Germany – Country report

Objectives of the project

The aim of our project is to improve expertise in industrial relations in the higher education sector and to promote the exchange of information and experience among EFEE and ETUCE members. More specifically, the project aims to:

- Reach a shared understanding, and possibly a ESSDE outcome, about the specific challenges facing early career researchers in Europe incorporating the perspectives and roles of trade unions and employers and the available options for responding to these challenges.
- Provide insight to the European Social Partners in Education on what we can do to improve social dialogue on industrial relations and employment relations issues pertaining to early career researchers.
- Explore where dialogue between national social partners improves support for early career researchers.
- Improve awareness of the existing work in the area of early career researchers (among others European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (2005), the HR Strategy on Researchers (2008) and the "HR Excellence in Research logo of the EC", The UNESCO Recommendation (1997), the ETUCE report (2011)) their implementation and benefits in improving research quality through the provision of high quality support for early career researchers.
- To understand the trends in the career progression of female researchers, including areas of progress, and identify initiatives that have been successful in improving equality in career progression, particularly those initiatives that provide support to early career researchers.
- To produce a set of resources including case studies and practitioner-oriented research and policy guidance to complement the existing international work in this area.
- To facilitate peer learning between national social partners in the education sector, especially in the higher education sector; to exchange best practices and learning experiences.
- To contribute to the European social dialogue between employers' organisations and trade unions in the education sector, more specifically to continue the current work of the Working Group 3 on Higher Education & Research and to improve the coordination, functioning and effectiveness of the European Sectoral Social Dialogue for Education.

This case study is one of six case study reports from this research project. The case study countries are Cyprus, Finland, Germany, Italy, Romania and the United Kingdom. The final project report, due to be published in December 2014, will draw on the findings from each country. The in-depth case studies will be published as appendices to the main report.

Project partners

Leading applicant is: Universities and Colleges' Employers Association (UCEA) of the UK.
Co-applicants are: European Federation of Education Employers (EFEE) and European Trade Union Committee for Education (ETUCE).
Affiliated entities are: Association of Finnish Independent Education Employers, Ministry of Education and Culture of Cyprus.

This project is carried out with the support of the European Commission

1. Country context

Germany is a federal republic consisting of 16 states or Länder which have autonomy over cultural and educational matters, and responsibility for higher education legislation[1]. The federal constitution of 1949 known as the *Grundgesetz* ensures that the states maintain a degree of sovereignty over the national government (Bundesrat). This research focused on the state of Hamburg[2] but incorporates aspects of federal government policy where relevant.

Germany has the largest population of any EU member state at 82 million people. Of this 1.7 million reside in Hamburg, home to the second largest port in Europe after Rotterdam. Germany has the largest economy in the EU and the fourth largest economy in the world by GDP. A focus on exports combined with fiscal discipline, consensus-driven industrial relations and welfare policies have ensured Germany's strong economic performance since the Second World War. Germany faces long-term demographic challenges including a low fertility rate and increasing net immigration which are putting pressure on the welfare system.

Although affected by the financial crisis of 2008-09, Germany has fared better than other European economies, in part as a result of its strong export economy, and achieved a budgetary surplus of 0.1% in 2012. Germany has one of the lowest unemployment rates in the EU at 5.1% (10.2% in the EU28) and youth unemployment is also considerably lower than the EU average[3]. Germany benefits from a low cost of borrowing and the export economy has been helped by a relatively low value euro and the ability to restrain wages through its highly-coordinated collective bargaining institutions.

2. Research and innovation

With an R&D intensity of 2.84% (2011), Germany is above the EU average and is already close to its national target of 3% which it intends to reach by 2015.[4] About two-thirds of German R&D investment comes from private sources amounting to €2.5 billion in 2012. In the period 2000-2011 the federal public research budgets expanded substantially. Research intensity is especially high in the automobile and energy industries but is weaker in high-tech sectors such as biotechnology and ICT. The stock of researchers within the workforce is higher than the EU average (12.02 per 1000 active labour force in Germany compared to 10.17 in the EU).[5]

Germany has a well-developed research and innovation system. Advisory bodies such as the Commission of Experts for Research and Innovation provide advice to governments, public research institutions and intermediaries, taking into consideration feedback from multiple stakeholders. The relationships between stakeholders are shown in Figure 1.

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[1] Herzog, M., Kehm, B. M. (2012) The income situation in the German system of higher education. In Altbach, P.G. et al (eds) *Paying the professoriate a global comparison of compensation and contracts*. London: Routledge

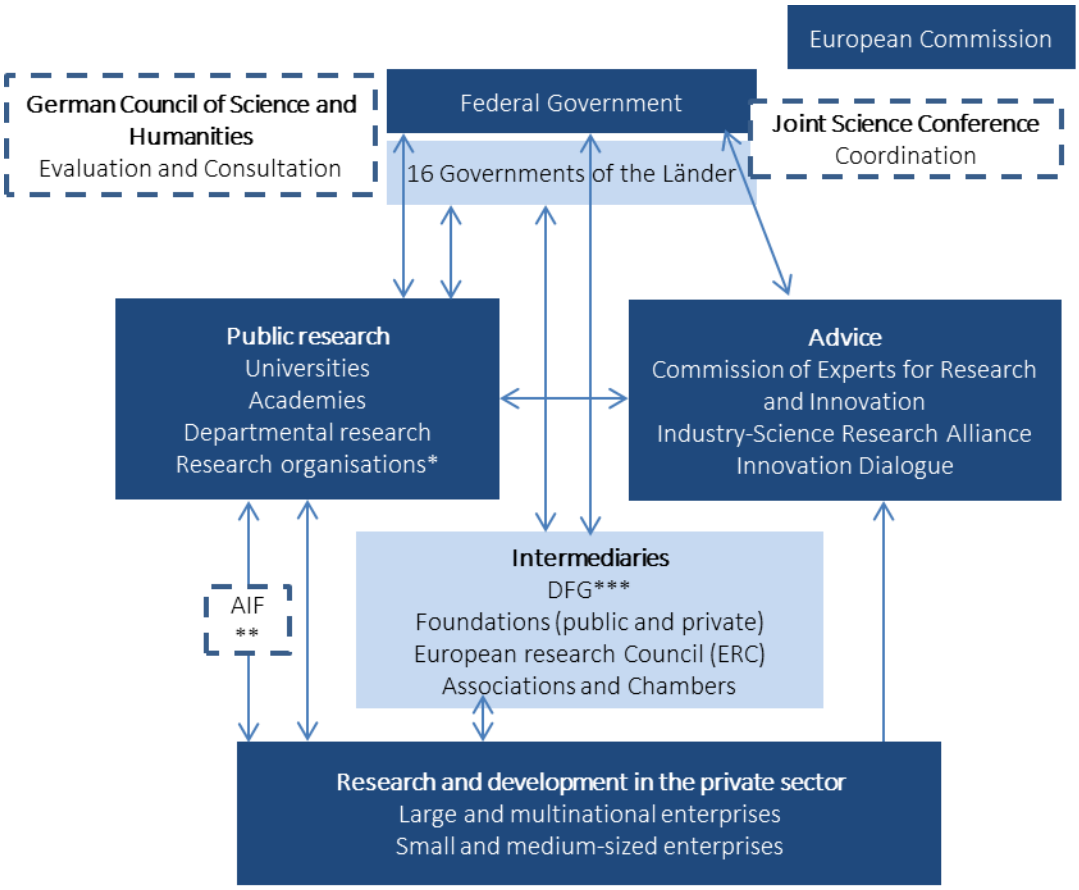
[2] In particular through interviews with representatives of the Hamburg Ministry of Science and Research (BWF), the University of Hamburg and GEW trade union branch in Hamburg.

[3] 7.8% (March 2014) compared to a EU28 average of 23.4%. Eurostat.

[4] European Commission (2013), *Research and Innovation Performance in Germany - Country profile 2013*. http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2012/countries/germany_2013.pdf

[5] Deloitte (2013), *Researchers' Report 2013 – Country profile: Germany*. http://ec.europa.eu/euraxess/pdf/research_policies/country_files/Germany_Country_Profile_RR2013_FINAL.pdf

Figure 1: Stakeholders in the German research and innovation system



* Max-Planck-Gesellschaft, Fraunhofer-Gesellschaft, Helmholtz Association, Leibniz Association
** German Federation of Industrial Research Association s(AiF)
*** German Research Foundation

Source: BMBF.

The Federal government, working with state governments, has put in place a range of measures nationally aimed at promoting cutting-edge research and training sufficient numbers of researchers to meet Germany's R&D needs. The Excellence Initiative, for example, awards time-limited funds to German universities and research institutions on the basis of merit. Since its launch in 2005, the initiative has created nearly 4,200 researcher positions in German universities, 90% of which were created for young researchers. The Excellence Initiative has been extended until 2017 with a total budget of €2.7 billion, mostly funded by the Federal government.[6] Such measures are in addition to Federal government funding for foundations such as the Alexander von Humboldt (AvH) fund which provide stipends and personal support to talented young researchers.[7]

[6] Ibid.

[7] Consortium for the National Report on Junior Scholars (2013), *2013 National Report on Junior Scholars* – Statistical data and research findings on doctoral students and doctoral holders in Germany (abridged version). http://www.buwin.de/site/assets/files/1002/buwin2013keyresults.pdf

3. The German higher education (HE) system

Responsibility for German higher education is delegated to the 16 individual states. This devolution of responsibility has resulted in variations between states but was gradually reformed and realigned with the guidelines agreed in the Bologna process.[8] As of 2013/14, 87% of courses had been converted from the *Magister* and *Diplom* system to the Bachelor and Master system. Since the reforms, the average completion time for a Bachelor and Master's degrees has decreased from 13.4 semesters in 1998 to 10.8 semesters in 2012.[9]

According to the 2013/14 Federal Statistical Office figures, Germany has over 2.6 million students enrolled across its 423 higher education institutions. Of this, approximately 94,655 students are enrolled in Hamburg's 19 higher education institutions.[10] International students account for just over 10% of the total student population.

As of October 2014, studying at any German state-funded university is free of charge. Tuition fees, which were introduced in most western German states in the past eight years, proved to be so unpopular with the public that they were eventually scrapped. Lower Saxony was the last German state to abolish tuition fees.

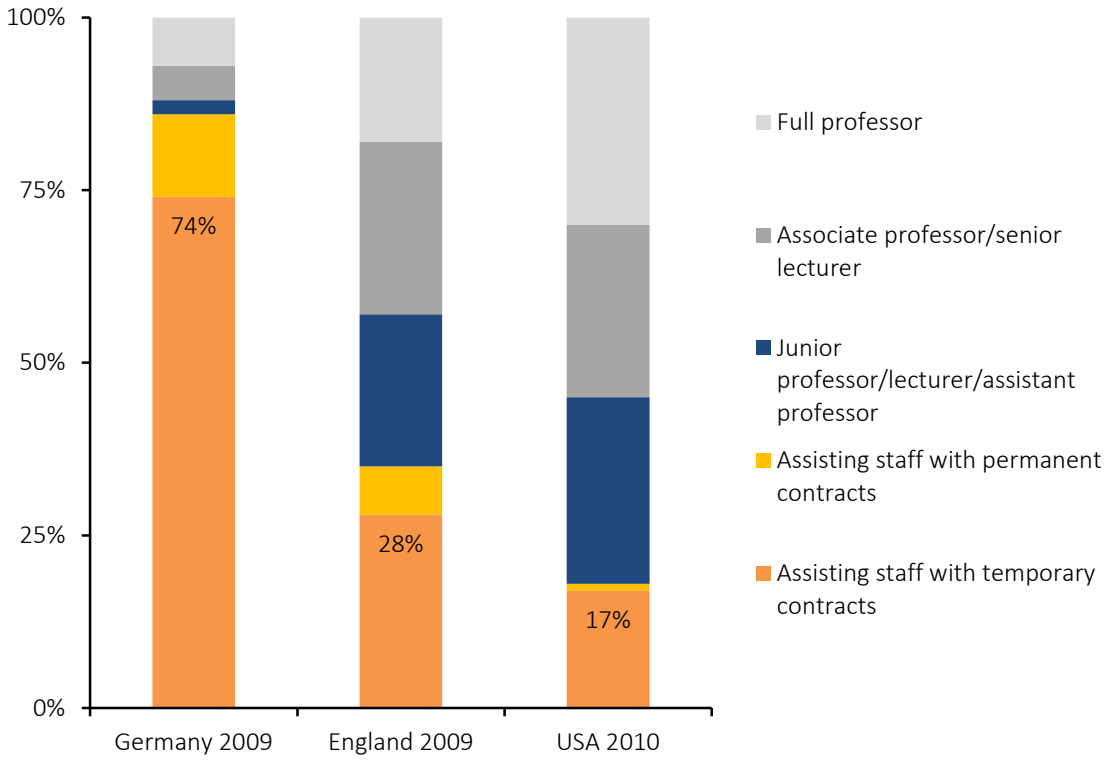
4. Social dialogue and HE employment relations

Conversations with some interviewees point to a rift between Germany's policy to become a research-intensive nation and the working conditions of early career researchers (ECRs) who are expected to fulfil the country's vision. The country's reliance on external funding as an instrument to create competition and cutting-edge research have in practice led to an increase in the use of temporary contracts.

Some interviewees commented that German academic pay, at least in some disciplines where there are external comparators, is often lower than the equivalent in industry. Existing research on pay in academia in Germany by Herzog and Kehm notes that the relative lower pay is not necessarily compensated for with better job security.[11] As Figure 2 shows, nearly three-quarters of academics in Germany are employed on temporary contracts and one-fifth of temporary academic staff are employed on fixed-term contracts of three years or longer.[12] According to Jakstat et al, permanent contracts are rare and a privilege mainly reserved for professors who typically secure this position at the age of 40 or older.[13] With such a bottom-heavy academic workforce, the union claims that there are limited prospects for career progression within academia.

[8] A series of ministerial meetings and agreements which outline the comparability of education standards and quality across the European Union
[9] https://www.bmbf.de/de/7222.php
[10] Statistisches Bundesamt, 2014.
[11] Herzog et al, 2012.
[12] Jakstat, Schindler and Briedis (2010: 4) quoted on p5 of http://www.hof.uni-halle.de/publikation/arbeitsbericht/beschaeftigungsbedingungen-als-gegenstand-von-hochschulsteuerung/
[13] Ibid.

Figure 2: Full-time academic staff at universities in Germany, England and USA[14]



The social dialogue on ECRs in Hamburg has therefore centred on improving working conditions, particularly to address fixed-term contracts.[15] In 2012, the Hamburg Ministry of Science and Research (BWF) commissioned a report to evaluate the employment conditions of academics in Germany, paying particular attention to ECRs on fixed-term contracts. The commissioning of the report can be traced back to 2009 with a conference of academic staff at the University of Hamburg and campaigning by the GEW and requests in the Hamburg Parliament from the Greens. The report gathered stakeholder views from across the sector, including from employers, trade unions and HE sector bodies. In addition, the report provided an analysis of the minimum standards of employment at several institutions and then recommended a number of instruments to control employment conditions, which included establishing a code of conduct. This prompted social partners in Hamburg to develop and agree a six-page Code of Conduct on ECR employment contracts in December 2013. Section 7 provides a more detailed discussion of stakeholder views on temporary contracts, while section 8 outlines the main contents of the Hamburg Code of Conduct.

[14] http://www.gew.de/Binaries/Binary65439/WiKo10_Reinhardt_Kreckel.pdf The Federal Ministry of Education and Research (BMBF) quoted a similar graph but with slightly different figures in their junior scholars report on p15: http://www.buwin.de/site/assets/files/1002/buwin2013keyresults.pdf

[15] This section refers to the contents of a research report produced for the Hamburg Ministry of Science and Research (BWF) http://www.hof.uni-halle.de/publikation/arbeitsbericht/beschaeftigungsbedingungen-als-gegenstand-von-hochschulsteuerung/

4.1 Trade Unions

The German industrial relations system is based on sector-level unions, which are affiliated to a national umbrella trade union organisation called the Confederation of German Trade Unions (DGB). The German education union GEW (short for *Gewerkschaft Erziehung und Wissenschaft*) and the united services union ver.di are the two main trade unions that represent staff in higher education. University teachers tend to be members of GEW but ver.di also recruits these staff. Professors and junior professors may be members of professional associations as well (DHV, DGJ) as members of GEW.

In line with German employment practices, all universities have works councils where elected representatives of the workforce meet with the employer. At Hamburg University there are two works councils – one for academic staff and one for administrative staff.

4.2 Employers' associations

There is no separate employers' association in higher education in Germany. The Hamburg Ministry of Science and Research (BWF) and the University of Hamburg were interviewed as representatives of the employer side.

4.3 Collective agreement for universities

A minority of German academics (junior professors and professors) have civil servant (*Beamte*) employment status with pay and conditions determined unilaterally by government since 2003. Other academic staff and researchers are salaried public sector employees (*Angestellte*) covered by collectively bargained agreements at the state level, however these often exclude the pay and conditions of ECRs. While *Beamte* and *Angestellte* can become union members, *Beamte* are not allowed to strike. Despite their exclusion from collective bargaining, a number of universities in Germany have for several years established minimum employment standards for ECRs in relation to contract periods and job content.[16]

5. Research careers in Germany

According to interviewees, the term early career researcher (ECR) in Germany covers both PhD candidates and postdoctoral researchers who either receive fellowships or are employed by the university. The majority of German domiciled ECRs in Hamburg are university employees rather than on fellowships, as this enables them to access social security benefits. This practice is common across Germany. International students on the other hand tend to be on fellowships and therefore are not university employees. Postdocs can move on to either employment as a full-time academic or go into industry although only a minority will establish an academic career.

The situation of ECRs in Germany differs from typical practice in many EU countries as they undertake their PhD while being employed in the university rather than following the completion of a doctorate program. Under the *Wissenschaftszeitvertragsgesetz* (WissZeitVG)[17], a Federal act which regulates

[16] http://www.hof.uni-halle.de/publikation/arbeitsbericht/beschaeftigungsbedingungen-als-gegenstand-von-hochschulsteuerung/

[17] For a translation of WissZeitVG, see http://www.iexp.uni-hamburg.de/sfb676/equalOpp/Act_of_Academic_Fixed_Term_Contract.pdf

fixed-term academic employment contracts across Germany, ECRs may be employed on a number of fixed-term contracts for up to 12 years in total (or up to 15 years in medicine). They may be employed without a PhD for up to six years. Individuals who have completed their PhDs may go on to complete an advanced postdoctoral thesis ('Habilitation'), which provides eligibility to apply for professorship positions. Employment contracts in the sixth to twelfth years tend to be shorter, typically two years. Thus the 'early' career stage can last over a decade.

While employed by the university, doctoral candidates might be expected to undertake teaching, research or administrative duties within the institution. Externally-funded candidates (e.g. from a research council) are exempted from teaching. However, there are cases where externally-funded researchers receive part-time lecturing contracts, often without payment.[18] In Hamburg, doctoral candidates may, in theory, not spend more than 50% of the working week in any type of paid employment (research or otherwise) because they are expected to spend the other 50% of their time studying for a PhD. However, according to some interviewees, this does not tend to be the practice.

Some interviewees claimed that it is common for doctoral candidates to live on a part-time salary but be expected to regularly work unpaid overtime. The 2013 Good Work Index survey found that unpaid overtime is most common among education and teaching workers, where 45% of staff regularly work beyond their contracted hours for no additional pay.[19] Part-time employment of doctoral candidates is also the norm elsewhere in Germany but there is flexibility to employ them on full-time contracts in some states. In recent years, higher education institutions have moved towards the British and American systems for supporting ECRs through the establishment of graduate schools (*Graduiertenkollegs*).

A number of research institutions in Germany have their own charters and guidelines on minimum standards of employment for ECRs. But there is no single document that summarises the minimum standards provided at these institutions.[20] At the Leibniz Association, for example, PhD candidates on scholarships can focus fully on their PhD theses while those employed as research assistants are not allowed to work more than the hours stated in their employment contracts. At Helmholtz Association, ECRs have the opportunity to secure a permanent position after being employed on a three- to four-year fixed-term contract, subject to a positive review.

6. The EU Charter and Code for Researchers in Germany

Only 13 German institutions, including the German Rectors' Conference (HRK) and a private company, have signed up to the EU Charter and Code for Researchers. None of the 13 institutions are in Hamburg. The German Social Science Centre in Berlin (WZB) is the only German institution that has achieved the EU HR Excellence in Research award.

The interviews revealed generally low awareness of the EU Charter and Code for Researchers among stakeholders in Hamburg and none were aware of the HR Excellence in Research badge. This is

[18] Herzog et al, 2012.
[19] http://index-gute-arbeit.dgb.de/++co++20acc212-dec2-11e3-a855-52540023ef1a
[20] http://www.hof.uni-halle.de/publikation/arbeitsbericht/beschaeftigungsbedingungen-als-gegenstand-von-hochschulsteuerung/

possibly a consequence of the devolved nature of federal education policy. Interviewees who were aware of the EU Charter and Code stated that they do not use it as guidance. But, as will be discussed in section 8.1, social partners in the Hamburg state have recently agreed their own Code of Conduct for researchers independent of activity at European level.

Although the EU Code of Conduct for the Recruitment of Researchers is rarely referred to in Germany, the openness of appointment procedures for civil servants or public sector employees is already guaranteed by the German constitution, supported by gender equality and anti-discrimination legislation. The openness of the advertisement and recruitment procedures for HE staff is guaranteed under the HE laws set at state level. In Germany it is traditionally not possible to immediately apply for a professorship position in the same university where an individual has gained their postdoctoral academic qualification (*Habilitation*). Individuals who have gained their *Hablitation* would have to work at another university for one or two years before they can apply for a post where they completed this qualification.

7. Challenges for early career researchers (ECRs)

One of the main issues identified by the social partners in Hamburg is the nature of temporary contracts for ECRs. This section therefore begins with a review of the use of temporary contracts, covered in the report produced for the Hamburg Ministry for Science and Research (BWF), and steps that have been taken to address concerns. Following this, the challenges for ECRs are discussed more broadly from the trade unions', professional associations' and ECRs' viewpoints, and then from the employers' point of viewpoints. This section closes with a discussion on mobility – the challenges and mechanisms to encourage this.

7.1 Temporary contracts

Although research institutions view fixed-term contracts as necessary, particularly during the qualification phase, the proliferation of such contracts in recent years has attracted criticism from interest groups. The main arguments on temporary contracts documented in the report produced for the BWF are outlined below.

Proportion of temporary to permanent contracts

The general view on temporary contracts is that there needs to be a balance between the number of temporary and the number of permanent contracts. However, stakeholders hold different views on where this balance lies. Some see temporary contracts as a necessity while others would like to see a significant reduction in their use.

Temporary contracts are necessary for research to function but there needs to be a balance between the number of temporary contracts in relation to permanent contracts, according to the German Rectors' Conference (HRK). The Council of Science and Humanities (WR) sees temporary contracts as a useful tool for achieving greater workforce flexibility, but raised issues on the unintended consequences of such contracts with regard to part-time employment and equality. On the other hand, the German Association of University Professors (DHV) and the German Society for Junior Professors (DGJ) did not raise temporary contracts as a problem.

The German Society for Junior Professors (DGJ) did, however, propose that permanent positions should be created below professor level. More broadly, the former German Research Foundation

(DFG) President Kleiner demanded in 2009 that more externally-funded fixed-term employment be converted to permanent employment.

Trade unions GEW and ver.di would also like to see more permanent employment at all academic ranks and even went on to propose minimum lengths for fixed-term contracts. The GEW would like permanent employment to be the norm and only waived in exceptional cases. If employment is fixed-term, then the GEW believe that the minimum employment duration should be equivalent to either the expected qualification period or funding period. On the other hand, ver.di would like to see short-term contracts be no less than 12 months and that medium-term contracts be at least five years long.

Requests for government intervention

Requests for government intervention, particularly on funding, have come from all interest groups. The Council of Science and Humanities (WR) has called for the government to shape the conditions which encourage universities to take a longer-term approach to the recruitment and retention of ECRs, funding more positions with better pay. Trade unions and professional associations, including the DGB and the DHV, called for an expansion of higher education in general (the DGJ limited its claim to the establishment of more junior professorships). Meanwhile, the HRK is committed to strengthening basic funding from the government.

The trade unions, including the DGB, criticised Federal government policies for increasing external funding while maintaining poor basic funding from the Federal and state levels. To tackle the issue of financing positions during the gap between one externally-funded position and another, the WR proposed introducing a flat-rate surcharge on all external funds, essentially creating a bridging fund.

The WR also raised the issues of part-time employment and equality issues in relation to temporary contracts. It also notes that part-time employment is seen as a career obstacle for women (WR 2012:23). The WR therefore called for '[…] extending the fixed-term contract period and increasing the scope of employment for part-time employees' (WR 2007a:47) to mitigate these issues. In response to increased teaching commitments for ECRs, the WR recommends that contracts be extended to account for the increased workload.

Towards a central Code of Conduct

As mentioned in section 2, German universities rely heavily on external funding as a source of income. The temporary nature of external funding has a strong influence in controlling the nature of employment created but not the other way round. To limit the risk of losing an external funding source for universities, fixed-term contracts have in practice often been favoured over open-ended contracts.

There is little evidence of new control instruments being used to shape employment contracts which are externally funded, according to the report for the BWF. Of particular interest is the Hessen state, where its Ministry of Finance said that up to 20% of external funds can be used to create open-ended posts if it can be shown that the role would still be required at the university after the end of the

funding period.[21] Saxony, on the other hand, is the only state that requires staff to be put on temporary contracts if the position is externally-funded.

The report for the BWF quoted Adamietz's and Künne's[22] recommendation that target agreements could be developed, for instance, to create interim financing of employees transitioning between external funds. The state HE laws can be used to influence employment terms for both full-time and part-time posts, provided that they do not contradict the WissZeitVG Federal act. A stewardship approach of setting target agreements is preferred over the more formal and controversial approach of creating legally-binding agreements.

In 2012, the GEW developed a concrete proposal for a code of conduct (*Herrshinger Code*) on how universities can commit to responsible recruitment and retention policies under the existing framework. The WR announced its recommendations in the fall of 2013 to actively address staff development and career prospects beyond the ordinary professorships. The HRK called on its members during a meeting in 2012 for universities to commit to developing specific standards for dealing with academic staff contracts.

According to the report for the BWF, all states provide the flexibility for ECRs to pursue independent research as part of their qualifications. Only seven out of the 16 states explicitly stated that the minimum amount of time spent on research should be one-third of working time. Six states said that this should be 'one-third' of working time, while the remainder three states were silent on this matter. A quirk in Hamburg is that the 'one-third regulation' applies only if part-time employment corresponds to more than half of the normal working time.

7.2 Trade union and ECR views

The GEW and researcher interviewees identified a number of challenges facing ECRs, including:

- Lack of financial security while completing a qualification – The average time taken to complete a PhD in Germany is 5.4 years. Fixed-term contracts for ECRs, however, are shorter than this, typically two to three years at the University of Hamburg and often for a period of less than two years at other universities.

- Difficulty balancing workload and study – Completing a qualification while working is made even more challenging if the work is not related to the ECR's research topic or if the ECR is not employed to do research. The union reported staff in Hamburg universities feeling exhausted trying to write a thesis while being expected to teach 12 to 16 hours a week. In other states the teaching load for ECRs could be as high as 24 hours a week.[23] There have been legal cases which have been brought against universities by the union and won because individuals were teaching significantly more than their contractual hours. This was not the case several decades ago when there were fewer students in higher education. These issues make it even more difficult for individuals to balance study and workload with the family.

[21] Hessian Ministry of Finance, 2010.
[22] See p64 of http://www.gew.de/Binaries/Binary95898/Drittmittelbefristung.pdf
[23] State-level regulations usually known as the Teaching Commitment Order (LVVO) control the limit on teaching hours. This varies by state, academic staff grade, and type of university.

- Feeling undervalued in academia – The union claims that the level of pay does not seem proportionate to the workload and skills. At the same time the individuals we spoke to were aware of the limited number of professorships and the fact that these are tenured. Securing the role of a professor is therefore a career aspiration and possibly the main reason why some ECRs continue to work in academia despite the lack of job security. This career aspiration is moderated by the lure of better pay in industry, particularly for ECRs in science and engineering.

- Being less mobile when starting a family – Planning a career around a series of two to three year contracts is very difficult, particularly when fitting this around a relationship or starting a family. The lack of financial security is also reported to be daunting.

- Difficulty changing career paths – Some ECRs feel that it is hard to change careers having committed years of their lives to research. Those that hold this perception appear to be emotionally committed to a career in academia and may feel overqualified to work in other professions. It is also possible that there may not be alternate careers in industry that are directly relevant to their research interests or that these careers offer lower pay than in academia. The union's position is that ECRs need better job security and career progression. Its view is that ECRs should be employed on permanent contracts for roles that are required on a continuing basis, for example, teaching positions for popular undergraduate modules. The union believes that there is a need to review the composition of Germany's bottom-heavy academic workforce to improve the career prospects of ECRs in academia.

7.3 Employer views

From the employer's point of view, the work undertaken by doctoral candidates provides valuable practical experience. The pay level is to compensate for part-time work only and not for a qualification as well, so the salaries reflect this. Unfortunately, the lack of guaranteed research funds means that the university is unable to employ more ECRs on open-ended contracts. The employers' view is that a three-year contract is relatively secure in today's labour market and therefore disagree that this is precarious employment. According to the employers, an ECR with no dependents can afford to live on a part-time salary and that it is affordable to raise a child on the salary of two ECRs. There are childcare facilities on campus and financial support for childcare from the student union. Support is also available for individuals seeking careers advice and training on transferable skills through Hamburg University's career centre.

7.4 Mobility

With regard to inter-sector mobility, interviewees from the employer side expressed a concern about the lack of awareness of career opportunities outside academia amongst doctoral students and professors. Those on science career tracks were reported to be generally more aware of alternative career opportunities in industry and science careers in industry are relatively well-paid compared with academia. It was noted that unlike in some other countries, PhDs are held in high esteem within industry. There does not therefore seem to be a general perception that careers in academia are more prestigious than in industry or vice versa. Overall, the PhD qualification has a high social value and tends to be seen as the equivalent of the MBA qualification in Germany and a doctorate is commonly seen as a requirement in job vacancy adverts.

According to interviewees on the trade union and ECR side, the desire to be geographically mobile does not rank highly and appears to be moderated by the life stage of the individual. An ECR who is single with no dependents tends to be more willing to transfer to other universities compared to an ECR with a partner or dependents. Furthermore, the social welfare system in Germany ranks highly within the EU and globally. The union highlighted the issue that individuals who move to work abroad and within Germany could lose access to their social security and full pension benefits in their state. A number of German foundations run programmes to encourage inbound, outbound or inter-sectoral mobility. However these are designed to attract and retain the best and as such the number of individuals participating in the programmes is relatively low compared to the total population of ECRs. For example the Shared Professorship Programme at Karlsruhe Institute of Technology offers ECRS the opportunity work at the university and in a commercial organisation at the same time. Selected individuals are enrolled on the programme for four years, and are funded equally by the university and companies.

There are also programmes that allow for the grant to follow ECRs between institutions as well as grants that are awarded to individuals who have a connection with a German institution. These are even fewer in number and awarded by the German Research Foundation (DFG) and the Alexander von Humboldt Foundation (AvH).[24]

8. Supporting early career researchers

8.1 State support for ECRs

In December 2013, the social partners in Hamburg agreed a 'Code of Conduct' to improve the working conditions of researchers in Hamburg on different types of employment contracts. It states the changes made to the local Hamburg Higher Education Law (HmbHG) and the action plans for universities to consider. Initially the Hamburg state had attempted to address the issue of the precarious employment of ECRs by recommending changes to the Federal WissZeitVG act on temporary academic contracts. But when this was rejected, Hamburg used its devolved powers on educational matters to address this locally.

This Code of Conduct was the product of a working group chaired by the Hamburg Ministry of Science (BWF) and involved social partners from universities, trade unions and higher education agencies. It followed a study on the employment conditions of researchers commissioned by the BWF in 2012 which included a recommendation to create a Code of Conduct that outlines the minimum working conditions documented in the various ECR employment contracts at different institutions[25]. Teaching hours, state funding and the use of self-employed academic staff were excluded from the Code of Conduct's scope.

Below are examples of changes to the HmbHG brought about by the new Hamburg Code of Conduct. The universities are expected to report progress on implementation towards the end of 2014. Implementation should not be an issue provided there is more guaranteed funding, according to one

[24] Deloitte, 2013.
[25] http://www.hof.uni-halle.de/publikation/arbeitsbericht/beschaeftigungsbedingungen-als-gegenstand-von-hochschulsteuerung/

of the universities. The unions see the 'Code of Conduct' as a positive move towards better working conditions for researchers and look forward to evidence of this being implemented uniformly across the Hamburg state:

- *PhD candidates* – Removing the 50% limit on the amount of time that individuals can work. The intention is to increase the earnings of PhD candidates and to increase the possibility of being employed for work related to their research topic.
- *Habilitation candidates* – Employment extension granted for up to three years if their performance review for the first three years is positive. Individuals should be granted at least one-third of working time for their own research.
- *Other research associates not covered by the Science Employment Act* – Individuals who are employed to undertake work that cannot be used towards their qualifications should be considered for permanent employment. For example, individuals working in the academic support services could be employed for a trial working period with a view to move them to indefinite contracts.

8.2 Employer support for ECRs

The University of Hamburg is committed to developing its ECRs. The university's development programmes are underpinned by the 2005 recommendations of the German Rectors' Conference (HRK), which outline the recommendations of the EU Charter and Code. Through its career centre, the university regularly runs targeted development programmes for ECRs. These take the form of training workshops, question and answer (Q&A) sessions, and coaching. The purpose of these programmes is three-fold: Firstly, by supporting ECRs in career planning either within or outside academia; secondly, by supporting ECRs in developing successful research skills such as project management, presentation and publication skills; the third purpose is to support ECRs in developing soft skills, in particular, verbal communication, and leadership skills. The GEW comment that only a small percentage of ECRs currently participate in this training.

8.3 Union support for ECRs

The trade unions have been instrumental in raising the conditions of ECRs on the political agenda. At the national level the GEW, for example, has submitted several papers to the Federal government since 2008 to stimulate discussion on the topic.[26] Earlier papers described the issues while more recent papers provided recommended solutions to address the issues, including changing the national WissZeitVG Act on temporary academic contracts.

From the grassroots level, the GEW submitted a list of 10 demands for better working conditions through the Templin Manifesto in 2010. Demands include 'permanent jobs for permanent tasks', 'encourage mobility, don't penalise it' and 'equality in decision-making' for ECRs.[27] The manifesto was used as another platform to urge social partners into action. In 2012, the GEW released the Herrschinger Code providing recommendations on implementing the Templin Manifesto.[28]

[26] http://www.gew.de/Wissenschaftlicher_Nachwuchs_2.html
[27] http://www.gew.de/Binaries/Binary90289/Templin_Manifesto.pdf
[28] http://www.gew.de/Herrschinger_Kodex.html

The trade unions provide advice on employment rights and have in the past represented their members in employment tribunals. For example, a common issue is that ECRs can inadvertently forfeit access to social security by receiving a PhD stipend instead of being employed. In response to this, the GEW has published advice on social security for PhD students.[29]

Although the WissZeitVG act provides the flexibility to employ ECRs on a series of fixed-term contracts, the GEW has successfully challenged this in court several times. In the case of an engineer in Nord Rhine-Westphalia, the Court of Appeal in Cologne deemed that it was not lawful to employ the individual on 23 fixed-term contracts in the space of 14 years at the same university. Taking into account the total duration of employment and the fact the contracts were for similar work, the judges decided that the individual should be given a permanent contract.[30]

9. Equality issues

In 2010 the percentage of female academic staff at EU grade A (professor) was 14.6% in Germany, compared to an EU average of 19.8%. The proportion of women in the research profession is taken into account in the target and performance agreements between the individual states and the universities as well as in the performance-based allocation of basic budgets to universities. While Germany has not introduced a statutory quota system in research jobs, the science organisations and universities apply equal opportunities standards. Stakeholders take into account gender when filling positions of responsibility. The Federal government and the individual states expect organisations to make active recruitment efforts and define self-imposed targets.

Germany has supported several initiatives to improve women's careers in research and science but some of these are no longer active. The Centre of Excellence for Women in Science (CEWS), a think tank founded in 2000 to realise equal opportunities for men and women in science in Germany, administers the TOTAL E-QUALITY seal, which assesses institutional equal opportunity measures. CEWS previously coordinated 'Encouragement to Advance' (2007-08) which provided four-day training seminars to female scientists who do not yet hold a tenured position but holding a PhD.

At a broader level the 'Offensive for Equal Opportunities' (2006-2011), was supported by the Council for Science and Humanities (WR), the German Research Foundation (DFG) and the Max Plank Society among others who committed to a significant increase in "the proportion of women holding senior scientific positions over the coming five years". Prior to the 'Offensive' (2001-2006) the Federal government invested €30 million in measures to qualify women for professorships, support research on gender equality and increase the number of women in natural sciences and engineering.

Although German universities encourage female applicants in science careers, universities reported difficulty in attracting a sufficient number at the undergraduate level which has implications for representation at the early career stage. While representation in the humanities is better than in science and technology, the lack of opportunities for career progression is cited as an issue for this group. These comments are supported by official data which show obvious vertical and horizontal gender segregation. One interviewee noted that more than half of researchers are women but only

[29] http://www.templiner-manifest.de/Ratgeber_Sozialversicherung_fuer_Promovierende.html
[30] http://www.templiner-manifest.de/Aktuelle_Veranstaltungen_Rechtsprechung_und_GEW-Initiativen.html

4% were preparing for *habilitation*. These findings are also supported in a work-life balance research report produced jointly by the GEW with the academic unions in the UK and Sweden.[31]

Applications for research funding or opportunities for progression are highly competitive even without considering the possibility of gender bias. Despite being shortlisted and having good network contacts, female researchers have noted that there are still obstacles to overcome, for example, at the local scientific panels. It is policy that at least 40% of the panel and applicant shortlist are female. Yet according to some interviewees the appearance of gender balance does not guarantee the avoidance of gender bias. As one interviewee noted, gender equality is a political decision and therefore passing another law does not necessarily guarantee that universities will implement it.

Under the WissZeitVG Federal Act, female researchers have the option to extend their employment contracts by up to two years for each dependent under 18. The intention is to enable female researchers to continue their careers while providing sufficient time for maternity and childcare. In practice, it may not be possible to reconcile work with family responsibilities because a research project may have ended while the individual is on maternity leave. The university claims that this situation rarely happens in practice but the GEW disagrees with this observation.

Nonetheless, there is always a risk of missed career opportunities for female researchers with children as they take on a larger share of family responsibilities than their male counterparts. The disproportionate length of contract extension given to women by law, although well-meaning, has the unintended effect of reinforcing a woman's role at home.

There were some concerns among the trade unions that not enough was being done to address gender equality at the universities, echoing an analysis by the European Commission in its report *Mapping the Maze* which notes that there are limited activities to support gender mainstreaming.[32] Gender equality is a broader issue of tackling the perceptions, expectations and mind-set of the society. The 'Go MINT' project, for example, is a nationwide network of projects to get girls and women excited about courses and careers in science, technology, engineering or maths.

The researchers were told that gender equality is a priority at the University of Hamburg. A number of measures have been implemented to increase the percentage of female researchers who progress up the ranks of academia and open doors to careers in other sector, for example:

- Since 2009, each female professor appointed on an indefinite contract will be allocated a female ECR on a one-year fixed-term contract, paid for by the university' central funds. There is opportunity to extend positions for a further two years in the maths, informatics and natural science faculties.
- PhD and postdoctoral researchers in the university's natural science faculty have the opportunity to attend the Pro Exzellenzia programme, funded by the BWF and European

[31] GEW (2011), *Quality in Academia and Life – A joint strategy to improve Work-Life Balance by GEW, UCU and SULF*, GEW. http://www.gew.de/Binaries/Binary65838/wlb-joint-strategy_low.pdf
[32] European Commission (2008), *Mapping the Maze: Getting more women to the top in research*. http://ec.europa.eu/research/science-society/document_library/pdf_06/mapping-the-maze-getting-more-women-to-the-top-in-research_en.pdf

Social Fund. The objective of this programme is to support individuals to progress in academic and non-academic careers through a combination of workshops, coaching, mentoring and networking events.

- Work-life balance interventions have been implemented to ensure that young parents in academia can continue their career and education. Examples include childcare support and additional income earned from working as a student assistant.[33]
- Women in their final stages of PhD since 2010 can apply for scholarship grants to support their cost of living while they complete their qualifications.
- A Women's Advancement Prize worth €10,000 is available annually to recognise outstanding achievement and to raise the visibility of successful female-led research projects.

10. Issues and actions identified

Social partners from both the trade union and employer sides recognise that an attractive research career in Germany is being hindered by low job security and limited career progression opportunities within the higher education sector. Mobility is encouraged but an ECR's desire to move is moderated by their life stage, for example, whether they are single or have started a family. While there are equality provisions to enable individuals to continue a career in research, in practice, taking time off for maternity and caring responsibilities disproportionately impacts career progression prospects.

The social dialogue in Hamburg shows that interest groups are committed to improving working conditions, albeit to varying degrees. Despite differences, social partners found common ground and worked together to draft a Code of Conduct that sets out the minimum standards of employment for academics in Hamburg. This outcome has helped progress the debate on the working conditions of ECRs in the state and is a good example of what can be achieved through social dialogue.

As discussed in the research report for the Hamburg Ministry of Science Research, there are various instruments for changing the conditions of employment other than attempting to change the law[34]. The Hamburg Code of Conduct is an example of an alternative instrument to influence working conditions. Other instruments could be through setting political objectives and policies (at faculty, university, council or other HE sector body level), or it could also be through establishing a reporting system. Such control instruments do not necessarily need to be restricted to academic staff but can potentially be applied to influence the working conditions of other staff members in higher education.

[33] Student assistant roles are not eligible for social security like grade A13 ECR fixed-term contracts.
[34] http://www.hof.uni-halle.de/publikation/arbeitsbericht/beschaeftigungsbedingungen-als-gegenstand-von-hochschulsteuerung/