance with the Act on Prohibition of Discrimination.</p>	

Table 46: The Researcher Taxation Scheme - Denmark

Title of the measure	The Researcher Taxation Scheme of 1991 (last amendment 2011)
Category	Mobility and international attractiveness
Country	Denmark
<p>Researchers and highly paid employees recruited abroad, who are able to meet a number of conditions, and have not been a Danish tax resident in the previous 10 years, can be employed at a special 26% tax rate for 60 months, but are not allowed any deductions if they enjoy this rate.</p> <p>The measure aims to increase Denmark's attractiveness as a country for carrying out research activities.</p> <p>Since 2001 the number of researchers availing themselves of the taxation scheme has gone from 647 in 2001 to 1 528 in 2011. Since 2001 approximately 120 countries have been represented with in the taxation scheme⁹.</p>	

Table 47: Mobility Programme HUMAN-MB08 - Hungary

Title of the measure	Mobility Programme HUMAN-MB08 (2008-2010)
Category	Mobility and international attractiveness
Country	Hungary
<p>The Mobility Programme, co-financed by the EU 7th Framework Programme (Marie Curie actions), is designed to promote the scientific careers of experienced researchers with PhD degree or at least four years of full-time research experience. The programme includes support for the mobility and international training of researchers of any nationalities, as well as support for Hungarian researchers returning to Hungary. The call is open to every field of science; the main evaluation aspect is scientific excellence. The long-term contribution of the funded project to the career development of the researcher (the impact of the grant) is also taken seriously into account. (Total budget: EUR 11.1 million.)</p> <p>The aims of the Mobility programme include promoting the scientific careers of researchers with a PhD degree or at least four years of full-time research experience by:</p> <ul style="list-style-type: none"> - supporting their mobility and acquisition of international experience; and - promoting the exploitation of experience acquired in international, non-European countries by supporting researchers returning to Hungary. <p>Researchers with a PhD degree or at least four years of full-time research experience are eligible to submit a proposal in all thematic priorities: technical sciences, natural sciences, life sciences and social sciences.</p> <p>More than 50 researchers have been funded within the framework of the programme in the past three years.</p>	

Table 48: Scientific Visa package - Ireland

Title of the measure	Scientific Visa package
Category	Mobility and international attractiveness
Country	Ireland
<p>To facilitate the inward migration of third country researchers, Ireland has implemented the Hosting Agreement (the Scientific Visa) scheme. By availing themselves of a hosting agreement, researchers' entry visas are fast-tracked and researchers can work in Ireland without recourse to the usual work permit or Green Card. This scheme also allows the researcher's immediate family to live in Ireland for the duration of their contract, and entitles their spouse and dependents to apply for a work permit allowing greater ease of access to employment in Ireland. This has most certainly helped in attracting non-EU researchers to both the public and private sectors. Between the commencement of the scheme in October 2007 and January 2014, the</p>	

⁹ <http://www.skm.dk/skatteomraadet/talogstatistik/menu/671.html>

Title of the measure	Scientific Visa package
Category	Mobility and international attractiveness
Country	Ireland
<p>EURAXESS office processed 1 980 hosting agreements, with a total of 45 accredited organisations. This includes the seven Irish universities, twelve Institutes of Technology, ten other research institutions and sixteen industrial organisations. 85 percent of researchers on hosting agreements are employees of the Irish universities.</p> <p>The number of researchers working in Ireland on hosting agreements varies from 500 to 550 annually, with currently (March, 2014) 535 researchers on Hosting Agreements. . This marked an increase of an average of 100 researchers or 23% since 2011. Eighty-six per cent of the researchers on Hosting Agreements are employees of the seven universities (as of March, 2014). Most non EEA- researchers found employment in ICT/Computer science and life science (27 and 26 % respectively) across Irish research institutions. A significant number of researchers on hosting agreements work in the engineering sector (23%), while physics and chemistry attracted 17% and 15 % of the non EEA- researchers respectively.</p> <p>The researchers on hosting agreements in Ireland come from 87 different non-EEA countries. The top two nationalities with hosting agreements are Indians, with 400 agreements in total (103 employed currently, as of January 2014) and Chinese, with 366 agreements in total (92 employed currently, as of January 2014). They are followed by US nationals who have been issued with a total of 201 hosting agreements to date (44 currently employed under the scheme, as of January 2014). There are at present 28 Pakistani, 22 Iranian and 18 Russian nationals with hosting agreements in Ireland (January 2014).</p> <p>By January 2014, a total of 850 researchers (43% off all hosting agreement holders) had availed themselves of the immediate family unification opportunity and as of January 2014, 217 had their dependants with them for the duration of their research projects in Ireland. The Hosting Agreement Extranet contains constantly updated details of agreements issued to all researchers under the scheme, and has been regularly used by immigration authorities in Ireland as well as by Irish embassies abroad (e.g. Beijing, New Delhi, Moscow and Abuja) for verification purposes. This minimises the visa application process for the researchers.</p> <p>Ireland is also taking part in the Science without Borders programme, aiming to attract a significant number of students from Brazil to undertake their doctoral degree in Ireland. This initiative is advertised via a dedicated page on euraxess.ie.</p> <p>A study on the impact of the fast-track research visa system in Ireland (March 2013, launched by Commissioner Maire Geoghegan Quinn at the Irish Presidency Conference on Researcher Careers and Mobility, 14th May, 2013) revealed that a significant number (23%) of researchers using the scheme would definitely not have come to Ireland had the Hosting Agreement scheme not been in place. For 53% of the non-EEA hosting agreement holders, the fast track immigration facility was a major part of the decision to come to Ireland; without it researchers might not have decided to choose Ireland for the next step in their research career.</p> <p>The time needed for the immigration formalities to recruit non-EEA researchers is significantly reduced and visas are normally issued rapidly (assisted by the Hosting Agreement online database which is accessed by the immigration authorities worldwide). This has a positive impact on research planning policy at the accredited institutions, as it is easy to foresee when researchers will arrive.</p>	

Table 49: Combined professorial positions - Norway

Title of the measure	Combined professorial positions
Category	Mobility and international attractiveness
Country	Norway
<p>In Norway, professors and associate professors have the opportunity to hold a part-time (20%) position (Professor II/ Associate professor II) in one institution in addition to their full-time permanent position in another institution.</p> <p>Qualified personnel from other sectors may also take up part-time positions in the Higher Education Sector. This arrangement facilitates cooperation between the higher education sector and industry.</p>	

Table 50: Welcome programme – Foundation for Polish Science - Poland

Title of the measure	Welcome programme – Foundation for Polish Science
Category	Mobility and international attractiveness
Country	Poland
<p>The overall objective of the WELCOME Programme is to engage outstanding researchers from abroad in creating research teams in Poland and intensify the degree of international cooperation of Polish institutes and universities. The Programme targets foreign researchers with at least a PhD degree who either plan to work in Poland or have established their research teams in Poland no earlier than five years prior to the cut-off date.</p> <p>Polish researchers with at least a PhD degree, who have either have stayed abroad for at least two years and intend to come back to Poland or have already returned to Poland (within the two years prior to the cut-off date), are also eligible to apply. The projects must be of at least three years' envisaged duration.</p>	