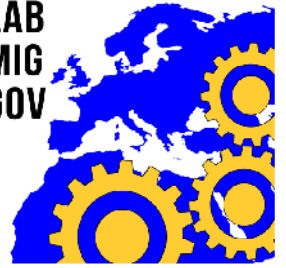


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**THE INTERNATIONAL RECRUITMENT OF PHYSICIANS AND IT
AND ENGINEERING SPECIALISTS IN GERMANY AND SPAIN:
ACTORS, PROCESSES AND CHALLENGES**

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1. Introduction

European labour migration policies have focused for years on the control of unwanted migration rather than on attracting desired migrants. The dogma of zero immigration ranked more highly than policies and practices aimed at shaping the attraction of desired migration in Europe (Lavenex, 2006). Yet, the principles set forth in the European Council Resolution of 20 June 1994 clearly opposed active labour migration policies:

‘Member States will consider requests for admission to their territories for the purpose of employment only where vacancies in a Member State cannot be filled by national and Community manpower or by non-Community manpower lawfully resident on a permanent basis in that Member State and already forming part of the Member State’s regular labour market’.

In contrast to widespread agreement on asylum and visa issues, it was impossible for many years to achieve consensus on a common framework for the entry and admission of third-country nationals for work purposes.¹

Desired migration in the form of highly skilled foreign workers has only recently gained new prominence in the European debate. Following the failed attempt to approve an overall migration policy directive, the Policy Plan for Legal Migration put a formal end to the era of ‘zero immigration’ in 2005. The Commission conceived a new migration policy approach focused on attracting highly skilled migrants to the European Union. In the words of Commissioner Franco Frattini responsible for Freedom, Security and Justice,

‘Europe’s ability to attract highly skilled migrants is a measure of its international strength. We want Europe to become at least as attractive as favourite migration destinations such as Australia, Canada and the USA. We have to make highly skilled workers change their perception of Europe’s labour market governed as they are by inconsistent admission procedures. Failing this, Europe will continue to receive low-skilled and medium-skilled migrants only’ (European Commission, 2007).

Highly skilled migration came to be considered as a useful strategy for adapting to the socioeconomic, technological and demographic challenges created by rapidly changing labour markets. Globalisation promoted the idea of the ‘competition state’ (Lavenex, 2006), for which enhancing international competitiveness and human capital

¹ Note, for instance, that the Commission Proposal for a Council Directive on the conditions of entry and residence for the purpose of paid employment and self-employment activities (COM(2001) 0386 final), which was never approved, remained a highly contentious issue that reflected the heterogeneous approach towards labour migration among EU Member States.

development is a *conditio sine qua non* for survival in global markets. In addition, highly skilled migration was not only viewed as a key factor in withstanding international competition, but as a way to avoid (or at least reduce) the risk of failed integration in host societies (Smith and Favell, 2006; Doomernik et al., 2009). Hence, the formerly restrictive immigration policies prevailing in European immigration countries have given way to increasing efforts to respond to economic and demographic needs through active labour migration policies. In 2007, the European Commission promoted a directive proposal for regulating highly skilled workers' admission, the so-called 'Blue Card Directive', which was finally approved in 2009.² Subsequently, in 2010, the EU Commission presented a directive proposal for regulating intra-company transfers, which has not yet been passed.³

Overall, the recently approved directives reflect a shift in the EU labour migration paradigm, following decades of non-immigration orthodoxy. Notwithstanding this, recent developments have failed to overshadow the role played by the Member States in regulating labour migration. As observed, the achievement of common regulation frameworks continues to be hampered by the interests of single Member States, which can delay directive negotiations or implementation processes (Cerna, 2013; Gonzalez et al. 2013; Lazarowicz, 2013). In addition, as with many types of migration processes, the international migration of highly skilled workers is a multifaceted process involving several actors interacting at State level. Employers' strategies, labour market structures, language skills and foreign credentials recognition processes must be taken into account when assessing the nation states' capacity to attract (and integrate) highly skilled foreign labour. In this respect, the issue of recognising foreign credentials is particularly relevant because restrictive recognition policies are often seen as a major obstacle to employing highly skilled workers (Peixoto, 2001; Bommers et al., 2004; Sumpton, 2013). This is the case with internationally renowned human capital models such as in Canada, where the recognition of credentials remains a barrier to integrating highly skilled migrants in highly skilled jobs (Reitz, 2007; Brouwer, 1999).⁴ In Europe, the EU directive 2005/36/EC of 7 September 2005 on the recognition of professional qualifications certainly eliminated a major labour market barrier to intra-European circulation. The recently introduced EU engineering card that aims to create a high degree of transparency and trust on the European engineering market is also worthy of note.⁵ All these measures can be seen as part of a general trend to ease credential recognition procedures (see Hawthorne, 2013; Dixon, 2013). However, existing

² Council Directive 2009/50/EC of 25 May 2009 on the conditions of entry and residence of third-country nationals for the purposes of highly qualified employment.

³ Proposal for a directive on conditions of entry and residence of third-country nationals in the framework of an intra-corporate transfer, COM(2010) 378 final.

⁴ Only very recently, Canadian provinces established bridge training programmes implemented to favour integration in certain types of occupations. In addition, new figures, such as a Fairness Commissioner, have to guarantee the fairness of the recognition procedure (Finotelli, 2013).

⁵ For more information see the European Federation of National Engineering Associations (<http://www.feani.org>).

legislation only applies to EU nationals. In contrast, the recognition of foreign credentials for third-country nationals continues to depend on internal states' regulations, professional organisations or employers' strategies, which may challenge supranational programmatic objectives of human capital development by implementing overly restrictive approaches.

In view of this, several questions can be raised: which obstacles may hamper the recruitment of highly skilled workers? Which role does the recognition of credentials play in such a context? Do the individual Member States act differently in this respect? In order to provide answers to these questions, this report focuses on the recruitment of foreign physicians and high skilled technicians such as engineering and IT-specialists in Germany and Spain. The objective of the analysis is to highlight how recruitment processes work, whilst paying special attention to foreign credential recognition processes. To this end, the analysis will consider the international migration of highly skilled workers as a two-step flow, in which:

'Firstly national frontiers have to be passed, secondly obstacles to access specific labour market segments have to be overcome. As to the first point, residence and work permits are the instruments of control, governmental actors are the gatekeepers; as to the second, recognition of qualification and the issuing of professional licenses are the levers to open or block, professional organisations are the gatekeepers' (Hoesch, 2012, p. 7).

Germany and Spain were selected as the comparative examples owing to their different migration histories (an old *versus* a new immigration country) and the different structural features, in which the demand of health professionals or high skilled technicians is embedded. In Germany, for instance, the manufacturing sector and expenditure for R&D represent 23.8 and 2.84 per cent of GDP, respectively, where 65.3 per cent of R&D expenditure is in the business sector. In Spain, by contrast, the manufacturing sector and expenditure on R&D represent 15.9 and 1.33 per cent of GDP, respectively. However, only 43 per cent of GDP is allocated to the business sector. Concerning the health sector, Germany's federally organised health sector is financed by social security contributions, which are not part of the state budget. The Spanish health sector is financed via tax allocations. Such a structural difference could be relevant when designing international recruitment schemes because the German health sector is less dependent on government politics than the Spanish system or other tax-based systems such as that in Great Britain (Hoesch, 2012).

The field work for this case study involved conducting interviews with experts from the health and industry sectors in both countries. When necessary, the information was complemented by interviews conducted with institutional representatives. Regrettably, the Spanish Ministry of Education, which is responsible for recognising all university degrees awarded in third countries, declined to be interviewed by the author, despite several requests. For this reason, the author had to resort to alternative interview

partners or to interviews conducted in 2011. Most of the interviews conducted for this study were recorded, with the exception of interviews held with businesses⁶ and telephone interviews. In this case, quotation is not literal, but reflects the interviewee's opinion.

This report is divided into three sections. The first and second sections respectively analyse the Spanish and German migration regimes for physicians and highly skilled technicians. The results obtained are discussed briefly in the final section. Analysis is limited to the recruitment of physicians, engineers and IT specialists because these three professions reflect three different levels of professional regulation. Indeed, while Member States traditionally have fewer possibilities to create employment barriers in the non-regulated IT sector, the recognition of foreign credentials is very relevant to practice in regulated professions such as physicians or engineers (Bommes et al., 2004). There are also differences concerning proficiency in the host country language, which is usually considered more relevant for employment in the health sector than in the high-tech or engineering sector, where interaction is often possible in English.

Overall, the main goal of the report is not only to assess the potential of recruitment schemes for highly skilled workers, but also to identify country- and sector-specific challenges despite the creation of more flexible entry channels at both the national and EU level.

2. The recruitment of highly skilled workers in Spain

2.1. The legal framework

Spain is traditionally considered a destination country for low-skilled migrant workers (Arango, 2000). However, this has not prevented Spanish governments from creating entry channels for highly skilled migrants. As the preamble of immigration regulation no. 557/2011 states, 'The attraction of researchers and highly skilled workers as well as the regulation of the labour migration flows that directly affect activities in which economic, social or labour interests compete or that affect teaching, research or artistic activities represent measures that undoubtedly affect the competitiveness of the Spanish economy and the internationalisation of its business sector'. In the years leading up to the crisis, positions for physicians and technical engineers were included in the Catalogue of Difficult-to-Fill Occupations⁷ and the yearly *contingente*⁸. In

⁶ The internal regulation of all the telecommunications and R&D companies contacted prohibits any kind of recording on their premises.

⁷ The 2004 reform introduced the possibility of circumventing labour market checks for occupations included in the 'Catalogue of Hard-to-Fill Occupations' (*Catalogo de ocupaciones de difícil cobertura*). According to this new procedure, if a vacancy refers to a type of job listed in the Catalogue, an employer can immediately initiate the hiring process without the need for a labour market check. For further details, see Finotelli, 2012.

addition, regulation no. 557/2011 governs the admission of highly skilled workers in the Spanish labour market, applying the guiding principles and common standards set by the EU Blue Card Directive No. 2009/50/EU of 25 May 2009. According to the rules included in Title V of the Spanish regulation, any employer who wishes to hire a highly skilled worker must pass a labour market check and ensure that the highly skilled worker in question possesses the necessary credentials for employment in the chosen position. Furthermore, the employee's working conditions and gross salary must be determined according to collective agreements between employers' associations and trade unions. As a general rule, the minimum gross salary for highly skilled workers must be 1.5 times the national gross salary for a certain occupation category.

The Spanish migration regime also contains an additional channel for employing highly skilled workers that circumvents the necessity for labour market checks. In 2007, a ministerial agreement established the 'Large Companies Unit' (*Unidad de Grandes Empresas*) as an independent department of the Spanish Ministry of Labour. One of the reasons why it was created is that negotiations on the Blue Card Directive in Brussels were proceeding at a slower pace than expected, and a number of large Spanish firms required an urgent supply of highly skilled workers. Thus, the government created the Unit to provide large Spanish companies with a fast-track procedure for recruiting highly skilled workers at a time when most offices of the Ministry of Labour and Immigration were overwhelmed with a large number of applications.

The Unit's creation was welcomed by all Spanish companies, but opposed by the trade unions, which criticised the fact that they had not been consulted in the decision-making process.⁹ In this respect, the representative of a large consulting group in Spain asserted that,

'The creation of the UGE market undoubtedly had effects. Before [it], work permits were treated all in the same way, the process was the same, the timing was the same, which triggered several problems with respect to the times, the competences required by our companies. Through lobbying, it was possible to create the UGE in order to speed up the process. What has been changed is also the type of collaboration: we can directly talk to the head of the UGE, which in other cases would have been unthinkable' (CONSULTING1, 22/03/2013).

⁸ The *contingente* is a specific type of annual entry quota for foreign workers. This instrument has been in existence in Spain since 1993. However, the use of the *contingente* as a new recruitment instrument was refined by the 2004 reform. In contrast to the Catalogue, which regulates individual recruitment, the *contingente* allows Spanish companies to recruit a group of people to be employed in a specific business, performing a specific type of occupation. For further details, see Finotelli, 2012.

⁹ The trade union *Comisiones Obreras* (CC.OO) denounced the previous version of the new regulation because it allowed companies with ambitious projects to recruit workers through this channel, even though the workers failed to meet the minimum requirements established by law.

Interestingly, the Unit remained in existence after the transposition of the Blue Card Directive into the 2011 regulation. Instead, its name was simply changed to the 'Unit of Large Companies and Strategic Groups'. A high-ranking state official of the General Directorate of Immigration explained its 'survival' as follows,

'The idea behind the *Unidad de Grandes Empresas* is that there are strategic groups that need a more agile recruitment channel. In this respect, the Spanish public administration shows its intention to collaborate in this task. We are talking about strategic groups that include universities, large companies, and artistic collectives' (MTIN, 5/10/2011).

According to regulation no. 557/2011, large businesses can recruit highly skilled workers from third countries through the Unit without having to undergo a labour market check. The definition of highly skilled workers used by the Unit is identical to that contained in the EU Blue Card Directive.¹⁰ Businesses intending to recruit workers through this Unit must meet at least one of the following conditions: they must have *i*) a minimum of 500 workers¹¹ *ii*) an international business volume of € 200 million per year in Spain or *iii*) they must have received a minimum of € 1 million in foreign investments in the three years prior to submitting the application. The UGE delegate interviewed for this report stated,

"It is easy to understand why large companies were favoured. They bring important executives who are able to attract large projects. For instance, we know about a large energy company that created 450 jobs after setting up in Andalusia" (UGE, 12/07/2011).

According to the new criteria established by regulation no. 557/2011, small- and medium-sized companies can also benefit from this 'fast-track procedure'. However, this possibility is limited to firms in the information technology, renewable energy, environmental, water, health, bio-pharmacy, biotechnology, aeronautical and aerospace sectors. In this respect, the same UGE delegate observed,

"It is difficult to explain this change. It was a surprise to many, and I have verified information that the main employers' association was against it [...]. In addition, we still do not know which national or autonomic organisations will certify that those medium-sized companies that want to recruit personnel through the Unit really belong to the sectors described by the regulation. For the moment, no criteria in this respect have been established" (UGE, 12/07/2011).

From the businesses' point of view, the reason for such a change was clearly linked to the need to increase competitiveness to the greatest extent possible in biotechnology,

¹⁰ Before regulation no 557/2011, highly skilled workers were considered to be university graduates with at least one year's experience in their specific field.

¹¹ In the previous regulation, the limit was set at 1,000 workers.

aeronautics and telecommunications (CONSULTING1 22/03/2013). The procedure for recruiting highly skilled workers via the Unit is quicker than the normal procedure based on the Blue Card Directive. Once an applicant firm has submitted the required documents, the decision must be taken within 30 days (the deadline for issuing a 'Blue Card' is 45 days), and the corresponding visa must be issued within 10 days. In this case, however, the Spanish company has to apply to hire an employee by presenting a summary of its business activities and a curriculum vitae of the future employee. The request is nominal, and the future employee must be contracted for a minimum of one year. Most firms acknowledge that the new avenue has indeed facilitated recruitment, although some complain that the process still takes too long,

'(...) when you hire somebody for a very specific post it is not too difficult to demonstrate that you require a profile that you cannot find in Spain...what is the real problem? That for both the company of origin and the company of destination the procedure tends to be too long' (TELECOMM1, 12/11/2012).

Before the Blue Card Directive was approved, there was no pre-established reference for fixing the minimum salary level for highly skilled workers. It was also impossible to use collective agreements as a reference because 'there are thousands of them, and we had to define a homogeneous criterion. So we looked at a ministerial memo that established how much money a foreigner had to carry with him or her when entering Spain and multiplied the established amount by 12 months' (UGE, 12/07/2011). After the transposition of the Blue Card Directive into national law, the salary level required had to follow the criteria set by the European regulation. In this case, the minimum salary is calculated by taking the minimum yearly salary established by the National Classification of Economic Activities (CNAE), published by the National Statistics Institute, and multiplying it by 1.5. Clearly, the minimum salary calculated according to the guidelines of the Blue Card Directive is higher than that calculated according to the previous procedure. This change made it less attractive to recruit foreign workers through the UGE and, as a result, 'many businesses, especially those in the energy sector, are complaining because the salaries they now have to pay are higher than the salaries paid in the past' (UGE, 12/07/2011).

It is, however, important to note that highly skilled technicians recruited through the Unit can be hired through either the 'Blue Card' regime or the general regime¹². As can be observed in the scheme below, the main differences between the two recruitment avenues regard salary requirements and family reunification. Clearly, the average minimum gross salary of € 28,090 required for recruitment through the general regime is lower than that required for the 'Blue Card' regime. In addition, family members of 'Blue Card' owners can be issued with permits for work purposes and need not pass a

¹² The so-called Regimen General (general regime) regulates the employment of foreign workers in Spain.

labour market check even if they will be employed in low-skilled occupations (UGE, 21/12/2011). As a team member of the Human Resources (HR) consulting company observed in a later follow-up phone interview, the 'Blue Card' regime is certainly "the best possible solution". However, most companies prefer to recruit via the general rather than the 'Blue Card' regime due to the lower salary threshold' (CONSULTING 2, 15/07/2013, CONSULTING 1, telephone interview, 13/09/2013).

Scheme A: International Recruitment through the Large Companies' Unit

Recruitment procedure before 2011	
Fast-track procedure for large companies without labour market check	
Open to university graduates with at least one year of working experience	
Salary requirement established according to the Unit's internal criteria	
Recruitment procedure after 2011	
Open to high skilled foreigners with university degree or alternatively five years of professional experience (Art. 85, R.D. 557/2011).	
Fast-track procedure for large companies and medium-sized companies in the information technology, renewable energy, environmental, water, health, biopharmacy, biotechnology, aeronautical and aerospace sectors. without labour market check	
Salary and residence conditions depend on the applicant's residence regime	
General Regime	Blue Card Regime
No labour market check required	No labour market check required
28,060 Euros minimum salary	Average minimum gross salary x 1.5 ¹³
Family members are not allowed to work	Family members are allowed to work

All in all, the UGE undoubtedly represents the most important channel for recruiting highly skilled workers in Spain. Interestingly, the number of workers hired via the Unit did not decline immediately after the crisis. Even though the Catalogue and the *contingente* have been reduced to almost zero, data provided by the UGE for 2010 still reflects a sizeable demand for highly skilled technical professions in Spain *despite* the beginning of the crisis.

Table 1: Applications submitted to the Large Companies Unit (2007-2010)

	2007*	2008	2009	2010

¹³ However, this rule is only valid for highly skilled technicians. The salary established for executives must be twice the average gross salary established by the CNAE for the position offered.

Executives/highly skilled workers	1,301	2,410	1,646	1,557
Researchers/teachers and professors / public administration	12	58	44	16
Researchers in private industry	16	31	43	66
Artists	472	504	131	279
Other	69	318	354	196
TOTAL	1,870	3,321	2,218	2,114

Source: Written information provided by the Ministry of Labour and Immigration (now Ministry of Labour and Social Security). .

This could be due to the constant need for highly skilled workers in certain industrial branches involving not only Spanish, but also Indian and Chinese companies. In this respect, the interviewed delegate from the Unit also suggested that the Unit is particularly attractive to Chinese and Indian companies: 'They prefer to recruit their own engineers because these companies pay their own engineers less than Spanish engineers would be paid. As a matter of fact, we receive many requests for computer engineers. Some companies have also applied for 100 engineers at once' (UGE, 12/07/2011).

No figures have been released yet for 2011 and 2012. However, the worsening of the economic crisis also appears to have made an impact on the intensity of UGE activities. According to information provided by a large consulting firm, UGE went from processing 30 applications a day to dealing with 30 a month after the economic crisis hit (CONSULTING1, 22/03/2013). In addition, representatives of the immigration service of another large consulting group observed that UGE now requires additional bureaucracy, such as time-consuming document legalisations, to initiate the recruitment procedure (CONSULTING2, 15/07/2013). Similarly, the director of the HR department of a large Spanish telecommunications company noticed that UGE currently asks for additional requirements to slow down the recruitment process (TELECOMM2, 04/04/2013).

A slowdown in the activity of UGE does not alter the fact that both the adoption of the Blue Card Directive in Spanish law and the creation of the 'Large Companies Unit' represent a major change following decades dominated by low-skilled, often irregular, labour immigration. The creation of entry avenues for highly skilled workers did not remain limited to UGE, but also involved a traditionally hermetic labour market field such as the health sector.

2.2. The health sector

2.2.1. The demand for physicians in Spain

The Spanish National Health System (*Sistema Sanitario Nacional*), which was created in 1986, is based on universal insurance¹⁴ and financed through tax allocations. Tax funding and a very low degree of professional corporatism (De Miguel, 1982) make the sector highly dependent on government control and political majorities. Decisions are often taken at the regional level because the Spanish Autonomous Communities (the Spanish federal units) are entrusted with most health issues. As described by the member of the General Council of Spanish Medical Licensing Bodies (*Consejo General de Colegios Oficiales de Médicos en España*), ‘health turned into a political instrument’ for autonomous governments’ (CGCOM, 24/07/2013) after state health competencies were more or less completely transferred to the Autonomous Communities. However, the organisation and development of medical careers lies within the power of central public authorities. Before being employed as physicians in the Spanish health system, young graduates must have registered with the medical licensing body (*colegio de médicos*) and completed a four-year medical training period at a Spanish hospital. Physicians’ access to medical training to become an ‘internal resident doctor’ (*medico interno residente, MIR*) is dependent on the ranking drawn up after a state examination has been taken (the so-called MIR-exam). After training, young physicians usually obtain several temporary contracts before receiving a permanent position. Such positions are few and far between. As with all positions in the Spanish civil service, they are usually limited to Spanish nationals and EU citizens. However, young physicians can also choose to be employed in the private sector, where registered physicians can open their own practices according to the norms set by each Autonomous Community and the corresponding insurance company.

During the 1990s, the Spanish SSN experienced an expansionist trend which is reflected in its high physician/population ratio. As OECD statistics indicate, the ratio of 4.1 practising physicians for 1,000 inhabitants is one of the highest in the European Union (OECD, 2013). Furthermore, the number of physicians has increased steadily, from about 120,000 to 180,000 between 1996 and 2011. Despite such positive indicators, the shortage of doctors was a hotly debated issue in the previous decade (Barber-Perez and Gonzalez Lopez-Valcarcel, 2009). The impression of a mismatch between supply and demand in the Spanish health sector is rooted in the very structural characteristics of the health sector. At the turn of the millennium, more

¹⁴ Some scholars observe that the Spanish SNS is not fully ‘universalized’ as 5 per cent of Spanish citizens enjoy other types of insurances but that public health centres provide universal access to the health care system (see Sevilla, 2006).

attractive salaries in the private health sector reduced the number of physicians registered in public lists of unemployed physicians deployed by public hospitals to fill temporary vacancies.¹⁵ Furthermore, the autonomic governments started building new hospitals, sometimes in rather isolated regions, without increasing human resources (Gonzalez Lopez-Valcarcel B. et al., 2011a). As outlined by the delegate of the Spanish Physicians' Trade Union, the *Confederación sindical de médicos* (CESM),

'In 2006, the increase in the number of immigrants together with the increasing number of hospitals built in the Autonomous Communities produced the sensation that more doctors were needed [...]' (CESM, 17/10/2011).

The 'sensation' of an increasing demand for doctors was reinforced by the mismatch between the fairly low number of medical students on the one hand and the large number of slots available for medical training on the other.¹⁶ In Spain, the Ministry of Health decides how many training slots for which type of medical specialities are assigned to each autonomic hospital each year. Such estimates are based on requests issued by the Autonomous Communities, which are evaluated by a mixed state commission of experts and civil servants of the Ministry of Health. As a member of the CGCOM noted, the main purpose in applying for a large number of training slots was to get 'cheap' temporary labour force in form of internal resident doctors rather than opening more expensive positions (CGCOM, 24/07/2013). During the economic boom, slot assignments were not subject to control or filtration. As a representative of the CGCOM further noted, the ministry used to assign all slots requested by the Autonomous Communities (CGCOM, 24/07/2013). Finally, scholars argued that the increase in demand for physicians was also related to the inability of the health system to attract good physicians for less attractive workplaces (Barber Perez and Gonzalez Lopez-Valcarcel, 2009). Physicians tended to concentrate on hospitals in Madrid or other important urban centres in Andalusia and Cataluña, whereas hospitals in interior regions such as Castilla-Léon and the islands were understaffed because of their less attractive locations (García Pérez and Amaya Pombo, 2005). In addition to geographical criteria, a number of specialties were particularly undersupplied because they were considered less attractive than others. Family and Community Medicine (FCM) was considered particularly unattractive because it was less prestigious than other specialties and provided fewer chances of professional development and fewer possibilities to complement salaries with private visits. Medical students interviewed in a survey conducted in 2011 valued positively the specialty of FCM in terms of the number of working hours involved and empathy with patients. However, they also

¹⁵ In the Spanish health sector, physicians working in hospitals are given a large number of temporary contracts before obtaining an assignment in the desired hospital. Nonetheless, calls for vacancies with an indefinite contract period have become increasingly uncommon.

¹⁶ See, among others, Gonzalez Lopez-Valcarcel et al. 2009 as well as García Perez, Amaya Pombo 2005.

declared that these factors would not prevent them from choosing a specialty, enabling them to earn at least 42.6 per cent more than a family doctor (Gonzalez Lopez-Valcarcel B. et al., 2011b).¹⁷

The 'selective approach' of Spanish students directly affected how medical training slots were filled because the state examination results are a determinant for the choice of specialty: the higher the score in the state examination, the greater the chances are that the candidate will be able to pursue the desired specialty in the desired hospital. The best ranked candidates are usually awarded the specialties of their choice while all others have to make do with less attractive specialties and hospitals. In the past, candidates with a poor ranking position have repeated the examination, hoping to achieve a better score, instead of starting medical training in less attractive specialties such as FCM. This new trend triggered the phenomenon of 'recirculation' (*recirculación*), in which medical students repeat the state examination several times in order to achieve a better ranking position and to gain access to the desired specialty. As a result, several training slots in unattractive specialties, often located in isolated regions of interior Spain, remained vacant. This was the case in 2007 and 2008, for example, when it was impossible to fill 244 and 301 training slots respectively after the state examination.¹⁸ Unsurprisingly, this phenomenon further enhanced the perception that Spain needed more physicians.

2.2.2. The recruitment of foreign physicians in the health sector

The existence of vacancies in some hospitals put pressure on the government to supply the health sector with the necessary physicians. One of the first reactions of the Spanish government to meeting the demand for physicians was to increase the enrolment limit in medical schools from 4,500 to 7,000 slots (González-Lopez Valcarcél et al. 2011a). The Spanish Ministry of Health also increased the number of training slots from 5,200 in 2003 to almost 7,000 in 2010. Spanish scholars criticised this decision, warning that it would be difficult to absorb the larger number of medical school graduates (García-Perez and Amaya Pombo, 2005). The impression among scholars was that the shortage of physicians was more a distribution problem than a real lack of supply, and that, in such a case, structural reform was required. However, the ministry decided to use immigration to 'repair' the dysfunctionalities in the Spanish health sector rather than to consider how to make Spain's regions more attractive or to adjust the number of training slots at the autonomous level to the real demand. One of

¹⁷ As Gonzalez Lopez-Valcarcel et al. (2011b) note, the gap between FCM and other specialties in the U.S. is around \$ 100,000 a year. This is the reason for the decline of FCM and for policies aimed at reducing the attractiveness gap.

¹⁸ The data was provided by Fernando Rivas of the General Council of Licensing Bodies and elaborated by Jose Maria Romeo Ladrero.

the first measure was to relax the entry requirements for non-EU foreigners, whose access to medical training was formally limited by a 'cap for foreigners' (*cupo de extranjeros*) in the total slots available. The *cupo*, which may not exceed 10 per cent of all available training slots, was set each year by a mixed ministerial commission composed of members of the health and education ministries.¹⁹ In 2007, however, the Spanish Ministry of Health modified the regulation of the medical training examination, eliminating the *cupo* for non-EU foreigners with a study permit. In this way, the legal situation of foreigners with a study permit became *de facto* equivalent to that of EU nationals because any non-EU citizen with a medical degree could then apply for a medical training slot in Spain. After the reform of 2007, non-EU foreign students were required to present a valid residence or study permit and their recognition of foreign credentials had to be processed at the time of the examination. Applicants were only required to legalise their positions and to register with the licensing body according to the requirements of each Autonomous Community if they were successful. Furthermore, the legislation required a 'sufficient' knowledge of Spanish corresponding to a certified intermediate level by a Cervantes Institute or any recognised language school. These new rules made the health sector more attractive to foreigners, triggering a 'pull effect' especially from Latin American countries, where several training schools were opened with the sole aim of preparing applicants for the state examination in Spain while degree recognition was being processed (CGCOM, 25/07/2013). Associations of foreign physicians, however, complained that recognition processes were still too slow – it took about a year for medical degrees to be recognised.²⁰ The length of the process was clearly due to the need to establish the equivalence between Spanish degrees and foreign degrees. As the sub-director of the department of the Ministry of Education responsible declared in 2009: 'The issue of the degree does not depend on the sectors' demand but on the strict equivalence between the studies conducted abroad and the courses in Spanish medical schools' (Lezcano-Mújica, quoted in *El periódico*, 16/12/2009). Notwithstanding this, the figures suggest that the recognition of foreign credentials was not driven by protectionist goals. As can be seen in figure 1, the number of applications for the recognition of foreign medical degrees increased considerably between 2002 and 2011.²¹ The total number of titles

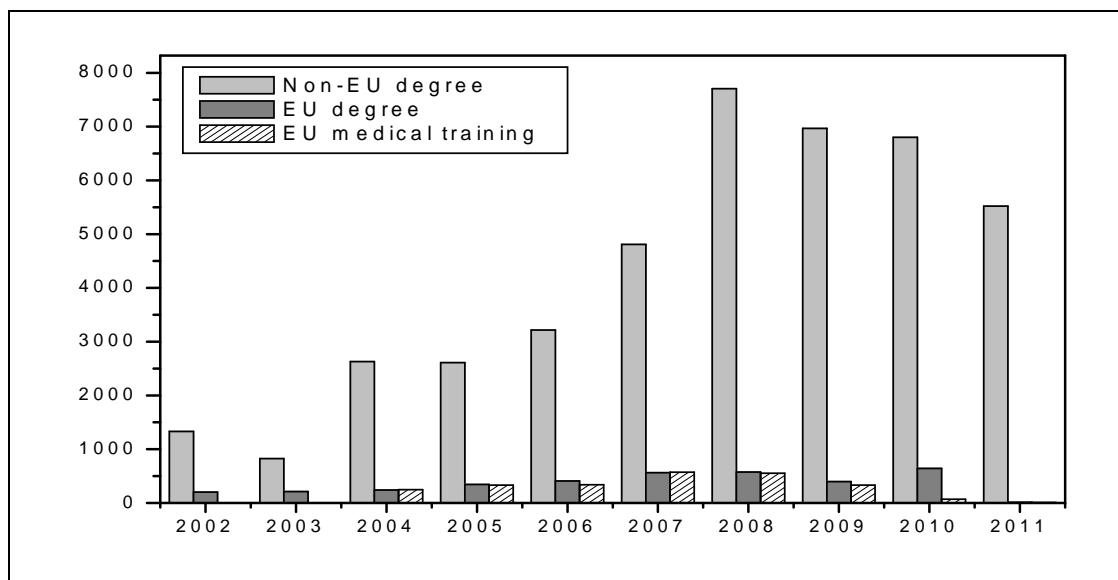
¹⁹ Please note that until 1999, foreigners were entitled to participate in the state examination but were not entitled to practice as specialists in Spain after finishing their medical training (Real Decree no. 127/1984). This was changed only in 1999, when the Real Decree no. 1497/1999 established that both members of the European Union and citizens of signatory countries to the Cultural Agreement with the Spanish government could sit the MIR examination and subsequently practice in Spain.

²⁰ Please note that the Spanish Ministry of Education did not answer the author's requests to conduct an interview on this topic. After several attempts to obtain an interview, the author gave up.

²¹ Until 2008, recognition of the foreign credentials of physicians from both the EU and non-EU was a competence of the Spanish Ministry of Education. However, since the implementation of European Directive no. 2005/36/CE on foreign credentials recognition for regulated professions by Royal Decree no. 1837/2008, the competence distribution has changed. The Ministry of Health is responsible for recognising the specialisation degrees of non-EU specialists, while the

recognised between 2001 and 2011 (50,205) was higher than the number of physicians who graduated in the same period (46,194).²²

Figure 1: Recognition of foreign medical degrees (excluding specialty recognition)



Source: Statistics of the Spanish Ministry of Education

By contrast, the recognition of medical specialties proved to be slower and much more cumbersome than the recognition of medical degrees. For this reason some small public hospitals decided to hire foreign doctors whose specialty recognition was still being processed in order to meet the high demand for physicians during the economic boom (González López-Valcárcel et al. 2011a; La Vanguardia 16/10/2007).²³ Certainly, the employment of specialists who had not been recognised yet as generic doctors was a small and geographically limited phenomenon.²⁴ Notwithstanding this, it caused

Ministry of Education is responsible for recognising the medical degrees of both EU and non-EU citizens as well as the specialisation degree of EU citizens. An expert committee at the Ministry of Education is in charge of the examining the applications submitted.

²² (<http://www.diariomedico.com/2013/05/20/area-profesional/profesion/titulos-homologados-superan-licenciados>, last access 7 February 2014).

²³ Such a strategy seemed to particularly affect physicians who had obtained the specialty of Family Medicine abroad and who could only be employed as generic doctors in Spain. However, the representative of the Spanish medical trade union admitted knowing about cases in which Argentinean anaesthetists had been employed as generic doctors until their titles were officially recognised (CESM, 17/10/2011).

²⁴ According to the representative of the medical trade union, the limited dimension of the phenomenon applies to both the public and the private sector. 'This (*the recognition of the right to perform as a medical specialist, A/N*) is obligatory in public health services. In private health services, the recognition of the specialty is theoretically unnecessary if the doctor concerned does not use his or her specialist title to practice. Nonetheless, something like that is very

widespread concern among the professional organisations, which called for more control over such practices²⁵. The situation has not changed very much since the specialty recognition for non-EU doctors depends on the Ministry of Health, which relies on the advice of an Evaluation Committee designed by the medical licensing body. During the process, evaluators can suggest applicants to attend complementary theoretical courses and practical training or even require to do an exam for a better qualification assessment. According to recent reports, the ministry is pursuing a restrictive approach involving the rejection of 80 per cent of applications (Gaceta medica, 24/05/2013).²⁶ At the same time, there are still some 5,000 non-EU foreigners working in the private health sector whose specialty has not yet been recognised (Gaceta medica, 24/05/2013). Such a situation is unlikely to improve very soon, bearing in mind that the Ministry of Health still has to process a backlog of 10,000 applications (CGCOM, 24/07/2013).

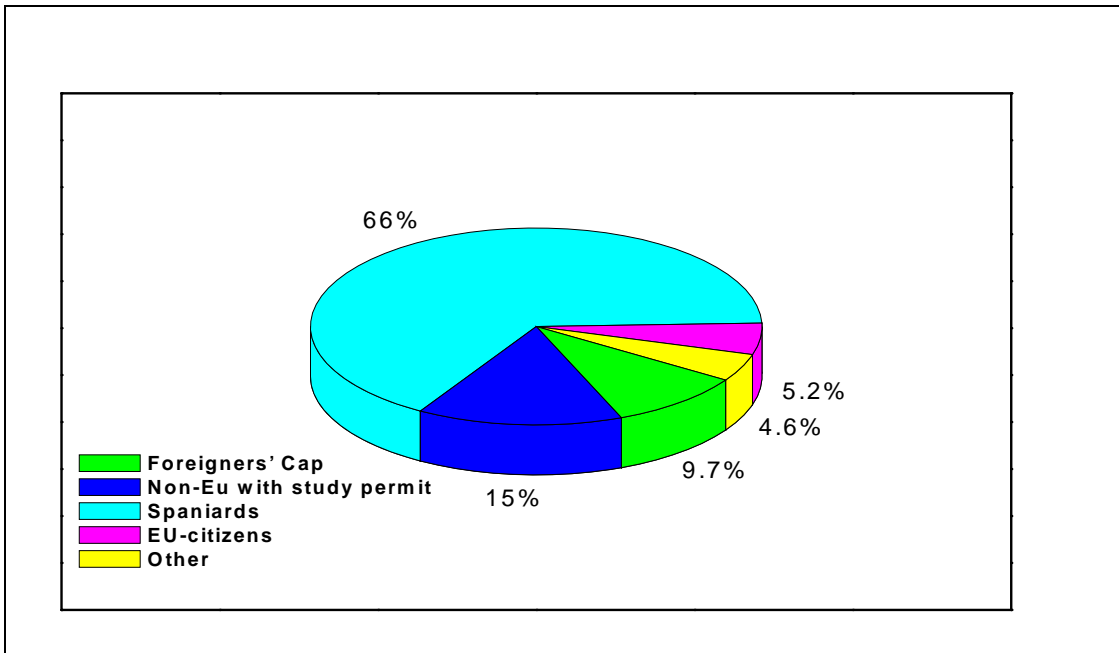
Considering the aforementioned bulky procedures and associated backlog, it can be argued that most foreign doctors entered Spain through the medical training channel. Providing all non-EU applicants with access to medical training contributed to considerably increasing the presence of foreigners in the Spanish health sector. In 2010, 34 per cent of those chosen for training slots were foreigners, most of whom originated from non-EU countries:

unlikely to happen because it would directly affect the institution's prestige' (CESM, 17/10/2011).

²⁵ <http://www.levante-emv.com/>

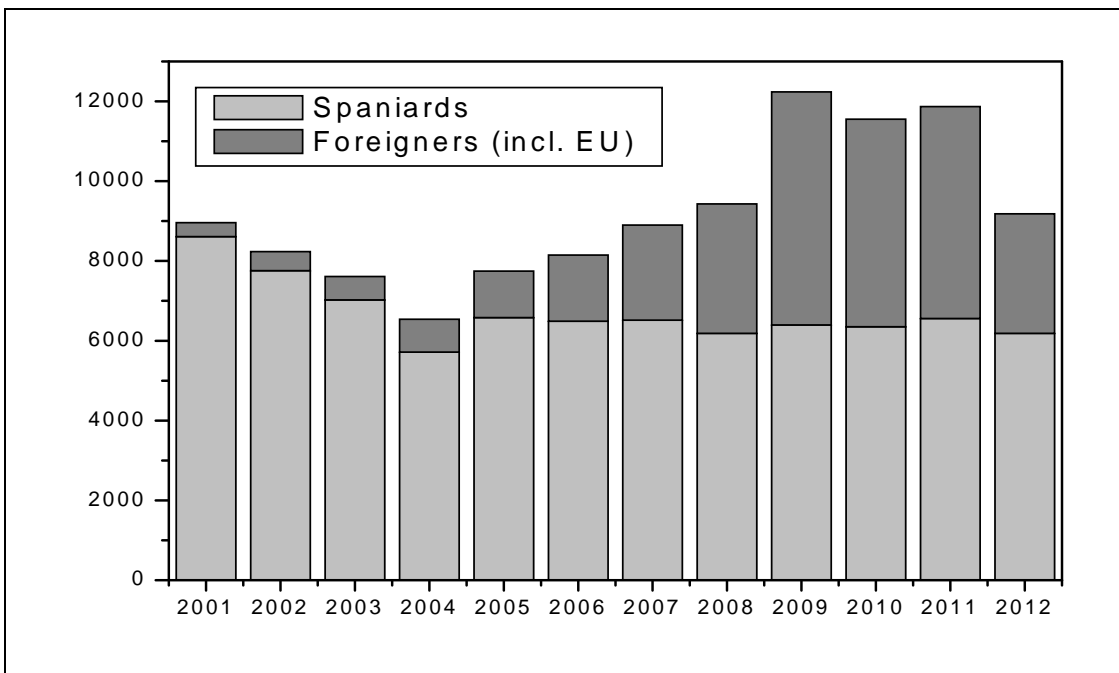
²⁶ It is important to note that institutions still fail to provide figures about the number of applications and their outcomes.

Figure 2: Distribution of medical training slots by nationality



Source: Data of the Ministry of Health, Social Services and Equality, provided by the Spanish Medical Council (Consejo Oficial de Médicos) and elaborated by Jose Maria Romeo.

Figure 3: MIR participants according to nationality



Source: Data kindly provided by Fernando Rivas Navarro, CGCOM.

This process of internationalisation mainly affected the specialty of Family and Community Medicine. In 2010, the percentage of foreign doctors training in FCM was 44.7 per cent of all those who chose this specialty (Barber Perez, Lopez-Valcarcel B.,

2012). In contrast, the presence of foreigners in other primary care services such as paediatricians, remained one of the lowest (13 per cent) compared to the other specialties. This was considered further proof of the fact that excess supply did not affect primary attention in general, but specifically FMC (Lopez-Valcarcel B. et al., 2011b).

The 'use' of immigration to correct dysfunctionalities in the Spanish health sector, particularly its inability to attract physicians to unattractive specialties, was sharply criticised by the trade unions: 'It does not seem reasonable (and is ethically questionable) to think that the solution will proceed from professionals from third countries' (CESM, 17/10/2011). Similarly, a representative of the Spanish trade union UGT (*Unión General de Trabajadores*) expressed serious concerns about the inclusion of foreign medical professionals in the Catalogue,

'Currently, we think that there are too many specialised doctors and nurses included in the Catalogue who will probably go to centres for the care of elderly or dependent people instead of hospitals or ambulatories. We have tried to organise various meetings with the Ministry of Health to clarify under which conditions these people are brought into the country and are employed in the private sector because we are convinced that their employment represents a way to reduce costs' (UGT, 27/05/2011).

In view of this, both trade unions and licensing bodies suggested increasing the enrolment limit for medical schools and limiting the entry channel for non-EU foreigners through the *cupo*. However, such 'protectionist' requirements only found an audience that was willing to listen after the onset of the economic crisis and the increase in unemployed physicians. In fact, the credit crunch and spending cuts in the health sector have increased the number of doctors who are unable to find a job, despite having completed medical training in Spain. One of the reasons is that most must return to their country of origin to apply for a position because the medical profession has been eliminated from the catalogue of difficult-to-fill occupations. In addition, most of the few permanent positions offered are reserved for Spanish nationals and EU citizens²⁷, while interviews suggest that public hospitals currently tend to refuse temporary employment for foreign doctors, meaning that the private health sector is the only alternative for those who already have a residence permit.²⁸

As a representative of the medical trade union commented: 'Now that the ministry has decided to return to the previous situation, the sensation is that there are too many doctors in Spain' (CESM, 17/10/2011). Since then, several legislative reforms have been carried out. In 2010, the Ministry of Health reduced the number of medical

²⁷ The limitation to Spanish and EU nationals refers to so-called 'statutory staff' in the Spanish public health regime, and is regulated by the Framework Statute Law of Statutory Health Professionals (*Ley de Estatuto Marco n. 55/2003*).

²⁸ This information was provided during informal discussions with foreign physicians who recently completed their medical training in Spain.

training slots to the level of 2007. In the same year, the cap, which has been reduced to 4 per cent, was once again the only entry channel for non-EU foreigners. In addition, it is important to note that non-EU foreigners who obtained their medical degree at a Spanish university are also included in the cap, a decision that has been sharply criticised by social bodies, such as CGCOM. According to the information provided by CGCOM, the Ministry of Health reacted to such complaints stating that coming to Spain for medical training is an immigration matter and therefore depends on the applicant's nationality and not on where the degree was obtained (CGCOM, written information, 13/09/2013). In any case, since 2010 medical degrees must be fully recognised before the state examination. In addition, access to medical training has become more restrictive due to the introduction of a minimum grade, which must equal or exceed 35 per cent of the arithmetic mean of the ten best exams. All those who fail to achieve the minimum grade have no access to medical training. Finally, language has become an important selection criterion for the recruitment of foreign doctors who wish to start medical training in Spain. Since 2011, physicians from a country whose official language is not Spanish must demonstrate sufficient knowledge of Spanish (Level C1 or C2) according to the classification of the Cervantes Institute or the Official Language Institute in the applicant's country of origin. This novelty has been explained by the need to improve communication skills between doctors and patients and the necessity to adapt to requirements set by the EU directive on the recognition of professional qualifications. However, it must be also noted that, specifically in the Spanish case, it also represents a form of positive discrimination because Latin Americans are implicitly favoured by the language requirement. The economic crisis, however, not only affected the norms regarding foreigners, but also native physicians' expectations. According to a recent survey, young natives who graduated recently in medicine are more likely to choose unattractive specialties than in the past in order to avoid the risk of unemployment. At present, in fact, a growing number of Spanish doctors appear to be interested in practicing FMC compared to the past (Harris et al., 2013). Such a reverse trend is also related to the government's decision in 2008 to put a stop to the 'recirculation' phenomenon, establishing that those who wish to repeat the state examination despite having chosen a specialty must first give up their former specialty.²⁹ The change in the requirements for medical training has certainly negatively influenced the presence of foreign doctors in the final lists of approved state examinations. According to recent information, in 2012/2013 the number of foreigners who passed the MIR examination was 43 per cent lower than the number of foreign participants in 2011/2012 (see again figure 3).

Overall, the analysis shows that demand in the Spanish health sector was highly dependent on economic and political contingency. Reforms to adapt to changing 'perceptions' could be quickly implemented thanks to the central role played by the

²⁹ See decree 183/2008 of February 8. Further changes are envisaged, such as the ban on repeating the examination for two years after having failed three times.

ministry of Health in the organisation of medical careers. Hence, during the economic boom, the sector expanded far beyond necessity. Interestingly, data suggest that the recognition of foreign credentials was not used to block entry into the health sector because almost all candidates could apply for the medical training examination, “regularising” their position afterwards. With the onset of the crisis, central and autonomous governments quickly implemented measures to restrict foreigners’ access to medical training and other types of positions; many new doctors are currently unemployed. Such a situation shows how the international recruitment of foreign physicians was characterised by a short-term perspective that failed to tackle the structural problems in the health sector while a large number of medical trainees were hired without considering their real long-term possibilities of being integrated into the labour market after completing their training.

2.3. Engineering and IT specialists

Assessing the demand for engineers and IT specialists in the manufacturing and service sector is not an easy task. The central organisation of the Spanish health sector enables a more complete statistical overview to be obtained on the medical profession. However, no central body is available to provide specific statistics on the employment of engineers and other highly skilled technical professions. Especially in the case of engineers, the existence of different licensing bodies for different categories of engineers has always represented a serious obstacle to the elaboration of a comprehensive statistical overview of this profession. The National Statistical Institute only provides general data about those employed in highly skilled professions without differentiating between categories. What we do know is that production in the high-tech sector represents only 2.3 per cent of overall industrial production in Spain (INE, 2013). In spite of such a small percentage, the sector experienced a certain degree of dynamism during the economic boom. The number of Spanish companies that invested in research and development increased between 2002 and 2008. In this period, more than 60 per cent of investments were in the sector of information and communication technology (Mulet, 2013). Turnover generated in engineering with respect to the total GDP grew from 0.76 per cent in 2003 to 1.41 per cent in 2008, while employment in the engineering sector rose from 0.31 to 0.48 per cent of total employment between 2003 and 2009 (Cal Pardo, 2012). In 2009, 51.11 per cent of engineering activities concerned industry, followed by civil engineering (21.01 per cent). The remaining 30 per cent concerned engineering-related environmental, building and technological activities. The relevance of civil engineering was a clear consequence of the construction boom. As the HR director of a large Spanish energy company stated, ‘construction absorbed a lot and cannibalised architects’, which enhanced the demand for civil engineers before the crisis (ENERGY, 28/06/2013).

In spite of the aforementioned growing trend in the engineering and IT-sector, unlike Germany and other EU states, Spain never experienced a debate on foreign recruitment of engineers and IT experts. In addition to the small size of the Spanish industry sector, one of the reasons was certainly linked to the existence of a surplus of labour. In 2004, the ratio of those entering the labour market with an engineering degree with respect to those who were likely to leave it was 3:1, one of the highest in comparative perspective (OECD, 2007). Only very specific highly skilled technical occupations such as electricity, agriculture or other types of IT specialists were listed in the Catalogue of difficult-to-fill occupations, while large companies were mainly looking for managers and IT engineers or IT specialists (CONSULTING1, 22/03/2013). The HR directors of the two telecommunication companies interviewed for this study confirmed that it is very difficult to find people with certain very specific qualifications in IT:

'You must bear in mind that the world of telecommunications is not very big. A couple of years ago we were looking for somebody for a very specific job that was never done in Spain. The head hunters were unable to find anybody suitable for the position and finally we found somebody through international networking' (TELECOMM2, 04/04/2013).

However, most of the interviewees noted that firms were often not only looking for somebody with a certain professional profile but for people who belong to a certain network. As the worker in an HR consulting company remarked, firms usually try to rotate their personnel and only rarely look for people whose qualification is lacking in Spain (CONSULTANT2, 15/07/2013). Similarly, the worker of another consulting company noted,

'There are international groups that do not have much presence in Spain and that want to bring to Spain somebody they trust. In this case, the profile matters more (...) But often it is not only the profile but the need to have somebody belonging to a certain network. They want to develop their business according to the company structure' (CONSULTANT 1, 22/03/2013).

Due to the relevance of internal networks, vacancies are often advertised exclusively within the same company all over the world (TELECOMM2, 12/11/2013). This is also why large companies prefer intra-corporate transfers to individual recruitment. Interviewees highlighted that the Blue Card regulation is only used in a few cases to recruit people abroad who do not belong to the company. In any case, all interviewees confirmed that UGE is usually the entry channel upon which most firms rely for both intra-company transfers and individual recruitment (CONSULTANT1, 22/03/2013, CONSULTANT 2, 15/07/2013). UGE can only be avoided in the case of Latin Americans who have dual nationality³⁰, since this simplifies the recruitment process

³⁰ This is the case for Latin Americans with Spanish ancestors.

enormously: 'This means a change from six to maximum one month, one month and a half, in what you have to do' (TELECOMM2, 12/11/2012).

All employers are also aware of the fact that credentials recognition is an issue they have to deal with during the recruitment process. However, its relevance depends on the post and function of the job candidate. For instance, there is no recognition requirement for non-regulated professions such as IT engineers (TELECOMM1, 04/04/2013 TELECOMM2 12/11/2012). In such a case, what usually matters is the university where they obtained their degree. For other types of non-regulated professions, it has been argued that 'Spanish companies seldom require credentials "on paper". It is enough if somebody demonstrates that he or she is able to do the job' (CECOT, 21/06/2011). However, this is not the case for architects and industrial or civil engineers for whom credential recognition is a *conditio sine qua non* for becoming a member of the corresponding licensing body (*colegio*) and being responsible for a project (ENERGY, 28/06/2013). Formal recognition may therefore be of relevance for firms that carry out major engineering projects in Spain. However, one of the interviewed consulting representatives downplayed the importance of this aspect, reminding us that large projects require the participation of a 'thousand' engineers, but that very few of them are in charge of revising and signing the final project (CONSULTANT2, 15/07/2013).

If the recognition of an engineering degree cannot be avoided, the Ministry of Education is the institution responsible for recognising degrees obtained in third countries, while recognition of EU credentials is undertaken by the ministry responsible for the particular type of engineering specialty. Hence, the Ministry of Public Works (*Ministerio de Fomento*) is responsible for civil engineers, the Ministry of Industry for industrial engineers, and so on. According to all interviewees, the recognition procedure for engineering degrees can take up to two years, which is rather long compared to credentials recognition in the health sector.³¹ In this respect, the director of the immigration services of a large consulting company observed,

'The recognition process for doctors is much faster. Physicians received all types of facilities to have their degree recognised. In contrast, you can get old without having your degree in engineering recognised' (CONSULTING1, 22/03/2013).

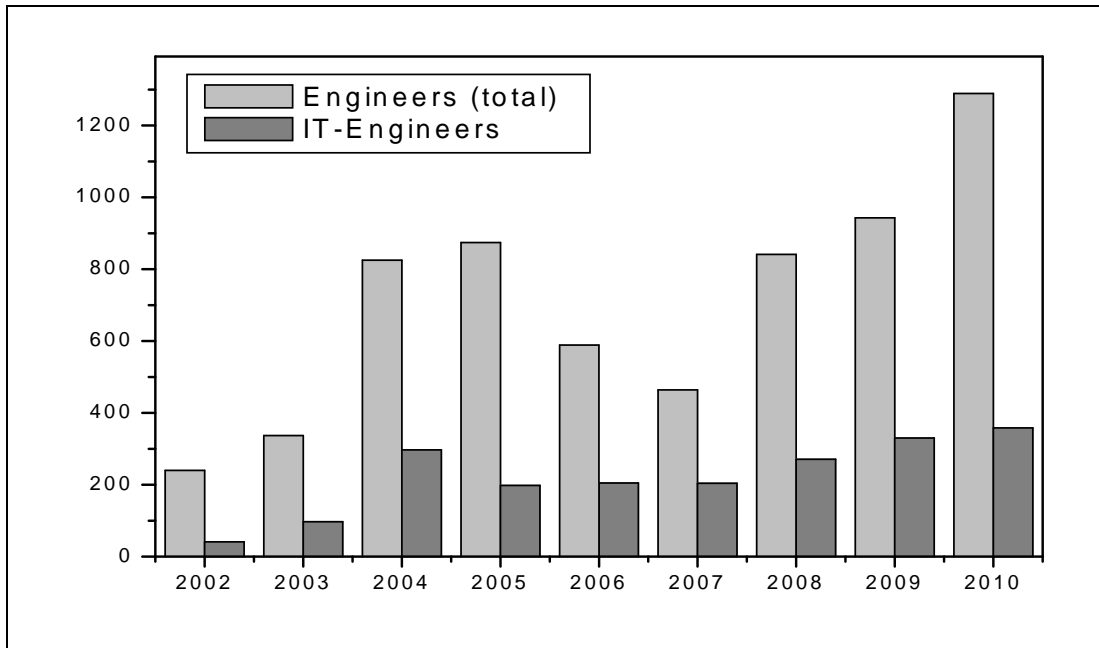
It has been noted that signing mutual recognition agreements can facilitate labour market integration in regulated professions (Sumpton, 2013). This seems to be, for instance, the case in Spain and Chile, whose mutual agreements have favoured the recruitment of Chilean engineers in Spanish firms and currently facilitate the employment of Spanish engineers in Chile. As one of the human resources managers

³¹ It is important to note that Spanish engineers employed in non-EU countries are currently facing similar difficulties in recognizing their Spanish credentials as reported by *El País* of 16/01/2013.

interviewed for this report state, “We have recruited excellent engineers from Chile, for whom the foreign credential recognition process was quite easy. This was not the case for the engineers from Argentina” (ENERGY, 6/10/2011).³²

The evolution of the recognition of non-EU engineers’ degrees³³ shows an upward trend, particularly in the fields of industry engineering and IT engineering, increasing from 240 in 2002 to 1,289 in 2010.

Figure 4: Recognition of titles concerning engineering degrees



Source: Spanish Ministry of Education.

Despite the growth, the number of degrees is far from being comparable to the figures in the health sector. This does not only reflect the smaller size of the engineering sector in Spain, but also suggests that credentials recognition in this sector is not as necessary as in the health sector. Furthermore, the lower relevance of foreign credential recognition need not necessarily have a negative effect on working conditions. According to most interviewees, a lack of formal recognition does not affect the employee’s salary (CONSULTING1, 22/03/2013 y CONSULTING2, 15/07/2013). The HR director of the interviewed energy company stated that ‘We make no difference in remuneration depending on whether the foreign degree has been recognised or not’

³² Recently, a new agreement was signed between Chile and Spain, establishing the mutual automatic recognition of all academic titles obtained in one of the two countries (http://www.camarahispanochilena.net/Espana-regula-la-homologacion-de-titulos-universitarios-con-Chile_a240.html). The Ministry of Education was requested to provide information about further bilateral agreements, but failed to respond to the request.

³³ Unfortunately, none of these ministries provides statistics about recognition procedures for EU citizens.

(ENERGY, 28/06/2013). According to information provided by the international department of the licensing body of civil engineers, the danger of salary dumping originates from companies providing international engineering services. In the engineering sector, transnational engineering services have been developed to bypass the sometimes very complex state regulatory frameworks (Dixon, 2013). Paradoxically, they pay their 'circulating' engineers 20 or 30 per cent less than engineers with a similar qualification would be paid if hired directly in the country of origin.³⁴

However, both company experts and civil servants told the author that, in some cases, it is UGE itself that advises applicants to use a different type of job description in the contract (e.g. technician instead of engineer or researcher instead of chemist) to avert any potential bureaucratic hassle related to recognition (UGE, 21/12/2011). Thus, chemists or engineers can become simple 'technicians' in a work contract. Officially, the intention of such a procedure is to avoid bureaucratic problems and to favour micro-matching between employees and employers. As all consultants interviewed for this study confirmed, Spanish firms look for 'more flexibility in the whole recruitment process, in terms of legalisations and requests of documents' (CONSULTING 1, 22/03/2013). However, the practice of hiring specialised highly skilled workers as technicians is worth thinking about. Even though very much depends on a firm's policy, it cannot be ruled out that the formal devaluation of foreign workers' credentials in contracts may also imply that migrants who enter as highly skilled migrants will be employed in medium-skilled occupations and receive payment as medium-skilled workers. As Hawthorne (2013) notes, partial recognition may increase the complexity of procedures and also contribute to leaving workers in a professional situation with lower wages and under-use of skills. Yet, downskilling practices are not an uncommon phenomenon in Spain,

'In Spain, we are currently forcing terrible levels of over-qualification. I always say this [...]. This produces very high levels of frustration and reflects the failure of the Spanish education system [...] In 2007, for instance, there was a lack of construction engineers and technicians for the maintenance of cooling stations. In the case of the latter, there was not vocational training for this specific job so we had to hire technical engineers for the job' (ENERGY, 28/06/2013)³⁵.

The existence of such practices is more realistic if we consider that both state officials and executives have described the poor quality of Spanish vocational training and the lack of medium-skilled workers in Spain as one of the main weaknesses of the Spanish

³⁴ The information was provided in an informal conversation with a representative of the international relations office of the building engineers licensing body. However, no formal interview on the subject was possible, despite several requests.

³⁵ Please note that technical engineers are however at a lower level than superior engineers because their studies have a duration of 4 years while superior engineers have to study five years.

production system. As stated by a senior advisor to the Spanish Ministry of Labour and Immigration: 'The vocational training system is not agile enough. There is no capacity to adapt to the market's needs. In the "Table for the Social Dialogue" they always say that vocational training should be improved, but nothing happens' (MTIN, 11/10/2011). The mismatch between university degrees and high-quality professional training has been also noted by employers: 'If we [*in Spain, A/N*] have 40 per cent of young people with a university degree, then companies rely on these people. If there were fewer of them, then employers would look for young people with vocational training' (ENERGY, 28/03/2013).

3. The recruitment of highly skilled workers in Germany³⁶

3.1. The legal framework

Germany was presented for years as a 'non-immigration country' where quite generous entry policies for asylum seekers and family migrants were at odds with a general entry stop (*Anwerbestopp*) for foreign workers. After the migration crisis of the 1990s, Germany restricted its humanitarian immigration channels, maintaining its restrictive approach towards labour migration. Foreigners were only allowed to work in Germany under certain exceptional conditions. Their access to the labour market was regulated by the residence decree (*Aufenthaltsverordnung-AAV*)³⁷ of 18 December 1990 and the decree on the exception to the entry stop (*Anwerbestoppausnahmereverordnung-ASAV*)³⁸, which complemented and specified the AAV. The exceptional rules contained in the aforementioned decrees were mainly used by the German government to recruit contract workers (*Werkvertragsarbeitnehmer*) from countries belonging to the former Soviet Union for employment in large projects, mainly in the construction sector. Contract workers were only given a two-year stay permit and were not included in the German social security system. The intention of such a regulation was clearly to avoid the political consequences of permanent immigration. In this vein, Germany was able to 'legalise' potential foreign workers from Eastern Europe and to relieve the asylum channel at the same time. As Jürgen Haberland (1994: 57) put it, the employment of contract workers was part of a strategy to 'reduce the immigration pressure proceeding from countries of the former 'Eastern block' through the creation of temporary migration channels'.

³⁶ Please note that the chapter introduction is based on Finotelli (2007, pp. 72-76). For a general and more detailed overview of labour migration governance in Germany, see Laubenthal, 2012.

³⁷ Cf. Verordnung über die Aufenthaltsgenehmigung zur Ausübung einer unselbständigen Tätigkeit (Arbeitsaufenthaltsverordnung – AAV) vom 18.12.1990 (BGBl. I 1990, p. 2994).

³⁸ Cf. Verordnung über die Ausnahmeregelungen für die Erteilung einer Arbeitserlaubnis an neueinreisende ausländische Arbeitnehmer (Anwerbestoppausnahmereverordnung – ASAV) vom 2.12.1990 (BGBl. I 1990, S. 3012) ersetzt durch die Anwerbestoppausnahmereverordnung vom 17.9.1998 (BGBl. I 1998, p. 2893).

The official entry stop only concerned activities with a duration of more than three months. This meant that the German government also recruited employed seasonal workers for agriculture and the restaurant business, 'legalising' in the 1990s a form of recruitment that could only be undertaken illegally in the 1980s. In 1998, seasonal workers in agriculture and the restaurant business were then officially excluded from the entry stop. After then, the number of seasonal workers increased continuously (Laubenthal, 2012).

The systematic recruitment of low-skilled workers reflected a pragmatic management of immigration that was de facto in contrast with the German official non-immigration dogma (Bade, Bommers, 2000). However, the entry of contract workers and seasonal workers was never used to officially question the German restrictive immigration approach. The opening process to labour migration officially started with a debate on highly skilled migrants. The AAV and ASAV already included exceptions to the labour market check for highly skilled workers such as teaching personnel, specialty cooks, scientists or workers with special skills. However, their recruitment was very bureaucratic and time-consuming. It was only in February of 2000 when the introduction of the 'Green Card' for the recruitment of IT specialists formally challenged the long-lasting German non-immigration dogma. For the first time after the 1970s entry stop, a Red/Green coalition formed by SPD and the Greens officially acknowledged the existence of a certain need for highly skilled foreign workers in Germany and approved two decrees regulating the residence and working conditions of highly skilled workers in the IT sector.³⁹ The residence of highly skilled IT workers in Germany was still conceived as a temporary migration scheme since residence was limited to five years. However, 'Green Card' holders were included in the German social security system and could be accompanied by their families from the beginning of their stay. Despite the intensity of the debate, the number of residence permits issued to IT specialists remained fairly low: only 29,031 permits for IT specialists were issued on the basis of this new regulation between 2000 and 2003. As explained by Kolb (2004), two years before the 'Green Card' regulation, an administrative memo issued by the German Ministry of Work had eliminated the foregoing labour market check for intra-company transfers. For this reason, large companies preferred to recruit their IT specialists via intra-company transfers rather than through the time-consuming 'Green Card' regulation, in spite of the labour market check having been lifted. In this respect, the Green Card' only symbolically represented a break with the past, while an opening process towards highly skilled migration had already occurred de facto beyond the public debate (Kolb, 2004).

³⁹ The "Verordnung über Aufenthaltserlaubnisse für hochqualifizierte ausländische Fachkräfte der Informations- und Kommunikationstechnologie" (IT-AV) and the "Verordnung über die Arbeitsgenehmigung für hochqualifizierte ausländische Fachkräfte der Informations- und Kommunikationstechnologie" (IT-ArGV).

Notwithstanding this, the small number of residence permits issued does not question the fact that the “Green Card” represented a milestone for a new and more open debate on labour migration in Germany (Laubenthal 2012). As a matter of fact, the ten years following the introduction of the Green Card’ regulation were marked by the gradual relaxation of entry rules for highly skilled migrants. The first step in this direction was §19 of the new immigration act of 2005 (*Gesetz zur Steuerung und Begrenzung der Zuwanderung und zur Regelung des Aufenthalts und der Integration von Unionsbürgern*), which abolished the priority check for *i*) scientists and academics with special knowledge *ii*) teaching personnel or researchers in a leading position and *iii*) specialists and executives with special professional skills. The minimum salary they had to earn was approximately € 84,600. In the following years, access to the German labour market was extended both in terms of the qualifications and minimum salary required. The most relevant changes occurred between 2010 and 2012, when the ‘Blue Card’ directive was definitively transposed into §19a of the German immigration regulation. According to the new rule, a ‘Blue Card’ can be issued to all non-EU highly skilled workers with a university degree who earn an annual salary exceeding € 44,800 Euro. A special minimum salary limit of € 36,000 was introduced for highly skilled workers in the so-called MINT professions (mathematics, informatics, natural sciences and technology) and the medical sector. Those recruited via the ‘Blue Card’ channel can work in Germany if their professional qualification is recognised or is considered equal to a German degree. Such recognition is particularly relevant in the case of regulated professions such as those related to the health sector or engineers. Recent changes in the German Residence Act have led to the introduction of a new visa for job seeking for highly skilled workers who want to look for a job in Germany if they can prove they can sustain themselves financially despite not having a potential employer in Germany. By introducing this new rule, which is valid until January 2016, the German model has been differentiating itself from traditional employer-oriented models in favour of a more human capital-oriented approach (Kolb, Klausmann 2013). Recently, Germany has also tried to improve its persistent shortages of labour in medium-skilled occupations by creating a positive list of skilled technical occupations.⁴⁰ In addition, paragraph 6.2 of the new decree changing the immigration law (*Verordnung zur Änderung des Ausländerbeschäftigungsrechts*) states that foreigners with a professional qualification of a minimum of two years can be hired in a training occupation in Germany if their qualification can be recognised as equal to a similar qualification in Germany. As Holger Kolb, deputy director of the *Sachverständigenrat deutscher Stiftungen für Integration und Migration* (SVR) highlighted, paragraph 6.2 represents the end of German ‘academic arrogance’, introducing at the same time a smart combination of control and integration policy (KOLB, 11/04/2013). In this respect, the recognition of foreign qualifications will benefit from the new legislation on the recognition of foreign credentials (*Anerkennungsgesetz*). Since 2005, German scholars

⁴⁰ See <http://mangelberufe.de/fachkraeftemangel-akademiker/>

and policy makers have become increasingly aware of the strict relationship between foreign credential recognition and labour market integration. In this respect, it can be argued that the German government tried to avoid the mistakes made by classic immigration countries such as Canada, which have been losing precious immigrant skills due to deficient foreign credential recognition procedures. Legislation to recognise foreign credentials in Germany was fragmented and not supported by the indispensable administration structure to process recognitions (Englmann, Müller 2007). Nevertheless, the removal of difficulties in the recognition of foreign credentials was considered one of the most important challenges for Germany as a new immigration country. In 2007, the IQ network 'Integration through Qualification' (*Integration durch Qualifikation*) created by the Federal Ministry of Work promoted a report on the situation of foreign credential recognition in Germany. The aim of the report was to provide an overview of actors and processes in this field as well as to propose possible solutions where shortcomings were observed (Englmann, Müller, 2007).

A couple of years later, a report issued by the German *Sachverständigenrat für Migration* criticised the protectionist attitude of professional organisations and licensing bodies with respect to foreign credential recognition (SVR, 2009). The debate about foreign credential recognition concluded with the approval of the Foreign Credential Recognition Law (*Gesetz zur Verbesserung der Feststellung und Anerkennung im Ausland erworbener Berufsqualifikationen, in short Anerkennungsgesetz*), which came into force in 2012. The new recognition law contains the Federal Law *Berufsqualifikationsfeststellungsgesetz* (BQFG) for qualifications belonging to the competencies of the Ministry of Education as well as additional regulations for about 60 regulated professions such as health professions and regulated crafts (*Handwerkberufe*). The BQFG extends to third-country nationals the provisions contained in the EU directive on credentials recognition, the objective of which is to guarantee that those who obtained their professional qualifications in a Member State can pursue the same profession in another Member State. As such, the German legislator has removed the legal differences between EU- and non-EU citizens, and opened new opportunities to incentivise recruitment as well as to enforce labour market integration (Müller, 2011). Nationality is no longer a criterion for the recognition of foreign credentials, and the law establishes a common and transparent recognition procedure that must take no longer than three months. Implementing the law is certainly not an easy task because it must co-exist with the state-level regulations of several professions due to the subsidiary nature of the issue (Laubenthal, 2012). By August 2013, only seven *Länder* (the German federal units) had adapted the Federal regulation into *Länder* regulation: Hamburg, Saarland, Lower-Saxony (*Niedersachsen*), Hessen, Mecklenburg-West Pomerania (*Mecklenburg-Vorpommern*), North Rhine Westphalia (*Nordrhein-Westfalen*) and Bavaria (*Bayern*). The *Länder* of Nordrhein-Westfalen and Sachsen-Anhalt have established a working group to design a

legislative pattern for *Länder* regulation in this field and hence to facilitate the adaptation process in the other *Länder*. However, as a representative of one of the interviewed IQ Networks highlighted, some *Länder* still prefer to retain their own professional regulations,

'In Berlin, for instance, the corresponding regulation bodies for teachers and engineers declared that they would prefer not to integrate the new recognition law because the current regulations are sufficiently open and, actually, meet all requirements that the recognition law would meet. I think that in many *Länder* the debate emerges between professional regulation and recognition law' (IQ1, 16/04/2013).

The same occurs in the case of the *Land of Brandenburg* because the existing professional regulations are considered an adequate legal basis for the recognition of professional titles (CHAMBER1, telephone interview, 12/09/2013). Besides the risk of asymmetric implementation, it has also been noted that some professionals will benefit from the new law more than others,

'This [*the recognition law A/N*] does not apply to IT specialists because their profession is not regulated, it does not even apply to engineers because their profession is governed by regulations of the *Länder* and in the case of physicians, the only change concerns the *Approbation* [*the full licence to practice A/N*], which is now also possible for non-EU citizens. As far as the academics I deal with are concerned, I have the impression that the law has changed very little. In the non-academic field, however, things are different. Here the law applies to handcrafts and professions regulated by the Chamber of Commerce, and there are a lot of them' (IQ1, 16/04/2013).

All this notwithstanding, experts agree that the new law will certainly contribute to simplifying cumbersome bureaucratic procedures. As a civil servant of the regional government district of Baden-Württemberg (*Regierungspräsidium*) noted, if the law does not make things better, at least things will become easier (LAND1, 15/08/2013). In fact, recognition procedures will be supported by a network of 'Integration through Qualification' centres that will advise foreign job-seekers with public funding. In addition, there is widespread agreement that the law represents very significant progress, taking into account that Germany's long-lasting reputation as a restrictive immigration country was considered a big challenge to its attractiveness for highly skilled migrants (OECD, 2013). In this respect, the new law is certainly seen as a strong message in favour of Germany's new migration paradigm. As workers from one of the IQ networks stated, the law reflects a completely new approach, in which migrants are no longer considered a group with deficiencies but a group with potential (IQ2, 10/04/2013). Similarly, another IQ representative noted,

'But if we talk about effects (and not about legal aspects), then something changed. The attitude towards recognition is different. One gets the feeling that it is important to value professional qualifications [...] In the past, for instance, it was not possible to include foreign professional credentials in the database of many state offices. If an engineer from Bulgaria came to Germany, it was classified as "untrained" because the system was only programmed to do this. This was changed before the law was approved' (IQ1, 16/04/2013).

In this respect, the deputy director of the human resources department of a large German hospital stated that,

'I cannot compare the situation with the past...I do not know how complicated it was before. However, I suppose that the law has clarified many things for the Foreign Office and other administrations. Thus it has become public that something like that exists and what it is good for. I think it has generally opened minds a little bit more' (HOSPITAL, 18/04/2013).

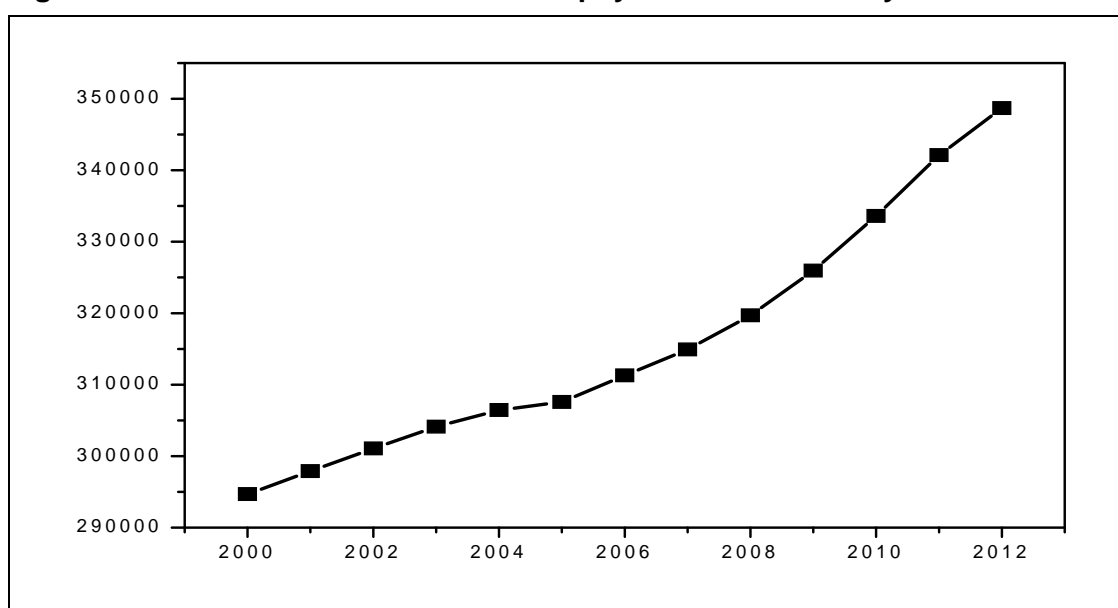
All in all, Germany seems to have accomplished the shift from a 'reluctant' (Martin, 1994) immigration country to one of the industrialised countries with the lowest barriers for highly skilled migration (OECD, 2013). The new 'welcome culture' (*Willkommenskultur*) is the product of an interplay between several factors such as a positive economic situation and the increasing consensus on the need for highly and medium-skilled foreign labour for Germany's well-being (Laubenthal, 2012). Such a shift, which closes Germany's non-immigration era, has been also possible thanks to the intervention of more internationalised and open-minded bureaucracies than in the past (KOLB, 12/04/2013). Certainly, the changes are not without criticism. The minimum salary for highly skilled workers, for instance, is a point of discordance. According to Holger Kolb, the current salary limit, which has been set in accordance with the criteria of EU legislation, is quite attractive to employers, at the same time guaranteeing foreign workers a respectable standard of living (*ibidem*). However, some think that minimum salaries for highly skilled workers may contradict Germany's need to increase stagnant wage growth (Bremke, 2012). On the contrary, others argue that Germany needs even greater wage flexibility to benefit from immigration (Brucker et al., 2012). Despite the debate on the labour market effects of minimum salary requirements for foreign workers, the new paragraph 6.2, together with paragraph 18c, undoubtedly represents an important structural break in German labour policy. The next section will look at greater detail into the consequences of such an opening process for two sectors that seem to be particularly affected by demographic change and labour shortages: the health sector and private industry.

3.2. The health sector

3.2.1. The demand for physicians in Germany

The debate on the demand for physicians in Germany is no new issue. Since 1996, Germany has been characterised by a steadily growing number of physicians and a ratio of 3.84 doctors to 1,000 inhabitants in 2011, which is one of the highest in Europe (OECD 2013).

Figure 5: The evolution of the number of physicians in Germany



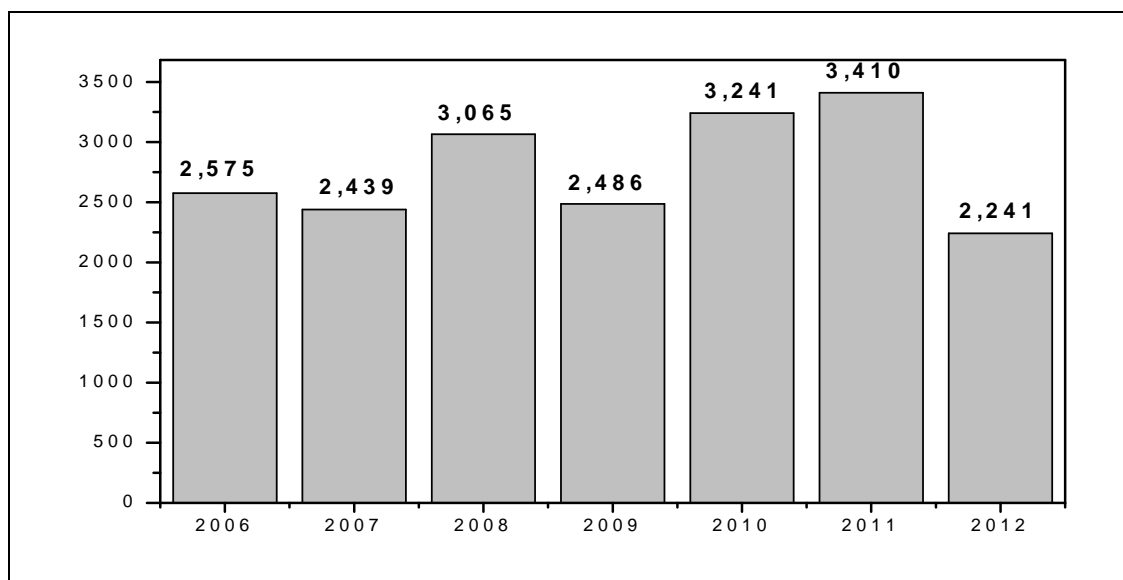
Source: *Bundesärztekammer 2013*

As in Spain, the German health sector was characterised by a deep contradiction between growing figures and sector analyses pointing to increasing shortages of physicians and other health professions. In 2001, the Federal Chamber of Physicians (*Bundesärztekammer*) published a report about the prospects of the medical profession in Germany. According to the research results, the increasing pace of aging and retirement of doctors together with the decrease in young doctors have produced a growing demand for certain specialties (such as general practitioners), especially in less attractive regions of Eastern Germany and in hospitals in rural areas (Bundesärztekammer, 2001). This is why the demand for doctors in Germany was also described as an issue of oversupply in metropolitan areas and undersupply mainly in Eastern German regions, the areas most affected by shortages (Hoesch, 2012). Scholars mentioned the drop-out rate of 30 per cent at universities as well as the increasing feminisation of the medical profession, with a growing number of female physicians willing to work part-time as possible demand determinants (Kopetsch, 2002; Blum and Löffert, 2010). In addition, the demand may have been determined by legal

changes that recognised inactive on-call duty hours as regular working hours (Blum and Löffert, 2010). Similar explanations were put forward by experts working in the medical sector. A representative of the medical district of Westfalen-Lippe, the largest medical district in Germany, considered the retirement of about 13,600 physicians and the feminisation of the health sector to be one of the major causes for the demand of doctors in Germany (CHAMBER2, 19/04/2013). An interviewee of the delegation of the *Land of Nordrhein Westfalen* confirmed that the demand for doctors in Germany has also to do with the implementation of the EU regulation on working hours. He noted that about 60 per cent of medical students are women who, when later employed in a hospital, will work part-time rather than full time. In addition, he observed that there are several new types of medical services (e.g. hip replacements) which specifically require a newly trained or retrained labour force. Finally, he reminded that while hospitals undertake a great deal in order to obtain physicians, health insurance companies believe that Germany has sufficient physicians, but that they are not well distributed due to the unattractiveness of rural areas. (HEALTH1, 22/05/2013).

However, the determinants of the demand for physicians in Germany are also related to the attractiveness of the medical profession for young natives. Each year, a considerable number of physicians leave Germany in search of better job opportunities and, foremost, better salaries. By 2010, 17,000 doctors had already left Germany, mainly to work in Switzerland or the USA (Kopetsch, 2010).

Figure 6: Number of doctors leaving Germany



Source: Bundesärztekammer 2013.

Finally, the declining attractiveness of the specialty of generic Medicine (*Allgemeinmedizin*)⁴¹ was mentioned when explaining the demand for doctors in Germany (Kopetsch, 2010). Westfalen-Lippe, the largest health district in Germany, will have a shortage of around 1,200 family doctors and 1,000 various specialists over the next decade (CHAMBER2, 19/04/2013). The only practices available in the district at present, the number and distribution of which are stipulated by the regional organisations of independent physicians (*Kassenärztliche Vereinigungen*), are for generic doctors in rural areas (as of 2013). The situation is unlikely to improve there because the number of doctors who completed the specialty of generic medicine fell from 279 in 2005 to 103 in 2012. In order to compensate for the unattractiveness of this specialty, several State Chambers have organised extended training unions (*Weiterbildungverbunde*) to achieve the better organisation of this specialty. In addition, specialists now have greater options for changing their specialty to Family and Community Medicine. However, it is interesting to note that the debate on demographic shortcomings did not immediately lead to the call for physicians from abroad in Germany but rather focused on the search of functional alternatives. As a matter of fact, immigration was not addressed initially as a strategy for counteracting demographic changes and their consequences, as was the case in other EU countries such as Spain or the UK (Hoesch, 2012). Instead, the *Bundesärztekammer* advised adding practical courses to medical degrees and improving working conditions for German physicians in hospitals and for self-employed physicians to make the medical profession more attractive to young people by reducing bureaucracy and offering more generous salaries (Bundesärztekammer, 2001). One of the reasons for the limited relevance of labour migration for the health sector is considered to be the power of professional organisations. The German health sector is a federally organised sector with a very high degree of corporatism where 'medical doctors enjoy a double 100 per cent level of organisation' (Hoesch, 2012, p. 14).⁴² At the *Länder* level, Germany has 17 different State Chambers of Physicians. Since health services in Germany are not financed from state budget allocations, as in Spain, but from social security contributions, health policy is to be considered quite independent from government politics. This gave medical corporations a lot of clout when it came to federal health politics, making them very protectionist with respect to the recruitment of foreign doctors (Hoesch, 2012). Even in 2008, the *Marburger Bund*, the federation of German physicians, declared in response to the EU Commission's Green Paper about the migration of health professionals

⁴¹ Generic medicine is one of the 32 medical specialties in Germany and corresponds to the Spanish specialty of Family and Community Medicine.

⁴² GKV (*Gesetzliche Krankenversicherung*) and KV (*Kassenärztliche Vereinigung*) are the most important interest organisations of independent physicians. All physicians who work with GKV insurance are members of KV. Furthermore, physicians are also members of non-governmental organisations such as the *Marburger Bund* (for hospital physicians) and the *Hartmann Bund* (for self-employed physicians).

'The goal to recruit doctors from developing countries should be abandoned, since this professional group is urgently needed in their country of origin to take care of the native population. One exception could be made in the case of medical specialisation, if the same doctors return to their country of origin immediately after this concrete qualification measure' (Marburger Bund, 2008: 4-5).

As in the health sectors of other countries, protectionism was exerted through foreign credentials recognition. All physicians require a full licence (*Approbation*) to practice in Germany. This permit is issued by the state health authorities (*Oberste Landesgesundheitsbehörde*) of the respective federal unit. Physicians can only practice anywhere in Germany for an unlimited period of time once they have received *Approbation*. *Approbation* is also a *conditio sine qua non* for specialising or opening one's own clinic.

Before the new recognition law was approved, however, paragraph 3 of the *Bundesärzteordnung* (Federal regulation of the medical profession) stated that the full licence to practice in Germany could only be issued to German or EU citizens, whose medical degrees or medical training are considered equivalent (*gleichwertig*) to German degrees and are therefore almost automatically recognised.⁴³ The full licence to practice could also be issued to *i*) Germans who had studied at a foreign university *ii*) the spouses of German and EU citizens *iii*) ethnic Germans (*Spätaussiedler*) who had obtained their degree before emigrating to Germany (Engelmann and Müller, 2009). In such cases, however, a commission had to assess the equivalence of the foreign degree and the German degree by way of a *Kenntnisstandsprüfung*, an examination to ascertain the candidate's state of knowledge (see scheme B).

The difficulties in obtaining a full licence to practice also affected the recognition of specialty training which, unlike *Approbation*, is not centrally organised, but depends on the State Chambers of Physicians and is regulated by the specialty training regulations of each Chamber. Like *Approbation*, the recognition of specialty training abroad also depends on the assessment of equivalence of medical training received abroad and German training. Prior to 2012, it was almost impossible for non-EU citizens to have their specialty training abroad recognised without having previously obtained a full licence. As can be seen, the application of nationality-based restrictions to the medical profession in Germany made this field *de iure* inaccessible to non-EU citizens for many years. This rule was not only in line with then German non-immigration dogma, but also contributed avoiding the liberalisation of the practices market in Germany because practices can be only run if the physician has a full licence. For this reason, nationality

⁴³ Since 2007, medical degrees obtained in Australia, Israel, Japan, Canada and New Zealand have also been classified as equivalent (*objektive Gleichwertigkeit*) to the German degree, while all others remain subject to 'state of knowledge examination'.

requirements for *Approbation* have also correctly been described as ‘instruments of exclusion’ (Hoesch, 2012, p. 22) against non-EU doctors in Germany.

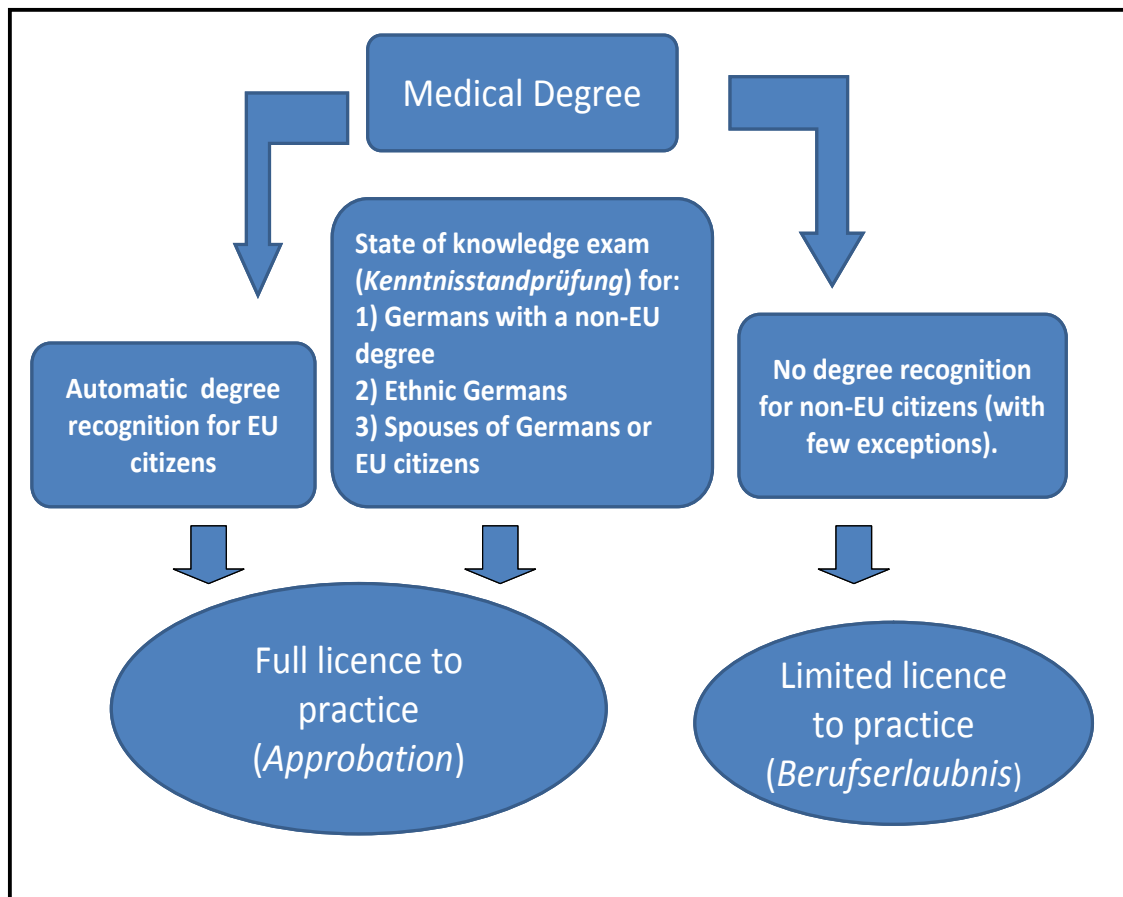
3.2.2. The recruitment of foreign physicians

As was seen, the regulation of the medical profession in Germany before 2012 did not allow non-EU doctors to apply for a full licence to practice. Quite strikingly, this rule applied also to non-EU citizens who had obtained their medical degree from a German university (Yamamura, 2009). Non-EU citizens could only be issued the *Approbation* in a number of exceptional cases, whose interpretation was highly discretionary and mostly ending with withdrawal of the application (Schiller, 2010). On the contrary, non-EU citizens were only allowed to work as physicians in Germany on the basis of a *Berufserlaubnis*, a temporary license to practice for up to four years (see scheme B). Such permits, also defined as a ‘Quasi-Approbation’ (HEALTH1, 22/05/2013) were limited to the *Land* in which it was issued (and sometimes also to a certain activity) while the *Approbation*, once issued, was valid ‘forever and everywhere’ (HEALTH1, 22/05/2013). As an expert of the Health Ministry of the *Land* of *Nordrhein Westfalen* noted, the temporary nature of the *Berufserlaubnis* was legitimised by ‘development reasons’ (i.e. the declared goal to avoid ‘brain drain’) and by the general idea that migrants would return to their country after having concluded their medical training in Germany (HEALTH1, 22/05/2013).

However, for those who embarked on their medical training in Germany and then decided not to return to their country of origin, the *Berufserlaubnis* was the only way they could practice as a physician. It was possible to extend a temporary licence if *i)* the renewal was of interest for the general medical care of the population *ii)* a recognised asylum seeker was involved or *iii)* if the applicant had obtained German citizenship, but it was not possible to conclude the naturalisation process for reasons beyond control of the applicant. The existence of such exceptions allowed the repeated extension of temporary permits, which was a frequently used instrument in past German immigration policy:

‘In the past, foreign doctors could come to Germany and apply for a *Berufserlaubnis* and could extend such a *Berufserlaubnis* for years...They had to renew it, but it worked’ (IQ1, 16/04/2013).

Scheme B: Recognition of foreign credentials before 2012



Overall, the *Berufserlaubnis* helped to solve the problem of the demand for doctors in hospitals and some rural areas accomplishing at the same time with an immigration policy approach based on temporal and geographical limitations to avoid immigrants' permanent settlement. Temporary licences were limited to the activities of an assistant doctor and did not allow foreign physicians to open their own clinic on German territory. It is worth noting that the issue of a temporary residence permit was not dependent on a comprehensive state of knowledge examination, but only on the individual assessment of certified information about medical training abroad.⁴⁴

⁴⁴ Such a procedure, however, was not unique to Germany. Up to 1999, for instance, the Australian government required foreign doctors with a permanent residence permit to undergo a formal assessment of their medical training abroad while temporary resident doctors could enter the profession without any further requirement, mainly to work in disadvantaged areas, until law was changed (Iredale, 2001).

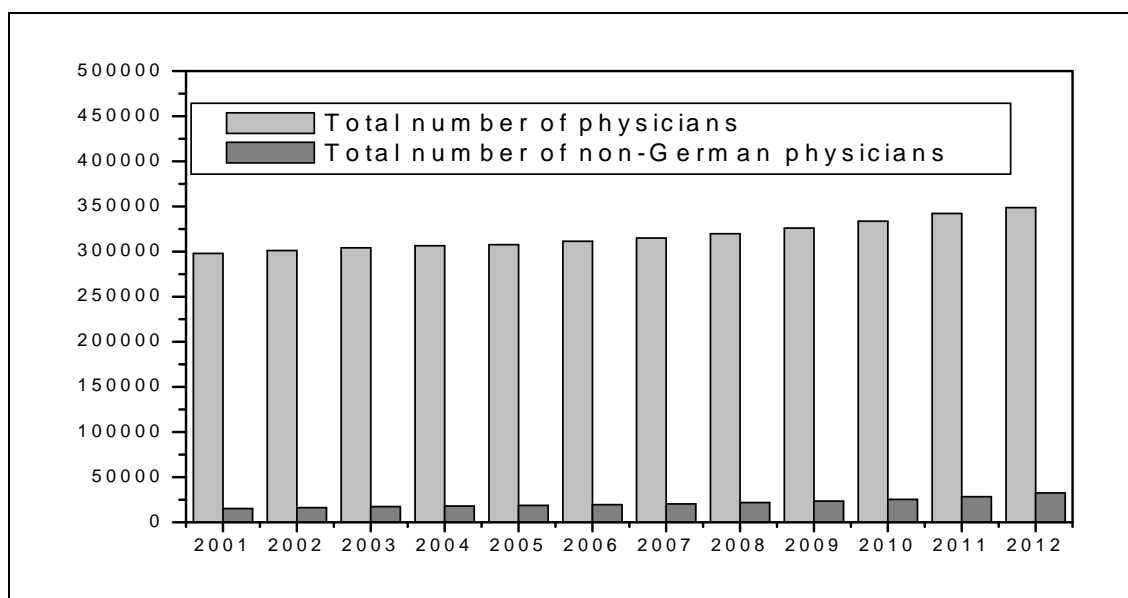
The protectionist approach pursued by German professional corporations is clearly reflected in the number of foreign physicians at the turn of the millennium: there were 15,731 foreign physicians in Germany in 2001, comprising 4.1 per cent of the total number of physicians that year. However, only 70 per cent of foreign physicians were employed in traditional medical professions in hospitals or private clinics while the rest were employed in other sectors or did not practice at all. A total of 65 per cent of foreign doctors originated from Europe, mainly from the former Soviet Union and Greece; 24 per cent came from Asia, primarily Iran (Bundesärztekammer, 2001). As BAEK statistics show, most practicing doctors were employed in hospitals while only a small number opened a clinic.

The situation only changed very recently. The new foreign qualification law also allows non-EU citizens to apply for the recognition of their medical qualification. Recognition no longer depends on nationality, but on the country in which the applicant obtained his or her medical degree. In other words, since 2012 anybody has the right to apply for *Approbation* in Germany. Unlike in the past, non-EU applicants may now pass the state of knowledge examination before starting medical training in Germany, which is considered a very positive step (HEALTH1, telephone Interview, 22/05/2013). Such an important shift is not due to a single determinant, but is more likely to be the result of a positive interplay between the increasing need for physicians and the paradigm shift in German immigration policy. In the specific case of physicians, the reasons for lifting exclusionary requirements were to be found not only in the favourable *Zeitgeist*, but also in the fact that it was impossible to exclude the medical profession from the provisions included in BQFG. As cited in an official statement by the Federal Chamber of Physicians, the transposition of the European directive to BQFG was necessary to avoid the coexistence of a new recognition law with the *Bundesärzteordnung* (the Federal Medical Regulation) (BAEK, 2011a). In this respect, it can be argued that the free movement of persons and the strengthening of EU citizenship started to erode the exclusionary principles of the German Federal Medical Regulation (Schiller, 2010). Notwithstanding this, the *Bundesärztekammer* also declared in the same document that, in the case of major differences between German medical training and that in the applicant's country of origin, applicants from third countries should have to pass a complete state of knowledge examination. In a subsequent written communication to the *Bundesrat* (the German Senate) of 17 June 2011, the Chamber reiterated its concern, stating that stricter recognition requirements for third-country nationals would be useful to preserve the quality and level of the German education system, where medical school students have to manage the challenge of a complex final examination (BAEK, 2011b). The BAEK prevailed. According to the new legislation, degrees obtained by EU citizens are automatically recognised if the 'education certification' (*Ausbildungsnachweis*) refers to studies completed *after* 20 December 1976. In the case of degrees obtained before this date, and if deficits are observed, EU citizens only have to be examined in the subjects where these specific deficits are observed (Art. 3

§2 BAÖ). In contrast, all non-EU citizens must undergo a complete examination (Art. 3 § 3 BAÖ) if deficits are detected. Such different treatment could turn into an additional barrier after lifting the nationality requirement. As interviewees have noted, non-EU applicants' medical knowledge is usually considered incomplete compared to German standards, meaning that applicants usually have to pass the state of knowledge examination in order to obtain a full licence (IQ1, 16/04/2013).

It is certainly too early to assess how many non-EU citizens have applied for recognition since such a ground-breaking decision and how many degrees have been recognised since the law came into force. However, data shows that the number of foreign physicians practicing in Germany has risen over the last four years.

Figure 7: Evolution of the number of physicians in Germany



Source: Bundesärztekammer 2013.

The number of foreign physicians in Germany almost doubled from 15,143 to 32,548 between 2001 and 2012. At the same time, the percentage of foreign physicians who do not practice medicine decreased from 30 to 13 per cent in the same period (Bundesärztekammer, 2013). For the time being, the presence of foreign physicians has increased, particularly in a number of Eastern German regions; most are physicians employed in hospitals.⁴⁵ This increase is mainly related to the economic crisis in Southern Europe and to Eastern European Enlargement. In fact, the increase in the number of physicians was mainly due to larger numbers of physicians coming from other EU countries (mainly Greece, Austria and Romania) and Russia. However,

⁴⁵ See, for instance, the article in http://www.bunte.de/gesundheit/news-aerztemangel-zahl-auslaendischer-aerzte-steigt_aid_39344.html. last access: 7th February 2014.

the new law is expected to contribute to a rise in recognitions and therefore more practicing physicians from non-EU countries. The federal administration reported that about 30,000 applications had been submitted since the law was approved, 20,000 of which in health professions (<http://www.bmbf.de/de/15644.php>). It only remains to be seen whether the recognition law will be able to lift the remaining obstacles for employment in hospitals but also 'all the insurmountable requirements imposed by professional regulations concerning the opening of a KV practice' (Hoesch, 2012, p. 22). As a matter of fact, the possibility of opening a KV practice or taking over a practice does not only depend on favourable legal conditions but also on certain degree of knowledge of how the German health system functions and on the efficiency and quality of internal networks (see Gibis et al., 2012).

Some experts also observed that differences between German *Länder* concerning the procedure for issuing full licences to non-EU citizens may represent an obstacle to international recruitment and labour market integration of foreign physicians. The vice-director of the human resources department of a large German hospital, for instance, was very concerned about the attitude of the public office responsible for credentials recognition which they had to deal with:

'They say that they are overworked, but our feeling is that arbitrariness also plays a role...and I do not think that they do not check carefully...I think that they check more overcarefully....But it is such a bureaucratic structure...if they had a service attitude, then it would be easier for them and for us, too. They are often impossible to reach and only at limited times...They do not respond to e-mails...It takes about five days for a *Berufserlaubnis* to be sent by ordinary mail, and when we ask them to fax it, they say they don't do that...'(HOSPITAL, 18/04/2013).

The statement by the hospital manager contrasted with information provided by a representative of the office concerned, in whose view differences have mainly to do with the staff available and the accuracy of requirements. Some, for instance, require certain forms of authentication whereas other *Länder* do with a copy to assess the authenticity of a document. As a result, the number of applicants also increased to a greater extent in some *Bundesländer* than in others (HEALTH2, 15/07/2013).

The recognition of non-EU medical degrees is not the only challenge state officials have to face. A State Chamber representative in charge of the recognition of medical training also mentioned the existence of difficulties with respect to the automatic recognition of specialty training carried out in EU Member States. He stated that, despite the fact medical training recognition of old EU Member States is based on a '38-year old applied practice', persisting obstacles should not be disregarded. For instance, not all EU Member States implement the so-called IMI (Internal Market Information System), which hampers the effective information exchange of foreign qualifications between different state administrations (CHAMBER2, 19/04/2013).

Furthermore, there is some concern about the contradiction between the legal obligation to automatically recognise specialty degrees obtained in EU Member States and the lack of knowledge about medical training in the new EU Member States: 'Despite the formally recognised equivalence of medical training in the EU, the content of medical training in EU Member States is still not known in full, nor compared or coordinated. Equivalence with respect to duration and content cannot always be investigated or guessed' (CHAMBER2, 19/04/2013).

Knowledge of the German language represents a further issue of debate. Highly skilled workers' scant knowledge of German is increasingly a matter of concern (Laubenthal 2012; Hibbeler 2013). According to the *Bundesärzteordnung*, doctors must possess 'necessary knowledge of the German language' to obtain a full licence. However, the law does not exactly define, which level of language is meant nor how such knowledge is to be assessed. The German *Länder* have therefore informally agreed on level B2⁴⁶ (intermediate language knowledge) as a minimum level for foreign physicians. It is then up to the recognition office to decide whether a simple language certificate suffices or whether an additional language test is required. This has been perceived as an important contradiction in the new German immigration approach, since it remains difficult to understand why is it necessary to have a C2 level (*proficiency A/N*) to study in Germany while it suffices to have B2 to work as a doctor.

Particularly in the case of physicians, experts observed that many B2 certificates are often only graded 'sufficient', meaning that foreign doctors do not possess a good language level despite having passed the required language exam,

'There is the requirement to pass the B2 examination, preferably at the Goethe-Institute...I think that, despite what they ask...I think that most of them really learn to understand and talk, and have the courage to talk, here...With some people you think "Have they understood me? Have they not understood me? Then you find out that they understood something completely differently, but did not want to talk about it...I was often under the impression that we use figures of speech they do not know. If somebody comes to Germany, he or she has a lot to face' (HOSPITAL, 18/04/2013).

Language problems have also been observed in physicians applying to have their medical training recognised,

'Of course we also had the problem of physicians who should formally know the German language but who then had problems in their daily

⁴⁶ B2 mainly means the ability to 'understand the main ideas of complex text on both concrete and abstract topics', to 'interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible' and to 'produce clear, detailed text on a wide range of subjects' (http://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages).

working lives...some had problems in passing the state examination after medical training...in some cases, we tried to solve the situation by offering additional courses or we had to say, that's it, this person cannot work as a specialist in Germany' (CHAMBER2, 19/04/2013).

Several State Chambers have initiated programmes to improve German skills. Some chambers have also introduced the requirement of doctor-patient interview simulations for medical training recognition. In addition, the individual federal state ministries of health have also agreed to introduce a common frame for all *Bundesländer* for checking the language proficiency of those applying for a full licence. In this case, a B2 language certificate would be followed by an examination of medical language. The *Land of Nordrhein Westfalen* played a pioneer role in unifying the language requirements between Chambers at the federal level. However, it is remarkable that the first meeting to elaborate new language requirements is scheduled for June 2014. Such an appointment so far ahead contrasts with the growing concern for the problem. According to a civil servant of the Federal Office for Immigration, postponement has to do with the fear that increased requirements could affect Germany's attractiveness for foreign physicians (BAMF, telephone interview, 17/09/2013). As another civil servant noticed: 'we need foreign physicians, but when the pre-requirements are too high, nobody will come to Germany' (HEALTH2, 15/07/2013). Such an attitude, however, is particularly striking if we consider the relevance that the language factor has acquired in the overall integration debate. Failing to tackle this issue at an early stage could seriously affect foreign physicians' chances of labour market integration and their acceptance among patients and colleagues.

3.3. Engineers and IT specialists

The introduction of the 'Green Card' for IT experts in 2000, despite being less successful as expected, not only contributed to stoking the debate on highly skilled workers in general, it specifically focused on the growing demand for foreign skilled workers in technical jobs. Scholars then increasingly started to examine Germany's growing need for highly qualified workers in the 'MINT' (mathematics, information technology, natural sciences and technology) occupations (Erdmann and Koppel, 2010). The demand for engineers appeared to be particularly worrying, especially in the *Länder* of *Baden-Württemberg*, *Bayern* and *Nordrhein Westfalen* (Koppel, 2007). Scholars noted that, while the total number of university students in Germany increased between 1995 and 2006, the number of students who completed an engineering degree in the same period fell from 50,613 to 39,129 (Koppel, 2008). To make matter worse, in Germany, together with Norway, Denmark and Hungary, the number of people retiring from the engineering sector was expected to exceed the

number of engineering graduates (OECD, 2007). Young people's lack of interest in studying engineering on the one hand and the growing number of retiring engineers on the other were considered some of the main reasons for the mismatch between supply and demand in the engineering sector. Not everybody admitted the existence of a skills shortage, arguing that Germany would be perfectly capable of meeting its demand for engineers with graduates from German universities (Bremke, 2010). However, most policy-makers and scholars agree that there is a skills shortage in this field. Efforts to change the situation were undertaken by all of the involved parties. German universities tried to make studying engineering more attractive to students, while networks of female engineers attempted to attract women into this traditionally 'male' sector by cooperating more closely with German firms.⁴⁷ In addition, German firms, particularly large ones, started implementing strategies to increase the presence of engineers, such as training programmes for their employees, employment schemes for older candidates and incentives in the form of higher salaries. Due to the skills shortage, an engineer's salary in Germany in 2007 was approximately 26 per cent higher than that of graduates employed in other sectors (Koppel, 2008).

According to the *IW-Zukunftspanel*, a survey conducted by the *Institut der deutschen Wirtschaft Köln* (Institute of German Economy Cologne)⁴⁸ in 2008, 20 per cent of the firms interviewed included the recruitment of foreign workers in their strategies to attract engineers.⁴⁹ Labour migration as a HR strategy, however, was an option limited to EU citizens, due to the lack of appropriate entry channels for third-country nationals. Large firms, representing 26 per cent of Germany's production structure, were able to recruit highly skilled workers through intra-company transfers. In contrast, small and medium-sized enterprises found it more difficult to meet their demand for highly skilled workers. Only universities and research institutes appeared to have no problems in recruiting scholars from abroad. As the head of the human resources department of a large German research institute in technology stated, research institutions still manage to find in Germany physicists and chemists, but all others especially circuit designers have to be recruited abroad. In such a case foreign scientists are recruited via §19, and no problems with the administrations have been noticed. The interviewee only noted that 'some embassies have longer processing times than others and that recruitment processes take longer when the candidate is accompanied by his family' (RESEARCH, 10/04/2013).

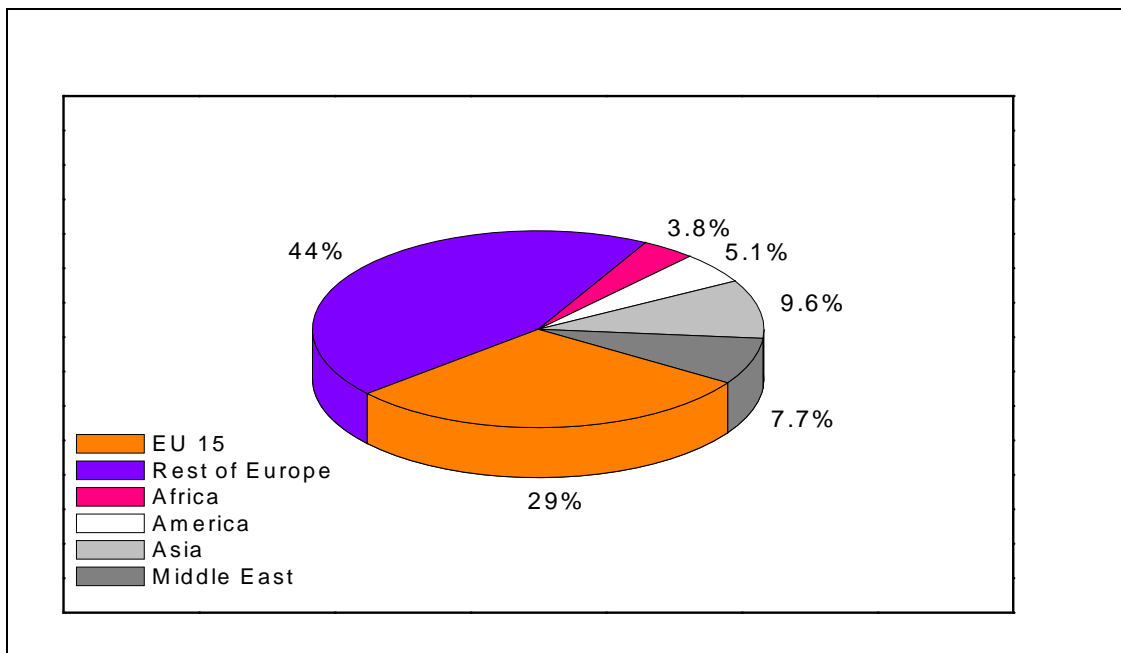
⁴⁷ Interesting examples in this respect can be the expansion of universities of applied sciences, such as Hochschule Regensburg, as well as the activities undertaken by the FemTec Network to foster the presence of female engineers in German firms (<https://www.femtec.org>).

⁴⁸ The *IW-Zukunftspanel* is a survey conducted among German firms to assess structural changes over time. It is carried out by the German Institute for Economy (<http://www.iw-zukunfts-panel.de/iwswp01.htm>).

⁴⁹ For an analysis of the *IW-Zukunftspanel* results with respect to the demand for engineers, see also Koppel 2008.

Hence, the Blue Card Directive, together with positive lists (*Mangelberufe*), can certainly be considered a valuable step forward in improving the German immigration model. Although it is too early to assess the overall success of a policy measure approved only in 2010, the German association of engineers (*Vereinigung deutscher Ingenieure - VDI*) reported that the number of active engineers increased from 1,396,000 to 1,617,000 between 2005 and 2010. The number of non-German engineers rose from 120,000 to 156,000; within this group, $\frac{3}{4}$ originate from European countries, particularly Russia, Poland and France.

Figure 8: Foreign engineers in Germany (2010)



Source: VDI 2013

According to the Director of VDI, the reasons for improvement can be found in the legal novelties concerning the entry of highly skilled workers and in the VDI campaigns aimed at spreading a positive opinion of engineers' job prospects among potential students. The increase in the number of engineers has partially relaxed the labour market demand. Nevertheless, shortcomings in mechanical, electrical and automotive engineering persist: half of the 70,000 engineering jobs available in March 2013 were for occupations in these sectors.⁵⁰ As with other highly skilled occupations, the demand for engineers and, in particular, the demand for foreign engineers, also depends on geography and the type of company in search of skilled labour. Although it cannot be said that there is a Germany-wide demand for highly skilled workers, there are increasingly bottlenecks in specific labour market segments (Müller, 2011). For

⁵⁰ See http://www.vdi.de/uploads/media/2013-04-08_VDI-PK_HM2013_Statement_Fuchs.pdf

instance, this is a very urgent problem in *Länder* such as Bavaria, which has a 'molecular' but very active production structure across its territory. As a representative of the Bavarian Ministry of Economy noted, Bavaria is experiencing considerable emigration from rural areas to large cities, which young people find more attractive. This subtle 'rural exodus' has exacerbated labour shortages in both medium and highly skilled occupations. As a consequence, the government of Bavaria launched initiatives such as 'Work in Bavaria', aimed at attracting foreigners to work in rural areas (BAVGOV, telephone interview, 13/09/2013). Employers' surveys show that small and medium-sized enterprises find it particularly difficult to recruit skilled labour. Such companies have a bigger labour turnover, and are less attractive to highly skilled workers than large companies (Dietz et al., 2013). As a VDI representative noted, large firms have fewer problems in recruiting from abroad and more experience in recognising foreign degrees (VDI, written communication, 05/09/2013). The human resources manager of the R&D department of a very large and prestigious car company acknowledged the existence of shortages in mechanical and electrical engineers, but denied that the demand for engineers is a problem for large firms. In particular, he denied that it was difficult for his company to find suitable candidates, because it is still considered a very attractive one by German engineers and has therefore managed to meet the demand with German engineers (CAR, 21/06/2013).

This statement was confirmed by the manager of an IQ office in Northern Germany,

'There are big firms such as Daimler, BASF and VW that use completely different recruitment schemes. They have no problems. They also work with foreign universities and recruit people directly from there' (IQ3, 18/04/2013).

However, positive occupation lists and job search visas, together with recent changes in the recognition of foreign credentials, could act as an additional incentive for small and medium-sized enterprises to recruit foreign workers. It was argued that such a regulation could considerably facilitate the integration of immigrants in the labour market, because there is a great deal of trust in 'documents' among German companies. As the interviewed car-company manager noted, a German degree in mechanical engineering is considered a sign of quality (especially if it was obtained at a renowned university) while in the case of foreigners it has first to be assessed whether what is written on paper is also a sign of quality especially considering that many people assume that non-German schools exhibit a lower level. For this reason, he argues that if a divisional director had to choose between a candidate who speaks German and has a German degree and a non-German candidate who has not studied in Germany, he (or she) would inevitably be for the former (CAR, 21/06/2013).

A certain amount of mistrust towards foreign degrees was confirmed by the director of an IQ office in Northern Germany,

'Our region here is characterised by middle-sized firms...I think we have only three firms with more than 3,000 workers. Imagine a small firm that builds alarm systems that has never had contacts with Spanish, Italian or Greek installers. How can they guess? On the one hand, we have legal requirements that are completely unknown abroad...and if I was a firm owner and had two different applications on my desk, I would always take the one I knew [...] In Germany we put great trust in documents (...) if these certificates play a role during a recruitment process, then it is advantageous to have the equivalence of foreign credentials recognised' (IQ3, 18/04/2013).

However, it should also be kept in mind that the recognition of foreign credentials is fairly irrelevant when working for a research or university institution. According to the HR director of a large German institute, the only thing that needs to be checked is whether the applicant's university is included in the ANABIN database,⁵¹ which classifies foreign universities and the quality of their degrees. It is enough to know that the candidate's university is H+ [the category H+ defines the equivalence of a foreign academic institution with German institutions A/N] and that he or she is able to perform the required activities (RESEARCH, 10/04/2013).

In contrast to the IT sector, the professions of 'engineer' and 'consulting engineer' are regulated. This means that government regulations determine the qualifications linked to these two professions. In such a case, credentials recognition is a matter of relevance. It is worth noting that official certification is not required in order for someone to work as an engineer but only to hold or use the German title 'engineer' or 'consulting engineer'. Notwithstanding this, title recognition is not an aspect of secondary importance because 'protecting the title also means protecting the employment relationship' (BAMF, telephone interview, 17/09/2013). In other words, holding the German title means that equivalence with German qualifications is formally recognised, which also implies a different classification in terms of responsibilities, tasks and, above all, salary. This does not only concern engineering titles but also other qualifications such as Ph.D. degrees. In this respect, a large Spanish telecommunications company stated that it had experienced conflicts with a German engineer who held a Ph.D. because possession of this title does not imply a higher salary in Spain, as is the case in Germany (TELECOMM 2, 04/04/2013). For all these reasons, all of the experts interviewed from government and IQ networks confirmed that foreign engineers generally prefer to have their foreign credentials recognised. In this way, immigrants hope to have better employment opportunities, while for employers credentials recognition can have an important 'marketing value' (*Werbecharakter*) (CHAMBER1, telephone interview 11/09/2013).

⁵¹ <http://anabin.kmk.org/>

Since the engineering profession is usually regulated at state-level, foreign credentials recognition is processed by public offices of the *Land* government or by the corresponding Engineering Chamber (*Ingenieurkammer*). In this respect, a civil servant of a recognition office observed that before the very recent implementation of electronic applications, one of the main difficulties was that the Foreigners Office required ‘Blue Card’ applicants to provide degree recognition *before* entering Germany. Most applicants came to Germany for a couple of months to apply for foreign credentials recognition, which caused concern among German officers, who wished that things were different and engineering degree could be recognised from abroad (LAND1, telephone interview, 15/08/2013). Processing times are much shorter than in Spain because recognition applications have to be processed within three months. The experts interviewed considered such a time limitation in a positive light. In the case of *Nordrhein Westfalen*, it was observed that all the parties involved⁵² in adapting the state recognition law to regional legislation were happy with such a short time limit, especially in view of the territory’s demand for engineers (LAND2, telephone interview, 13/08/2013). The maximum processing time is three months, also in the *Länder* that have not approved a state recognition law and where the recognition process remains regulated by the corresponding federal law for the engineering sector.

The improvement of foreign credentials recognition is certainly also a way to reduce the phenomenon of downskilling in Germany. Recent reports about the improvement of the German immigration model suggest that downskilling is not uncommon in Germany. According to the OECD report (2013) on immigration in Germany, the overqualification rate of persons trained in civil or technical engineering is relatively high: 33 per cent of natives and 44 per cent of immigrants trained as highly skilled engineers work in medium skilled occupations. As the OECD report states, overqualification could be related to an oversupply in certain engineering qualifications, such as civil engineering. Secondly, overqualification could also be related to difficulties in assessing foreign credentials or a lack of title recognition. Hence, new rules in foreign credentials recognition are bound to improve migrants’ opportunities in certain professions. However, the persistence of downskilling practices cannot be excluded in jobs where credentials recognition is not absolutely necessary for certain positions or for performing certain types of jobs. In the case of the engineering profession, however, foreign workers sometimes come to Germany without any knowledge about German labour regulations and the implications that degree and title recognition may have on salary and tasks (BAMF, telephone interview, 17/09/2013). Overqualification may also be a strategy applied by small and medium-sized enterprises to avoid risk,

‘When I talk to small firms, they do it intentionally, hiring somebody at a technical level, to see what he is actually capable of, to test development

⁵² It is the State Chambers of Engineers, the government of *Nordrhein Westfalen* and the corresponding representatives of the district governments.

possibilities that can be enhanced later on. It is a strategy to avoid risk...there is a difference of about € 20,000 to 30,000 between the salary of a technician and that of an engineer. And if they are able to test them first as technicians, then there is always the possibility to see which fields the workers' potentials can be employed in. In this case, there is the possibility of upward mobility, thanks to firm development programs. This is a strategy of firms with 500, 600, 700 employees. Pure medium-sized enterprises have 20 to 30 employees. For them, this is irrelevant' (IQ3, 18/04/2013).

Finally, an IQ expert highlighted the fact that the same foreign workers may pursue underemployment strategies due to language problems,

'Engineers always have the possibility if, for example, they speak poor German, of changing to a handcraft job...some do it, they work as an electrical installer rather than as an electrical engineer, in this way they do not need any recognition, but gain experience about processes, norms and, in particular, language (...) of course, it means less money' (IQ2, 10/04/2013).

In any case, it is important to note that downskilling possibly affects not only third-country nationals but also highly skilled EU professionals without an officially recognised degree or without knowledge about how German employment relationships function. As all interviewees noted, overqualification seems to be particularly frequent in small and medium-sized enterprises because they do not have the internal control structures that large German firms have. In this respect, the HR director of the car company interviewed for this report excluded the possibility of overqualified employment in his firm, because the firm's regulations would not allow it. By contrast, he also observed that this phenomenon is more likely to occur in smaller firms, which do not have such a body of internal control rules (CAR, 21/06/2013).

Clearly, the relationship between education, occupation and salary is less rigid and less controllable for engineers employed in the private sector than for physicians working in the public health sector, where the application of agreed salaries⁵³ is easier to monitor. In the private sector, this might lead to downskilling practices aimed at employing highly skilled professionals in sometimes much needed medium skilled jobs.

⁵³ Wages are always negotiated between the Marburger Bund and the corresponding employers' corporation at the municipal or federal level.

4. Discussion and conclusion

This report explores how international recruitment schemes for highly skilled workers function in Spain and Germany. The analysis does not only take into account legislative and institutional changes, but also assesses inclusion possibilities for physicians and highly skilled technicians, focusing on foreign credentials recognition as an instrument of labour market inclusion. The main goal of the report was to assess how the demand for highly skilled workers was managed by two countries such as Spain and Germany, which have different migration histories and socio-economic structures, and to determine which differences and/or similarities can be observed between such diverging migration regimes. As a fundamental goal, the report aimed at outlining the extent to which foreign credentials recognition, structural differences or language knowledge represents a barrier to labour market inclusion in the sectors considered.

In the case of the health sector, similarities with respect to demand were observed. In fact both countries are affected by increasing shortages in certain geographic regions and in certain specialties, such as Family and Community Medicine, which have become increasingly unattractive to natives. In this respect, it could be argued that both health sectors have a segmented labour market demand attracting a particular type of specialists in certain regions. Recruitment of highly skilled technicians responded, in contrast, to different types of demand. In Germany, the shortage of engineers and other technical professions seems to be embedded in the 'molecular' structure of the German production system and the lack of appeal of small and medium-sized enterprises in rural areas. In Spain, on the other hand, the demand for highly skilled workers in technical fields was not necessarily related to shortages in a specific profession, but embedded in the internal functioning mechanisms of large companies that tend to recruit people within or close to the company's network.

Fuelled especially by the European 'Blue Card' debate, Germany and Spain responded to the highly skilled labour demand by creating new immigration avenues for highly skilled workers. However, *modus operandi* and the timing of such opening processes were different. In Germany, the creation of the new entry channels was part of a general legislative reform under the rhetorical umbrella of a new *Willkommenskultur* that publicly highlighted Germany's shift from an 'undeclared' (Thranhardt, 1996) to a 'declared' immigration country. The new *Zeitgeist* in favour of highly skilled migration and the influence of EU legislation on foreign credentials recognition enabled the long-lasting barriers against foreign physicians to be dismantled. In Spain, the creation of fast-track procedures to facilitate the migration of highly skilled workers benefited from both established cooperation structures between the Socialist government and large Spanish companies and the European *Zeitgeist* favouring highly skilled migration (Finotelli, 2013). In addition, large companies in Spain seem to have played a greater role in the change in immigration approach than in Germany, where shortages mainly concern small and medium-sized enterprises. However, it is important to note that

bureaucrats and policy makers in Spain attempted to avoid public debate on controversial policy issues such as highly skilled migration by resorting to ministerial bills rather than initiating a general legislative reform (Finotelli, 2013). In fact, the Large Companies Unit was created without involving the social parties, while access by non-EU foreigners to medical training was achieved by changing a ministerial ordinance, far from the attention of the media. Despite differences in the policy-making process, it is worth noting that the creation of new entry channels for highly skilled workers in both countries was linked to reduced minimum salary requirements.

New avenues for highly skilled migrants have been matched by an improvement in foreign credentials recognition procedures. The new German recognition law, with the support of the 'Integration for Qualification' network, certainly represents one of the most valuable contributions to improving the integration of foreigners on the labour market in Germany. In fact, the law does not only lift restrictions for non-EU doctors, but also provides useful instruments for enhancing German employers' trust of foreign degrees. In Spain, too, the government noticeably relaxed foreigners' access to the health sector, allowing them to sit the medical training examination while medical degrees were still in the process of being recognised. In both cases, access to medical training depends on the result of a state examination, even though in Germany the examination is part of the same recognition procedure. In contrast, specialty recognition seems to be much more restrictive and difficult to achieve for specialised foreign doctors in Spain. In Germany, very much seems to depend on the particular approach of the State Chamber addressed, since specialty training is not subject to federal but to state regulation. In the case of highly skilled technicians, degree recognition of highly skilled technicians is relevant depending on the country, the company's strategy and the type of job. Analyses confirmed that foreign credentials recognition does not apply to the recruitment of IT specialists. In contrast, the question whether degree recognition for engineers matters or not is more complex, and differs between the two countries. In Spain, degrees need not be recognised if the engineer hired is not going to be responsible for a certain project. This is why employers are not very keen to start the recognition procedure unless absolutely necessary, especially considering the length of recognition procedures. In Germany, on the other hand, recognition of equivalence with a German degree seems to be much more relevant due to German employers' lack of trust in foreign degrees. As was seen, faith in the German education system seems to affect the perception of highly skilled professionals in the considered sectors.

Apart from the recognition of foreign credentials, language is an important factor for labour market inclusion. Most of the German experts interviewed for this report complained about the poor German language skills of foreign technicians and doctors, which certainly represents a barrier to their integration in hospitals and small and medium-sized enterprises. In Spain, on the other hand, the language issue was not very prominent in the debate due to the overwhelming presence of highly skilled

migrants from Latin America. Notwithstanding this, stricter language requirements have been introduced to reduce the number of applications for foreign credentials recognition, which could indirectly favour Latin American applicants.

How do the aforementioned changes affect the future of the German and Spanish labour migration models? Analysis of highly skilled migration in the Spanish case certainly challenges the image of Southern European migration models focused on attracting low-skilled labour. The economic crisis, however, has reduced the demand for doctors and technical professions. Only a need for highly skilled IT experts in very specific positions persists, thanks to the expansion of the IT sector. As noted by experts, the Large Companies' Unit receives fewer requests and has also increased the complexity and bureaucracy of recruitment procedures. In addition, the cap for foreigners has been reduced considerably, while there is some concern about the labour market inclusion of all those who started medical training during the economic boom and who are currently unable to find work due to budget cuts in the public sector. In this respect, the 'internationalisation' of medical training can be seen as a way to acquire 'cheaper' labour force to fill highly skilled positions rather than a form to enhance human capital development. This hypothesis gains credibility if we consider that permanent positions in the Spanish public sector are only open to Spanish and EU citizens, while all others are kept in a condition resembling that of foreigners with a *Berufserlaubnis* in Germany. As was seen, the nationality criterion contributes not only to filtering access to medical training, but also to blocking employment in the public health sector. In this respect, nationality represents a more important barrier than foreign credential recognition to international recruitment in the public health sector. Again, this could favour Latin Americans, who enjoy privileged and quicker access to Spanish nationality and whose naturalisation numbers have been increasing exponentially compared to other national groups (Finotelli and La Barbera, 2013). A further question concerns the danger of over-qualification. As was seen, the same public institutions suggest that firms should contract highly skilled engineers as technicians to avoid cumbersome recognition procedures, if formally requested. For the future, it would be wise to modify the Spanish economic model and to reform vocational training in order to meet a constant demand for medium skilled workers. This is due to the lack of appeal vocational training has for natives and the fact that such positions are currently filled by natives and foreigners with university degrees.⁵⁴

In Germany, the introduction of avenues for the recruitment of highly skilled workers is part of an overall immigration reform, aimed at making the country attractive to highly skilled workers. In such a sense, Germany experienced a reverse trend with respect to Spain. This is particularly evident in the case of the health sector, where criteria based

⁵⁴ In any case, Spanish vocational training should be reformed taking into account the Spanish production structure rather than copying vocational training models such as the German one, which are embedded in a completely different production structure.

on nationality were strengthened in Spain after the crisis, while Germany lifted its long-lasting nationality requirement for obtaining a full licence to practice as a doctor. The comprehensive character of the German reform, together with the negative effects of the aging society on German industry, supports those who argue in favour of a paradigm change of the German labour migration model. Germany's policy makers have not only demonstrated their ability to carry out the necessary legislative reforms, but also to build the necessary administrative machinery to implement them. The 'Integration for Qualification' network, a contact point for obtaining information about the equivalence of foreign and German degrees, and the emergence of several governmental programmes for fostering German language skills demonstrate that German policy makers are concerned about effective labour market integration based on 'the use of the effective capacities of highly skilled foreign workers, not on their exploitation' (BAMF, telephone interview, 17/09/2013). In this respect, German policy makers have been quicker to recognise that the recognition of foreign credentials is fundamental to the integration of highly skilled workers than some traditional human capital models such as the Canadian one. Overall, it remains to be seen how Germany will cope with such a new challenge and whether its change of paradigm will resist eventual economic deceleration. The time limitation of visas for job-seeking displays a certain degree of uncertainty when it comes to decoupling labour migration from the existence of a work contract. Finally, it also remains to be seen whether the new law will trigger new forms of protectionism in the health sector through longer and discretionary recognition practices.

Overall, the comparison of highly skilled migration channels in Spain and Germany shows that labour migration models are less static than usually imagined. This is certainly good news in view of the upcoming demographic and economic challenges facing many European countries. Notwithstanding this, the lowering of minimum salary requirements for highly skilled workers or the ambiguity of recognition procedures in certain cases also raises new concerns. It is still difficult, for instance, to assess whether the non-recognition of foreign credentials in the private sector may be used strategically to fill medium-skilled positions in both Spain and Germany. Close monitoring of credentials recognition procedures and downskilling practices is therefore particularly important in view of the goals of human capital development and international competitiveness that are usually envisaged by implementing highly skilled migration schemes.

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Diario Médico, 20/05/2013

Gaceta Medica, 24/05/2013

El Periodic, 16/12/2009

La Vanguardia, 16/10/2007

List of Interviews

No.	Department	Day and Place of the Interview	Quoted as
1	General Directorate of Immigration, Ministry of Labour and Immigration	Madrid, 5/10/2011	MTIN, 5/10/2011
2	Unidad de Grandes Empresas / Large Companies Unit, Ministry of Labour and Immigration	Madrid, 12/07/2011	UGE, 12/07/2011, UGE, 21/12/2011
3	Servicio Publico de Empleo/Public Employment Service, Ministry of Labour and Immigration	Madrid, 28/11/2011	SEPE1 28/11/2011
4	Servicio Publico de Empleo/ Public Employment Service, Ministry of Labour and Immigration	Madrid, 15/12/2011	SEPE2, 15/12/2011
5	Unión General de Trabajadores (UGT), Trade Union, Immigration Section	Madrid, 27/05/2011	UGT 27/05/2011
6	Confederación Española de Sindicatos Médicos (CESM)/Spanish Confederation of Medical Trade Unions, Department of Research	Madrid, 17/10/2011	CESM 17/10/2011
7	Consejo General de Colegios Oficiales de Médicos/General Council of Physicians professional corporations	Madrid, 24/07/2013	CGCOM
8	Fundación CECOT Persona y Treball / CECOT Foundation People and Work	Tarrasa, 21/06/2011	CECOT, 21/06/2011
9	Consulting Company, Immigration and Relocation Services	Madrid 22/03/2013	CONSULTING1
10	Consulting Company, Immigration and Relocation Services	Madrid, 15/07/2013	CONSULTING2
11	Telecommunication Company Human Resources Department	Madrid, 12/11/2012	TELECOMM1
	Telecommunication Company	Madrid, 4/04/2013	TELECOMM2
12	Renewable Energy Business Human Resources department	Madrid, 6/10/2011	ENERGY 6/10/2011, ENERGY 28/06/2013
13	Bundesamt für Migration und Flüchtlinge	Telephone interview, 17/09/2013	BAMF, 17/09/2013, telephone interview
14	Bavarian Government	Telephone Interview 13/09/2013	BAVGOV, 13/09/2013, telephone interview

15	Netzwerk "Integration durch Qualifikation"/Network Integration and Qualification	Eastern Germany, 16/04/2013	IQ1, 16/04/2013
16	Netzwerk "Integration durch Qualifikation"/ Network Integration and Qualification	Eastern germany, 10/04/2013	IQ2, 10/04/2013
17	Netzwerk "Integration durch Qualifikation"/ Network Integration and Qualification	Northern Germany, 18/04/2013	IQ3, 18/04/2013
18	Land Health ministry, Department responsible for degree recognition	Northern Germany, telephone Interview, 22/05/2013	HEALTH1, 22/05/2013, telephonic interview
19	Land Health ministry, Department responsible for degree recognition	Northern Germany, telephone interview, 15/07/2013	HEALTH2, 15/07/2013, telephone interview
20	Regierungspräsidium/regional council	Southern Germany, telephone Interview, 15/08/2013	LAND1, 15/08/2013
21	Bezierrksregierung/District government	Northern Germany, telephone Interview, 15/08/2013	LAND2, 13/08/2013
22	Ingenieurkammer/Engineer Chamber	Eastern Germany, Telephone Interview	CHAMBER1, 12/09/2013
23	Physicians Chamber	Northern Germany, 19/04/2013	CHAMBER2, 19/04/2013
24	Hospital, Human Resources Department	Northern Germany, 18/04/2013	HOSPITAL, 18/04/2013
25	Research Institute, Human Resources department	Eastern Germany, 10/04/2013	RESEARCH, 10/04/2013
26	Car Company, Research and Development Department	Southern Germany, 21/06/2013	CAR, 21/06/2013
27	SVR, Direction	Berlin, 12/04/2013	KOLB, 12/04/2013