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Researchers' Report 2014

Country Profile: Denmark



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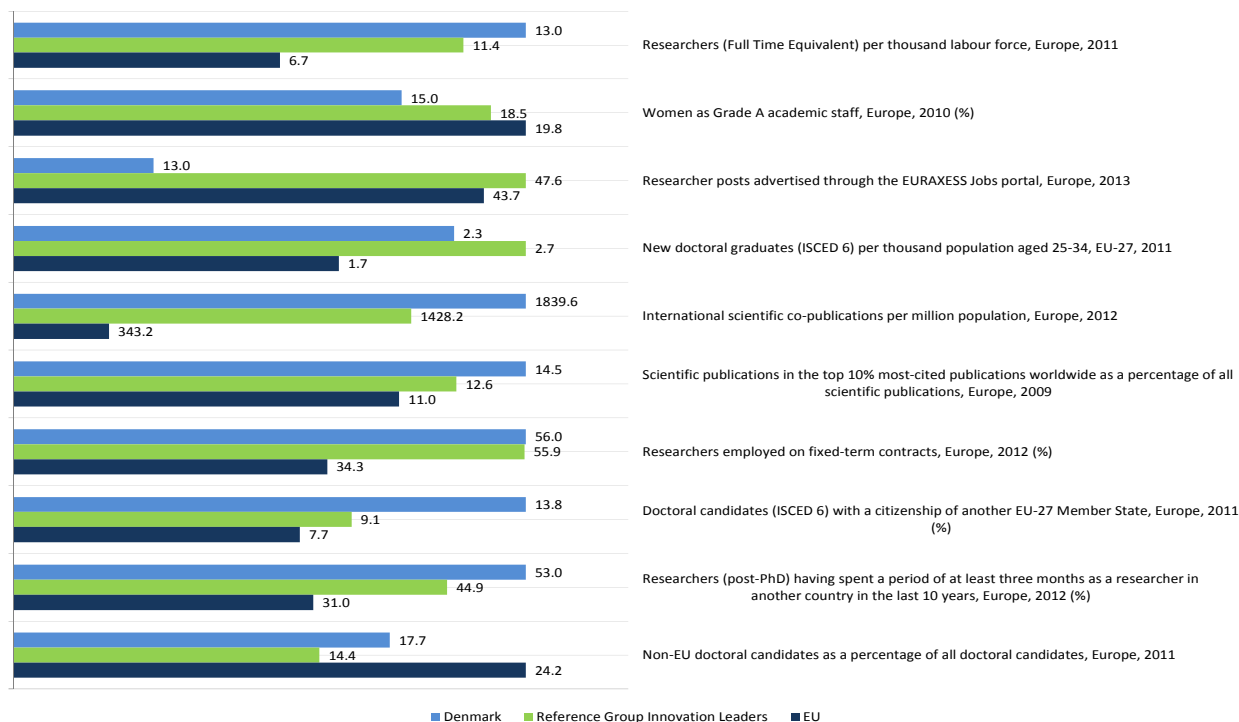
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1. Key data

Key indicators measuring the country's research performance

The figure below presents key indicators measuring Denmark's performance on aspects of an open labour market for researchers against a reference group and the EU average¹.

Figure 1: Key indicators – Denmark



Source: Deloitte

Data: Eurostat, SHE Figures, EURAXESS Jobs Portal, UNESCO OECD Eurostat education survey, Innovation Union Scoreboard 2014, MORE2. Notes: Based on their average innovation performance across 25 indicators, Denmark, Germany, Finland and Sweden show a performance well above that of the EU average. These countries are the "Innovation leaders"².

Stock of researchers

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

Table 1: Human resources – Stock of researchers

Indicator	Denmark	EU Average/Total
Head Count per 1 000 active labour force (2011)	19.41	10.55
Head Count (2011)	56 771	2 545 346
FTE per 1 000 active labour force (2011)	12.98	6.75
Full time equivalent (FTE) (2011)	37 944	1 628 127

Source: Deloitte

Data: Eurostat

2. National strategies

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

¹ The values refer to 2012 or the latest year available

² European Commission (2014), "Innovation Union Scoreboard 2014"

Table 2: National strategies

Measure	Description
<p>Denmark – a nation of solutions Enhanced cooperation and improved frameworks for innovation in enterprises (2012)</p>	<p>On 20 December 2012, the Danish Government launched a national innovation strategy³ to deliver national growth and new jobs. It supports a more goal-oriented approach for creating innovative solutions to global societal challenges and enhanced knowledge transfer between research institutions and companies. It focuses on three areas:</p> <ol style="list-style-type: none"> 1) Innovation is to be driven by societal challenges; 2) More knowledge is to be translated to value; and 3) Education is to increase the innovation capacity. <p>The Strategy contains 27 specific initiatives, which includes:</p> <ul style="list-style-type: none"> - Establish a Startup Graduate scheme: A Startup Graduate scheme will be established in connection with the innovation assistant scheme and the Industrial PhD programme. This scheme will be aimed at graduates who want to start their own company. Those involved will receive advice and financing for up to a year in connection with starting their own company. The initiative will motivate graduates to be innovative and support the establishment of new knowledge-based enterprises. It is expected that the scheme will be in place by September 2014; - Strengthen knowledge cooperation and innovation in education through recognition and attractive career paths for researchers and educators. This can be achieved through attractive career paths for and increased recognition of researchers, educators and other employees who support more innovative students, greater knowledge turnover and closer cooperation with industry and the authorities. Frameworks for recognising employees will ensure that researchers are recognised for a research and innovation effort in the private sector. Job structures and descriptions for all employees should change in dialogue with the institutions and the involvement of external actors; and - Strengthen the innovation and business-oriented competences of PhD students. A greater share of PhD students should be in contact with private enterprises and thereby gain innovation experience during their PhD. More PhD students will also be supported in finding employment in the private sector.
<p>More PhDs will strengthen knowledge, growth and welfare (2012)</p>	<p>In 2012, the Danish Government decided to continue its ambitious commitment to doctoral training. Thus the universities can continue the intake of 2 400 PhDs per year (PhD intake doubled between 2003 and 2010.) The decision was made following an analysis that shows that PhD students' high levels of education are in demand in both the small Danish companies and the major research-intensive companies. The continued growth in PhD recruitment is expected to take place primarily in the private sector, which is where a large proportion of the graduates are expected to find employment</p>
<p>Perspective and Action Plan (2013)</p>	<p>The Minister for Gender Equality prepares an annual Perspective and Action Plan. The Action Plan for 2013 follows on from a 2012 bill on gender balance in executive management and boards of directors (see Chapter 3 "Women in the research profession") with a focus on information campaigns and establishment of a monitoring mechanism. The action plan also addresses the gender pay gap.</p>
<p>Revision of the memorandum on the Job Structure for Academic Staff at Danish Universities (2013)</p>	<p>In 2013 the Job Structure for Academic Staff at Danish Universities was revised. A significant revision is that dealing with the principal position of assistant professor. A permanent assistant professorship may now be granted for a period of up to six years (only four years previously). As part of the position, the assistant professor may transfer directly to a position of associate professor/senior researcher provided that the employee is recommended for assessment and is deemed qualified.</p> <p>The revision has been welcomed by the Danish universities which will use the permanent assistant professorship as a tenure track position. Given the revision, the general consensus is that permanent assistant professorships</p>

³ An English translation of the innovation strategy is available at: <http://ufm.dk/en/publications/2012/files-2012/innovation-strategy.pdf>

Measure	Description
	will be used to a greater extent in the future.

Source: Deloitte

In addition to the national strategies outlined above, the University Act (2013), which replaced a similar Act from 2006, encourages the Ministry of Higher Education and Science to lay down general regulations on universities' programmes, in particular the universities' titles and the admission process. The Act contains general provisions on the general structure of programmes (e.g. Bachelor, Master and PhD) and is complemented by a number of ministerial orders⁴. Furthermore, the Memorandum on Job Structure for Academic Staff at Universities (2013), which replaced a similar Memorandum of 2007, describes the job structure and the contents of the job categories which may be assigned to academic staff at universities under the Ministry of Higher Education and Science. The memorandum covers academic salaries, career prospects, employment contracts, maternity/paternity leave and freedom of research as well as participation in decision-making processes.

3. Women in the research profession

Measures supporting women researchers in top-level positions

In 2010, the percentage of women grade A academic staff was 15.0% in Denmark compared with 18.5% among the Innovation Union reference group and an EU average of 19.8%⁵.

The Act on Gender Equality (2000/2007) and the Act on Equal Treatment of Men and Women (1978/2006) transpose the EU's gender equality Directives⁶. They include provisions on gender equality and non-discrimination related to all aspects of the labour market, the research profession included.

According to the Law on Equal Treatment of Men and Women, public committees, commissions and university boards should, if they are set up by a Minister to prepare the establishment of rules or planning of societal importance, be staffed by an equal mix of men and women.

In December 2012, the equality legislation was amended in order to address the issue of gender imbalance on corporate boards. One bill, under the responsibility of the Ministry of Business and Growth, states that the 1 100 largest companies must each set realistic and ambitious targets for the underrepresented gender on boards. Furthermore, companies must promote policies to increase the proportion of the underrepresented gender at management level to sustain an acceptable balance and to increase the recruitment base of candidates to company boards. In their annual report, companies should also give an account of the objectives and the progress made in achieving the objective. If the company fails to do so, it is likely to receive a fine.

A second amendment, under the responsibility of the Ministry for Gender Equality and Ecclesiastical Affairs, aims to ensure a more equitable distribution of women and men on state enterprise boards. This bill requires all state institutions (which includes universities) and companies to set targets for the number of the underrepresented gender on their boards and other collective management bodies. Furthermore, government institutions and companies with 50 or more employees must develop policies to increase the underrepresented gender at other management levels. The new legislation entered into force on 1 April 2013 and the Danish universities have begun developing compliance policies.

The former Minister of Science, Technology and Innovation held a roundtable discussion with representatives from Danish universities, research councils and the private sector in 2009 on how to improve the retention of

⁴ For example, the Ministerial Order on Admission and Enrolment in Bachelor Programmes at Universities (Bacheloradgangsbekendtgørelsen - BEK nr. 1487 af 16/12/2013), which lays down the overall conditions for admission at Bachelor level, the Ministerial Order on Admission and Enrolment in Master's (Candidatus) Programmes at Universities, which lays down the overall conditions for admission at Master level (Kandidatadgangsbekendtgørelsen - BEK nr. 1488 af 16/12/2013), the Ministerial Order on Bachelor and Master programmes (candidates) at Universities (Uddannelsesbekendtgørelsen - BEK nr. 1520 af 16/12/2013), which describes the overall objectives for the different Bachelor and Master programmes, and the Ministerial Order on University Examinations (Eksamensbekendtgørelsen - BEK nr. 1518 af 16/12/2013), which lays down the overall conditions for University tests and examinations at Bachelor and Master level

⁵ See Figure 1 "Key indicators – Denmark"

⁶ Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin, OJ 2000, L 180/22, Council Directive 2000/78/EC of 27 November 2000 establishing a legal framework for equal treatment in employment and occupation, OJ 2000, L 303/16 and Commission Directive (2000/113/EC) on the principle of equal treatment between men and women in access to and the supply of goods and services

talented female researchers. The Minister of Science gathered best practice examples on recruitment and retention of female talents in “Female research talents – the unused reserve of Danish research”⁷ (2009). After the roundtable discussion, the Danish Agency for Higher Education noticed an increase in the number of initiatives on equal opportunities at Danish universities.

Measures to ensure a representative gender balance

From 2008 to 2009, the Danish Council for Independent Research had an instrument called “Female Research Leaders”. The instrument targeted women at associate professor level as a minimum. In 2008, 10 female researchers received DKK 43 million (some EUR 5.8 million) funding and in 2009, 15 female research leaders received DKK 70 million (some EUR 9.4 million).

Following this initiative, the Danish Council for Independent Research decided to focus on initiatives aimed at female researchers in the “Sapere Aude Programme” (see table 8). This programme aims to strengthen talented researchers, to encourage more women to become research leaders and also to qualify Danish researchers for European elite researcher grants. The programme has been running since 2010 and will also continue in 2014. There has not yet been a systematic evaluation of the programme and its impact on women (see also chapter 8 “Mobility and international attractiveness”).

The Danish Council for Independent Research adopted an Equality Policy in 2013 to promote equal possibilities for female and male researchers to advance in a university career. To avoid barriers, structures and career paths which inadvertently favour male researchers, the Council wants to focus on how both genders can obtain not just equal opportunities, but also to make use of all talents as the basis for recruitment of researchers.

In the national budget negotiation for 2014 DKK 70 million (some EUR 9.4 million) was earmarked for a new programme, YDUN – Younger women Devoted to a UNiversity career. This programme also aims to encourage more women to become research leaders in order to strengthen the talent utilisation in Danish research by promoting a more balanced gender composition. The programme will be open to all disciplines, and both men and women will be able to apply. Through an exemption from the Act on Equal Treatment of Men and Women, applications from women will be prioritised in the case of otherwise equal conditions between two candidates.

Finally, the universities have their own initiatives to promote female scientists through measures such as mentor programmes, economic incentives and career development programmes.

Every second year, the Ministry for Gender Equality and Ecclesiastical Affairs benchmarks initiatives in all public institutions; at the time of the most recent benchmark in 2012, the universities seemed to be in a better position than two years previously. Benchmarking is a biannual exercise prescribed by the Act on Gender Equality and is compulsory for all public institutions, including ministries, regional authorities and municipalities. Data for the next benchmark was submitted to the Ministry for Gender Equality and Ecclesiastical Affairs at the end of 2013.

Parental leave

Under the general rules on maternity leave, researchers are entitled to maternity leave and pay. Furthermore, the Job Structure for Academic Staff at Universities stipulates that certain academic employees are entitled to a corresponding extension of the employment period if they have been absent due to maternity or adoption leave. This provision applies to assistant professors, researchers and postdocs.

Under the Collective Agreement on Academics in the State (2013), PhD fellows are also entitled to an extension of the employment period if they have been absent due to maternity or adoption leave.

The Collective Agreement on Child Leave (20008) safeguards pay during maternity leave. This collective agreement safeguards pay during pregnancy, maternity, paternity and parental leave.

⁷ Available at: <http://ufm.dk/en/publications/2009/files-2009/female-research-talents-unused-reserve-of-danish-research.pdf>

The research funding organisations do not provide extra funding for maternity/paternity leave. The institution pays the full salary to the researcher during the first weeks of his/her leave. However, the institution may receive reimbursement of parts of the researcher's salary from the state.

4. Open, transparent and merit-based recruitment

Recruitment system

Danish universities decide individually on the number of faculty positions, and how to advertise and fill the posts available. The Ministry of Finance does, however, put a limit on the number of management positions. In 2008, as part of a move to give the universities more autonomy, the previous restrictions on the number of full professorships was lifted.

The common government rules on posting positions and making appointments, including requirements on the prohibition of discrimination, on open recruitment and objective justifications, apply to the scientific and administrative positions. For scientific employees, the rules are supplemented by the Ministerial Order on the Appointment of Academic Staff at Universities (2012).

Under this Ministerial Order, positions at professor and associate professor level must be advertised internationally, and an assessment takes place according to local rules at each university. The Ministerial Order is designed to increase international mobility as well as open competition, hence providing Danish universities with the best possible talent. The Rector may grant an exemption from this provision in the event of special circumstances of an academic nature⁸.

A non-prioritised, reasoned and written assessment of the applicants' academic qualifications is submitted to the Rector. The committee must submit its assessment within a time limit set by the Rector. In the event of differences of opinion between the members of the committee, this must be stated in the assessment.

Under the Public Administration Act (1985), the applicant can always require a written explanation of the decision. The applicant has the right to appeal to the institution to which he/she has applied for a job.

Open recruitment in institutions

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

Table 3: Open recruitment in higher education and public research institutions

Do institutions in the country currently have policies to ...?	Yes/No	Description
– publish job vacancies on relevant national online platforms	Yes	
– publish job vacancies on relevant Europe-wide online platforms (e.g. EURAXESS)	No	According to Ministerial Order no 242 of 13 March 2012 on the Appointment of Academic Staff at Universities (the Appointment Order), professorships and associate professorships must be advertised internationally, except under special circumstances of an academic nature.
– publish job vacancies in English	Yes	
– systematically establish selection panels	Yes	In accordance with the Appointment Order and the local rules and regulations at the university, an assessment committee/selection panel is appointed consisting of one or more experts. The committee/panel conducts an academic assessment of the applicants.
– establish clear rules for the composition of selection panels (e.g. number and role of members, inclusion of foreign experts, gender balance, etc.)	Yes/No	In accordance with The Appointment Order, the university determines the rules and regulations that apply to the composition of assessment committees/selection panels (e.g. number and role of members, inclusion of foreign experts, gender balance, etc.) The duties of the panel are determined in The Appointment Order.

⁸ The exception applies in the event that the university engages a foreign researcher for a limited period or if the university wishes to nominate an exceptionally qualified candidate

Do institutions in the country currently have policies to ...?	Yes/No	Description
– publish the composition of a selection panel (obliging the recruiting institution)	No	But the applicant receives information on who is on the selection panel.
– publish the selection criteria together with job advert	Yes	
– regulate a minimum time period between vacancy publication and the deadline for applying	No	The Rector's decision about the appointment should normally be made no more than six months after the deadline for application (the Appointment Order).
– place the burden of proof on the employer to prove that the recruitment procedure was open and transparent	Yes	
– offer applicants the right to receive adequate feedback	Yes	According to the Public Administration Act, the applicant can always require a written explanation of the decision. A non-prioritised, reasoned and written assessment of the applicant's academic qualification is submitted to the Rector. In the event of differences of opinion between the members of the committee, this must be stipulated in the assessment (The Appointment Order).
– offer applicants the right to appeal	Yes	The applicant has the right to appeal to the institution to where he/she has applied for a job.

Source: Deloitte

EURAXESS Services Network

In 2013, the number of researcher posts advertised through the EURAXESS Jobs portal per thousand researchers in the public sector was 13.0 in Denmark compared with 47.6 among the Innovation Union reference group and an EU average of 43.7⁹.

Information about research in Denmark is available on the EURAXESS portal www.euraxess.dk. This portal provides information about living and working conditions in Denmark and on the Danish research landscape.

Workindenmark.dk is the official website of Denmark for international job seeking and recruitment. The website provides Danish employers and international job seekers, including researchers, with comprehensive information on recruitment in Denmark, residence, tax rules, a welcome package, "know before you go", education and qualifications, social security and pension rights, as well as links to all relevant national authorities.

Some special pages directed at highly skilled professionals are available at workindenmark.dk¹⁰ while information on openings in publicly funded research jobs is available at euraxess.dk and at job-i-staten.dk¹¹.

In the period from 1 October 2012 to 30 September 2013, 602¹² research jobs (both public and private) were published on jobnet.dk – primarily in Danish though some in English; 2 429 research jobs were published on workindenmark.dk in English. Of the academic jobs published in Danish on jobnet.dk, 11.38% were research jobs. The websites denmark.dk and borgerservice.dk also provide relevant information on social security and pension rights.

5. Education and training

Measures to attract and train people to become researchers

The Danish system of higher education aims to provide a flexible educational structure and coherent education path between the bachelor and master's levels, and the PhD level. Business Academies and University Colleges offer professionally oriented higher education programmes leading to a Business Academy degree (*erhvervsakademiuddannelse*) or a Professional bachelor degree (*professionsbachelor*). The Danish University Colleges have decided to set an ambitious aim to have at least half of the teaching staff with a PhD degree by 2022.

⁹ See Figure 1 "Key indicators – Denmark"

¹⁰ Available at: https://www.workindenmark.dk/en/Find_information/Highly_skilled_professionals

¹¹ Available at: <http://www.job-i-staten.dk/Forskning-udvikling-jobs/>

¹² Compared to 1 067 during 1 October 2011 -30 September 2012

Danish Universities doubled their intake of doctoral candidates between 2003 and 2010, from approximately 1 200 to approximately 2 400. The level has been held at this level since then. There was an increase in all fields, but the higher intake of PhDs was particularly market in the natural, health and technical sciences in line with the Progress, Innovation and Cohesion Strategy for Denmark (2006). Of the total growth (in the period 2003-10), 85% was in the STEM subjects. A study of the PhD situation was carried out in 2012, which focused on the job market for PhDs, recruitment and retention of international PhD-students and flexible models for PhD programmes. The study was one of the bases for the policy decision to maintain the intake of 2 400 PhDs yearly. The ministry continues to monitor the level of employment rates, salaries etc. for PhD holders.

More information can be found later under “Measures to increase the quality of doctoral training – the PhD regulations”.

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

Table 4: Human Resources – key programmes and initiatives

Measure	Description
Application of Science, Languages and talent initiatives (2010-2013)	Under this scheme, the Danish Ministry of Education co-funded a number of collaborative project groups with the participation of upper secondary school teachers, researchers and project managers from universities, museums/science centres and/or private and public companies. The groups developed individual projects and exchanged knowledge in a joint project. The main objective of the Programme was for all projects to develop and try out new teaching methods, e.g. for science and technology subjects. The method was to involve real life examples of application of science from research centres and/or companies. From 2012, the Programme also included a number of projects focusing on initiatives for talented students. Schools were required to sign up by summer 2013. Classes which joined the programme before then can continue the programme until the students last year (as late as summer 2016). The programme will be evaluated in autumn 2014;
Chosen for University/University College (2011-2014)	Talented young people from a non-academic background are granted the possibility of having a mentor at a University or University College. The mentor is a higher education student, who introduces the study and student life to young people from secondary education.
Development of professionally oriented higher education (2013-2015)	The Danish Government has allocated DKK 320 million (some EUR 43 million) annually over the period 2013-2015 to enhancing the quality of professionally oriented higher education. The initiative will be carried out by the Danish business academies and university colleges in cooperation with universities. It aims to enforce practice-oriented evidence-based research and development within the different professional fields, including through funding of PhD projects.
Elite Programmes at the Universities (2007-2014)¹³	Elite Programmes at the Universities was an effort on behalf of the former Government to establish “elite” programmes at master’s level so that Denmark would be in the forefront of the global economy as a country leading in high technology and competitiveness. In 2008 and 2009, 34 programmes were approved as elite programmes at the Danish universities. The programme targets particularly motivated and talented students in order to foster graduates able to take on extraordinary challenges in academic research or leading positions in the professional world. The extraordinary financial support for the elite programmes will be phased out in 2014. The university can however decide to continue activities established under this initiative.
ISI 2015 Innovation, Science, Integration Programme (2009-2015)	ISI 2015 Innovation, Science, Integration has been designed to meet the challenge of recruiting the necessary engineers and scientific researchers to Danish industry in order to maintain Denmark’s competitiveness. The Programme targets young ethnic minority students, since numbers show that young ethnic minority students are more likely than their Danish peers to choose specific scientific and technical subjects, e.g. engineering. The overall objective of ISI 2015 is to improve ethnic minority students’ skills in science and to encourage them to choose an upper secondary science programme. Students who started in the sixth form in August 2010 at the five participating schools are the project’s primary target group. This group of students will be closely monitored throughout the

¹³ The last series of programmes (2012-2014) started in the summer of 2012. The programmes will not be prolonged after that period. The reasons include: a) unsatisfactory participation and interest from students/universities – only one quarter of the money allocated to the programmes was used; b) the supply of elite initiatives at universities is too random: the universities have several elite programmes and initiatives, where only a few of the programmes are funded from the government initiative (and hence approved as “elite” by the government), while several elite programmes and initiatives are funded from the universities’ general resources; c) the government wants to move away from a few “elite”-programmes and courses for a few university students, and instead focus on a broader “talent”-agenda, where all levels of higher education are included and have more autonomy to decide how they will nurture the talents

Measure	Description
	project, and the evaluation will focus on this group. Additionally, coming generations in the schools will reap the benefits of the special effort being made now, since teachers are likely to continue to use knowledge and methods acquired through participation in ISI 2015. In this way, several hundred students will benefit from the project. Thirty-seven teachers and five management teams in the participating schools are the secondary target group. They implement the project activities and ensure the sustainability of the project by anchoring the development activities in the school strategy and culture.
Innovation (2012-2013)	Innovation is a key part of science, and the Ministry of Education has been investigating how innovation can become a more visible part of the profile of general upper secondary schools. The aim was to gain experience and knowledge via this project. The goal was to make innovation an integral part of education in upper secondary schools. The project was co-financed by the Foundation for Entrepreneurship/YE and administered by Odder Gymnasium.
Jet-Net.dk (ongoing)	The educational emphasis on the applicability of theory in practice led to the establishment of Jet-Net.dk in 2012. It is a national network between educational institutions and companies established to stimulate and maintain students' interest in science, engineering and technology. The aim is for students to be able to make choices on their further education with insight into the job opportunities that STEM educations can offer. The network is supported by the Danish national platform: The House of Natural Science.
Kangerlussuaq Scientific Summer school (ongoing)	The goal of this project, which ran for the first time in 2011), is to inspire and teach natural science to upper secondary school students from Greenland, Denmark and the US and, moreover, to enhance the interest in Arctic science. The upper secondary school students join a two-week educational programme in Kangerlussuaq, and subsequently, they join the NSF Science in Education Week for an expedition to one or two research stations on the Greenlandic ice sheet. The project spurs the interest of students in Arctic science, builds valuable networks and facilitates data-sharing analytical methods.
NatPLUS (2009-2012)	The NatPLUS project included four measures for increasing students' interest and achievements in science topics: <ul style="list-style-type: none"> – Extra-curricular activities focused on applied science and technology for students aged 9-11; – Stronger cooperation in science didactics between primary, lower secondary school and upper secondary school; – Development of special activities for talented students in primary and lower secondary schools (carried out by upper secondary schools); and – Stronger co-operation with companies. The main goal of NatPLUS was to increase the number of students choosing high-level science courses and to develop concepts that can enable knowledge transfer in order for the project results to help other schools benefit from the project. The total budget was EUR 9 million.
Olympiads and Competitions (ongoing)	Denmark participates in several different international Olympiads and other competitions, such as Young Scientists and Young Enterprise. Prior to each competition, there is a national selection procedure with awards. The winners go forward to international competitions. Training takes place in schools for higher education so that the contestants get acquainted with the University and the world of academic research.
PhDs in educational research (2011- 2016)	With the aim of strengthening research within the field of primary and lower secondary education, the Danish Government is funding PhD projects in educational research. The PhD projects are practice-oriented and seek to strengthen the research background of the teaching methods employed in Danish schools. The projects are carried out in cooperation between the universities and the university colleges that provide teacher education programmes. The former Danish Ministry of Science, Innovation and Higher Education appointed a PhD council to allocate the research funds. The annual budget is DKK 29 million (some EUR 3.9 million).
Science Talents (2009 – ongoing)	The Science Talents Initiative targets talented young students in natural sciences. The vision of the programme is that all local boards of education will advance talents within the natural sciences, through public awareness, and thus more young people will choose an education within the area of natural science. Science Talents are students (between 12 and 20), who are good at science and technology and with a potential to become the best researchers if their talent is nursed. <p>Especially gifted students are granted the possibility of studying at the Science Centre and stay at the nearby Talent Hostel. Students can develop their talents and interests in science. Several hundred talented students visit the Centre each year and a large group of teachers participate in courses at the Centre.</p>
Students from a non-academic background -	The Danish Ministry of Education is co-funding a project ('When secondary school is a foreign world') to develop teaching in certain chosen subjects to ensure that students from a non-

Measure	Description
Når gymnasiet er en fremmed verden (2010-2013)	academic background get more out of the tuition and hence contribute to a higher completion rate.
Talent initiative (2012-ongoing)	In 2012, the Danish Minister of Science, Innovation and Higher Education launched a debate on how to support and promote talented students in higher education and how to create a broader and more ambitious talent culture in Denmark. Ten concrete proposals were presented: for example how to acknowledge talented students, how all higher education institutions should offer opportunities for such students, suggestions on how to improve talented students' possibilities through more flexibility within the education system and how to nurture talent through flexible PhD programmes. This initiative draws on a broader concept of how talent should be defined. The talented student is not only the excellent academic student, but also the innovative student. There are ongoing efforts to implement the proposals and there are plans to put a new law on talent to parliament in 2014, including initiatives on extra credits and improved acknowledgement of talented students.
Talent Initiatives (2011 – 2012)	The Danish Ministry of Education established a group of teachers and advisers who developed materials for exemplary teaching in all disciplines in upper secondary schools. The materials, which were developed in cooperation with researchers, were tested at schools during the school year. The main objective of the Talent Initiatives was to ensure that young students come into contact with universities and research communities earlier in their education and be attracted to take education to a higher level.
The National Centre for Science and Education (NTS Centre) (ongoing)	The National Centre for Science and Education was established by Parliament in 2009. The NTS Centre concentrates on the interest in and learning of science, technology and health in primary schools, the upper secondary education and technical colleges, as well as the problems of transition in the educational system. The purpose of the NTS Centre is to attract young people to become researchers. The primary target group of the NTS Centre consists of teachers in primary schools, the upper secondary education system and technical colleges who are those mainly responsible for the relationship which children and young people build with science, technology and health.

Source: Deloitte

Doctoral graduates by gender

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

Table 5: Doctoral graduates by gender

Indicator	Denmark	EU Average
New doctoral graduates (ISCED 6) per 1 000 population aged 25-34 (2011)	2.3	1.7
Graduates (ISCED 6) per 1 000 of the female population aged 25-34 (2011)	2.1	1.6
Graduates (ISCED 6) per 1 000 of the male population aged 25-34 (2011)	2.5	1.8

Source: Deloitte

Data: Eurostat

Funding of doctoral candidates

In Denmark, close to all doctoral candidates are funded and employed by the universities. However, the funding of doctoral candidates is increasingly based on external funding from government or private funds and research councils, and co-funding from private firms. Data on funding is hard to collect, however. The Danish Agency for Higher Education is working together with universities to improve data within this area.

Measures to increase the quality of doctoral training

The Danish PhD Programme (under the Ministerial Order on the PhD Programme at the Universities, 2007) is designed by the Ministry of Higher Education and Science to provide young researchers with skills in order to contribute to a knowledge-based economy and society in Denmark. The PhD Programme is a research programme aiming at training PhD students at an international level to undertake research, development and teaching assignments in the private and public sectors for which a broad knowledge of research is required.

All PhD programmes have to be organised within a PhD School. Each university establishes a number of PhD Schools at faculty or University level. The head of each PhD School appoints the PhD supervisor and approves the doctoral students based on the recommendations of the academic representatives on the PhD committee.

The regulation on PhD programmes was amended in 2010 in order to improve the possibilities for universities to enter into mutually binding collaboration in research and education with foreign universities. The regulation was amended again in 2013 in order to place emphasis among other things on providing the best opportunities for international collaboration in PhD education.

On 1 September 2012, a publicly available website was launched in English with short presentations of PhD courses offered at all graduate schools in Denmark (<http://phdcourses.dk/>). This website gives PhD students an overview of the total offer of PhD courses in Denmark across universities. On the home page it is possible to search for PhD courses at the different PhD schools, by subject or by geographical area.

In 2011, the Danish universities renewed the agreement of 1994 to create an open market for PhD courses. The agreement allows PhD-students at all Danish universities (except one) the opportunity to take a subject-specific course at another Danish university free of charge.

Skills agenda for researchers

In Denmark, competency development is included in all employee-employer contracts and agreed upon between the two parties. All categories of professor at Danish universities are employed both to conduct research and teach students, though their teaching obligations can be reduced or suspended for a given period. Danish universities offer courses and training to researchers and part-time teaching staff, often through the Centres for Learning or Learning Labs. Courses are either related to teaching and examination of students or to the development of different types of skills, such as entrepreneurship, management of complex projects and making research accessible to students.

According to the Ministerial Order on the PhD Programme at the Universities (2007), doctoral students must gain experience in both teaching and other forms of knowledge dissemination during their PhD programme.

6. Working conditions

Remuneration

In Denmark, wage, salary and employment conditions are traditionally agreed between a labour organisation and an employer organisation under collective agreements. The Minister of Finance negotiates collective agreements on behalf of public-sector employees, including universities. Researchers are considered public-sector employees and are covered by the Collective Agreement for Academics in the State (of which the most recent was concluded in 2013)¹⁴. As part of this process, the universities may express their wishes through the Ministry of Higher Education and Science.

Under the new remuneration scheme “Ny løn” launched in 1998 after agreement between the labour market parties, the collective agreements fix a basic salary. Researchers’ remuneration depends on their performance and skillset.

Universities are free to pay permanent supplements or one-off bonuses depending on researchers’ qualifications. There is no upper limit to researchers’ remuneration.

For further information, see the country profile on remuneration of researchers from the MORE2 study on the EURAXESS website.¹⁵

Researchers’ Statute

The Job Structure for Academic Staff at Universities, the Collective Agreement for Academics in the State and the Act on Universities (in particular, points 2, 15 and 29) constitute a researcher statute by addressing wage and employment conditions (for instance pension schemes, maternity/paternity leave and long-term illness) and career prospects. As mentioned above, the Job Structure for Academic Staff at Universities underwent a revision in 2013. The revision has resulted in an updated and more contemporary job structure.

¹⁴ Ministry of Finance, (2013), *Cirkulære om overenskomst for Akademikere i staten*. Available at: <https://www.retsinformation.dk/Forms/R0710.aspx?id=158106>

¹⁵ <http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies>

In addition, the Joint Consultative Committee is a forum for dialogue between the management bodies and the employees on future developments in the workplace, working environment, career development, etc.

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

All Danish universities have signed the ‘Charter & Code’ and are to a high degree following its principles, which are perceived as normal practice within Danish research institutions.

Autonomy of institutions

Pursuant to the University Act, universities should focus on research, teaching and knowledge dissemination. This is reflected in the Job Structure for Academic Staff. Thus, the universities have the autonomy to allow for different profiles of academic staff (focus on research, focus on teaching, or another area) with the aim of attracting specific researcher profiles.

Table 6: Types of institutional autonomy

Organisational	Financial	Staffing	Academic
– Selection procedure for the executive head	– Length and type of public funding	– Capacity to decide on recruitment	– Capacity to decide on overall student numbers (some limitations)
– Selection criteria for the executive head (within a framework)	– Ability to keep surplus (some limitations)	– Capacity to decide on academic/senior administrative staff)	– Capacity to select students (some limitations)
– Dismissal of the executive head	– Ability to borrow money (some limitations)	– Capacity to decide on salaries (some limitation on staff)	– Capacity to introduce programmes (some limitations)
– Term of office of the executive head	– Ability to own buildings (some limitations)	– Capacity to decide on dismissals	– Capacity to terminate programmes
– Selection of external members in governing bodies		– Capacity to decide on promotions	– Capacity to choose the language of instruction (some limitations)
– Capacity to decide on academic structures			– Capacity to design content of degree programmes
– Capacity to create legal entities (some limitations)			

Source: Ministry of Science, Innovation and Higher Education

Career development

The Job Structure for Academic Staff at Universities includes provisions for a coherent researcher career progression. The specific proportion between research and teaching activities for researchers may vary over time.

Shift from core to project-based funding

An increasing number of basic grants have been made available in recent years, coupled with an increase in the access to external funds. The universities focus increasingly on career management in connection with external funding. Between 2003 and 2009 (the most recent figures available), the share of externally funded researchers increased by 6 percentage points from 17% to 23%. Of university researchers, 48% were fully or partially externally funded while 24% had an external funding rate of 75-100%. The external funds lead to new management challenges, including in cases where the share of external funding is not significant, but where the ambition is to apply for external funds to an increasing degree. The management challenges include, in particular, management of the career options for post-docs.

Among staff funded fully or partially via external funding, 60% are employed on fixed-term contracts. The many fixed-term appointments are due to a combination of job structure, external funding and local handling of appointments vis-à-vis funding. The share of the externally funded staff who are employed beyond the expiry of the grant period varies from university to university. The universities’ support for the careers of these researchers in terms of employment conditions and career plans could be strengthened further. Within the

framework conditions, the universities are facing the task of safeguarding career planning and support for researchers employed on fixed-term contracts and external funding¹⁶.

In response to the amount of fixed term appointments at universities reliant on external funding, the revised Job Structure for Academic Staff at Universities 2013 explicitly recommends that the university management inform the academic staff – including, in particular, fixed-term employees – of the career prospects available, e.g. by discussing the career opportunities with the individual employee. Furthermore, the position of postdoc has been revised as well. The fixed-term postdoc position may only be held for a period of up to four years at the same university by the same employee.

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

Social security is not covered by the researchers’ statute as they enjoy the same rights as all other employees.

All publicly-funded researchers (including employed PhD students) receive full pay when sick. This is governed by collective agreements. Universities/the employer may receive partial reimbursement from the state of the salary paid during the employee’s illness.

In Denmark, unemployment insurance is voluntary and researchers are not automatically insured against unemployment. Similarly to all other employees, researchers must be a member of an unemployment fund (known as an “A-kasse”) in order to gain access to unemployment insurance. These are private associations that are connected with trade unions and other professional organisations.

Under the Collective Agreement for Academics in the State (2013), a pension contribution of 17.1% of the salary is compulsory, split two thirds/one third between employer and employee. This was the same under the 2008 Collective Agreement.

Furthermore, publicly funded grants and equivalent can provide pensions, depending on the specific collective agreement between the researcher and the employer.

7. Collaboration between academia and industry

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

Table 7: Collaboration between academia and industry

Measure	Description
Advanced Technology Projects and platforms (ongoing)	The Advanced Technology Projects support collaboration between Danish private companies and universities with the aim of developing and demonstrating new and important technologies. The general objectives of the scheme are to enhance growth and strengthen employment by supporting strategic and advanced technological priorities within the fields of research and innovation. The scheme supports projects with up to 50 per cent of the project budget and EUR 1-12 million per project or platform. The other half of the budget is financed by the participating companies and research institutions themselves. The scheme was introduced in 2005 and the platforms were launched in 2008-2009.
Clusters - Innovation Network Denmark (ongoing)	The Innovation Network Denmark is a national network supported by the Danish Agency for Science, Technology and Innovation. The objective of the programme is to strengthen public-private interaction, and knowledge-sharing and development between knowledge institutions and companies on research and innovation. Furthermore, the Innovation Networks aim to strengthen innovation and research in Danish companies, and thereby promote knowledge-based growth in business. The Innovation Networks are also intended to contribute to the creation of environments for knowledge development and sharing between companies, research institutions and other relevant stakeholders to strengthen innovation and growth in the areas of professional growth and development potential. Finally, the Innovation Networks programme aims at promoting cross-border clusters, and business and research collaborations.
Danish Innovation Consortium (IC)	The IC scheme is a Danish subsidy scheme run by the Danish Agency for Science, Technology and Innovation. It is a flexible framework for collaboration between enterprises, research

¹⁶ Evaluation Study of the Careers of Danish Researchers (2011), available at: <http://ufm.dk/publikationer/2011/evaluering-af-forskerkarriereveje-2011>

Measure	Description
Scheme (ongoing)	institutions and non-profit advisory/knowledge dissemination parties. The aim of the IC scheme is to ensure that new knowledge is converted into competencies and services specifically aimed at enterprises, and that the knowledge acquired is widely spread to the Danish business community including, in particular, SMEs. The annual budget ranges between DKK 60-100 million (some EUR 8-13 million).
Danish Technological Service System (GTS-net) (ongoing)	<p>The GTS institutes are “approved technological service providers”. They are independent not-for-profit research and technology organisations (RTOs), whose purpose is to develop, transfer and disseminate technical know-how, new methods and knowledge to industry and society in order to create and increase development and innovation. All services are marketed on a commercial and competitive basis in Denmark and abroad. In general, GTS-net has two main functions:</p> <ol style="list-style-type: none"> 1. Develop and maintain the basic technological infrastructure in Denmark: provide access to basic technological competencies, which enterprises do not have internally and which are not available on a market basis, e.g. standardisation activities, access to equipment, facilities and laboratories, testing, educational courses and other technological services; and 2. Create technological innovation and development within Danish industry: develop and transfer new technological know-how, e.g. new methods, concepts and services in order to stimulate the development of new knowledge-intensive products, services and processes in Danish enterprises and institutions.
Industrial Post-doc Programme (2011)	<p>Under this initiative by the Innovation Foundation Denmark (formerly the Danish National Advanced Technology Foundation), 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 time at 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.</p> <p>It is expected that the new career opportunity at the university will lead more national and foreign students to apply for a PhD in Denmark.</p>
Industrial PhD Programme (ongoing)	<p>The Industrial PhD Programme aims to offer doctoral training in cooperation with the industry sector. It 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> <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. 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. It inspired the European Parliament to fund the kick-start of the Marie Skłodowska-Curie European Industrial doctorates.</p>
Innovation Voucher Scheme (ongoing)	The Innovation Voucher Scheme combines a clear set-up and smooth administration with initiating synergies between business experience and academic research. It aims to inspire SMEs to utilise the opportunities and make use of the potential knowledge of Institutions. The scheme is open to projects in all scientific fields and the administrative structure of the scheme is designed to keep bureaucracy for the project participants to a minimum.
Innovation Assistant (ongoing)	The Innovation Assistant Scheme (former Knowledge Pilot Scheme) is a scheme of subsidies granted by the Danish Ministry of Higher Education and Science. The scheme aims to increase the spread of knowledge dispersion through the economy by subsidising the employment of university graduates in those SMEs which do not typically make use of the resources of these individuals.
Large knowledge voucher (ongoing)	The large knowledge voucher scheme (in 2008-2009 it was called a research voucher) provides support for research-based collaboration between SMEs and knowledge institutions (Universities, RTOs etc.) The purpose is to promote research-industry collaboration for SMEs, enhance R&D in SMEs as well as to make public research more application-oriented. The financial support is solely for activities in the knowledge institutions, and can be up to a

Measure	Description
	maximum of EUR 150 000-200 000 for projects with a duration of up to 2 years. The financial support cannot exceed 25% of the total budget for the project.
Strategic research projects (ongoing)	Strategic research projects promote excellent and relevant research that will be of benefit to future development and economic growth in Denmark. Hence, the research must be of a high standard and lie within areas of research that is related to societal challenges. The strategic research projects promote large research collaboration between Danish and foreign private companies and research institutions. Funded by the Danish Council for Strategic Research until April 1, 2014, they are from that date funded by the new Innovation Foundation Denmark, which has replaced this Council among others. The projects are selected after an open call. The budget is some EUR 140 million annually.
Strategic Platforms for Innovation and Research (SPIR) and societal partnerships (ongoing)	SPIR and societal partnerships fund large strategic partnership initiatives between industry, research and technology institutions and the public sector which seek to strengthen the link between strategic research, technology development and innovation, and thereby promote efficient knowledge dissemination, develop solutions for society and possibilities for fast application of new technologies and knowledge in connection with innovation in the private and public sector and in connection with developing solutions to societal challenges. A partnership is funded with up to EUR 10 million and must have at least 50 per cent external funding. The SPIR platforms were introduced in 2010 as a collaboration between the Danish Council for Technology and Innovation and the Danish Council for Strategic Research. The two councils have financed five new platforms since 2010. In the future societal partnerships will be established based on the same model and be financed by the new Innovation Foundation Denmark. SPIRs and partnerships are selected in competition after an open call.

Source: Deloitte

A publication in 2011 entitled “Business Research, Development and Innovation in Denmark – Policies and Effects”¹⁷ presents the Danish research and innovation system which is covered by the Ministry of Higher Education and Science. It also describes selected Danish innovation policy schemes and instruments and analyses the impact of R&D&I on the Danish private sector.

The former Ministry of Science, Innovation and Higher Education (now Ministry of Higher Education and Science) in 2013 published a manual (Central Innovation Manual - CIM) for impact studies of research and innovation interventions¹⁸. The purpose of CIM is to establish a number of minimum requirements and standards for the implementation of excellent econometric impact analyses of the R&D and innovation policy instruments of the Danish Ministry of Higher Education and Science. CIM focuses on how to set up a framework for a “standard” impact assessment procedure that makes it possible to conduct excellent impact assessments of research, innovation and industrial policy and compare the impacts of different research-industry collaboration policies and other types of intervention.

8. Mobility and international attractiveness

In 2011, the percentage of doctoral candidates (ISCED 6) who were citizens of another EU-27 Member State was 13.8% compared with 9.1% among the Innovation Union reference group and an EU average of 7.7%¹⁹. In the same year, the percentage of non-EU doctoral candidates as a percentage of all doctoral candidates was 17.7% compared with 14.4% among the Innovation Union reference group and an EU average of 24.2%²⁰.

Measures aimed at attracting and retaining ‘leading’ national, EU and third country researchers

In Denmark, the freedom of research, where research by definition is independent of the authorities and businesses, is the major attraction for foreign researchers. The table below summarises key measures aimed at attracting and retaining leading national, EU and third-country researchers to Denmark.

¹⁷ http://ufm.dk/en/publications/2011/files-2011/rdandinnovationindenmark_7-october2011.pdf

¹⁸ <http://ufm.dk/en/publications/2012/central-innovation-manual-on-excellent-econometric-impact-analyses-of-innovation-policy-cim>

¹⁹ See Figure 1 “Key indicators – Denmark”

²⁰ Ibid

Table 8: Measures to attract and retain 'leading' national, EU and third country researchers

Measure	Description
Circular on exemption from payment of pension contributions for certain temporary employees in the State (2012)	Foreign academic staff recruited abroad and employed on a temporary contract can request that their total pension (both employer contribution and their own contribution) be paid as part of their salary during their employment. This arrangement can only be agreed upon for a period of up to five years (six years if this is agreed between the appointing authority and the organisations mandated to negotiate).
DFF-MOBILEX mobility grants (2013-2018)	The Danish Council for Independent Research (DFF) has established a new instrument co-financed by the Marie Curie programme COFUND to enhance mobility of experienced researchers within the European Union and beyond. DFF-MOBILEX mobility grants facilitate more career paths and increase the internationalisation of Danish research by enabling researchers who are at the beginning of their research careers to carry out research projects based on their own scientific interests at research institutions in Denmark as well as abroad. DFF-MOBILEX mobility grants are awarded for a period of 24 months, within a financial framework of DKK 2.5 million (some EUR 335 000, including overheads for the hosting institution).
Getting Settled in Denmark Programme (2011)	Four International Citizen Service Centres have been established in Denmark and serve as a one-stop-shop where foreigners can receive guidance and help, e.g. on how to fill out the necessary papers when arriving in Denmark, guidance on how to find a job, accommodation, schools, childcare, where to learn Danish, and on living and working conditions in general. Accompanying family members can also be assisted by the centres to settle and find a job. In addition, Danish companies can also receive guidance on recruiting employees from abroad ²¹ . As of 2014, an interministerial working group was looking at how to improve the centres.
Grants from Innovation Foundation Denmark and the Danish Council for Independent Research (DFF) (Ongoing)	Grants from Innovation Foundation Denmark and DFF can be used to buy out and attract researchers e.g. a post-doctoral student or leading researchers from the EU or a third country to a research project in Denmark. If a national researcher has been abroad for more than 10 years, he/she has the right to the special 26% tax rate (See chapter 8 "Mobility and international attractiveness").
Residence and work permits	Researchers, scientists or lecturers invited to teach or give lectures may do so without a residence or work permit, provided that the stay does not exceed three consecutive months calculated from the day of arrival in Denmark. If the researcher is a citizen of a country with a visa requirement to enter Denmark, he/she must have obtained a visa valid for the entire stay before entering Denmark. If the researcher expects to stay in Denmark for longer than three months, he/she must have a residence and work permit covering the entire period, including the first three months, and must have obtained the permit prior to arriving in Denmark.
Sapere Aude Programme (Ongoing)	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. The programme covers 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.
The Researcher Taxation Scheme (2011 – but similar schemes have existed since 1991)	Researchers and highly paid employees recruited abroad, able to meet a number of conditions, and not having 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.
The Positive List (ongoing)	The Positive List is a list of the professions and fields currently experiencing a shortage of qualified professionals. Researchers with a written contract or a job offer in one of these professions enjoy easy access to the Danish labour market. The researchers should also meet the educational requirements and enjoy salary and employment conditions meeting Danish standards.
UNIK initiative (2009 – 5-year duration)	The overall aim of the UNIK initiative is to promote world-class research at Danish universities. UNIK funding can be awarded for basic as well as applied research and in all thematic areas. Funding is awarded for excellent, dynamic and closely coordinated research frameworks involving interrelated research activities or sub-themes in a prospective field of research. Leading researchers are often in charge of the initiatives.

Source: Deloitte

²¹ See also <http://www.icitizen.dk/>

Inward mobility (funding)

Denmark aims to attract more talented international students from abroad and to retain them following their education. One of the main objectives of a new action plan launched at the beginning of 2014 is to promote Denmark to international talents as an attractive study destination.

The action plan – ‘Denmark – an attractive study destination - How to attract and retain talent from abroad’ – is part of the government’s effort to increase the internationalisation of higher education. It contains 24 concrete initiatives and five strategic measures²²:

- All components of study programmes and the study environments at institutions of higher education must have a significant international dimension;
- Denmark must attract more talented fee-paying students;
- The drop-out rate among international students must be brought in to line with that of Danish students;
- More international students should remain in Denmark on completion of their studies;
- International graduates who remain in Denmark must have the same employment ratio as Danish graduates.

As part of the action plan, the government is also proposing a scholarship programme which aims to attract international talent from non-EU countries to chosen education programmes at master’s level in fields where there is an identified need for highly skilled employees and where Denmark has international positions of strength.

The action plan furthermore proposes a number of concrete initiatives to make the international graduates’ transition to the Danish labour market easier. International graduates from countries outside the EU/EEA, who have completed a Master’s or PhD programme in Denmark, should have the opportunity to apply for a start-up permit giving them the right to seek employment and work in Denmark for two years. A start-up permit will also – unlike the current ‘Green Card’ scheme – allow the graduate to start their own company.

PhD students from non-EU/EEA countries are currently subject to differing conditions depending on whether they are employed by e.g. an institution or in a private enterprise. The action plan proposes to ensure that all fully-fledged PhDs are granted a six-month jobseeker’s residence permit, and the rules for applying for a residence permit are to be simplified.

Outbound mobility

According to the Ministerial Order on the PhD Programme at the Universities doctoral graduates should participate in active research environments, including stays at other, mainly foreign, research institutions, private research enterprises etc. during their PhD programme. During this stay abroad, they are entitled to receive salary and pension benefits.

The Danish Council for Independent Research (DFF) focuses on international aspects of the projects, when funding DFF-Individual postdoctoral grants. In natural sciences, mobility from Denmark and abroad (outgoing) or from abroad to Denmark (incoming) for the whole project period is a decisive parameter when funding DFF-Individual postdoctoral grants.

Promotion of ‘dual careers’

Four International Citizens Service Centres in Denmark help accompanying family members find a job. Danish companies are also supported by the centres to recruit and guide new employees coming from abroad.

Accompanying spouses who are EEA citizens have the right to study for free at Danish Universities²³, in cases where the husband/wife has exercised their right of free movement (under Directive 2004/38/EC on the right of citizens of the European Union and their family members to move and reside freely within the Union).

²² <http://ufm.dk/en/publications/2014/denmark-an-attractive-study-destination>

²³ There are also other situations where spouses can study free of charge. According to the legislation on subsidies and finance, (according under Ministerial order nr. 1373 of 10 December 2007, with later adjustments, on funding and accounts) foreign students are exempted from paying tuition fees at Danish Universities where:

Portability of national grants

Most publicly funded innovation grants or fellowships are portable to other EU countries as long as this is also to the benefit of the Danish enterprises. The international dimension is an integral part of all funded research projects. The Danish Council for Independent Research (DFF) has signed the EUROHORCs 'Money follows researchers' Letter of Intent, enabling researchers to transfer part of their research grant from one country to another.

Access to cross-border grants

Grants from the Danish Council for Independent Research (DFF) and Innovation Foundation Denmark are open to Danish, EU and third-country candidates, provided they fulfil the application criteria. One of the application criteria is the actual and potential significance of the research subject for the growth, development and welfare of Denmark in the short and long term.

Furthermore, under Danish law (consolidated Act on the Research Advisory System), the Danish Council for Independent Research and Innovation Foundation Denmark may, in the performance of their task of strengthening the internationalisation of Danish research, participate in international research cooperations, on condition that this cooperation is to the benefit of the Danish research community.

The Industrial PhD scheme, the Innovation Assistant (Knowledge Pilot) scheme, the Innovation Consortium Scheme, the Innovation Voucher Scheme, the Innovation Network Denmark programme, the strategic research projects, the SPIRs, the advanced technology platforms and projects and the GTS-net are all open to non-residents.

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1. They have residence permits of indefinite duration or temporary residence permit with a view to permanent residence in Denmark;
 2. They are studying in Denmark in exchange for a Danish student taking their place at their home University according to an agreement between the Danish University and the University abroad or if the student's stay is arranged by Fulbright, Denmark's International Study Program (DIS) or Rotary Ambassadorial Scholarships;
 3. They, in accordance with EU law, the EEA treaty or other international conventions and international agreements signed by Denmark, have the right to equal rights with Danish citizens;
 4. They have a residence permit in Denmark under the Alien Act section 9 c as a child of a person who has been granted residence permit in Denmark due to his/her employment in Denmark (Alien Act section 9a); or
 5. They are completing part of an Erasmus Mundus Master programme in Denmark and are covered by number 3.