2017 annual report on intra-EU labour mobility

Final Report January 2018

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Second edition September 2018

Social Europe

EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion

Directorate D – Labour Mobility

Unit D.1 – Free Movement of Workers, EURES

2017 Annual Report on intra-EU Labour Mobility

Second edition September 2018

Network Statistics FMSSFE

This report has been prepared in the framework of Contract No VC/2016/0765 'Network of Experts on intra-EU mobility – social security coordination and free movement of workers / Lot 2: Statistics and compilation of national data'. This contract was awarded to Network Statistics FMSSFE, an independent research network composed of expert teams from HIVA (KU Leuven), Milieu Ltd., IRIS (UGent), Szeged University and Eftheia bvba. Network Statistics FMSSFE is coordinated by HIVA.

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Luxembourg: Publications Office of the European Union, 2018

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PDF ISBN: 978-92-79-80353-6 ISSN: 2529-3281 doi: 10.2767/077683 KE-BQ-18-101-EN-N

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Country codes[1]

AT	Austria	EE	Estonia	IS	Iceland	PL	Poland
BE	Belgium	EL	Greece	IT	Italy	PT	Portugal
BG	Bulgaria	ES	Spain	LT	Lithuania	RO	Romania
CH	Switzerland	FI	Finland	LU	Luxembourg	SE	Sweden
CY	Cyprus	FR	France	LV	Latvia	SI	Slovenia
CZ	Czech Republic	HR	Croatia	MT	Malta	SK	Slovakia
DE	Germany	HU	Hungary	NL	Netherlands	UK	United Kingdom
DK	Denmark	IE	Ireland	NO	Norway		

Abbreviations, acronyms and definitions

Term	Definition
Active	Any person who is either employed or unemployed (EU Labour Force Survey (EU-LFS) definition).
AFMP	Agreement on Free Movement of Persons.
Baltic countries	Lithuania, Latvia, Estonia.
CJEU	Court of Justice of the European Union.
Country of citizenship/ Country of origin	The country of which the person holds citizenship.
Country of residence	The country in which a person habitually resides. According to Regulation (EC) No 862/2007 on Community statistics on migration and international protection, 'usual residence' means the place at which a person normally spends the daily period of rest (…) or, by default, the place of legal or registered residence. In this report, persons are counted as 'residents' of a certain country if they have resided there for at least 12 months, or intend to do so. This is in line with measurement, as the EU-LFS[2] and the Eurostat migration statistics only capture persons who stay, or intend to stay, in a country for one year or more.
Cross-border worker	For the purposes of this study, cross-border workers are defined as EU citizens who live in one EU or EFTA country and work in another, regardless of their precise citizenship (provided they are EU-28 citizens). Cross-border workers therefore move across borders regularly[3]. They can be EU-28/EFTA movers – meaning they live in a different Member State than their country of citizenship – and cross-border workers at the same time (for example, where a British person lives in Belgium and works in Luxembourg)[4]. Cross-border workers are

[1] Throughout this report countries are listed in alphabetical order of their codes, as per the EU's inter-institutional style guide section 7.1, except when, for reasons of clarity, they are arranged by data size.
[2] See EU-LFS Explanatory Notes, p. 4, available at: http://ec.europa.eu/eurostat/documents/1978984/6037342/EU-LFS-explanatory-notes-from-2014-onwards.pdf
[3] The frequency of commuting cannot be identified in the EU-LFS, which is the data source for the estimation of numbers of cross-border workers.
[4] For a more detailed definition, see European Commission, 2011, Mobility in Europe, p. 86.

Term	Definition
	employed or self-employed in a country other than their country of residence. Cross-border workers as measured by the LFS may include the legally defined groups of seasonal[5] and frontier workers[6] and may also include some posted workers (Directive 96/71/EC)[7].
Eastern European countries	Poland, Romania, Slovakia, Slovenia, Hungary, Bulgaria, Czech Republic (definition created for the purposes of this study).
EFTA	European Free Trade Association (Switzerland, Iceland, Liechtenstein and Norway). Only Switzerland, Iceland and Norway are included in this report, as no data for Liechtenstein are available from the EU-LFS.
Employed	Any person who, during a reference week, worked for at least one hour, or had a job or business but was temporarily absent (EU-LFS definition).
Employment rate	The percentage of employed persons, over the total population in the same reference group.
EU	European Union.
EU-2	Bulgaria and Romania.
EU-8	Eight of the 10 Member States that joined the EU in 2004, i.e. Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.
EU-10	The countries which joined the EU on 1 May 2004, i.e. Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.
EU-12	The countries which joined the EU between 2004 and 2007, i.e. EU-10 and EU-2.
EU-13	The countries which joined the EU between 2004 and 2013, i.e. EU-12 and Croatia.
EU-27	EU Member States up until 30 June 2013, i.e. all current Member States except Croatia.
EU-LFS	EU Labour Force Survey – see Eurostat website and Section 3 of this report for more detail.
EU-28/EFTA movers	EU-28 or EFTA citizens who reside in an EU-28 or EFTA country other than their country of citizenship (definition created for the purposes of the study).
Foreigner	Any person who is not a citizen of the country in which he/she resides. This term is used here to refer to both

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[5] Seasonal workers are defined in Regulation (EEC) No 1408/71 on the application of social security schemes to employed persons and their families moving within the Community, Article 1(c); they enjoy the right to free movement according to Regulation (EU) No 492/2011 and equal treatment with nationals according to Directive 2014/54/EU. For more details on the definition, please consult the 2016 Annual Report on intra-EU Labour Mobility, Section 2.2.3.

[6] *Frontier workers* are defined as cross-border workers who return to their country of residence 'as a rule daily or at least once a week', according to Regulation (EC) No 883/2004, Article 1(f); they have the right to equal treatment with nationals according to Directive 2014/54/EU. For more details on the definition, please consult the 2016 Annual Report on intra-EU Labour Mobility, Section 2.2.3.

[7] For definitions of these groups and overlaps and differences between them, please consult the 2016 Annual Report on intra-EU Labour Mobility, Section 2.2.3

Term	Definition
	EU-28/EFTA movers and third-country nationals (TCNs).
Inflows	Persons who establish their usual residence[8] in a given country for a period that is expected to be at least 12 months, having previously resided in a different country[9].
Inflow rate of EU-28 foreigners	The percentage of inflows of citizens of another EU Member State over the total resident population in the same age group in the country of destination.
Inactive	Any person who is neither employed nor unemployed (i.e. who is not looking for a job) (EU-LFS).
Locals/local workers	When speaking about cross-border workers, 'locals' or 'local workers' indicates those people who work in the same countries in which they reside (i.e. people who are not cross-border workers). This definition was created for this study.
Mobile worker	EU-28 citizens who move to another Member State to integrate into the labour market on a long-term or permanent basis, whether employed, self-employed or job-seeking. In this report, mobile workers are active EU-28 citizens who reside in a Member State or EFTA country other than their country of citizenship.
Mobility	This term refers to migration of EU-28 citizens within the EU.
Nationals	Any person holding citizenship of the reporting country.
Net intra-EU mobility	Net intra-EU mobility is calculated as the sum of inflows and outflows of nationals, EU-28 and EFTA movers from/into a certain EU Member State.
New EU-28 movers	EU-28 movers of working age and with a length of stay of up to two years.
Outflows	Persons who cease to have their usual residence[10] in a Member State for a period that is, or is expected to be, at least 12 months[11].
Outflow rate	The percentage of outflows of a certain group of people over the population in the same reference group[12] residing in the country of origin[13]. As an approximation of the trend in the outflow rates, Section 2.4 refers to 'rate of movers abroad' to describe the share of all persons of a certain nationality living in

[8] According to Regulation (EC) No 862/2007 on Community statistics on migration and international protection, 'usual residence' means the place at which a person normally spends the daily period of rest (…) or, by default, the place of legal or registered residence.
[9] Regulation (EC) No 862/2007, Article 2 (1)(c), defining 'immigration'; this Regulation is the basis for the collection of Eurostat migration data, which are mainly used in this report to calculate immigration rates.
[10] According to Regulation (EC) No 862/2007 on Community statistics on migration and international protection, 'usual residence' means the place at which a person normally spends the daily period of rest (…) or, by default, the place of legal or registered residence.
[11] Regulation (EC) No 862/2007, Article 2 (1)(c) defining 'emigration'; this Regulation is the basis for the collection of Eurostat migration data, which are mainly used in this report to calculate emigration rates.
[12] For example: outflow rates of nationals are calculated as outflows of nationals over the total number of nationals residing in the country; total outflow rates are calculated as all outflows over the total population residing in the country.
[13] Ibid.

Term	Definition
	other countries at a given time (stocks) from the national population in the country of origin. This includes those who have left their country at an earlier point in time. This 'rate of movers abroad' is used because figures for stocks are more reliable and available than those for flows.
Posted worker	A worker who, for a limited period, carries out his/her work in the territory of a Member State other than the State in which he/she normally works[14]. The posted worker has a regular employment relationship in the usual country of work and maintains this employment relationship during the period of posting[15].
p.p.	Percentage points: the difference between two ratios, e.g. two employment rates, is calculated in the unit of percentage points.
Return mobility	Return mobility is movement of EU-28 citizens back to their country of citizenship from another Member State. Figures are estimated based on migration statistics, i.e. the inflow of nationals to a certain Member State or the outflow of EU-28 movers from a certain Member State. Using the EU-LFS, returnees (returning movers) are estimated by the number of nationals living in a certain Member State who had been resident in another Member State in the previous year.
Recent EU-28/EFTA movers	EU-28 and EFTA citizens between the ages of 20 and 64, who have lived in an EU-28 or EFTA country other than their country of citizenship for up to 10 years, as of 2016[16] (definition created for the purposes of this study).
Southern European countries	Spain, Greece, Cyprus, Italy and Portugal (definition created for the purposes of this study).
TCNs	Third-country nationals: residents of EU and EFTA countries who are neither EU nor EFTA citizens.
Transitional arrangements	Temporary measures that delay the full application of the principle of freedom of movement for workers from an EU-13 Member State. These may remain in place for up to seven years after accession.
Unemployed	Any person who is not currently employed but who is available for work within two weeks and is actively seeking work (International Labour Organization (ILO) definition).
Unemployment rate	The unemployment rate is the share of unemployed from all active (unemployed plus employed) persons in a given reference population.

[14] Article 2(1), Directive 96/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of provision of services.
[15] Article 1(3)(a-c), Directive 96/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of provision of services.
[16] Figures capture length of stay in the current country of residence. This means that persons with country of citizenship A (e.g. Italy) who have resided in country B (e.g. Germany) for less than 10 years will be counted as 'recent EU-28/EFTA movers'. However, these persons may have previously resided in another country C, which is not captured by the data.

Term	Definition
Working age	Person aged between 20 and 64 years.
Worker	Includes employed and job-seeking/unemployed persons

EXECUTIVE SUMMARY

This report provides an annually updated picture of intra-EU labour mobility in the EU. It presents an overview of stocks and flows of all and of active EU movers of working age using the most up-to-date EU-wide comparable data. Therefore, the report identifies main countries of destination and of origin and identifies major changes compared to previous years in the Member States. Like every year, the report looks at the situation of movers on the labour market, by comparing indicators such as employment rates, occupations, sectors of activity, education, over-qualification between different groups of movers, to nationals in the country of residence and over time. Furthermore, the report addresses a variety of specific topics, that differ from year to year, depending on current developments and policy needs. This year, the report specifically looks at the gender dimension of mobility, language and other barriers to cross-border mobility in neighbouring regions; and at the mobility of health professionals.

The following presents the main findings of each section:

Overall mobility of working-age citizens

In 2016, there were roughly 11.8 million EU-28 movers in total. This shows that the number of EU-28 movers had further increased compared to 2015, at a similar pace as it had increased in the previous years. Third country nationals made up a slightly larger part than EU-28 movers among all foreign nationals in the Member States.

Destination countries:

Germany and ***the UK remain by far the main countries of residence*** hosting almost 50% of all EU-28 movers in 2016 and their number of EU-28 movers was growing faster than EU average compared to 2015. This corresponds to the fact that in 2015, inflows of EU-28 movers to both countries continued to increase and that net mobility to Germany and the UK was around four times higher than to any other Member State in 2015. Inflows to both countries had increased more strongly in the years before than in 2015.

While the UK hosts the largest number of EU-28 movers who arrived during the past ten years (1.8 million *recent* movers), Germany has gained considerable importance as a destination country during the past years. Germany is a traditional destination country of EU citizens – as can be seen by its large share of mover that arrived over ten years ago – but it also hosts a considerable number of movers who arrived during the past ten years (1.4 million *recent* movers). Furthermore, annual inflows of EU citizens into Germany increased by over 250% between 2009 and 2015, while in the UK they increased by 60% (similar to the EU-level increase). In this sense, Germany had already overtaken the UK in numbers of inflows of EU-28 citizens in 2012.

Spain and ***Italy*** are still the most ***important destination countries after Germany and the UK***, but ***have not regained their attractiveness from before the crisis.*** Inflows to both countries were still lower than in 2009, particularly in Italy where inflows were only half the size than in 2009. Spain seems to be slowly recovering, with inflows increasing compared to 2014, but inflows to Italy still decreased. However, Spain still had

an overall negative net mobility of EU-28 nationals in 2015, due to high number of outflows, whereas net mobility to Italy was positive.

Another important destination country is ***France***, with the fifth-highest number of EU-28 movers and *recent* EU-28 movers and important number of inflows still in 2015. However, inflows have only been increasing slightly since 2009. While ***Belgium*** is the Member State with the sixth highest number of EU-28 movers in 2016, inflows were decreasing compared to 2009 and lower than those to Austria and the Netherlands. ***Austria*** continues to gain importance as a destination country, being the country with the seventh largest number of EU-28 movers. After a constant increase since 2009, inflows of EU-28 movers to Austria were higher than those to Italy in 2015. This made Austria ***the third largest net receiving country of EU citizens in 2015.*** The ***Netherlands*** and ***Sweden*** are further important destination countries which also saw increases in inflows over the past years.

Poland is the main destination country within the EU-13 countries (with a similar scale of inflows of EU-28 movers as DK, IE and SE). Inflows to Poland doubled since 2009, however, it also has high outflows of EU-28 citizens, possibly indicating short-term mobility. The ***Czech Republic is the second most important country of destination among the EU-13 countries***, but inflows remained stable since 2009.

Luxembourg, Cyprus, Ireland, Belgium and Austria are the countries with the ***highest shares of EU-28 movers*** from their total population in 2016.

Countries of origin:

Around half of all movers across the EU-28 Member States are Romanian, Polish, Italian and Portuguese (in order by size). German and French remain important groups.

In 2015, ***Romania, Poland***, but also ***the UK*** were the countries with the ***largest outflows of nationals*** (between 100 and 160 thousand each)***,*** followed by Germany, Italy and Spain (between 70 and 80 thousand each). The numbers of nationals leaving the country decreased compared to 2009 for both Poland and Romania, although Romania's outflows have been rising again since 2012. Outflows of nationals from Italy and Spain also continued to increase (since 2009), and in 2015 increase was stronger than in 2014.

Most of the new Member States still have ***emigration rates above EU average, the highest*** can be found in ***Lithuania, Latvia and Romania*** (two to three times as high as the cross-country average).

In 2015, ***outflows continued to increase in Estonia, Croatia, Hungary and Slovenia*** who see a rising emigration trend since 2009.

Return mobility:

Return mobility decreased by 3% in 2015, compared to 2014, and ***was at its lowest point since 2009.*** This was chiefly ***due to a decrease in return mobility to the EU-13*** (-15%) between 2014 and 2015. By contrast, return mobility to the EU-15 increased

by 6% during that period. The share of returnees compared to those nationals leaving their country decreased to 57%, lower than in 2009 (66%).

Gender distribution:

On EU-28 level, exactly ***half of the movers are male, and half are female*** (stocks). Most of the new Member States have larger shares of male movers. In Italy (62% females) and Greece (66% females) there are far more female than male EU-28 movers (in stocks); in terms of flows in 2015, there is a similar pattern and only movers to Greece, Italy, and also Portugal and Ireland had considerably higher shares of women.

The ***share of male movers declined quite strongly in the period 2008-2012***, among EU-8 movers (-6 p.p.), but also among movers from Southern countries (-2 p.p.) and increased again afterwards. This development may be explained by results from previous research[17] which found that sectors in which male movers are typically employed, especially construction and manufacturing, were affected very early and strongly by the economic crisis.

Mobility of economically active citizens

Mobility patterns:

In 2016, ***the main countries of origin and countries of destination are the same as for all citizens of working age*** (see above).

The following countries saw an ***important increase in their number of active EU-28 movers compared to 2015***: Germany, the UK, France, Austria, Cyprus, Czech Republic, Denmark, Estonia and Slovenia.

At EU level, there is a slightly ***larger proportion of active movers who moved to their current country of residence since 2011 than those who moved between 2006 and 2011***, which can may be related to developments such as the end of total opening of labour markets to EU-10 and EU-2 movers, the late waves of the economic crisis in the Baltic countries in 2011/2012, an ongoing increase in outflows of nationals from Spain and Italy, and the recovery from the economic crisis in important destination countries, such as Germany, the UK, Austria, Belgium, Sweden. It may also reflect the circular aspect of mobility, which has been found to be more and more short-term[18].

Larger shares of active movers arriving since 2011 can be found ***in most 'Northern countries of destination[19]*** and in ***Hungary, the Czech Republic and Slovenia***.

Compared to 2015, ***the UK and Germany*** have become ***more important countries of residence*** among recent active EU-28 movers, while ***Italy and Spain have become slightly less important***.

[17] DG Employment (2013) 'Mobility in Europe'; DG Employment (2015) 'Employment and Social developments in Europe 2015'; DG Employment (2014) 'EU Employment and Social Situation Quarterly'; OSE and ETUI (2013) 'Social developments in the European Union'.
[18] Verwiebe et al. (2014) 'New forms of intra-European migration, labour market dynamics and social inequality in Europe in: Migration Letters, Volume 11, No.2, p.131.
[19] Austria, Germany, the UK, Denmark, Sweden, Luxembourg, Belgium

Economic integration:

In 2016, ***recent EU-28 were more likely to be active*** (83% at EU level) ***than nationals*** (78%), except in Sweden, Germany, the Netherlands and Greece.

The ***employment gap between recent EU-28 movers and nationals closed to almost zero***; this is because the employment rate of EU-28 movers further increased and the unemployed rate further dropped in 2016. ***EU-13 and EU-15 recent movers had almost equally high employment and unemployment rates***.

EU-13 movers continue to be ***over-represented in elementary occupations*** and ***under-represented as professionals.***

Gender dimension of economic integration:

The ***gender distribution is more unequal for active than for all movers*** (55% men and 45% women, compared to 50%/50% among all movers).

In 2016, the ***activity rate was considerably lower among female than male movers***; subsequently, the ***employment rate was considerably higher among male movers***; however, ***unemployment among female movers was only slightly higher than among male***, suggesting that they have almost equally high chances on the labour market when seeking a job.

Female movers were in general better educated, but also had ***higher levels of over-qualification*** than male movers.

Both male and female movers reported that ***lack of language skills is a more important barrier to finding a suitable job*** than lack of recognition of qualifications or origin religion/ social background.

The role of language in cross-border mobility

EU-wide surveys and academic literature indicate that language is an obstacle to intra-EU labour mobility. For example, both an LFS ad-hoc module and a public consultation carried out by the European Commission indicate that lack of the host country's language skills is one of the main barriers to mobility. Another important obstacle are legal and administrative barriers, as found also by the public consultation, the Eurobarometer on 'Geographical and labour market mobility' (2009) and a study conducted for the European Parliament in 2016 on obstacles to the right of free movement within the EU.

On the other hand, as widely acknowledged, differences in the economic context and employment opportunities between the origin and the destination country or region constitute an important pull factor for mobile workers.

To compare the language obstacles to these other drivers and barriers, six case studies were conducted. The case studies looked at cross-border mobility and long-term mobility between neighbouring regions. The regions were chosen with the aim of covering as many countries as possible affected by cross-border mobility of workers. The case studies therefore concerned most of the EU countries with the highest share of cross-border mo-

bility in 2015, namely Austria, Belgium, Czech Republic, France, Germany, Luxembourg, Netherlands, Poland and Slovakia. Furthermore, these countries were chosen because they both have a neighbouring country with the same or a similar official language and one with a different official language. Within these countries, specific neighbouring regions were selected based on several criteria (see methodological annex).

The results indicate that on the one hand, ***language seems to play a role in determining the destination of cross-border workers***. Cross-border mobility between countries that share the same or very similar language is higher than between countries with different languages despite possible differences in terms of economic factors, as shown by the case of France and Slovakia (see case studies 1, 2, and 5). On the other hand, ***the role of language in long-term mobility is less clear*** as different case studies pointed to different results. While in France and Belgium, long-term movers prefer moving to a country where they can speak their native language (see case studies 2, 4 and 5), Slovak long-term movers tend to move to Austria rather than Czech Republic – showing that economic factors might be stronger pull factors than language similarities.

Mobility of Healthcare Professionals

The Professional Qualifications Directive ensures portability of qualifications of medical doctors, dentists, registered nurses and midwives and facilitates the mobility of these professionals within the EU. The accessions in 2004, 2007 and 2013 as well as cuts in public health spending due to the economic crisis have affected mobility of health professionals in the past ten years. This report therefore provides an overview of the mobility of health professionals in recent years (mainly since 2011), the distribution of mobile health professionals across EU Member States and the reliance on health professionals in countries of destination.

In ***2016***, there are ***184 thousand health professionals and 168 thousand health associate professionals*** between the ages of 20 and 64 years living in a Member State other than their country of citizenship. Of these, 20% are medical doctors and 40% are nurses. In addition, there are ***257 thousand mobile personal care workers*** living in another EU Member State. Together, these three groups represent ***roughly 7% of all employed EU-28 movers***.

The ***two main countries of residence of mobile health (associate) professionals*** in 2016 are ***Germany*** (31% of the total) and ***the UK*** (22% of the total). Other important countries of residence are Italy, Austria, France and Spain. For personal care workers***, Italy is by far the most important country of destination***, hosting around 44% of this group, followed by the UK, with 23% and Germany, with 7%.

Most of ***mobile health professionals are women***. ***Shares of women are particularly high*** (over 80%) ***in lower-skilled professional groups*** (health associate professionals, nurses and personal care workers). On the other hand, among doctors, the share of men is a lot higher and almost equal to that of women. These patterns can also be seen among national health professionals.

The stocks of mobile health professionals ***increased steadily between 2011-2016***. The ends of transitional arrangements in 2011 and in 2014 in several important countries of destinations seemed to have impacted this trend to some extent.

In 2016, ***EU level reliance***[20] on EU-28 mobile health professionals and health associate professionals was at ***3%***, broadly corresponding to the share of active EU-28 movers from the total EU labour force, which was at 4% in 2016. There are no major differences between the Member States, except for Luxembourg, where mobile health (associate) professionals made up 36% of all health professionals in the country. ***Reliance on personal care workers*** was ***at 5% on EU average***, ***but in Italy it amounts to 17%*** and in ***Luxembourg to 16%.***

Romanian, Polish and Italian citizens are the ***largest groups of mobile health (associate) professionals***, corresponding to the main national groups of EU-28 movers in general; ***Romanians*** were by far the largest group, ***constituting almost half of all mobile personal care workers*** (120 thousand), ***followed by Polish*** (39 thousand) ***and Bulgarians*** (13 thousand). Italy and Germany are important sending countries of personal care workers in total numbers, but not in shares. Ireland, Croatia and Romania had the highest rates of health (associate) professionals abroad.

Trends show that the Croatian accession and the opening of labour markets to EU-2 movers in different countries in different years may have impacted ***increases in rates of movers abroad between 2011-2016 among of health (associate) professionals and personal care workers*** from most important origin countries and increases in stocks in important destination countries.

Recognition rates[21] for doctors, nurses and midwives were ***between 70% and 100%*** for the main countries of origin for the period 2015-2016. At the EU average, nurses had higher recognition rates than doctors.

Despite high recognition rates of professional qualifications, ***over-qualification is a wide-spread phenomenon among personal care workers***. Among mobile personal care workers, 20% received higher education than necessary for their job and 42% feel over-qualified for their job. Furthermore, mobile personal care workers feel over-qualified at an above-average level when compared to all mobile workers.

[20] 'Reliance' shows the extent of dependency on a certain group of workers in a country.
[21] Health professionals intending to carry out their profession in another country must apply for recognition of their qualifications. 'Recognition rates' refer to the number of positive decision taken compared to all applications.

1. INTRODUCTION

1.1 Aim of the report

This report presents labour mobility flows and patterns in the EU, as per Article 29 of Regulation (EU) 2016/589. It provides key quantitative information to ensure better implementation of initiatives to support the right of workers to free movement. While reports based on different national sources are published from time to time, and EU-wide reports often focus on intra-EU mobility in general, information specifically on intra-EU labour mobility using harmonised and comparable data across the EU is not regularly available. This annual report on the specific issue of intra-EU labour mobility presents general information on stocks and flows of all — particularly active — intra-EU movers, together with information on occupational structure, age structure and employment rates. The report addresses a variety of specific topics, depending on current developments and policy needs.

Specific topics addressed in the Annual Reports are:

2014 Annual Report: mobility of young and highly educated people.

2015 Annual Report: mobility of cross-border workers.

2016 Annual Report: mobility of pensioners; return mobility.

2017 Annual Report: gender dimension of mobility; language and other obstacles and drivers of mobility; mobility of health professionals.

For this 2017 report, Section 2.1 focuses on stocks and flows of EU-28 movers in the EU-28/EFTA countries in 2015/2016 and looks at how these have developed in recent years. Different key figures are compared to draw conclusions on broad trends in the direction of main mobility flows, including the gender dimension. Finally, this section also looks at the stocks of *recent* EU-28 movers, i.e. those that moved in the 10 years between 2006 and 2016.

Section 2.2 focuses on active EU-28 movers (or EU-28 mobile workers), defined as employed persons and jobseekers. It first looks at the overall numbers of active EU-28 movers, before paying attention to the *recent* active EU-28 movers. As with Section 2.1, this section provides figures on stocks in 2016 and recent developments, as well as examining the characteristics of these workers (education structure, occupations, sectors and employment rates) and comparing these to nationals. The section also considers over-qualification, and looks at the main obstacles to finding a suitable job among EU-28 movers, including from a gender perspective. The section closes with a look at the latest trends in cross-border mobility.

Section 2.3 aims to analyse the role of language in intra-EU labour mobility compared to other key drivers and barriers, namely the economic context and administrative barriers. The focus is on mobility between neighbouring regions and countries and looks at both cross-border commuting and long-term mobility. The analysis is based on six case studies.

Section 2.4 looks at the mobility of health professionals. Its main aim is to provide an overview of the mobility of health professionals in recent years (mainly since 2011), the distribution of mobile health professionals across EU Member States, the main countries of origin and the reliance on health professionals in countries of destination. Furthermore, it compares mobility of distinct groups of health professionals: health professionals and health associate professionals in total, doctors and nurses specifically as well as personal care workers. Two other aspects covered by the section is the recognition of qualifications and over-qualification among health professionals.

1.2 Legal background: EU applicable rules and recent developments

The principle of free movement of workers is enshrined in Article 45 of the Treaty on the Functioning of the European Union (TFEU). The Treaty rules on free movement of persons initially applied only to economically active persons (i.e. employed persons and jobseekers)[22].

In 1993, the Maastricht Treaty gave new life to the EU rules on free movement of persons, enshrining the Article 20 right of EU citizenship and giving, in Article 21, all EU citizens and their family members the right, in principle, to move and reside freely within the EU. These provisions must be viewed in the context of the general principle of non-discrimination based on nationality enshrined in Article 18 of the TFEU and in Article 21(2) of the Charter of Fundamental Rights of the European Union.

Secondary legislation set out more detailed rules to regulate free movement, through Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States[23]. The Directive codified previous legislation which dealt separately with distinct categories of EU citizens. The specific rights concerning free movement of workers and their family members are provided in Regulation (EU) No 492/2011 (replacing Regulation (EC) No 1612/68). Accordingly, all Union citizens and their family members have the right to move and reside freely within the territory of the Member States[24]. Inactive EU citizens have the right to reside in another Member State for more than three months if they have sufficient resources and comprehensive sickness insurance cover[25].

The free movement of persons also applies to countries which are part of EFTA[26], as a result of the Agreement creating the European Economic Area (EEA) and the Agreement on the Free Movement of Persons (AFMP) with the Swiss Federation[27].

[22] Regulation (EU) No 492/2011 of the European Parliament and of the Council of 5 April 2011 on freedom of movement for workers within the Union.
[23] Directive 2004/38/EC of the European Parliament and of the Council of 29 April 2004 on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States, OJ L 158, 30 April 2004, pp. 77–123.
[24] Council Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States.
[25] Juravle, C. et al. (2013) 'A fact finding analysis on the impact on the Member States' social security systems of the entitlements of non-active intra-EU migrants to special non-contributory cash benefits and healthcare granted on the basis of residence', European Commission, p.1.
[26] EFTA countries included in this report are Iceland, Norway and Switzerland. Liechtenstein was excluded as no

In 2017, no legislative initiative relevant to the free movement of workers has been adopted. For legislation adopted or proposed in 2016, see the 2016 Annual Report on intra-EU Labour Mobility.

data are available from the EU-LFS.

[27] Decision 94/1/EC and Decision 2002/309/EC. Additional protocols were signed to extend the agreement to 'new' Member States in 2006 and 2009: Council Decision 2006/245/EC and 2009/392/EC.

2. INTRA-EU MOBILITY – EU LEVEL ANALYSIS

This report focuses primarily on labour mobility, i.e. mobility of persons who move to seek or take up employment. However, figures on mobility of inactive citizens are also provided for the purposes of providing context, or where figures on active movers are not available or insufficiently reliable to analyse certain issues.

Three forms of ***labour mobility*** may be identified:

- *Long-term labour mobility*, where someone moves his/her residence to a country of which he/she is not a citizen, for at least one year, to take up work or seek work. In most Member States, persons are obliged to register their residence after three months of living there and national data sources capture these 'short-term' movers. However, the EU-LFS only captures those persons who 'have resided in a country for at least one year or intend to do so', which is why the above definition has been adopted for this report. This concept of long-term mobility must be distinguished from the legal term 'permanent residence', meaning the right to permanently reside in another country after a residence there of at least five years[28].
- *Cross-border mobility*, where someone resides in one country but is employed or self-employed in another and who, for this purpose, moves across borders regularly. This concept itself houses different definitions (see Section 2.2.3).
- *Posting of workers*, where employees who are regularly employed in one Member State are sent to another Member State by the same employer to work there for a limited period. It can also include *posted self-employed persons,* being persons who normally pursue an activity as self-employed person in a Member State who go to pursue a similar activity in another Member State.

The analysis here starts with a wider concept of mobility among persons of working age (Section 2.1), before focusing on the mobility of workers (Section 2.2). Section 2.2.3 looks at the movements of cross-border workers and long-term movers between regions. Mobility of posted workers[29] is analysed in a separate report[30], which shows in summary that in 2016, 2.3 million portable documents A1 were issued, to posted workers and to persons active in two or more Member States. Of those, 1.6 million were applicable to postings to one specific Member State (Art.12 of Regulation (EC) No 883/2004). Of those, Germany received one quarter (433,000), followed by France (202,000), Belgium (176,000), Austria (119,000), Switzerland (104,000) and the Netherlands (90,000). In all these countries, the number of postings received increased compared to 2015.

[28] Directive 2004/38/EC.
[29] Numbers are based on the figure of PDs A1 issued for posting under Article12 of Regulation 883/2004; note that the number of PD A1s is not necessarily the same as the number of posted workers.
[30] J. Pacolet and F. De Wispelaere, (2017), 'Posting of workers. Report on A1 portable documents issued in 2016', Network Statistics FMSSFE, European Commission.

Of those postings to one Member State, Poland and Germany sent the most (256 and 232,000, respectively), followed by Slovenia (151,000)[31]. Together, these countries sent 40% of all posted workers. Furthermore, Poland was the country that issued by far the largest number of PDs A1 to persons active in two or more Member States (249,000 or 71% of the total).

Another form of labour mobility is so-called ***return mobility***. This be a type of long-term labour mobility, where EU movers return to their country of origin. Due to lack of precise figures, return mobility is approximated from figures on nationals moving to their country of citizenship (see Section 2.1).

In 2016, the composition of intra-EU labour mobility was as follows: 11.8 million EU-28 movers according to migration statistics (11 million according to EU-LFS) of working age (20-64 years) were living in an EU Member State other than their country of citizenship, making up 3.9% of the total working-age population across the EU-28.

Of these, around 9.1 million were employed or looking for work.

Table 1: Composition of intra-EU mobility by different types, EU-28 citizens in the EU-28, 2016

Type of mobility	Extent
'Long-term' EU-28 movers of working age (20-64 years) living in EU-28* (Eurostat demography figures)	11.8 million
(as share of the total working-age population in the EU-28[32])	*3.9%*
EU-28 movers of working age living in EU-28** (EU-LFS figures)	11 million
…of which **active EU-28 movers** (employed or looking for work) **	9.1 million
(as share of the total labour force in the EU-28)	*4%*
Cross-border workers (20-64 years) **	1.4 million
(as share of the total employed in the EU-28)	*0.6%*
Number of postings[33] (of employed and self-employed), (no. of PDs A1) ***	2.3 million
Annual return mobility (20-64 years) (2015) ****	614,453
(as share of EU-28 nationals leaving their country of origin in 2014) *****	*55%*

[31] Ibid.
[32] The total working-age population in the EU-28 in 2016 was 305,883,690.
[33] The number indicates the total number of PDs A1 issued by EU-28 Member States referring to Regulation 883/2004. PDs A1 are issued for persons insured in a Member State other than the Member State of (temporary) employment. The number of PDs A1 is not necessarily equal to the number of posted workers. The total number of PDs A1 in 2016 was approximately two million, including the 1.6 million under Article 12 (on posting of employed and self-employed) as well as persons active in two or more Member States under Article 13 of Regulation (EC) No 883/2004) (620,185 PDs A1) and to other categories (44,538 PDs A1). Note that differences exist in the definition of 'posting' between Regulation (EC) No 883/2004 and Regulation 96/71/EC (Posting of Workers Directive).

*SOURCE: EUROSTAT MIGRATION STATISTICS, 2016

**SOURCE: EU-LFS 2016

***SOURCE : HIVA-KU LEUVEN, ADMINISTRATIVE DATA PD A1 QUESTIONNAIRE,
****SOURCE: EUROSTAT MIGRATION STATISTICS, 2015; APPROXIMATION BY USING NUMBERS OF NATIONALS MOVING TO THEIR COUNTRY OF CITIZENSHIP.
***** SOURCE: EUROSTAT MIGRATION STATISTICS, 2015, SHARE OF EU-28 NATIONALS MOVING TO THEIR COUNTRY OF CITIZENSHIP (RETURNEES) FROM EU-28 NATIONALS LEAVING THEIR COUNTRY OF CITIZENSHIP (OUTFLOWS), AGE GROUP 20-64; FIGURES ARE CALCULATED BASED ON AGGREGATES EXCLUDING CYPRUS, PORTUGAL, GREECE AND FRANCE FOR BOTH RETURN MOBILITY AND OUTFLOWS, AS FIGURES ARE NOT AVAILABLE FOR OUTFLOWS OF NATIONALS.

2.1 Mobility of EU citizens of working age

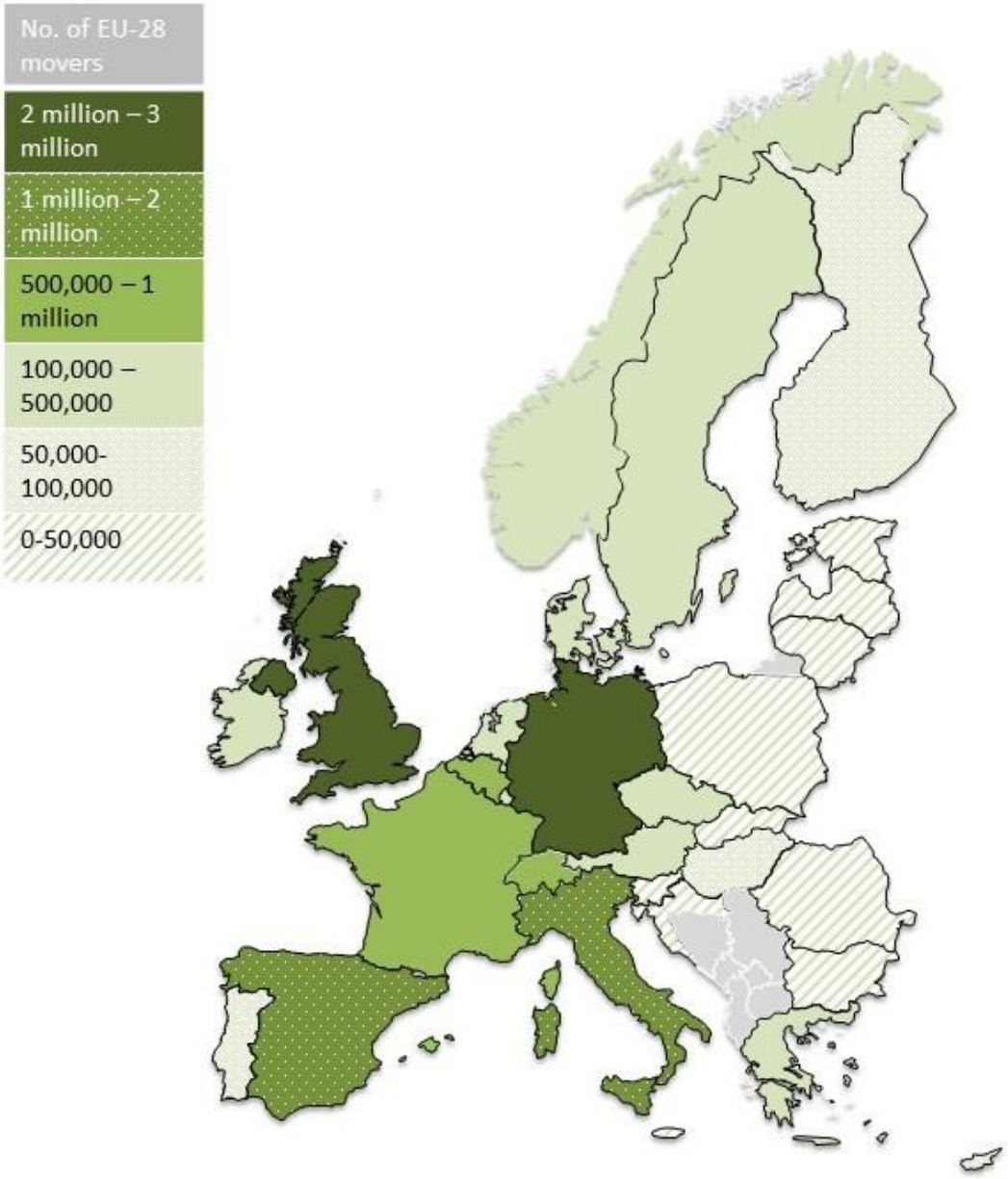
This section provides an overview of how many EU citizens of working age were living in another country than their country of citizenship in 2016 (stocks) and compares the development since 2015. Furthermore, it considers the number of working-age EU citizens moving into and out of the Member States in 2015 (latest year for which data is available) and compares this with annual movements of previous years, analysing trends since 2009. Furthermore, both stocks and flows are analysed by their gender composition. Last, the section shows how long movers have been residing abroad and shows how many have been moving there in 2006 or later.

Despite the economic crisis, more and more EU citizens have been living in another EU Member State since 2009 and ***the number of EU-28 movers further grew in 2016***. In 2016, there were roughly 12 million EU and EFTA movers in total. The number of movers was 5% more than 2015, which is a similar increase to the one in previous years. The population of movers is made up of 11.8 million EU-28 citizens and 170,000 EFTA citizens of working age (20-64) who were resident in an EU-28 country other than their country of citizenship (**Table 2**).

However, **third country nationals still make up a slightly larger part than EU-28 movers of all foreign nationals in the EU-28 – the distribution remaining the same as in 2015 (see Annex Table 29)**.

As the figure below shows, Germany and the UK were the countries that still hosted by far the most EU-28 movers of working age in 2016, followed by Italy, Spain and France.

Figure 1: Distribution of EU-28 movers aged 20 to 64 years across the Member States and EFTA countries



SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_POP1CTZ' (EXTRACTED ON 10 APRIL 2017), MILIEU CALCULATIONS.

2.1.1 Main countries of residence and countries of citizenship of EU-28 movers in 2016

Key results of the analysis of the stocks of EU-28 movers in 2016:

- Germany and the UK remain by far the main destination countries hosting almost 50% of all movers and their number of EU-28 movers was growing faster than EU average compared to 2015; while the other three main countries of residence (Italy, Spain and France) only saw small growth of the number of movers.
- The share of EU-28 movers from the total population decreased slightly since 2015.
- Austria continues to gain importance as country of residence of EU-28 movers.
- Italian, Polish, Romanian and Portuguese are the main groups of movers; each of these groups has become larger since 2015 with the exception of Portuguese whose numbers remained the same. Other national groups which grew in size are Slovenian, Irish, Maltese and Finnish nationals.
- At EU level half of the movers are men and the other half are women; in most EU-13 countries, there were more male than female movers; only Greece and Italy have high shares of female movers where they made up about two thirds.

Germany and the UK remain by far the main destination countries hosting almost 50% of all movers. Their number of EU-28 movers was growing faster than at EU average in 2016. Furthermore, the number of movers increased more strongly in Germany (+9%) than in the UK (+7%) in 2016, contrary to the previous year, when increase was much stronger in the UK (+13%). However, this increase of 13% in the UK in 2015 was comparatively large compared to the years before. In Germany, annual growth was smaller in 2015 and 2016 compared to 2014, when it was exceptionally large (most likely due to the end of transitional arrangements for EU-2 citizens).

Italy, Spain and France host a further third of EU-28 movers, but they only saw a small growth of their population of movers in 2016. Increase on 2015 was small in Italy and France (1% and 2%, respectively) and growth was negative in Spain (-1.5%). Mobility towards Spain may reflect a slow recovery from the crisis – while the number of movers still drops annually, the decrease has become smaller since 2014. Italy saw quite a large growth in 2013 and 2014 but then growth declined sharply. This may reflect the fact that Italy granted free access to EU-2 movers to their labour market in 2012.

Switzerland was also an important country of destination, hosting about as many movers as France.

Table 2: Top six countries of residence of EU-28 movers of working age (20-64) in total numbers[34], 2016, foreign population by broad groups of citizenship (totals in thousands and row %[35])

	EU-28		EFTA		TCNs		Total foreign population
DE	2,935	46%	33	1%	3,462	54%	6,430
UK	2,317	55%	19	0.5%	1,872	45%	4,209
ES	1,402	44%	17	1%	1,797	56%	3,216
IT	1,176	32%	6	0.2%	2,514	68%	3,696
CH	980	67%	3	0.2%	487	33%	1,469
FR	960	34%	25	1%	1,876	66%	2,861
EU-28	**11,808**	44%	169	1%	14,856	55%	26,834
EFTA	1,264	67%	10	1%	622	33%	1,896

MEMBER STATES WITH THE HIGHEST NUMBER OF EU-28 MOVERS IN 2016, EXPRESSED IN THOUSANDS.

THE MOBILE POPULATION IS BROKEN DOWN BY BROAD NATIONAL GROUPS OF EU-28 AND EFTA CITIZENS AND TCNS.

THE PERCENTAGES INDICATE THE SHARE OF EACH GROUP FROM THE TOTAL FOREIGN POPULATION.

SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_POP1CTZ' (EXTRACTED ON 10 APRIL 2017), MILIEU CALCULATIONS.

Despite the increase in the total number of EU-28 movers across the Member States, ***the share of movers from the total population decreased slightly between 2015 and 2016***. While in 2015 movers made up 4% of the entire resident population in the Member States, in 2016 this share decreased to 3.9%.

Luxembourg remains the country with by far the largest share of EU-28 movers from its total population. Relatively high shares can also be found in Cyprus, Ireland and Belgium.

Austria continues to gain importance as country of residence of EU-28 movers, indicated by a relatively high number of EU-28 movers compared to its total population (it is the Member State with the fifth largest share of movers) and a high total number of movers (seventh largest). Total numbers of movers have been continuously increasing at a fairly high annual rate (around +10%) since 2012 and the increase in the share of movers between 2015 and 2016 was also high (+0.6 p.p.), compared to other Member States.

[34] See Table 29 in Annex for full table.
[35] The row sum of shares may approximate 100%, due to rounding of the numbers.

Table 3: Top five countries of residence of EU-28 movers of working age (20-64) in shares of total population (20-64) in countries of residence[36], 2016, mobile population by broad groups of citizenship (shares of total population and totals in thousands in brackets) [37]

	EU-28	EFTA	TCNs	Total foreign population (1000s)	Total population (1000s)
LU	44%	0.2%	7%	187	366
CH	19%	0.1%	9%	1,469	5,156
CY	15%	0%	4%	105	523
IE	10%	0%	5%	436	2,776
BE	9%	0%	5%	929	6,691

MEMBER STATES WITH THE FIVE HIGHEST SHARES OF EU MOVERS COMPARED TO TOTAL POPULATION IN 2016.

NUMBERS IN BRACKETS ARE EXPRESSED IN THOUSANDS.

THE MOBILE POPULATION IS BROKEN DOWN BY BROAD GROUPS OF CITIZENSHIP (EU-28, EFTA AND TCNS).

THE PERCENTAGES INDICATE THE SHARE OF THE GROUP COMPARED TO TOTAL POPULATION IN THE COUNTRY FOR THE SAME AGE GROUP.

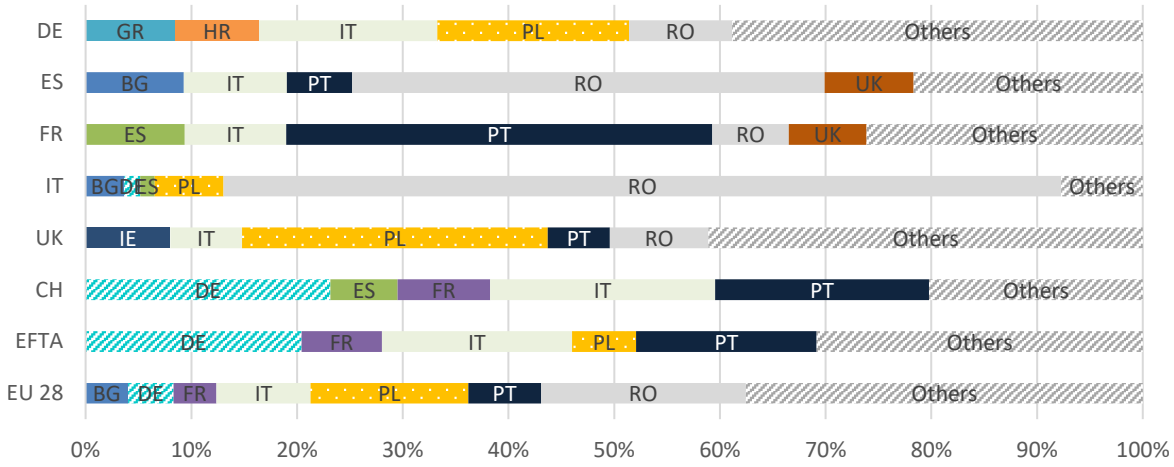
SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_POP1CTZ', (EXTRACTED ON 10 APRIL 2017), MILIEU CALCULATIONS.

Italians, Polish, Romanians and Portuguese remained the four largest nationalities at EU-28 level, with their combined numbers reaching 5.9 million, around half of all movers in the EU-28. German, French and Bulgarian movers remain high in numbers. The numbers for these biggest groups between 2015 and 2016 show a slight increase between 8% and 10% except for Portuguese nationals whose numbers remain virtually the same (around 805,000). Another exception is French nationals with 2% decrease compared to last year. On the other hand, Slovenian (27% increase), Maltese (almost double compared to last year, reaching 8000), Irish (14% increase) and Finnish as well as Polish (11% increase for both) are among the nationalities whose numbers grew more than others compared to 2015.

In the main countries of destination, the largest national groups of movers remained the same compared to 2015, with some exceptions; in Spain, Portuguese nationals replaced French nationals in the five most represented groups of EU-28 movers; secondly, while in 2015, Spanish nationals replaced French nationals as the biggest 5th group in Italy.

[36] See Table 30 in Annex for full table.
[37] The row sum of shares may approximate 100%, due to rounding of the numbers.

Figure 2: Breakdown by citizenship of EU-28/EFTA movers of working age (20-64) in EU-28[38], EFTA and in the top six countries of residence, 2016



MOST REPRESENTED NATIONALITIES FOR EU-28/EFTA MOVERS IN THE SIX COUNTRIES OF RESIDENCE WITH THE HIGHEST NUMBERS OF EU-28 MOVERS, EU-28 AND EFTA, DATA REFERS TO 2016.

SOURCE : EU-LFS, MILIEU CALCULATIONS.

Gender distribution in countries of residence

At EU-28 level, 50% of EU-28 movers were male and 50% were female in 2016. However, there are large variations across the Member States concerning the gender distribution. ***In many EU-13 countries, there were considerably more male movers, most notably in Romania and Poland where around three quarter of the movers were male, and only one quarter female.*** Other countries where male EU-28 movers were over-represented (making up 60-70%) are Lithuania, Slovakia, Latvia and Estonia, Bulgaria and the Czech Republic.

On the other hand, ***the population of movers in Greece and Italy is female dominated, given that around two thirds of movers are female.***

In the main destination countries such as Germany, France, Belgium, Portugal, Spain, Austria, the Netherlands and the UK, the male versus female distribution is quite balanced, like the EU-28 aggregate.

[38] See Table 31 in Annex for full table.

Figure 3: Distribution of male vs. female EU-28 movers, by country of residence, 2016

DISTRIBUTION OF MALE VS. FEMALE EU-28 MOVERS IN EU-28 COUNTRIES AND EU-28 AGGREGATE, 2016.

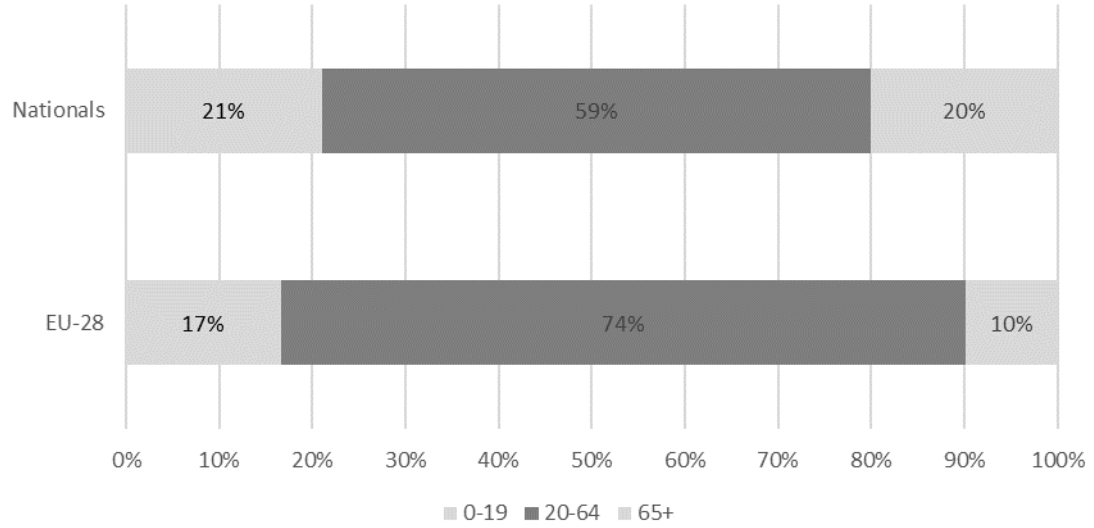
PERCENTAGES FOR MALE MOVERS IN DESCENDING ORDER. THE LINE REPRESENTS 50%.

SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_POP1CTZ', (EXTRACTED ON 10 APRIL 2017), MILIEU CALCULATIONS.

Age Structure of EU-28 movers compared to the nationals of the country of destination

As found in previous reports, ***there are many more people of working-age among EU-28 movers than among the national population of a country***. At the EU level, around 74% of EU-28 movers were between 20 and 64 years of age, while, among nationals, this share was around 60%. By contrast, there were fewer elderly people (aged 65 years and above) among movers (10%) than among nationals (20%). However, there are also fewer persons aged 0 to 19 years among movers (17%) than among nationals (21%).

Figure 4: Age structure of EU-28 movers vs. nationals of the host countries, EU-28 aggregate, 2016



AGE STRUCTURE OF EU-28 MOVERS VS. NATIONALS OF THE HOST COUNTRIES, EU-28 AGGREGATE, 2016.

SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_POP1CTZ', (EXTRACTED ON 10 APRIL 2017), MILIEU CALCULATIONS.

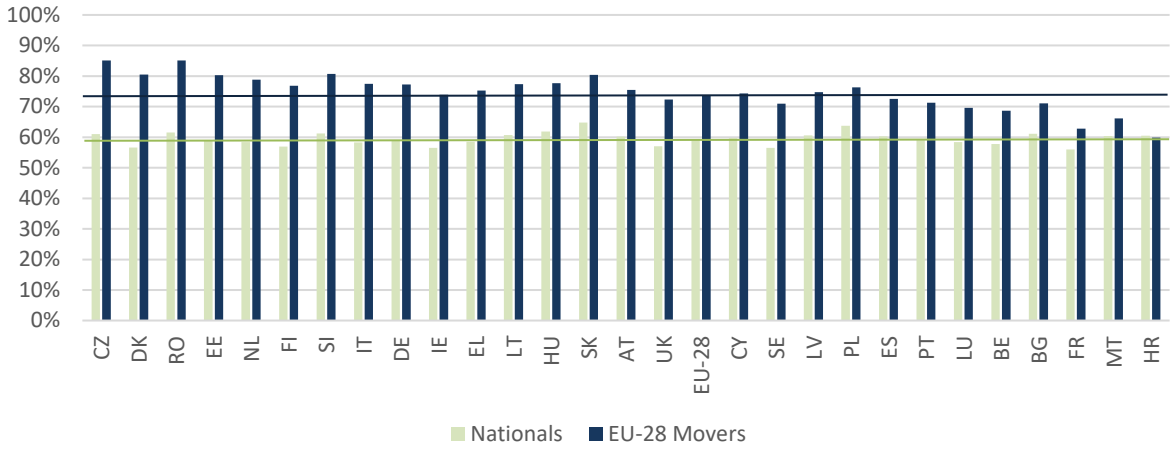
At country level, the difference in the size of the working-age population among EU-28 movers and among nationals varies quite a lot. This is mainly due to the number of working age persons among EU-28 movers, which is different in the Member States. On the other hand, shares of working-age persons among nationals are more similar in the Member States. As such, ***one can find comparatively large shares of working-age persons among movers in the Czech Republic, Denmark, Slovenia and Slovakia which result in larger differences to the national population***.

On the other hand, ***the share of working-age persons among movers is comparatively low in France, Malta and Croatia***, resulting in a low difference to nationals, which also have a comparatively low share of working-age persons. In Croatia, for example, there was a larger share of persons aged 65 years and above among EU-28 movers (31%) than among nationals (19%). This may be explained by the fact that, as a southern destination, Croatia attracts comparatively large shares of elderly persons among its movers from the other EU Member States[39]. The same can be said for Malta[40].

Among the main destination countries, the difference in the share of the working-age population is similar to the EU average in the UK and Spain, whereas it is larger in Germany and Italy (due to a higher share of working-age persons among movers) and lower in France (due to a much lower share of working-age persons among movers).

[39] Fries-Tersch, E., Tugran, T. and Bradley, H. (2016), 2016 Annual Report on intra-EU Labour Mobility, Network Statistics FMSSFE, European Commission, p.128.
[40] Ibid.

Figure 5: Shares of 20-64-year-old among EU-28 movers and among nationals of the host country, 2016 *(sorted in descending order by difference between EU-28 movers and nationals)*



THE SHARE OF 20-64-YEAR-OLD AMONG THE EU-28 MOVERS AND THE NATIONALS OF THE HOST COUNTRY, AT COUNTRY LEVEL AND THE EU-28 AGGREGATE, 2016.

SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_POP1CTZ', (EXTRACTED ON 10 APRIL 2017), MILIEU CALCULATIONS.

2.1.2 Mobility trends of EU-28 movers: mobility flows and length of stay of EU-28 movers

This section looks at inflows and outflows of EU-28 and EFTA movers into and from the Member States and EFTA countries. Flow data provides a more accurate picture of very recent developments in mobility. The latest data available on mobility flows dates from 2015[41].

Key results of the analysis of the flows of EU-28 movers in 2015:

- Net intra-EU mobility to Germany and the UK is around four times higher than to any other EU Member State or EFTA country. However, both are also important sending countries.
- Austria is the third largest net receiving country of EU-28 citizens.
- Negative net intra-EU mobility of EU citizens (including nationals) was largest in Romania, Poland and Spain. Romanians and Polish are by far the largest national groups among movers from the past ten years.
- Luxembourg, Malta and Austria have the highest shares of incoming movers compared to their total population.
- Inflows to Germany, the UK, Austria the Netherlands further increased in 2015, although at a slower pace than in the years before.
- Poland is the main destination country within the EU-13 with inflows similar to Sweden; the Czech Republic is the second most important EU-13 destination

[41] For further explanations on the data sources, see Annex A.2

country. Germans constitute an important group among movers in these countries.

- In the first years of the economic crisis there was an increase in the share of women among EU-8 movers and movers from Southern countries[42]. The share of men among EU-2 movers to Spain also decreased during the first years of the crisis.
- Romania, Poland and the UK are the main sending countries in total numbers.
- Most of the EU-13 countries still have higher outflow rates than the EU aggregate; particular high outflow rates can be found in Lithuania, Latvia, Romania, Estonia and Ireland.
- Since the beginning of the economic crisis (2009)[43], more and more nationals have been leaving Spain and Italy every year and this trend continued in 2015.
- Return mobility to EU-13 countries decreased between 2014 and 2015, while return mobility to EU-15 countries slightly increased.

Net mobility in 2015

In 2015, net flows of EU-28 citizens were around 200,000 to Germany and around 100,000 to the UK – four times higher than to any other Member State.

In 2015, overall net mobility was positive[44] in 15 Member States and the EFTA countries and negative[45] in nine Member States (**Figure 6 and Figure 7**). Concerning intra-EU mobility, ***Germany and the UK were by far the largest net receiving countries.*** Net intra-EU mobility[46] to Germany and the UK was around four times higher than to any other Member State or EFTA country. Further important net receiving countries of EU-28 movers were Italy, Austria, the Netherlands, Belgium and Sweden. Among those, Italy is also an important sending country with more nationals leaving the country than EU-28 movers coming in. ***Austria is the third largest net receiving country of EU-28 citizens.***

Net outflows of EU citizens were largest in Romania, Poland and Spain. This is mainly due to the high number of nationals leaving the country; nevertheless, Spain also saw comparatively high net outflows EU-28 movers. In fact, Spain, Poland, Latvia and Slovenia were the only countries where more EU-28 movers left than came in. Further important net sending countries were Lithuania, Croatia, Latvia, Bulgaria and Ireland.

When looking at overall net migration (thus, including TCNs), ***Germany saw a positive net migration amounting to almost 800,000 persons, almost four times as high as net immigration to the UK***, the country with the second largest net immigration.

[42] Southern countries: ES, EL, PT, IT, CY.
[43] For full tables of trends (2009, 2012, 2014, 2015) in all countries, see Table 33 in the Annex.
[44] This means that when counting together all groups (nationals, EU-28 movers, TCNs), there were **more people moving into the country** than moving out of it during 2015.
[45] This means that when counting together all groups (nationals, EU-28 movers, TCNs), there were **more people moving out of the country** than moving in during 2015.
[46] Net intra-EU mobility is calculated as the sum of net mobility of nationals, EU-28 movers and EFTA movers; arguably, not all persons leaving the country move to another EU-28 Member State, introducing a slight inaccuracy to the figures; however, it can be assumed that this inaccuracy would not change the ranking of the countries.

This was mainly due to large net positive mobility among TCNs (around half a million) and, to a lesser extent, EU-28 movers (around 250,000). Further countries with an important positive net migration were Italy, Austria, Sweden, Belgium and the Netherlands.

Figure 6: Net migration and mobility flows by the country of residence, working age (20-64), 2015

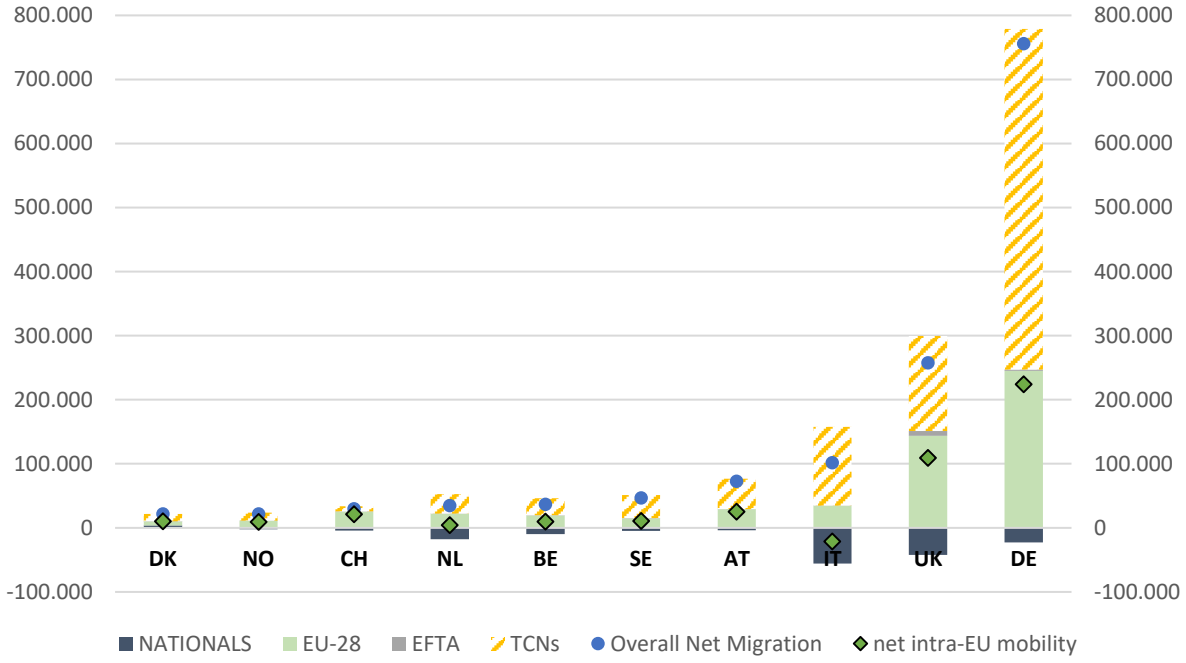
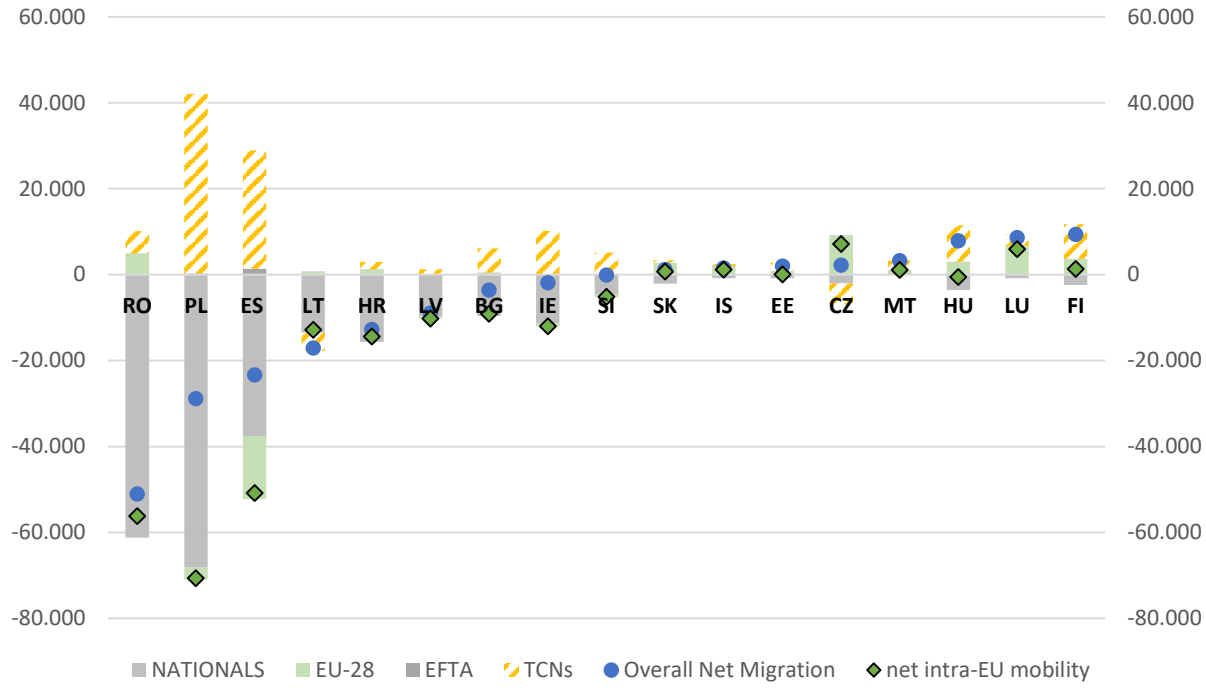


Figure 7: Net migration and mobility flows by the country of residence, countries with smaller totals, working age (20-64), 2015



FIGURES 6 AND 7: NET MOBILITY FLOWS BY COUNTRY OF RESIDENCE, BY BROAD GROUPS OF CITIZENSHIP NUMBERS ARE EXPRESSED IN THOUSANDS. COUNTRIES THAT HAVE A NET MOBILITY OF 20,000 AND HIGHER ARE SHOWN IN FIGURE 13.

'OVERALL NET MIGRATION FLOWS' ARE CALCULATED AS THE SUM OF NET MIGRATION OF NATIONALS, EU-28 AND EFTA MOVERS AND TCNS, WHILE **'NET INTRA-EU MOBILITY'** EXCLUDES FLOWS OF TCNS
FIGURES RELATE PERSONS MOVING TO AND FROM THE COUNTRY INDICATED ON THE X-AXIS, REGARDLESS OF COUNTRY OF PREVIOUS OR NEXT RESIDENCE. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS MOVING FROM OR MOVING TO THIRD COUNTRIES.

FIGURES FOR AT, IE, RO, SI AND UK ARE BASED ON AGE DEFINITION 'AGE COMPLETED IN YEARS'.

PROVISIONAL DATA FOR INFLOW FIGURES FOR PL AND SK.

ESTIMATED FIGURES FOR INFLOWS FOR DE, PT AND RO.

PROVISIONAL DATA FOR OUTFLOW FIGURES FOR BG AND PL.

BREAK IN TIME SERIES FOR EE (OUTFLOWS AND INFLOWS).

OUTFLOW FIGURES FOR EFTA CITIZENS ARE NOT AVAILABLE FOR DE, LV, MT, PL AND UK.

OUTFLOW FIGURES NOT AVAILABLE FOR CY, EL, FR AND PT AND THESE COUNTRIES ARE NOT INCLUDED IN THE GRAPHS.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.
SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ] EXTRACTED ON 18 MAY 2017, AND IMMIGRATION DATA [MIGR_IMM1CTZ], EXTRACTED ON 15 MAY 2017, MILIEU CALCULATIONS

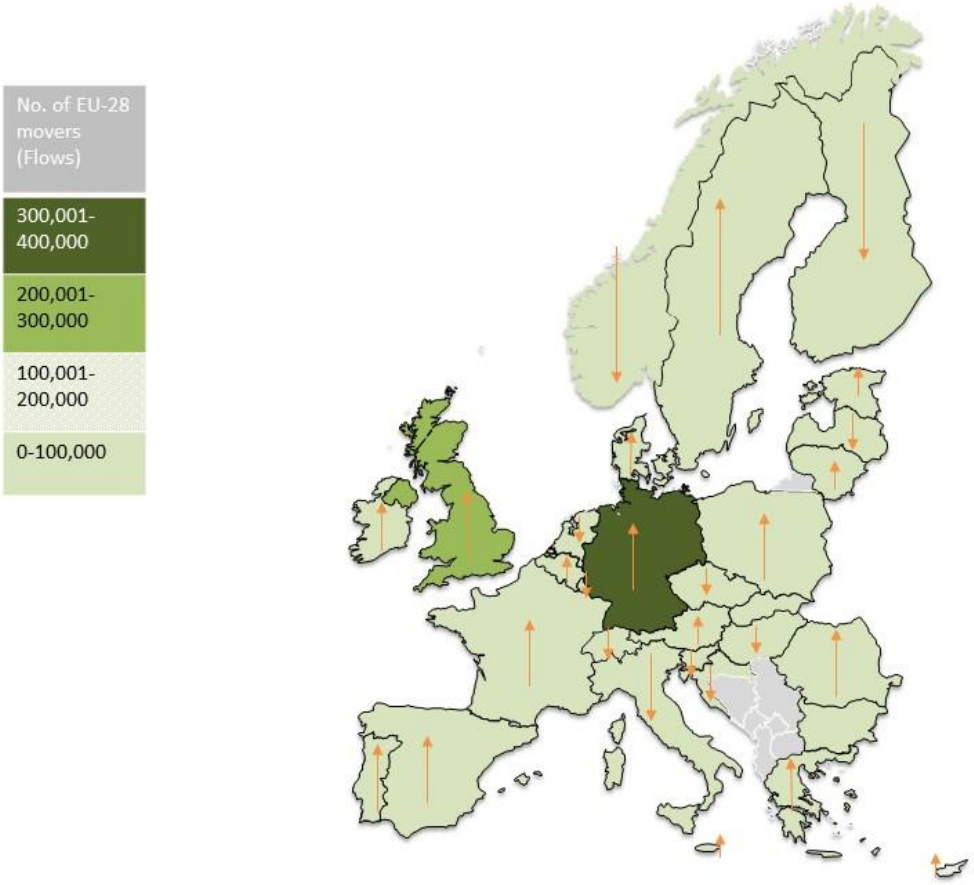
Inflows - main countries of destination and changes over time

The annual number of inflows of EU-28 citizens to an EU Member State other than their country of citizenship further increased in 2015. It increased at a slightly lower speed than in the years 2012-2014[47].

In 2015, around 1.1 million EU-28 citizens of working age moved to an EU-28 country other than their own.

[47] The increase in 2015 was 6%, while the average annual increase between 2012-2014 was 9%.

Figure 8: Distribution of inflows to EU-28 Member States of nationals of another EU Member State in 2015, 20-64 years, compared to inflows in 2014 (indicated by orange arrows)



SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 10 MAY 2017, MILIEU CALCULATIONS.

The number of incoming EU-28 citizens varied a lot between countries (Figure 8): Inflows to Germany were 1.5 times as high as those to the UK, the second largest destination country; and inflows to the UK were almost three times higher than those to Spain, the third largest destination country. Other important destination countries were France, Austria, Italy and the Netherlands which each received between 50,000 and 100,000 movers.

Compared to 2014, ***Austria has overtaken Italy in numbers of inflows***, since the latter were increased in Austria, but decreasing quite strongly in Italy. Austria being a small country, the large inflows also make it appear among the countries with the highest relative inflows (Table 4).

Switzerland also received a high number of incoming movers, both in total and in share from its population.

As in 2014, ***Luxembourg had the highest share of incoming EU-28 citizens with 4%*** of its total population in the same age group being a foreign EU citizen. Malta and Austria, as well as Switzerland and Iceland also had large shares of incoming movers.

Table 4: Main countries of destination of EU-28 and EFTA movers of working age (20-64) in total numbers[48] and in shares from the population, 2015 and % change compared to 2014, (total numbers in thousands)

	Largest inflows of EU-28 movers in 2015 (% change to 2014)		Largest inflows of EU-28 movers compared to total population in country (% change to 2014)
DE	366 (+9%)	LU	3.6% (0%)
UK	229 (+5%)	MT	1.8% (+16%)
CH	74 (-4%)	CH	1.4% (-4%)
ES	79 (+6%)	IS	1.4% (n.a.)
FR	59 (+1%)	AT	1.0% (+2%)
AT	55 (+2%)	CY	0.9% (+61%)
IT	51 (-7%)		
NL	50 (+1%)		

INFLOWS OF EU-28 IN 2015, TOTAL NUMBERS ARE EXPRESSED IN THOUSANDS. SHARES IN COLUMN 2 EXPRESS NUMBERS OF INFLOWS BY NUMBER OF TOTAL POPULATION IN THE COUNTRY. SHARES IN BRACKETS EXPRESS RELATIVE DIFFERENCES OF TOTAL INFLOWS OF EU-28 FOREIGNERS TO 2014.

FIGURES RELATE TO FOREIGN EU-28 MOVING TO THE COUNTRY INDICATED IN THE ROWS, REGARDLESS OF COUNTRY OF PREVIOUS RESIDENCE. FIGURES MAY INCLUDE EU-28 PREVIOUSLY RESIDING IN THIRD COUNTRIES.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

AGE DEFINITION FOR UK IS 'AGE IN COMPLETED YEARS' UNLIKE THE OTHER COUNTRIES THAT USE 'AGE REACHED DURING THE YEAR'.

NUMBER FOR DE IS AGGREGATED USING SEPARATE AGE GROUPS BECAUSE THE AGE COHORT 15-64 IS NOT AVAILABLE ON THE EUROSTAT DATABASE FOR GERMANY.

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 15 MAY 2017, MILIEU CALCULATIONS.

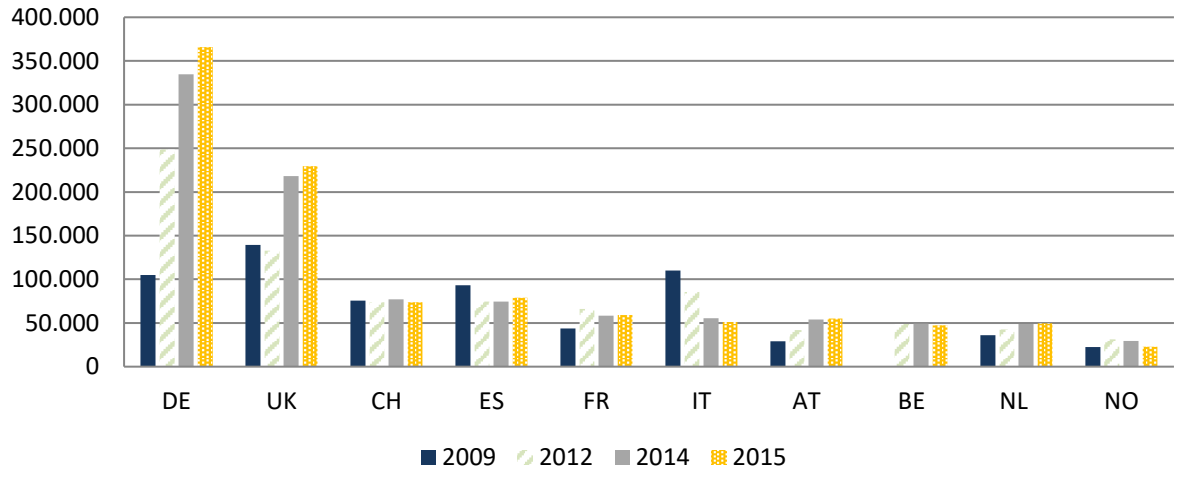
Inflow trends to the ten main countries of destination during the period 2009-2015 (in total numbers and in shares of population) show that there were no dramatic increases or decreases in 2015 compared to the five preceding years, as shown by changes in total inflows and in shares of the population (**Figure 9 and Figure 69 in Annex**). ***Inflows to Germany, the UK, Austria and the Netherlands continued to grow in 2015, although not as much as in previous years.*** In particular, the strong increases in inflows that Germany saw from 2009-2014, and the UK from 2012-2014, did not continue to

[48] See Table 32 in Annex for full table.

such a considerable extent, although figures still rose. Inflows to Belgium and Switzerland in 2015 continued the rather stable upwards trend of recent years.

While ***Spain and Italy*** remain important destination countries, they ***still have not regained their attractiveness from before the economic crisis***. Both countries had smaller numbers of inflows than in 2009, although Spain seemed to be recovering slowly, with a steady increase in inflows since 2012. By contrast, the number of inflows to Italy, and their share within the total population, continued to decrease. However, as mentioned above, Spain at the same time saw quite a high outflow of EU-28 nationals in 2015, possibly indicating more short-term mobility than in Italy.

Figure 9: Evolution of inflows of foreign EU-28 and EFTA citizens of working age (20-64) in the top 10 countries of destination 2009-2015[49]



FIGURES RELATE TO FOREIGN EU-28 AND EFTA CITIZENS MOVING TO THE COUNTRY INDICATED ON THE X-AXIS, REGARDLESS OF COUNTRY OF PREVIOUS RESIDENCE. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS PREVIOUSLY RESIDING IN THIRD COUNTRIES.

FIGURES FOR YEARS 2009-2012 DO NOT INCLUDE HR CITIZENS.

NO FIGURES ARE PROVIDED FOR BE FOR 2009.

EVOLUTION OF INFLOWS OF EU CITIZENS FOR THE YEARS 2009, 2012 AND 2014, IN THE 10 COUNTRIES WHERE THEIR NUMBERS WERE HIGHEST IN 2013.

FIGURES FOR AT AND UK USE AGE DEFINITION 'AGE COMPLETED IN YEARS'.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 10 MAY 2017, MILIEU CALCULATIONS.

These results show that mobility flows are still largely directed towards EU-15 countries. However, mobility into EU-13 countries has gained importance over the years. ***The main destination country within the EU-13 was Poland with inflows at a similar scale as Denmark, Ireland and Sweden*** (23,000, around half as many as received by Aus-

[49] See Table 33 in Annex for full table.

tria and the Netherlands) (**Table 33 in Annex**). This is a result of the strong increases in inflows over the past years (they doubled compared to 2009). Nevertheless, net mobility of EU-28 movers to Poland was negative in 2015, possibly indicating short-term stays of those who come.

The Czech Republic was the second most important destination country among the EU-13, with inflows of around 12,000 movers in 2015 (Table 33 in Annex). However, inflows have already been at that scale in 2009 and remained rather stable since then.

While flows to the Czech Republic are mainly made up of other EU-13 nationals (chiefly Slovakians, but also large numbers of Romanians, Bulgarians, Hungarians and Polish), Germans also constitute an important group moving to the Czech Republic (their size equalling that of Romanians and Bulgarians)[50]. Germans also constitutes roughly one fifth of movers to Poland[51].

Apart from the main countries of destination, substantial changes in inflows between 2014 and 2015 could be seen in the following countries: the number of EU-28 citizens moving to Portugal and Cyprus almost doubled between 2014 and 2015. In Portugal, this represents a continued increase from 2012, while in Cyprus, it is a change from the marked decrease in inflows between 2012 and 2014. In Lithuania, Malta and Slovakia, inflows increased by one third. Inflows to Romania were around seven times as large as in 2014, although it is very likely that this reflects methodological issues[52]. Large decreases in inflows could be observed in Latvia, Slovenia and Finland, whose inflows were around one fourth less than in 2014.

Gender distribution of inflows

The EU-28 aggregate reveals that ***men were slightly over-represented among the working-age EU-28 citizens who moved to another Member State in 2015***, with 56% of the total.

As can be seen in **Table 5**, the share of male movers was still smaller in the periods 2004-2008 (48%) and 2008-2012 (49%), which may explain why the gender distribution in the stocks (see **Figure 3**, Section 2.1.1.) was evenly split.

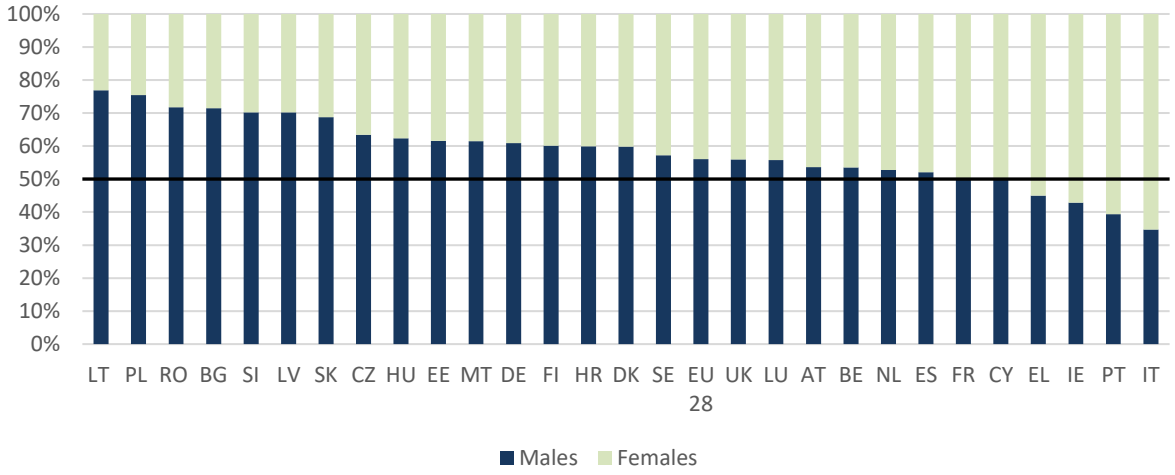
Flows into most Eastern European countries in 2015 were largely dominated by male movers (**Figure 10**). Most EU-15 countries, however, had a male to female distribution closer to the EU-28 average (56% male movers), with only ***four EU-15 countries having a considerably larger absolute number of female EU-28 movers of working age than males***: ***Greece*** (10% difference), ***Ireland*** (14% difference), ***Portugal*** (21% difference) and ***Italy*** (31% difference).

[50] Source: Eurostat data on immigration by age group and citizenship (migr_imm1ctz), extracted on 20 November 2017

[51] Eurostat data by citizenship not available; Source: German Statistical Office Destatis 'Population and economic activity. Mobility flows.' (Fachserie 1 Reihe 1.2 Bevölkerung und Erwerbstätigkeit 2015), available at: https://www.destatis.de/DE/Publikationen/Thematisch/Bevoelkerung/Wanderungen/Wanderungen.html

[52] The figure is flagged 'estimated' and should be interpreted with caution; national data to confirm this could not be retrieved; figures by previous country of residence are not available from Eurostat so no further explanation can be found.

Figure 10: Distribution of inflows of male vs. female EU-28 movers into the EU-28 and EU-28 aggregate, 2015



DISTRIBUTION OF INFLOWS OF MALE VS. FEMALE EU-28 MOVERS INTO THE EU-28 AND EU-28 AGGREGATE, 2015.

FIGURES RELATE TO FOREIGN EU-28 AND EFTA CITIZENS MOVING TO THE COUNTRY INDICATED ON THE X-AXIS, REGARDLESS OF COUNTRY OF PREVIOUS RESIDENCE. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS PREVIOUSLY RESIDING IN THIRD COUNTRIES. PERCENTAGES FOR MALE MOVERS IN DESCENDING ORDER. THE LINE REPRESENTS 50%.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.
SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP 'MIGR_IMM1CTZ', (EXTRACTED ON 15 MAY 2017), MILIEU CALCULATIONS.

A comparison over time indicates that ***the economic crisis may have led to an increase in the share of women among EU-8 movers and movers from Southern countries***[53]. ***The share of men among EU-2 movers to Spain also decreased during the first years of the crisis.*** These developments seem to be related to the fact that typically male-dominated sectors, especially the construction sector, were particularly impacted by the economic crisis, especially in Southern countries like Spain and Italy, but also the UK.

In order to assess the effect, if any, of the economic crisis on the male/female distribution among movers, these data from 2008, 2012 and 2016 were compared for movers within the preceding four years (**Table 5**). This gives an approximation of flows before the crisis, during its first years, and then during the later years.

Results mirror those of previous research[54] which found that the employment of men was more strongly affected by the economic crisis. This was because job losses were particularly strong in typically male sectors, including the construction sector, which was the first sector to be hit hard by the economic crisis, and was one of the most important sectors of employment of EU-28 mobile workers, especially among those from the EU-13[55].

[53] Southern countries: ES, EL, PT, IT, CY.
[54] DG Employment (2013) 'Mobility in Europe'; DG Employment (2015) 'Employment and Social developments in Europe 2015'; DG Employment (2014) 'EU Employment and Social Situation Quarterly'; OSE and ETUI (2013) 'Social developments in the European Union'.
[55] Fries-Tersch, E., Mabilia, V. (2016) '2015 Annual Report on Labour Mobility', European Commission, p. 52.

Manufacturing and other industry sectors were also subsequently confronted with job losses.

Previous research also found that typically female sectors, e.g. services such as accommodation and food services, and health and social work (which are important sectors among EU-28 movers[56]) were hit later by the economic crisis and to a much lesser extent[57]. For example, in Germany, the hospitality sector was found to have expanded between 2008 and 2010[58].

Study findings also reflect differences between Member States in the effect of the crisis on the male-dominated sectors: while the shares of male movers to Austria and Germany did not decline, the shares of male movers to Spain, Italy and the UK declined strongly in the period 2008-2012.

Table 5: Flows of female vs. male movers among all EU-28 movers, EU-2 movers, EU-8 movers and movers from Southern countries[59] to the EU-28, 2004-2016

	EU-28 nationals		EU-2 nationals		EU-8 nationals		Southern nationals	
	Males	Females	Males	Females	Males	Females	Males	Females
Arrived in 2012- 2016	52%	48%	51%	49%	50%	50%	56%	44%
Arrived in 2008- 2012	48%	52%	45%	55%	44%	56%	52%	48%
Arrived in 2004- 2008	49%	51%	43%	57%	50%	50%	54%	46%

MALE AND FEMALE MOVERS WHO ARRIVED WITHIN THE LAST FOUR YEARS TO MAIN COUNTRIES OF DESTINATION FOR YEARS 2008, 2012 AND 2016.

FIGURES RELATE TO FOREIGN EU-28 AND EFTA CITIZENS MOVING TO THE EU-28, REGARDLESS OF COUNTRY OF PREVIOUS RESIDENCE. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS PREVIOUSLY RESIDENT IN THIRD COUNTRIES.
SOURCE : EU-LFS, MILIEU CALCULATIONS.

As can be seen in **Table 5**, the distribution between men and women among all EU-28 movers did not change significantly between 2004 and 2012, but then showed an increase in the share of male movers between 2012 and 2016 (from 48% to 52%).

This trend is particularly strong among EU-2 movers, among whom the share first increased from 43% to 45% (between 2008 and 2012) and then to 51% between 2012 and 2016. However, the economic situation of the country of destination also had an impact on the gender distribution of EU-2 movers: for example, in the flows of EU-2 movers to Germany in 2008-2012, the share of men increased; in Spain, by contrast, the share of men decreased during 2008-2012, before beginning to increase again[60]. This is likely to reflect very high unemployment and thus lower demand for foreign workers in the construction and manufacturing sectors (key sectors for EU-13 movers[61]) which was particu-

[56] Fries-Tersch, E., Mabilia, V. (2016) '2015 Annual Report on Labour Mobility', European Commission, p. 52.
[57] DG Employment (2013) 'Mobility in Europe'; OSE and ETUI (2013) 'Social developments in the European Union'.
[58] Ernst & Young (2013) 'The hospitality sector in Europe'.
[59] Southern countries: ES, EL, PT, IT, CY.
[60] See Figure 70 in Annex.
[61] Fries-Tersch, E., Mabilia, V. (2016) '2015 Annual Report on Labour Mobility', European Commission, p. 52.

larly pronounced in Spain (among others) during the early years of the economic crisis, but not in Germany[62].

Among EU-8 movers, the effect of the economic crisis is even more visible: here, the share of male movers dropped from 50% in 2004-2008 to 44% in 2008-2012. After that, in the period 2012-2016, the share of male movers again increased to 50%. These changes in the gender distribution of movers reflect the impact of the economic crisis in the destination countries: the decrease of shares in male EU-8 movers between 2008 and 2012 can be seen in Belgium, the UK and, notably, Italy (data for Spain are not available for that period, but there was a decline in the share of men even in the following period 2012-2016)[63]. On the other hand, the share of men among EU-8 movers moving to Austria remained similar during the three periods, and even increased among EU-8 movers to Germany (like EU-2 movers), which corresponds to previous research suggesting there were no major job losses in the construction sector in Germany and Austria, but considerable losses in Spain, Italy and the UK[64]. Interestingly, research found that Belgium's construction sector was not hit particularly hard by the crisis[65] but the share of male movers still decreased, probably indicating job losses in other sectors, such as industry and manufacturing. Among movers from the Southern countries, there was a similar U-development, with a low in the first crisis years, particularly in France. Again, this development cannot be seen among movers to Germany, where the share of men increased in the initial years of the crisis.

Outflows of nationals – main sending countries and changes over time

In 2015, ***Romania, Poland and the UK were the main sending countries***, each having between 100,000 and 160,000 nationals leaving the country. Further important sending countries were Germany, Italy and Spain, each with between 50,000 and 100,000 leaving nationals.

Table 6, Main sending countries (with outflows of nationals of more than 50,000) and changes compared to 2014

Country of residence	Outflow of Nationals (main sending countries)
RO	157 (+11%)
PL	123 (-16%)
UK	105 (-9%)
DE	79 (-6%)
IT	75 (+14%)
ES	69 (+19%)

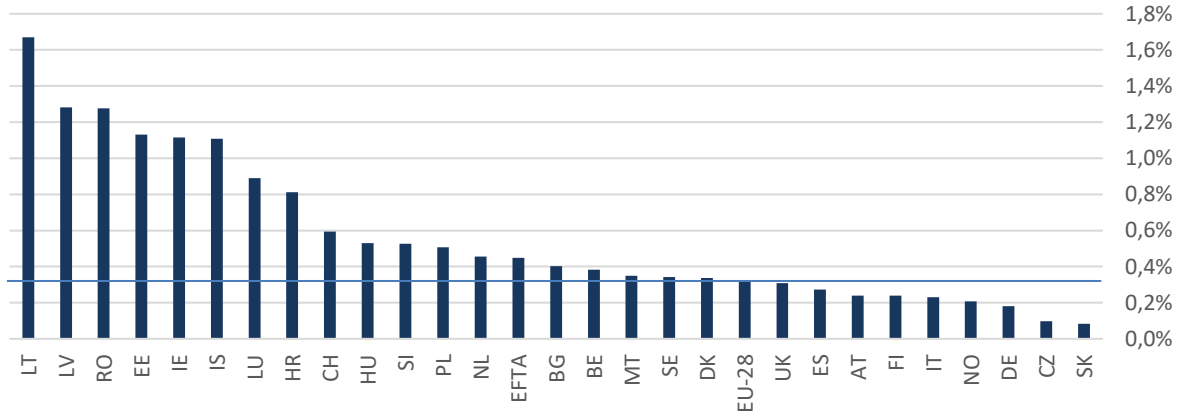
SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ], EXTRACTED ON 15 MAY 2017, MILIEU CALCULATIONS.

[62] DG Employment (2013) 'Mobility in Europe', p.23.
[63] See Figure 71 in Annex.
[64] DG Employment (2013) 'Mobility in Europe', p.23.
[65] Ibid.

However, compared to the size of their national population, ***most of the EU-13 countries still have higher outflow rates than the EU aggregate***. ***Particular high rates of nationals leaving the country can be found in Lithuania, Latvia, Romania, Estonia and Ireland*** where outflow rates are between three and six times higher than the EU aggregate rate of 0.3% (**Figure 11**). Poland's outflow rate is also higher than the EU aggregate rate, but not dramatically higher. On the other hand, the large outflows in total numbers from the UK, Germany, Italy and Spain do not reflect in the outflow rates, which are all below the EU aggregate.

Furthermore, the Czech Republic and Slovakia have the lowest outflow rate, an exception to the other EU-13 countries. This is due to their comparatively small number of nationals leaving in total figures and may be related to the high extent of cross-border work between Slovakia, the Czech Republic and Austria (see section 2.3 of this report).

Figure 11: Outflow rate of nationals of working age (20-64), by country of citizenship[66], 2015



NUMBER OF OUTFLOWS OF NATIONALS AS A SHARE OF THE TOTAL NATIONAL POPULATION IN THE COUNTRY, 2015.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

FIGURES RELATE TO FOREIGN EU-28 AND EFTA CITIZENS MOVING TO THE COUNTRY INDICATED ON THE X-AXIS, REGARDLESS OF COUNTRY OF PREVIOUS RESIDENCE. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS PREVIOUSLY RESIDING IN THIRD COUNTRIES.

CY, EL, FR AND PT ARE NOT DISPLAYED BECAUSE FIGURES ARE NOT AVAILABLE.

EU-28 AGGREGATE EXCLUDES CY, EL, FR AND PT.

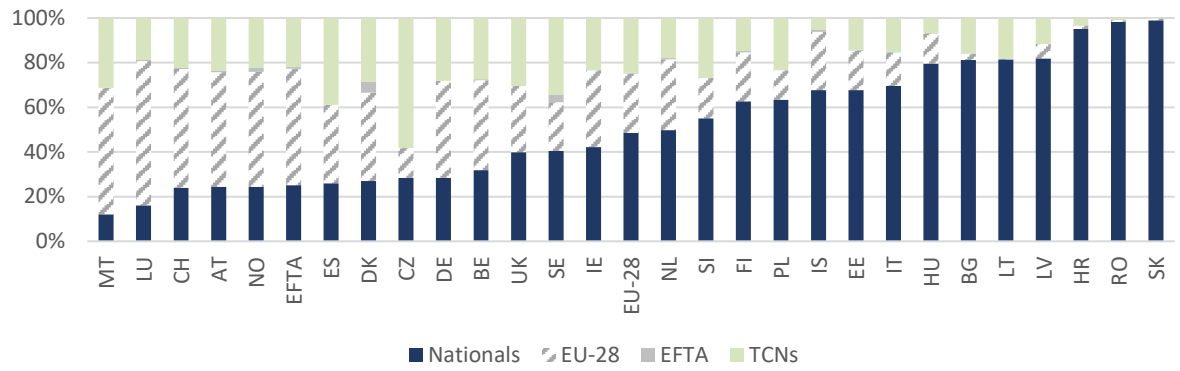
FIGURES FOR IE, AT, RO, SI AND UK USE AGE DEFINITION 'AGE COMPLETED IN YEARS'.

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ], AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 18 MAY 2017 AND 10 APRIL 2017, MILIEU CALCULATIONS.

The share of nationals compared to other persons leaving the country (EU foreigners and TCNs) was considerably greater for many Eastern European countries, reaching highs of 99% and 98% in Slovakia and Romania, respectively (**Figure 12**). Italy, Finland and the Netherlands were the only EU-15 countries whose shares of nationals leaving the country were larger than other groups.

[66] For total numbers, see Table 35 in the Annex.

Figure 12: Composition of outflows of working age (20-64) by group of origin, 2015



DISTRIBUTION OF GROUPS OF CITIZENSHIP BY COUNTRY OF ORIGIN, 2015.

FIGURES REFER TO CITIZENS OF THE INDICATED GROUPS LEAVING THE COUNTRY, REGARDLESS OF NEXT COUNTRY OF RESIDENCE; FIGURES MAY INCLUDE PERSONS MOVING TO A THIRD COUNTRY.
FR, EL, PT AND CY ARE EXCLUDED, AS THERE IS NO BREAKDOWN AVAILABLE FOR AGE GROUPS.

FIGURES ARE NOT AVAILABLE FOR EFTA CITIZENS FOR DE, MT, PL AND UK.

FIGURES FOR IE, AT, RO, SI AND UK USE AGE DEFINITION 'AGE COMPLETED IN YEARS'.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ], EXTRACTED ON 15 MAY 2017, MILIEU CALCULATIONS.

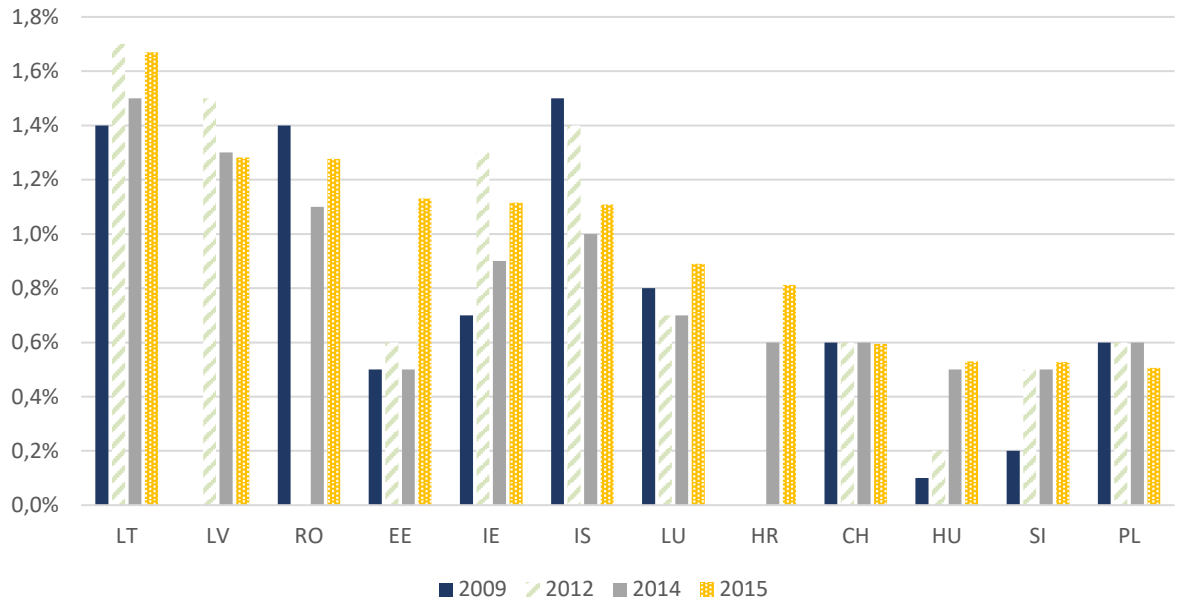
Since the beginning of the economic crisis (2009)[67], more and more nationals have been leaving Spain and Italy every year and this trend continued in 2015 (*Table 35 *in Annex). There has also been a ***continuous increase in outflows from Romania since 2012***, after a decrease in 2009. By contrast, ***outflows of nationals from Poland have decreased since 2012*** (-16% on 2014).

Other countries with a ***high increase in outflows rates compared to 2009 are Hungary, Slovenia, Estonia and Croatia***.

Fluctuations were observed in Lithuania, Romania and Ireland continued, but no clear trend can be identified. Latvia shows a downward trend since 2012.

[67] For full tables of trends (2009, 2012, 2014, 2015) in all countries, see Table 35 in the Annex.

Figure 13: Trend of outflow rate of nationals of working age (20-64) for main countries of origin, by country of origin, 2009-2015



NUMBER OF OUTFLOWS OF NATIONALS AS A SHARE OF THE TOTAL NATIONAL POPULATION IN THE COUNTRY, 2009, 2012, 2014 AND 2015. THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

FIGURE SHOWS COUNTRIES WITH OUTFLOW RATES OF 0.5% OR HIGHER IN 2015.

BREAKS IN SERIES: DE (2009), PL (2009), EE (2015).

FIGURES FOR IE AND RO USE AGE DEFINITION 'AGE COMPLETED IN YEARS'.

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ] EXTRACTED ON 18 MAY 2017, AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Mobility patterns – overall changes

The economic developments of recent years had an observable effect on the movements within the EU-28. The large numbers of inflows into the Western and Northern European countries from the EU-13 countries followed the accession of the latter to the EU in 2004. The 2008 economic crisis, however, profoundly impacted the EU, albeit to varying degrees for each of its Member States. This in turn impacted mobility flows, increasing inflows from the Southern countries of EU-15 to the North. In other words, countries like Italy and Spain, themselves still important countries of destination for the new EU-13 members, also became important countries of outflow, with larger numbers of people leaving, supplementing numbers of inflows towards Northern Europe. This is why previous studies found a shift in recent years from 'East-West' to 'South-North' mobility[68]. However, the figures below indicate that ***the strong increase in South-North mobility seems to have been a temporary development; in 2015, South-North mobility was at a much smaller scale than in previous years and was declining in several***

[68] E.g. European Commission, A fact finding analysis on the impact on the Member States social security systems of the entitlements of non-active intra-EU migrants to special non-contributory cash benefits and healthcare granted on the basis of residence, 2013, p. 61; Barslung, M., Busse, M. Making the most of EU Labour Mobility, CEPS/ Bertelsmann Stiftung, 2014.

important destination countries, such as Germany, Belgium and Sweden. Overall, during the period 2009-2015, ***mobility from Eastern countries grew at a similar extent than that from Southern countries in most destination countries, but was a lot higher in total numbers.*** An exception is the UK, where mobility from Romania and Poland grew at a larger extent, chiefly due to very high increases in 2014 and 2015.

As previous figures showed, mobility to the main 'Northern' countries of destination (BE, DE, NL, AT, SE, UK) increased from both the Eastern and Southern countries since 2009. The relative increase of inflows from the Southern countries was strongest in Austria and Germany, although flows from Eastern countries continued to be much larger. In 2015, flows from Southern countries to Germany decreased for the first time since 2009, while inflows from Eastern countries still increased.

Inflows from Southern countries (Italy and Spain) to the UK also increased strongly in 2012 and 2013, while inflows from Romania and Poland to the UK saw no significant increase during this period. Nevertheless, inflows from Romania and Poland again increased strongly in 2014 and 2015, and flows from Italy and Spain also increased again, although to a lesser extent. Similar to the UK, Sweden saw a fairly substantial increase of Southern European movers in 2011 and 2012, compared to the inflows of Eastern European movers. These inflows from the South have since receded.

Belgium and the Netherlands showed no clear trend that would indicate a shift or increase in inflows from Southern countries. In fact, in Belgium, inflows from the two regions (South and East) have remained more or less stable since 2010. This may be linked to Belgium's history of mobility from Italy and existing networks, but also to Brussels hosting the official seats of most EU institutions, thus attracting many highly skilled workers from all over Europe. A similar effect may be observed in the UK, where London's international labour market is likely to have attracted highly skilled Southern European citizens who lost their jobs during the economic crisis.

Table 7: Flows from Eastern and Southern European countries to main 'Northern' countries of destination, 2009-2015

	Eastern countries [1]							Δ 2009-2015
	2009	2010	2011	2012	2013	2014	2015	
BE*	:	12,987	14,700	16,652	14,175	17,458	16,300	26%
DE**	261,875	302,578	408,489	465,498	502,896	577,180	604,275	131%
NL	19,555	22,015	25,287	24,277	24,492	28,757	28,048	43%
AT	:	:	26,596	30,327	:	40,616	40,329	52%
SE	11,861	10,734	10,777	10,718	10,827	11,617	12,388	4%
UK***	43,647	38,666	44,860	38,181	45,466	71,667	103,189	136%

	Southern countries [2]							Δ 2009-2015
	2009	2010	2011	2012	2013	2014	2015	
BE*	:	13,958	14,926	17,233	18,371	17,686	16,620	19%
DE**	62,335	70,100	95,874	131,937	155,110	159,200	119,655	92%
NL	10,808	10,991	12,085	13,903	14,108	13,983	14,585	35%
AT	:	:	3,853	5,462	:	6,333	6,566	70%
SE	3,938	3,998	4,948	6,627	7,391	6,833	6,823	73%
UK***	32,479	26,803	28,719	39,803	52,010	50,912	58,192	79%

Δ THIS COLUMN INDICATES THE RELATIVE CHANGE IN NUMBERS OF INFLOWS BETWEEN THE FIRST YEAR OF THE SERIES AND 2015. THE LATEST FLOW DATA AVAILABLE ARE FROM 2015

FIGURES REFER TO INFLOWS FROM THE COUNTRIES MENTIONED AS PREVIOUS COUNTRIES OF RESIDENCE TO THOSE INDICATED IN THE ROWS; FIGURES MAY INCLUDE TCNS MOVING FROM ANOTHER EU MEMBER STATE.

INFLOWS FROM EASTERN AND SOUTHERN EUROPEAN COUNTRIES TO BE, DE, NL, AT, SE AND UK, ALL AGE GROUPS.

*FIGURES FOR BE EXCLUDE MOBILITY FROM POLAND.

**FIGURES FOR DE ARE BASED ON NATIONAL DATA[69].

***FIGURES FOR THE UK ONLY INCLUDE MOBILITY FROM RO AND PL AND FROM IT AND ES, RESPECTIVELY.

CELLS MARKED GREEN REPRESENT HIGH ANNUAL INCREASES (OVER 30%), ORANGE CELL REPRESENTS HIGH DECREASE (-25%)

SOURCE: EUROSTAT DATA ON IMMIGRATION BY FIVE-YEAR AGE GROUP, SEX AND COUNTRY OF PREVIOUS RESIDENCE [MIGR_IMM5PRV], MILIEU CALCULATIONS.

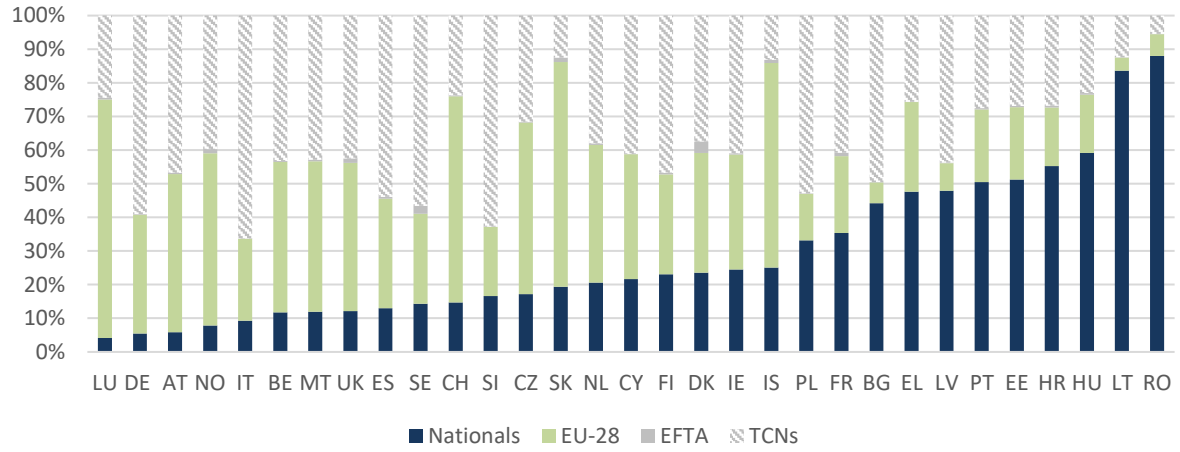
[69] DESTATIS, Statistical Federal Office, GENESIS online database, Table 12711-0001, 'Migration between Germany and foreign countries: years, EU states'.

Return mobility

Composition of inflows to EU-28 Member States (see Figure 14 below) show that in several EU-13 countries (RO, LT, HU, HR, EE, LV), but also in Portugal and Greece, nationals made up the largest group of incoming movers. This means that ***inflows to many EU-13 countries are still largely return mobility.***

By contrast, inflows to important countries of destination such as Germany, France, Spain, and Italy seem to have a reversed distribution in favour of movers from third countries and also have higher shares of incoming EU-28 movers. Return mobility, thus does not weigh so heavily in their overall mobility pattern.

Figure 14: Composition of inflows of working age (20-64) movers, by group of citizenship, by country of destination, 2015



COMPOSITION OF INFLOWS BY GROUP OF NATIONALITIES IN EACH EU-28/EFTA COUNTRY OF DESTINATION, 2015.

FIGURES RELATE TO FOREIGN EU-28 AND EFTA CITIZENS MOVING TO THE COUNTRY INDICATED ON THE X-AXIS, REGARDLESS OF COUNTRY OF PREVIOUS RESIDENCE. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS PREVIOUSLY RESIDING IN THIRD COUNTRIES.

THE FIGURES DO NOT INCLUDE STATELESS PERSONS AND THOSE OF UNKNOWN CITIZENSHIP.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

FIGURES FOR IE, EL, AT, RO, SI AND UK USE AGE DEFINITION 'AGE COMPLETED IN YEARS'.

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 15 MAY 2017, MILIEU CALCULATIONS.

In 2015, 614,453[70] nationals within the EU-28 moved (back) to their country of origin, indicating the extent of return mobility[71].

The trend (**see Table 8**) shows that ***return mobility decreased by 3% in 2015, compared to 2014, and was at its lowest point since 2009***. This was chiefly due to

[70] This figure differs from the 584,701 nationals indicated for 2015 in Table 7, where the figures exclude some countries for which figures for the time series are not available.
[71] Eurostat migration statistics do not allow simultaneous estimates of citizenship and previous country of residence of a mover. It is therefore possible that figures include nationals who previously resided in a non-EU country.

a large decrease in return mobility to the EU-13 (-15%) between 2014 and 2015. Given that the employment context was favourable in most EU-13 Member States in 2015[72], the return mobility may be related to two political developments: on the one hand, the end of transitional arrangement opened the labour market fully to EU-2 movers in several important destination countries. This may have facilitated their situation and have had a positive impact on a decision to remain in the country of destination, rather than returning. On the other hand, the possibility of a Brexit referendum may have kept movers from returning to their country of origin. Knowing that many movers return back home, with an intention to possibly move away again at a later point, an upcoming referendum and its possible implications may have incited movers not to go back home for the fear of not being able to come back again.

By contrast, return mobility to the EU-15 increased by 6% during that period. Return mobility to the EU-15 was even slightly higher in 2015 than in 2009.

Table 8: return mobility (inflows of nationals), age group 20-64, 2009-2014

		2009	2010	2011	2012	2013	2014	2015
EU -28*	Total	622,027	591,795	578,816	615,888	585,959	603,288	584,701
	Annual Δ		-5%	-2%	6%	-5%	3%	-3%
EU-13**	Total	261,016	232,693	229,639	276,520	256,696	249,241	211,156
	Annual Δ		-11%	-1%	20%	-7%	-3%	-15%
EU-15	Total	361,011	359,102	349,177	339,368	329,263	354,047	373,545
	Annual Δ		-1%	-3%	-3%	-3%	8%	6%

ANNUAL INFLOWS OF NATIONALS AGED 20-64 YEARS.

FIGURES ABOVE REFER TO INFLOWS OF NATIONALS FROM EU MEMBER STATES, BUT ALSO FROM THIRD COUNTRIES.

*AGGREGATE DOES NOT INCLUDE BE, BG, HR, LV, SK, AS NO FIGURES FOR THE WHOLE SERIES WERE AVAILABLE. NOTE THAT THE NUMBER OF RETURNEES IN 2015 WAS 614,453 AS INDICATED IN TABLE 1 (STILL EXCLUDING SLOVAKIA, FOR WHICH NO FIGURE IS AVAILABLE)

** AGGREGATE DOES NOT INCLUDE BG, HR, LV AND SK, AS NO FIGURES FOR THE SERIES WERE AVAILABLE.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015
SOURCE : EUROSTAT MIGRATION STATISTICS (MIGR_IMM1CTZ).

FIGURES FROM IE, EL, AT, RO, SI AND UK REFER TO 'AGE IN COMPLETED YEARS'.

BREAKS IN SERIES: SK (2011), HU (2010), DE (2009), BE (2009).

FIGURES FOR HR AND SI ARE NOT AVAILABLE FOR THIS TIME SERIES.

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 25 MAY 2016, MILIEU CALCULATIONS.

As can be seen in **Table 9**, ***the share of returnees compared to those nationals leaving their country decreased to 57%, lower than in 2009 (66%).*** The share of

[72] Employment rates increased and unemployment rates decreased; source: Eurostat EU-LFS

returnees from leavers decreased significantly in the EU-15 (from 67% in 2009 to 56% in 2015), although the total number of returnees has increased.

Table 9: Inflows of nationals as shares of outflows of nationals from EU-28, EU-15 and EU-13

	2009	2012	2014	2015
EU-28	66%	68%	61%	57%
EU-15	67%	58%	55%	56%
EU-13	64%	79%	69%	57%

BASED ON ANNUAL INFLOWS AND OUTFLOWS OF NATIONALS AGED 20-64 YEARS.

FIGURES ABOVE REFER TO INFLOWS OF NATIONALS FROM EU MEMBER STATES, BUT ALSO FROM THIRD COUNTRIES AND OUTFLOWS OF NATIONALS TO OTHER EU MEMBER STATES OR THIRD COUNTRIES.

EU-28 AGGREGATE EXCLUDES BE, BG, CZ, EL, FR, HR, CY, LV, PT AND SK BECAUSE FIGURES FOR THE WHOLE SERIES ARE NOT AVAILABLE.
EU-15 AGGREGATE EXCLUDES BE, EL, FR, PT.
EU-13 AGGREGATE EXCLUDES BG, CZ, HR, CY AND LV.
THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.
SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 25 MAY 2016, MILIEU CALCULATIONS.

2.1.3 Distribution of movers by length of stay

Key results:

- Around half of all EU-28 movers in 2016 moved to their current country of residence within the past ten years.
- Italy, Spain and Greece have been losing importance as countries of destination over the past five years, whereas countries like Germany, the UK, Denmark, Slovenia, Austria and Sweden have become increasingly important destination countries.

Across the EU, ***around half of all EU-28 movers in 2016 moved to their current country of residence within the past ten years***. Around one-third of them moved there during the past five years, a further 23% moved there between six and 10 years ago, while the remaining half moved there over 10 years ago. This reflects, on the one hand, the increase in mobility after the accessions in 2004 and 2007; on the other hand, it also reflects that mobility is not a one-way street and many movers eventually go back to their countries of origin.

In this sense, the composition of movers concerning their length of stay, which varies between Member States, reflects the mobility history of the latter. It confirms again that ***Italy, Spain and Greece have been losing importance as countries of destination over the past five years, whereas countries like the UK, Denmark, Slovenia, Austria and Sweden have become increasingly important destination countries***. Figures for ***Germany*** show both the ***importance that it had as a destination country***

already before the 2004 accession round; but also, that it has been receiving ***more and more movers over the past five years***. Comparing the UK and Germany is a reminder that ***the UK does not have Germany's long history as a destination country of EU movers*** and that the large majority of movers came there during the past ten years.

Traditional countries of destination show large numbers of long-term movers, with more than half of the EU-28 movers arriving more than 10 years ago: Southern European countries like Greece (69%), Portugal (67%), Spain (67%), Malta (64%), Italy (61%); but also, France (65%) and the Netherlands (61%). Furthermore, Italy and Spain had fairly important shares of movers who arrived six to ten years ago – but these shares decreased in both countries compared to 2015. This may indicate that the majority of movers who came to Italy and Spain after the 2004 accession did so in 2005 – or, that many of those who came in the years after 2004 have recently moved back.

On the other hand, certain countries have particularly high shares of movers who arrived in the past five years (*new* movers), such as Denmark (70%), Norway (73%), the UK (69%) and Slovenia (39%). Furthermore, in Germany, Sweden and Austria the shares of *new* movers increased since 2015; the shares of new movers have been lowest in Italy, Spain and Greece, and decreased between 2015 and 2016.

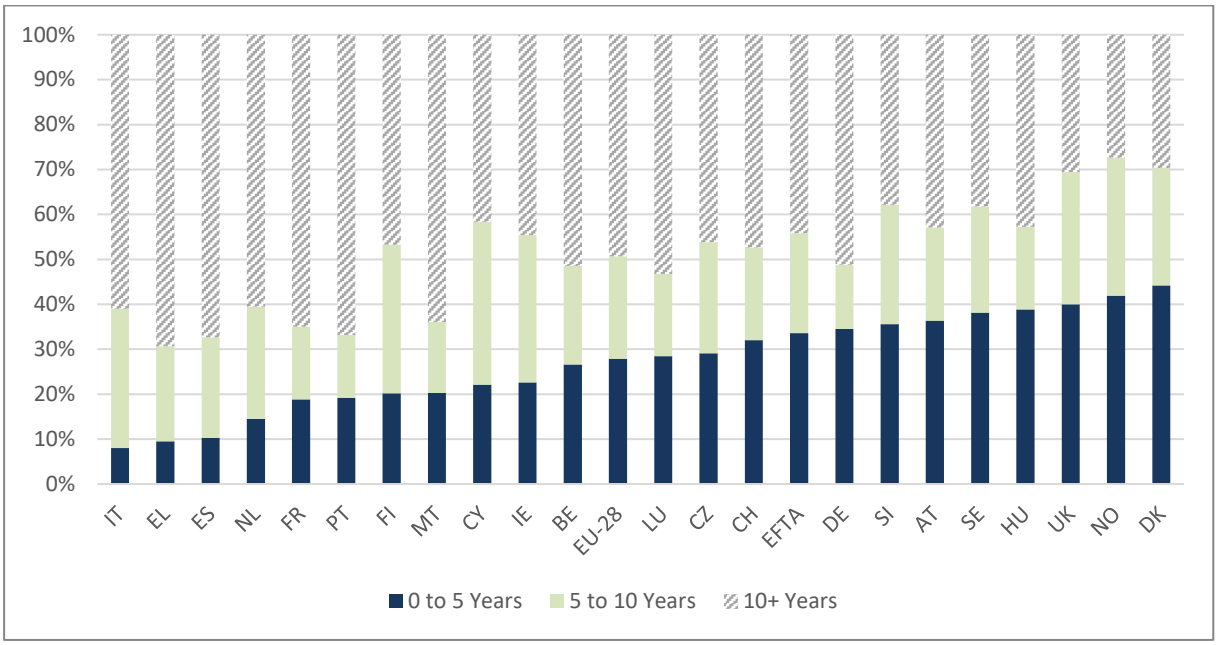
Striking changes in the shares of *new* movers between 2015 and 2016 can be seen in Hungary and in Norway:

In Hungary, the share of new movers increased from 26% in 2015 to 39% in 2016. Given that inflows have not increased by much in recent years, this may be linked to the strong increase in outflows between 2009 and 2012 (outflow rate of EU-28 movers increased from 3.4% in 2009 to 9.7% in 2012 and further to 10.2% in 2014[73]). It is possible that many of these leaving EU-28 citizens had been residing in Hungary for several years, thus the increase in the share of new movers may be more reflective of a decrease in the share of long-term movers rather than an increase in recent inflows.

In Norway, the share of new movers decreased from 53% to 42%. This certainly reflects the inflows of EU-28 movers to Norway since 2012, which decreased from 31,000 (or 1.1% of the population) in 2012 to 22,700 (or 0.7%) in 2015. It may also reflect an increase in outflows (from 3.7% in 2009 to 4.9% in 2014), which would then have been mainly composed of new movers leaving.

[73] Fries-Tersch, E., Tugran, T. and Bradley, H. (2016), 2016 Annual Report on intra-EU Labour Mobility, Network Statistics FMSSFE, European Commission, p. 168.

Figure 15: EU-28 movers of working age (20-64) by country of residence and years of residence, 2016



EU-28 MOVERS BY COUNTRY OF RESIDENCE AND YEARS OF RESIDENCE, SHARES OF DIFFERENT GROUPS IN PERCENTAGES.

FIGURES FOR BG, HR, LV, LT AND RO ARE BELOW RELIABILITY LIMITS AND HENCE EXCLUDED FROM THE GRAPH.

EE, IS, PL, AND SK HAVE ONE OR MORE CATEGORIES BELOW RELIABILITY LIMITS AND ARE HENCE EXCLUDED FROM THE GRAPH.

IN SI, ALL THREE CATEGORIES ARE OF LOW RELIABILITY.

FIGURES INCLUDE 'BORN IN THIS COUNTRY' AS PART OF THE 10+ CATEGORY.

MARGINS OF ERROR ARE PRESENTED IN **TABLE 61** IN THE ANNEX.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

2.1.4 Stocks of recent movers

Key results:

- Around half of all EU-28 movers in 2016 moved to their current country of residence within the past ten years.
- Italy, Spain and Greece have been losing importance as countries of destination over the past five years, whereas countries like Germany, the UK, Denmark, Slovenia, Austria and Sweden have become increasingly important destination countries.
- The UK hosts more recent movers than Germany. The other main countries of residence of recent movers are the same as for all movers: Italy, Spain and France; closely followed by Austria and Belgium.

Given the important number of movers who moved after the 2004 accession round, this report has emphasised this group in its analysis (see both the section below and certain sections of 2.2).

In 2016, there were a little more than 5.5 million EU-28 movers of working age (20-64) across the Member States who had been living in their country of residence for less than

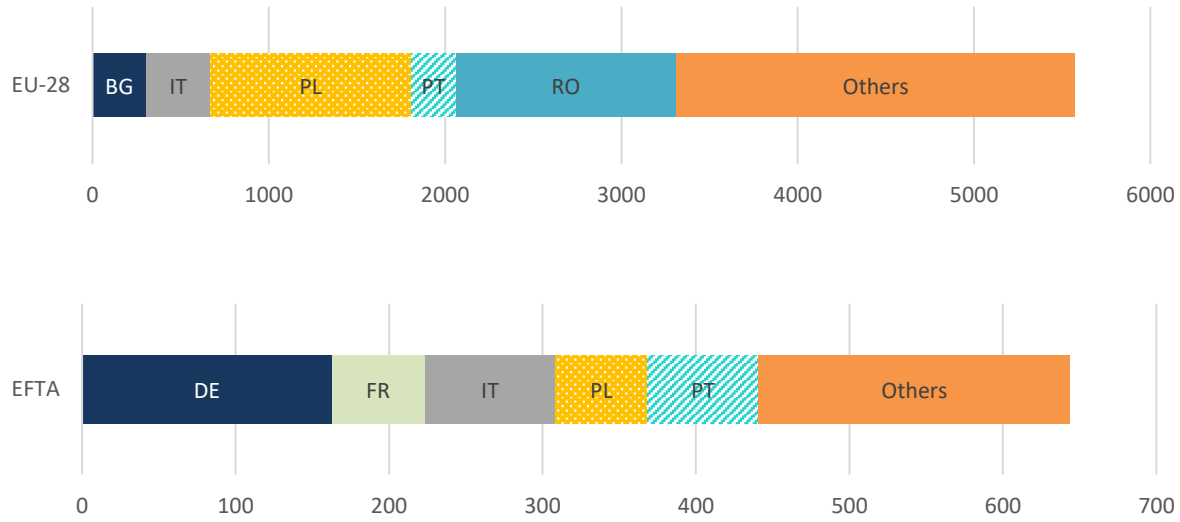
10 years ('*recent* movers'), representing an increase of 100,000 (+2%) from the previous year. This increase is lower than the increase in overall stocks, possibly indicating the high number of movers who moved in 2004/2005 and who are now no longer captured as 'recent'.

EFTA countries hosted around 644,000 *recent* EU-28 movers, an increase of approximately 45,000 people compared to 2015.

Looking at the main countries of residence shows, firstly, that ***the UK has a greater importance as residence country of recent movers than Germany***: similar to 2015, the UK hosted the greatest number of recent EU-28 movers of working age, with 1.8 million; followed by Germany (around 1.4 million); Switzerland (510,000); Italy (around 450,000); and Spain (around 380,000).

Outside of the main countries of destination, France (around 300,000), Austria (around 255,000) and Belgium (around 243,000) hosted the greatest numbers of recent EU-28 movers of working age (**Table 39** ***in Annex)***. Compared to 2015, most of the countries remained stable, with changes not exceeding 7 p.p. difference. Greece and Ireland were notable exceptions: in Ireland, the number of recent EU-28 movers residing in the country decreased by around 14%, dropping to 157,000; in Greece, although the numbers were much smaller, there was a decrease of 27% compared to last year, from 30,000 to 22,000.

Figure 16: Stocks of recent EU-28 movers of working age (20-64) at EFTA and EU level, main nationalities (thousands), 2016



RECENT EU-28 MOVERS ARE DEFINED AS EU-28 CITIZENS LIVING IN AN EU-28 OR EFTA COUNTRY OTHER THAN THEIR OWN FOR UP TO 10 YEARS AS AT 2016. DATA REFER TO THE EU-28 AND EFTA AGGREGATES AND ARE EXPRESSED IN THOUSANDS.

EFTA: FIGURES FOR CY AND MT ARE NOT INCLUDED IN THE 'OTHER' CATEGORY. NUMBERS OF RECENT EU-28 MOVERS FROM FRANCE AND ITALY MAY VARY UP TO +400 PERSONS; NUMBERS OF RECENT EU-28 MOVERS FROM PORTUGAL MAY VARY UP TO +800 PERSONS; NUMBERS OF RECENT EU-28 MOVERS FROM OTHER COUNTRIES MAY VARY UP TO +16,800 PERSONS.

EU-28: NUMBERS OF RECENT EU-28 MOVERS FROM OTHER COUNTRIES MAY VARY BY UP TO +400 PERSONS, WHILE THEY DO NOT VARY FOR THE OTHER COUNTRIES OF ORIGIN.

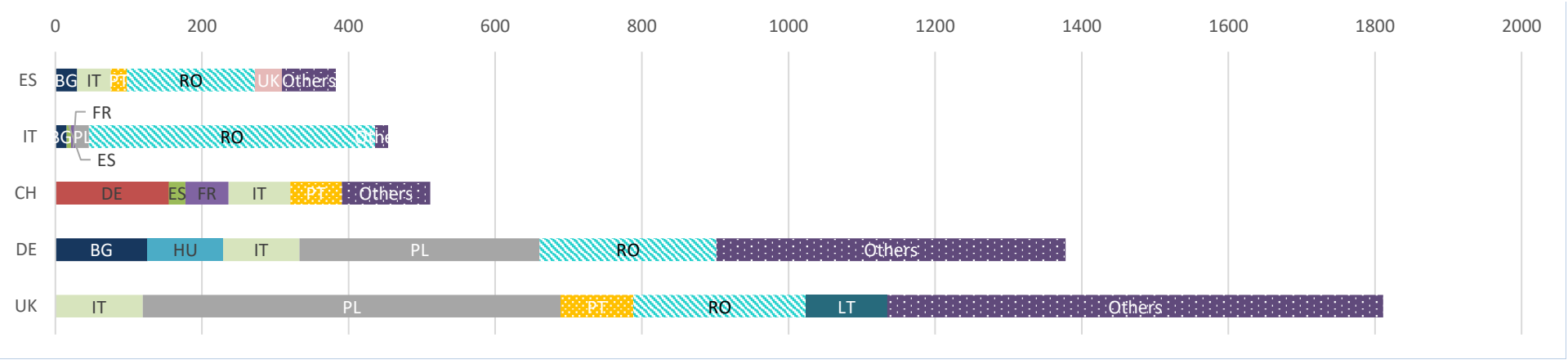
SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

At EU level, ***Romanian and Polish citizens remained the most significant national groups among recent movers*** with 1.2 million and 1.1 million, respectively (**Figure 17**). ***Italians, Bulgarians and Portuguese constituted the other biggest groups*** with between 250,000 and 350,000 each. A comparison with the main nationalities among all movers (section 2.1.1.

Figure 2), shows that ***Italians and Germans, although still important national groups, have lost some importance in mobility over the past ten years***.

The UK and Germany hosted the largest number of recent Polish movers, who also made up the biggest group in these countries (around 330,000 in Germany and 570,000 in the UK). Romanians were the biggest group in Spain and Italy, while Germans (around 150,000) made up the biggest group of recent movers in Switzerland.

Figure 17: Stocks of recent EU-28 movers of working age (20-64) in the five main countries of residence, main nationalities (thousands)[74], 2016



RECENT EU-28 MOVERS ARE DEFINED AS EU-28 CITIZENS LIVING IN AN EU-28 OR EFTA COUNTRY OTHER THAN THEIR OWN FOR UP TO 10 YEARS AS AT 2016.

DATA REFER TO THE EU-28 AND EFTA AGGREGATES AND ARE EXPRESSED IN THOUSANDS.

CH: FIGURES FOR CY AND MT ARE NOT INCLUDED IN THE 'OTHER' CATEGORY. TOTAL NUMBER OF RECENT EU-28 MOVERS MAY VARY BY UP TO +4,800 PERSONS.

ES: FIGURES FOR AT, CY, DK, EE, FI, GR, HR, LU, MT AND SI ARE NOT INCLUDED IN THE 'OTHER' CATEGORY. TOTAL NUMBER OF RECENT EU-28 MOVERS MAY VARY BY UP TO +7,600 PERSONS.

IT: FIGURES FOR BE, CY, DK, EE. FI. GR, IE, LU, MT, SE AND SI ARE NOT INCLUDED IN THE 'OTHER' CATEGORY. TOTAL NUMBER OF RECENT EU-28 MOVERS MAY VARY BY UP TO +14,000 PERSONS.

DE: FIGURES FOR MT ARE NOT INCLUDED IN THE 'OTHER' CATEGORY. TOTAL NUMBER OF RECENT EU-28 MOVERS MAY VARY BY UP TO +2,800 PERSONS.

UK: HR, LU AND MT ARE NOT INCLUDED IN THE 'OTHER' CATEGORY. TOTAL NUMBER OF RECENT EU-28 MOVERS MAY VARY BY UP TO +2,400 PERSONS.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

[74] For full table, see Table 39 in the Annex.

2.2 Mobility of EU workers

This section gives an overview of the mobility of **active EU-28 movers**[75] of working age (20-64 years) in 2016, together with some of the trends in recent years. It presents the trends in active, employed and unemployed EU-28 movers, with a focus on *recent* EU-28 movers (those who have resided in their current country of residence for less than 10 years). It also looks at economic integration of movers compared to nationals (employment rate, sectors, occupations, etc.) as well as examining the gender dimension of several key indicators.

2.2.1 Recent developments

Key results of an analysis of stocks of active EU-28 movers in 2016:

- In 2016, the total number of active (employed and unemployed) EU-28 movers[76] residing in the EU-28 increased by 6%.
- Germany, the UK, Spain, Italy and France are the main countries of residence also of active EU-28 movers.
- The following countries saw an important increase in their number of active EU-28 movers compared to 2015: Germany, the UK, France, Austria, Cyprus, Czech Republic, Denmark, Estonia and Slovenia.
- The composition by length of stay shows comparable results than that of all movers (2.1.3)
- At EU level, there is a slightly larger proportion of active movers who moved to their current country of residence since 2011 than those who moved between 2006 and 2011, which can have several reasons (see below).
- Larger shares of active movers arriving since 2011 can be found in most 'Northern countries of destination[77] and also in Hungary, the Czech Republic and Slovenia.
- Men are over-represented among *recent* active EU-28 movers by 10 p.p.
- The composition by education levels is similar among recent active movers and nationals.
- Female *recent* active movers are better educated than male movers and more often over-qualified for their job.

Stocks of active EU-28 movers in 2016 and recent trends

In 2016, the total number of active (employed and unemployed) EU-28 movers[78] residing in the EU-28 increased by 6% - a similar scale as the number of all EU-28 movers of working age – to 9.1 million. This increase mirrors the one between 2014 and 2015, but both are lower than the 7% increase in 2013-2014. These recent increases are also in line with the longer-term trend of increasing numbers of EU-28

[75] Workers are defined as the active (employed and unemployed) population of working age (20-64).
[76] I.e. those living and working in a different EU-28 country to their country of citizenship.
[77] Austria, Germany, the UK, Denmark, Sweden, Luxembourg, Belgium
[78] I.e. those living and working in a different EU-28 country to their country of citizenship.

workers over the past 10 years. The total number of active EU-28 movers residing in an EFTA country in 2016 was just over 1 million, showing a marginal increase of 1% compared to 2015. The total number of EU-28 movers living in the EU-28 or EFTA in 2016 was therefore, just over 10 million.

Figure 18 and **Figure 19** show the main EU-28 and EFTA countries of residence for active EU-28 movers in 2016. For presentation purposes, the graphs are split between countries of residence with over 100,000 active EU-28 movers (**Figure 18**), and those with fewer than 100,000 active EU-28 movers (**Figure 19**).

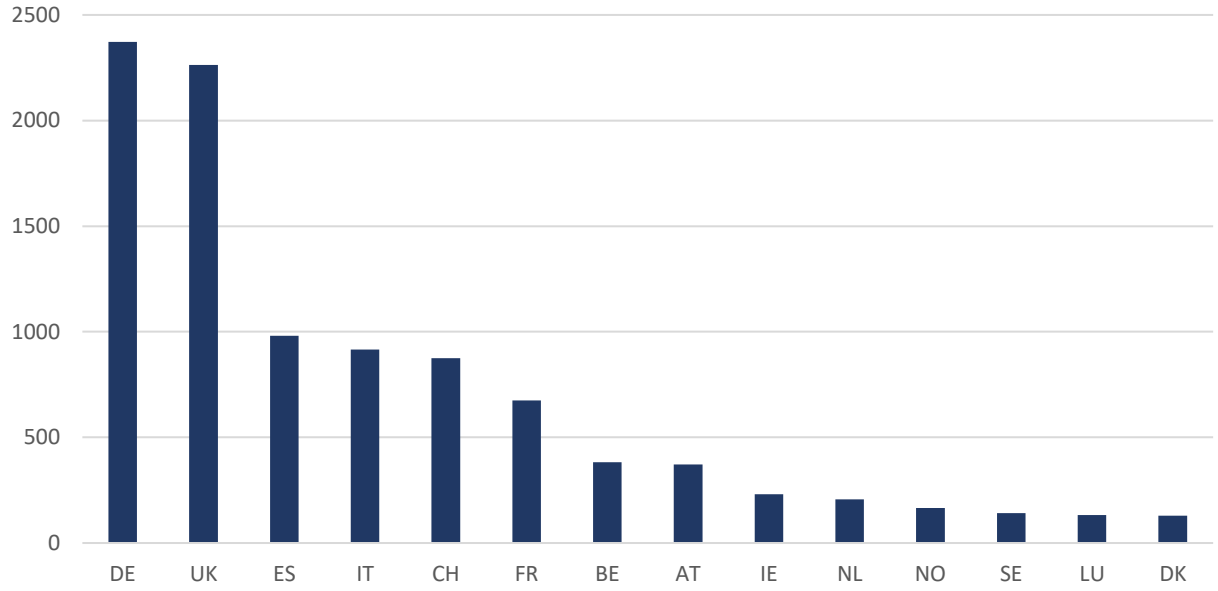
The top six countries of residence remained unchanged from 2015 (in descending order): ***Germany, the UK, Spain, Italy, Switzerland and France***. Like the distribution of all working-age movers, ***Germany and the UK together host around 50% of active EU-28 movers***. ***Most active movers (88%) in 2016 resided in the EU-15***, compared to 2% in the EU-13 and 10% in the EFTA.

All main countries of residence saw an increase in the number of active EU-28 movers from 2015 to 2016. ***The largest increase was in Germany (11%), followed by the UK (10%) and France (6%)***. Smaller increases were observed for Switzerland (2%), Spain (1.2%) and Italy (1%). For France and Spain, this reversed the downward trend from 2014 and 2015 (-6% and -5%, respectively). For the other main countries, the increase for 2015-2016 was smaller than that of 2014-2015, especially in the UK and Italy, where it fell from 15% and 4% (between 2014 and 2015), respectively.

Several other Member States saw ***significant increases (over 5%) in their stocks of active EU-28 movers compared to 2015***: ***Austria*** (+7%), ***Cyprus*** (+7%), ***Czech Republic*** (+14%), ***Denmark*** (+8%), Estonia (+44%), France (+6%) and ***Slovenia*** (+17%). In all these countries, except Estonia and France, stocks had already increased between 2014 and 2015, most likely reflecting the ***general increase in inflows of EU-28 citizens into these Member States in recent years***. France and Estonia, on the other hand, had seen quite marked decreases in stocks of active movers in the preceding year (-9% and -21%, respectively). In Estonia, this corresponds to the development of the overall stocks of EU-28 movers (including inactive) and to increased inflows in 2015 (**Table 33** in Annex). In France however, there were only small increases in the overall stocks of EU-28 movers, both in 2015 and in 2016 and inflows remained the same in 2014 and 2015. This may be linked to the fact that the employment rate among EU-28 movers decreased by 1 p.p. in 2015 and then increased by 2 p.p. in 2016, as well as strong increases in the total number of employed EU-28 movers in 2016.

Greece, Malta and Portugal saw important decreases (more than 5%), corresponding to a decrease in the overall working age population of EU-28 movers.

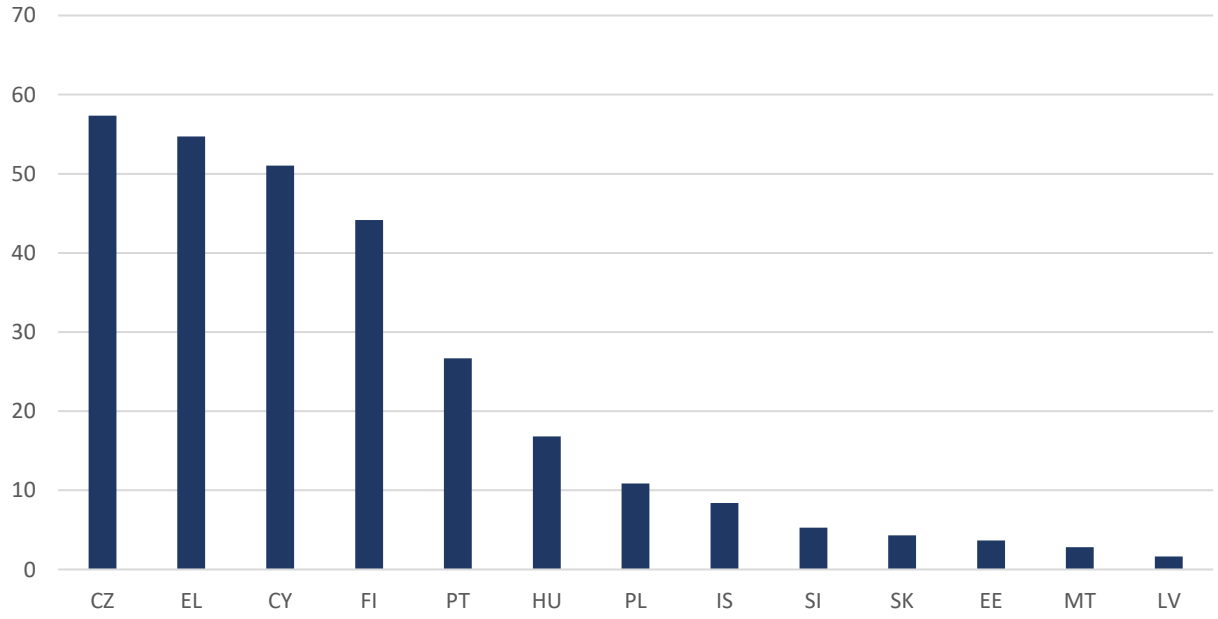
Figure 18: Active EU-28 movers of working age (20-64), by country of residence (over 100,000), 2016 (in thousands)



NUMBERS OF ACTIVE EU-28 MOVERS BY COUNTRY MAY VARY BY UP TO +800 PERSONS.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Figure 19: Active EU-28 movers of working age (20-64), by country of residence (below 100,000), 2016 (in thousands)



* LOW RELIABILITY: SK

BG, HR, LT AND RO ARE NOT PRESENTED IN THE GRAPH BECAUSE THEY ARE TOO LOW TO BE PUBLISHED.

NUMBERS OF ACTIVE EU-28 MOVERS BY COUNTRY MAY VARY BY UP TO +1,200 PERSONS.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

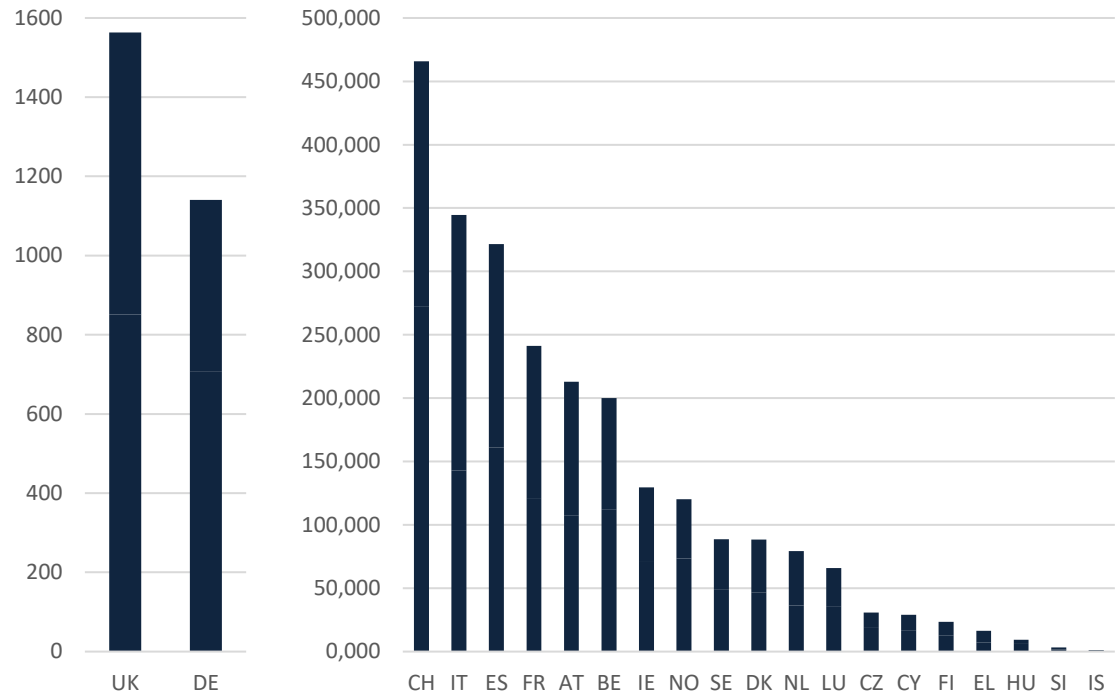
Length of stay

The number of years that movers have been residing in another EU-28 country gives an indication of both the composition of the group of movers (which is relevant, for example, when looking at integration), but also of recent developments of mobility into and out of that country. This sub-section presents the number of *recent* **active** movers (those that arrived within the past 10 years), as a key focus of this report. It also looks at the composition of active movers by years of residence, at the shares of those who arrived within the past five and 10 years, which is another indicator of recent developments in mobility.

In 2016, ***half of the active EU-28 movers (51%) had been living in their current country of residence for less than 10 years***, i.e. there were 4.6 million *recent* active EU-28 movers living in another EU-28 Member State. A further 0.6 million *recent* active EU-28 movers were living in an EFTA country. This represents a 4% increase in the EU-28 Member States and a 1% increase in the EFTA countries, compared to 2015. **Figure 20** shows the total number of *recent* active EU-28 movers in each country of residence. The UK and Germany are presented separately from the other countries, in view of their scale. ***The UK*** (where 30% of *recent* active movers reside[79]) ***and Germany*** (where 22% of *recent* active movers reside) ***remained by far the most important countries of residence***. Italy is the third most important destination country of *recent* active movers, followed by Spain. This reversed order compared to all active movers indicates the ***important mobility to Italy after 2004*** and the receding mobility in the past years, in particular, to Spain. Nevertheless, Spain remains the fourth most important country of residence of recent active movers. ***Compared to 2015, the UK and Germany have become even more important countries of residence among recent active EU-28 movers***, ***while Italy and Spain have become slightly less important*** (the share residing in Switzerland remained the same). This corresponds to the decreases in the stock of recent active movers in Italy and Spain between 2015 and 2016 (-15% for Italy and -18% for Spain), and the increases in both Germany and the UK (+21% and +7%, respectively). Inflows in general to Spain and Italy have tended to decrease in recent years, particularly in Spain, which saw negative net mobility of EU-28 nationals in both 2014 and 2015.

[79] As a share of total EU-28 recent active movers residing in an EU-28 Member State or EFTA country.

Figure 20: Active *recent* EU-28 movers by country of residence, in total numbers (thousands for UK/DE), 2016



NUMBERS OF ACTIVE EU-28 RECENT MOVERS BY COUNTRY MAY VARY BY UP TO +800 PERSONS.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Figure 21 shows the breakdown of active EU-28 movers, by years of residence, for each EU-28 Member State and EFTA country[80]. At EU-28 level, the ***larger proportion of those who moved since 2011 than those who moved between 2006 and 2011 may reflect recent developments***: the end of transitional arrangements in 2011 and 2014, the late waves of the economic crisis in the Baltic countries in 2011/2012, an on-going increase in outflows of nationals from Spain and Italy, and the recovery from the economic crisis in important destination countries, such as Germany, the UK, Austria, Belgium, Sweden, etc. However, the lower share of movers between 2006 and 2011 may also reflect the circular aspect of mobility, which has been found to be more and more short-term[81], meaning that some of the movers who arrived between 2006 and 2011 are likely to have returned by now. Policy measures such as the closure of labour market access to EU-2 movers in Spain in 2012 also contributed to increased return mobility[82].

Larger shares of active movers arriving in the past five years can also be found in most of the 'Northern' countries of destination (Austria, Germany, the UK, Denmark, Sweden, Luxembourg, Belgium), as well as Switzerland and Norway. **Figure 21** also shows that the ***Scandinavian countries (Denmark and Sweden) continued to***

[80] Sorted by share of *recent* movers (1-10 years), in descending order.
[81] Verwiebe et al. (2014) 'New forms of intra-European migration, labour market dynamics and social inequality in Europe in: Migration Letters, Volume 11, No.2, p.131.
[82] See Fries-Tersch, E., Tugran, T. and Bradley, H. (2016), 2016 Annual Report on intra-EU Labour Mobility, Network Statistics FMSSFE, European Commission, Figure. 36.

be important countries of destination for recent active movers, especially the newest movers with between one and five years' residence. Indeed, inflows have been increasing since the start of the economic crisis, especially from Eastern Europe and Germany[83]. Denmark had the highest share of those moving there within the last five years (43%).

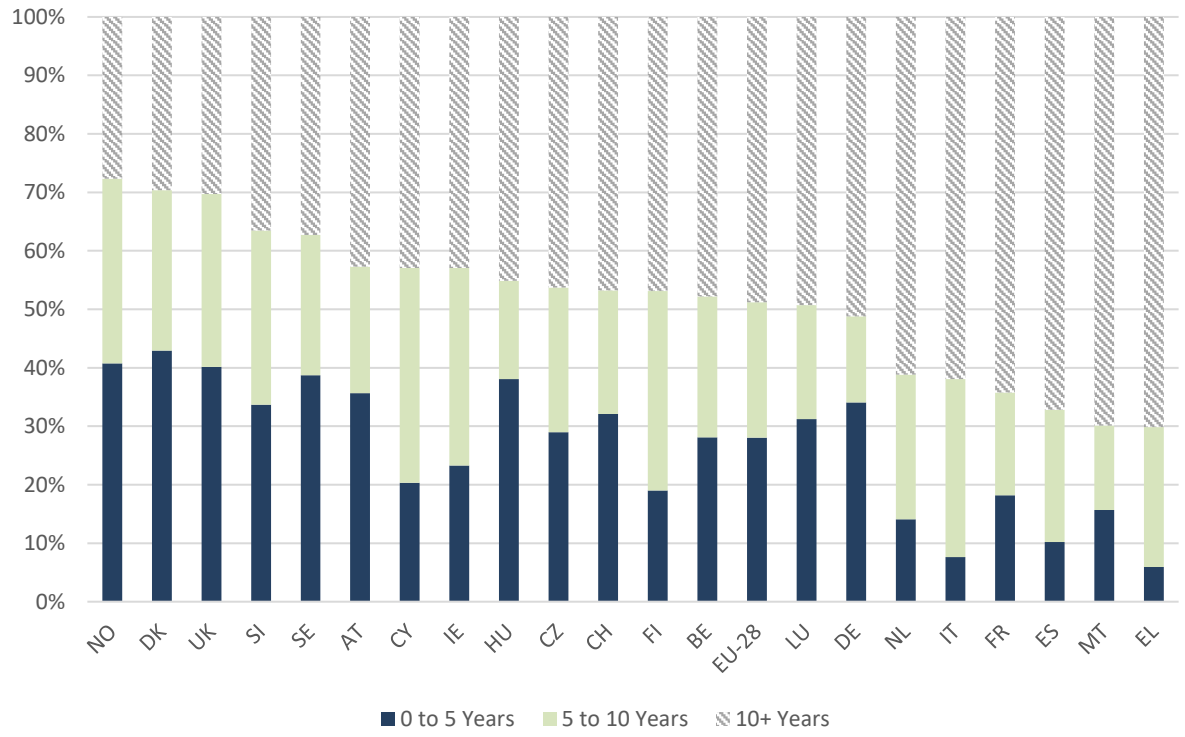
Some of the EU-13 countries, especially Hungary, but also Czech Republic and Slovenia also hosted more active movers from the past five years.

A different pattern can be seen in ***Spain, France and Italy*** which ***had the lowest shares of recent active EU-28 movers***. They also ***had very low shares of movers who moved after 2011***, reflecting the long-term decrease in their inflows since the start of the financial crisis.

Between 2015 and 2016, comparatively large increases (5 p.p. or more) of the share of movers since 2011 were seen in Sweden (+5 p.p.), the Czech Republic (+8 p.p.), Hungary (+13 p.p.) and Poland[84] (+15 p.p.). These increases correspond to the changes within the whole group of EU-28 movers (**Figure 15**, Section 2.1.3) and are linked to an increase in inflows (Sweden) and outflows of long-term (over five years' residence) active movers (Hungary), as explained in more detail in Section 2.1.3.

[83] See 2016 Annual Report on Labour Mobility, p.60.
[84] Figures for PL for 2015 and 2016 are of low reliability.

Figure 21: Years of residence of active EU-28 movers of working age (20-64), by country of residence and EU-28 aggregate, 2016



* LOW RELIABILITY FOR 1-5 YEARS: EL, MT AND SI; LOW RELIABILITY FOR 6-10 YEARS: HU, MT AND SI; LOW RELIABILITY FOR 10+ YEARS: SI.

BG, EE, HR, IS, LT, LV, PL, PT, RO AND SK ARE NOT PRESENTED IN THE GRAPH BECAUSE FIGURES FOR ONE OR MORE CATEGORIES ARE TOO LOW TO BE PUBLISHED.

MARGINS OF ERROR FOR THE PRESENTED SHARES CAN BE FOUND IN THE ANNEX TABLE 62

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Main countries of destination and origin for male versus female recent active movers in 2016

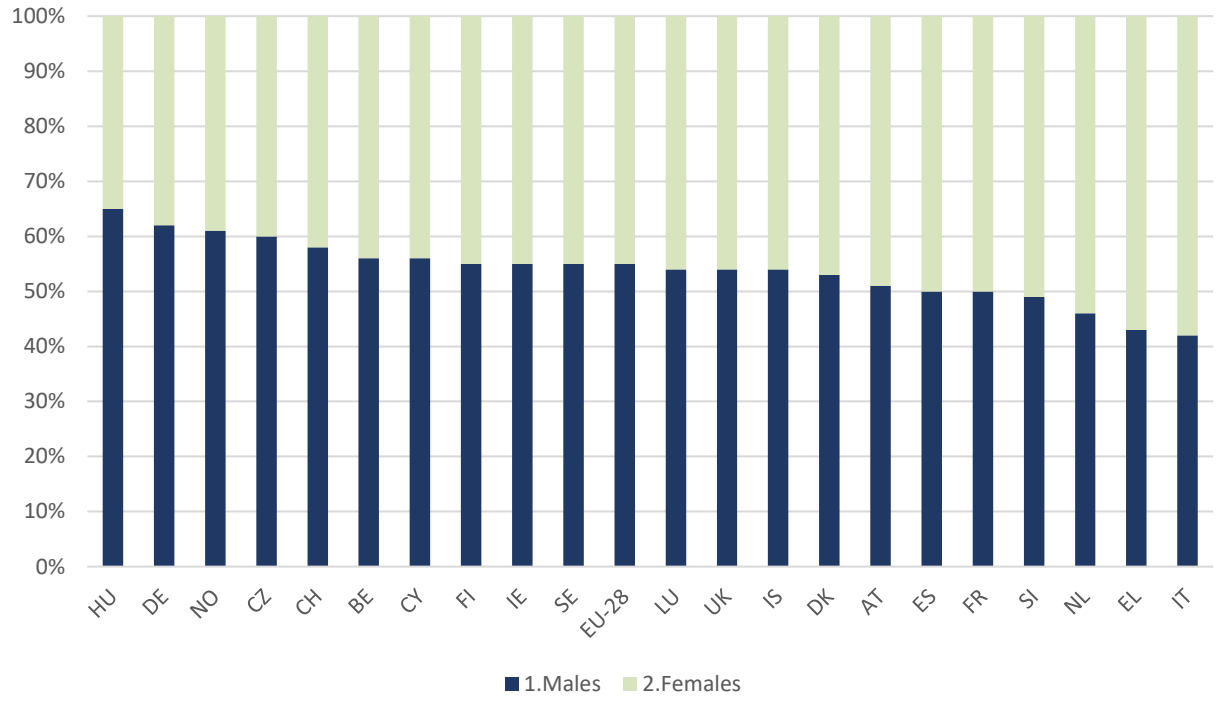
While men and women are equally represented among all movers of working age ***at EU level, men are over-represented when only looking at recent active movers***. In 2016, 55% (2.5 million) of the total number of *recent* active movers were men and 45% (2.1 million) were women. This mirrors the ***activity rate***, which was ***17 p.p. lower for females than males at EU level*** (see **Figure 31**, Section 2.2.2). While it is likely that a certain proportion were women accompanying their male active partners, it may also be that more women than men moved for training and study purposes.

The share of women among recent active movers ranges from 35%[85] in Hungary to 58% in Italy (**Figure 22**). Within the six main countries of residence, Germany had the highest proportion of males (62%), followed by Switzerland (58%). The UK also had more males (54%) than females (46%). Both Spain and France had equal shares of males and females. In several Southern countries of destination (Italy, Spain, Greece),

[85] Figure is of low reliability.

the shares of women among recent active movers were quite high compared to other countries of destination, perhaps corresponding to the fact that these countries had overall higher shares of female movers than other countries (**Figure 3**, Section 2.1). However, other countries such as Cyprus, the UK and Ireland, also had higher shares of women among all movers, while the shares among active movers were not as high.

Figure 22: Share of males and females among active recent EU-28/EFTA, by country of residence and EU-28/EFTA aggregates, 2016



* LOW RELIABILITY FOR MALES: SI; LOW RELIABILITY FOR FEMALES: HU AND SI.

BG, EE, HR, LT, LV, MT, PL, PT, RO, AND SK ARE NOT PRESENTED IN THE GRAPH BECAUSE THEY ARE TOO LOW TO BE PUBLISHED.

IS: THE SHARE OF ACTIVE MALES MAY VARY BETWEEN 34% AND 83% AND THE SHARE OF ACTIVE FEMALES MAY VARY BETWEEN 29% AND 76%.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Education levels of recent active movers

This analysis found that ***the large majority of recent active EU-28 movers had a medium or high level of education***. Furthermore, ***female recent active movers are more likely to be highly educated than male and*** are found to be ***more often over-qualified*** for their jobs. ***Education patterns are similar among recent active movers and nationals***.

In 2016, at the EU level, ***most recent active EU-28 movers had a medium or high level of education (40% each)***. The lowest proportion therefore comprised those with a low level of education, at 20%.

Examining education levels by gender for 2016 shows that, at the EU-28 level, ***recent active female EU-28 movers were better educated than male movers*** (**Table 10**).

Conversely, a higher share of males than females had a medium or low level of education. For both men and women, the lowest share of movers was those with a low level of education. ***Female movers were, however, more often over-qualified for their jobs than men*** were. This is suggested both by objective and subjective figures: while 43% of female movers were highly educated, only 32% worked in high-skilled occupations; on the other hand, while only 18% of female movers had low education levels, 29% carried out elementary occupations (requiring the lowest skill level); among male movers, this share was only 19%, despite 22% having a low education level) (Section 2.2.2, **Figure 34**); the share of female movers reporting over-qualification was higher (37%) than among male movers (27%)(see Section 2.2.2 **Figure 35**).

Table 10: Education levels among *recent* active EU-28 movers, by gender, 2016

	Low	*Medium*	*High*
Total	*20%*	*41%*	*39%*
Males	*22%*	*44%*	*35%*
Females	*18%*	*38%*	*43%*

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

No significant overall differences were evident between the distribution of education levels between active recent EU-28 movers and nationals. As with movers, the largest share of nationals had a medium level of education, followed by those with a high level and lastly those with a low level. Also, as with movers, among nationals a higher share of females had a high level of education than males, while more males than females had a medium or low level of education. Some slight difference can be noted between movers and nationals, with active recent EU-28 movers having higher shares of high and low-educated, and lower shares of medium-educated compared to nationals (**Table 11**). Overall, recent active female movers had the highest share of highly educated, while the equivalent male group had the highest share of low educated movers.

Table 11: Education levels among active *nationals* in the EU-28, by gender, 2016

	Low	*Medium*	*High*
Total	17%	49%	34%
Males	19%	50%	30%
Females	15%	47%	38%

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

2.2.2 Economic integration of *recent* EU-28 movers

A crucial aspect of mobility is how movers perform on the labour market in the country of destination, and if and how they affect the labour market. This is relevant both from the perspective of the movers and from the perspective of the country of destination: the main motive for intra-EU movers is work-related, meaning the majority of citizens either

move to seek employment or to take up an offer of employment. This decision can be linked to professional or personal aspirations, such as improving one's career by taking up higher-skilled jobs, earning a better salary, or simply finding a job at all. Movers also affect the labour market of their country of destination, by bringing certain skills, filling labour shortages, or increasing competition for certain jobs. Their labour status also has an effect on the overall economy of the destination country, namely because active movers pay taxes and become entitled to social benefits.

This sub-section contributes to this general analysis by providing a statistical overview of the situation of *recent* EU-28 movers in terms of employment and unemployment, their impact on the labour force in the country of destination, the sectors in which they work, and ways in which they apply their skills.

Key results of an analysis of economic integration of *recent* EU-28 movers in 2016:

- At EU level and in most countries of destination, recent EU-28 movers are more likely to be active than nationals; in several countries the presence of recent EU-28 movers has a minor, and the presence of all EU-28 movers has a slightly larger positive effect of the activity rate.
- Employment rates of recent EU-28 movers are lower than those of nationals in more than half of the destination countries and unemployment rates are higher.
- Nevertheless, at EU level, economic integration of recent EU-28 movers improved over the past years, as differences in employment and unemployment rates between recent movers and nationals decreased.
- Recent movers are generally greatly over-represented compared to nationals in construction, and accommodation and food service. They are under-represented in the human health and social work sector, education and public administration.
- EU-13 movers are highly over-represented in elementary occupations, while EU-15 movers are over-represented in professional occupations.
- In all EU countries of residence, the activity rates for recent male movers are significantly higher than for equivalent females.
- Male recent EU-28 movers have significantly higher employment rates (because less inactive persons, but among the active movers, women are only slightly more likely to be unemployed than men.
- Female and male movers were equally likely to be employed in highly skilled occupations, but female movers were highly over-represented in low-skilled ('elementary') occupations.
- This goes along with the high share of female movers being over-qualified for their job, although also male recent movers are more likely to feel over-qualified than nationals.
- The largest difference in over-qualification between male and female recent movers is in Italy, Austria and Sweden.
- Lack of language skills is the main obstacle to getting a suitable job among both EU-15 and EU-13 movers, with the second being lack of recognition of qualifications obtained abroad.

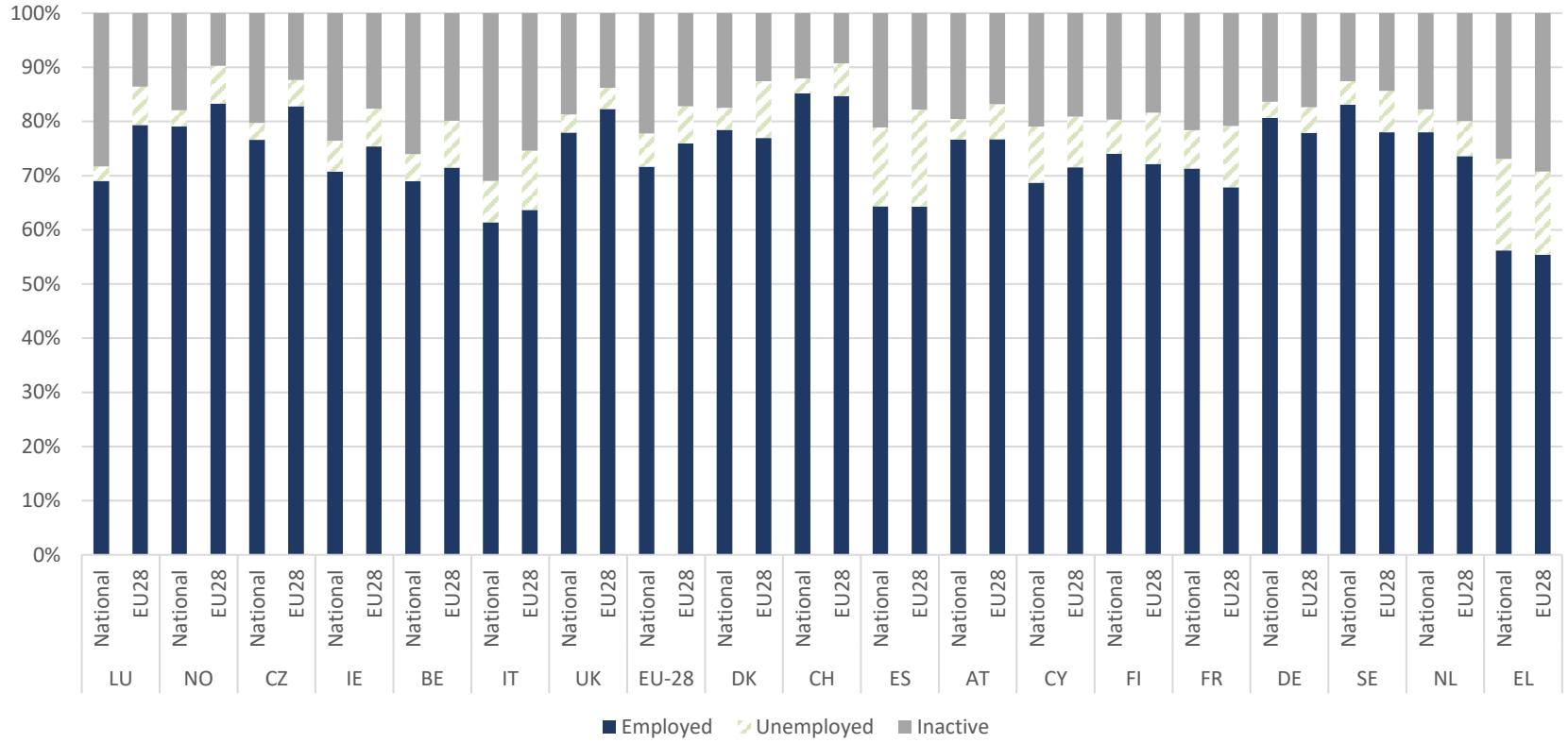
Activity status

At the EU-28 aggregate level, as well as in most countries of destination, ***recent EU-28 movers were more likely to be active (83% at EU level) than nationals (78%).*** **Figure 23** shows the shares of employed, unemployed and inactive among nationals and *recent* EU-28 movers for all EU-28 and EFTA countries of residence. Recent EU-28 movers are shown to be more active in many Member States, ranging from a very high positive difference in their activity rate (+15 p.p.) in Luxembourg to a minor positive difference (+1 p.p.) in Finland and France.

Only in Sweden, Germany, the Netherlands and Greece was the activity rate of *recent* EU-28 movers lower than that of nationals. Employment rates of *recent* EU-28 movers (and nationals) in Sweden and Germany nonetheless remained above the EU average.

Greece, Italy and France had the lowest shares of active *recent* EU-28 movers compared to inactive, each with under 80% of active *recent* EU-28 movers.

Figure 23: Labour status of recent EU-28 compared to nationals of working age, 2016 (sorted by difference in activity rate between recent EU-28 movers and nationals, in descending order)



* LOW RELIABILITY FOR UNEMPLOYED EU-28 MOVERS: CZ AND FI.

BG, EE, HR, HU, IS, LT, LV, MT, PL, PT, RO, SI, AND SK: FIGURES ARE NOT PRESENTED AS ONE OR MORE FIGURES FOR EU-28 MOVERS ARE TOO LOW TO BE PUBLISHED.

THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

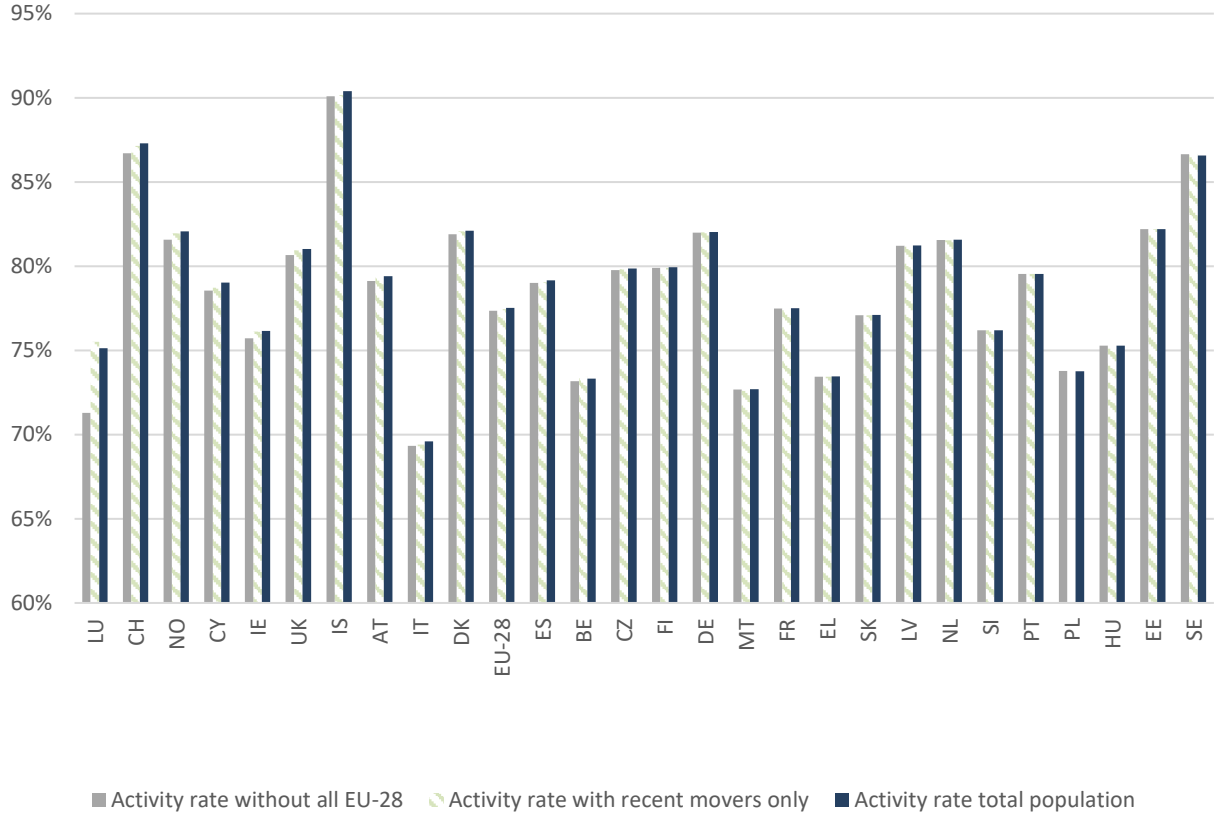
The higher (or lower) activity rate among *recent* EU-28 movers compared to nationals impacted on the size of the labour force (active persons) in the countries of destination.

Figure 24 shows the impact of mobility on the overall activity rate for each EU-28 Member State in 2016. It compares the activity rate for the total population including all EU-28 movers with that of the total population only including recent EU-28 movers and that of the total population excluding all EU-28 movers. For the EU-28, the activity rate was 77.5%. The recent EU-28 movers alone had no effect on this activity rate. However, if there were no EU-28 movers at all, the activity rate would drop to 77.3%.

However, ***in several countries (LU, CY, IE, UK, AT, IT, DK, ES) the presence of recent EU-28 movers had a very minor (positive) effect on the activity rate, while the presence of all EU-28 movers had a slightly larger positive effect.*** Clearly, this difference depends on the numbers of movers compared to total population, as in some countries the share of movers was too small to have any notable impact (e.g. <1%), such as in Poland and Latvia. On the other hand, the impact also depended on the activity rate among EU-28 movers; for example, the presence of EU-28 movers did not increase the activity rate in Germany or Sweden, countries with high shares of movers, because *recent* EU-28 movers were less active than nationals (see above).

The largest positive impact of movers on activity rates was in Luxembourg, where the overall activity rate was 4 p.p. higher with EU-28 movers than without them, reflecting the high shares of (active) EU-28 movers in Luxembourg compared to the total population.

Figure 24: Activity rates in EU-28 Member States and EFTA countries, without EU-28 movers, with only recent EU-28 movers, and with all EU-28 active movers (total population), 2016, by country of destination



* LOW RELIABILITY FOR ACTIVITY RATE WITH RECENT MOVERS ONLY: EE, LV, SI AND SK; LOW RELIABILITY FOR ACTIVITY RATE WITHOUT ALL EU-28 MOVERS: LV AND PL.

PL: ACTIVITY RATE WITH RECENT MOVERS ONLY IS MISSING AS FIGURES ARE TOO LOW TO BE PUBLISHED.

BG, HR, LT AND RO ARE NOT PRESENTED IN THE GRAPH BECAUSE ALL FIGURES EXCEPT THE ACTIVITY RATE FOR THE TOTAL POPULATION ARE TOO LOW TO BE PUBLISHED.

THE FIGURES PRESENTED MAY VARY BY ±1 P.P.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Employment and unemployment

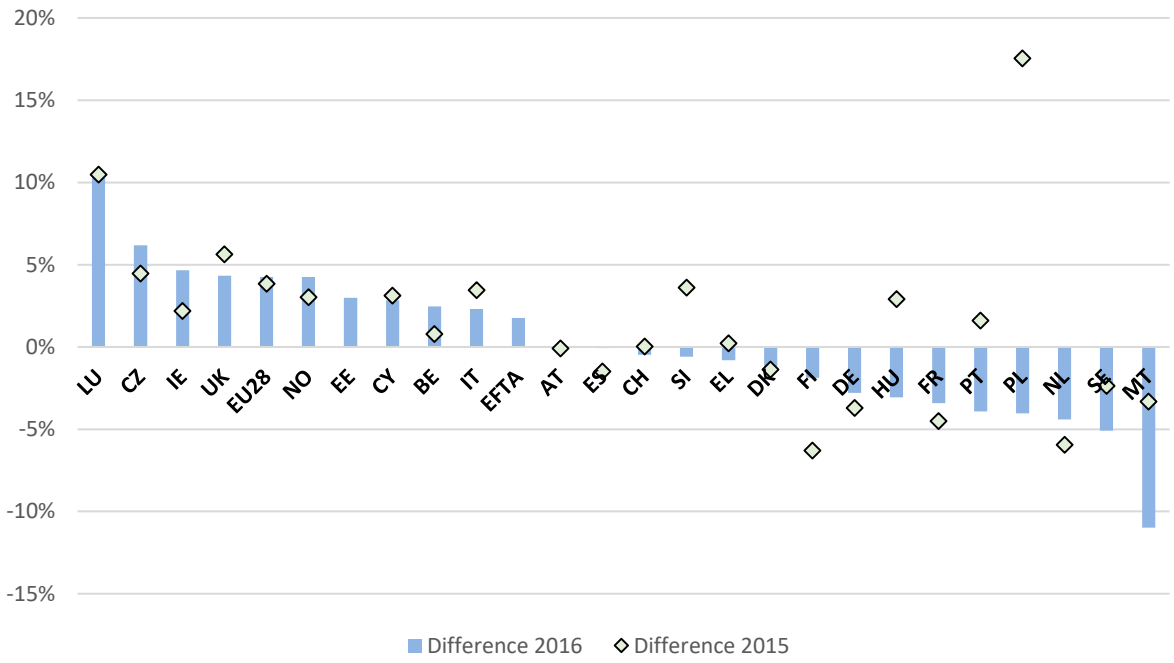
While recent EU-28 movers had higher activity rates than nationals in most countries, this was not the case for employment rates. As shown in **Figure 25**, the ***employment rates of recent EU-28 movers were lower than those of nationals in just over half of the destination countries. Of the main destination countries, only the UK and Italy had higher employment rates among recent EU-28 movers than nationals*** (**Figure 25**). The other main destination countries all had a lower employment rate for *recent* EU-28 movers, with differences ranging from 0 p.p. in Spain to -3 p.p. in France. Nevertheless, ***at the EU level, the employment rate of recent EU-28 movers, at 76%, was 4 p.p. higher than that of nationals***[86].

[86]Due to relatively low employment among nationals in several very large countries (e.g. IT, ES, FR) and high employment in the UK (the country with the largest number of EU-28 movers) this 'average' is skewed towards

Compared to 2015, the difference in employment rates between *recent* EU-28 movers and nationals changed significantly in some important countries of destination (**Figure 25**). In Spain, Germany and France, the difference in employment rates between *recent* EU-28 movers and nationals narrowed in favor of movers, which, in Spain, despite being a small difference, could indicate some signs of an improving economic situation for movers. In the other main countries of destination, the situation worsened for movers, with the positive gap decreasing in both Italy and the UK.

The largest difference can be seen in Poland, where the significant positive difference in 2015 (18%) became negative in 2016 (-4%). This can be explained by the slight increase in the employment rate among nationals (increase from 68% in 2015 to 69% in 2016), but largely by the drastically decreasing employment rate among movers in Poland (from 85% to 69%) in the same period. These figures should be treated with caution, however, as the small number of *recent* EU-28 movers in Poland means low reliability of data.

Figure 25: Difference in employment rates between recent EU-28 movers and nationals, by country of residence, 2016 and 2015



* LOW RELIABILITY FOR 2016 AND 2015 EU-28 MOVERS: EE, PL AND SI.

BG, HR, IS, LT, LV, RO, AND SK: FIGURES ARE NOT PRESENTED, AS FIGURES FOR EU-28 MOVERS FOR 2015 AND 2016 ARE TOO LOW TO BE PUBLISHED

THE FIGURES PRESENTED MAY VARY BY ±1 P.P., EXCEPT IN THE CASE OF EE, FOR WHICH THE FIGURE MAY VARY BY -20 P.P.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

higher employment among EU-28 movers.

In terms of differences in the employment rate of *recent* EU-13 and EU-15 movers, ***the average (EU-28) employment rate of recent EU-13 movers was roughly equal to that of recent EU 15 movers, at around 76% for each*** (**Table 12**). Compared to nationals, both *recent* EU-13 movers and EU-15 movers had higher employment rates than nationals (72%). However, recent EU-13 movers had a slightly higher unemployment rate (9%) than both nationals (8%) and EU-15 movers (8%). Compared to 2015, there was a slightly wider gap between the unemployment rate for *recent* EU-13 movers and nationals (1 p.p. compared to 0 p.p. in 2015), reflecting the slight increase in the unemployment rate for EU-13 movers during the period, while the unemployment rate of nationals marginally decreased. The unemployment rate of *recent* EU-15 movers also marginally decreased between 2015 and 2016. As suggested in the 2016 Annual Labour Mobility report, this may be because EU-15 movers are more likely to move for job opportunities related to Foreign Direct Investment[87] (FDI) flows, whereas EU-13 movers face a more volatile job market in view of their *recent* mover status[88].

Table 12: Employment and unemployment rates of recent EU-13 movers, recent EU-15 movers and nationals, 2016

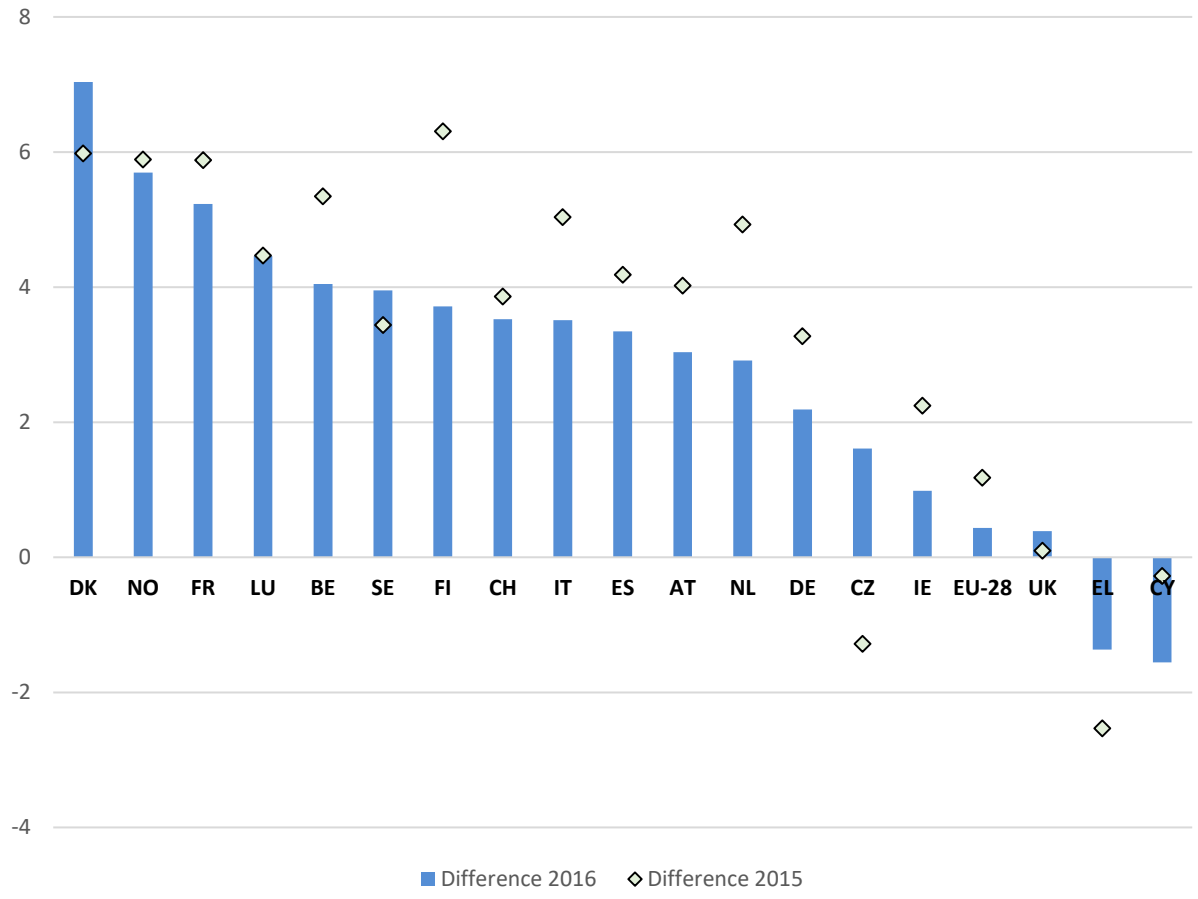
	Employment rate	Unemployment rate
EU-13	76%	9%
EU-15	76%	8%
Nationals	72%	8%

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Figure 26 shows the difference in unemployment rates between *recent* EU-28 movers and nationals. Overall, the ***difference in unemployment at the EU level is close to zero, with fractionally more recent EU-28 movers (8.3%) being unemployed than nationals (7.9%).*** This gap has narrowed since 2015, when just over 1 p.p. more *recent* EU-28 movers were unemployed than nationals. Individual countries of destination show a wide range of difference in unemployment rates, ranging from 7 p.p. in Denmark to -2 p.p. in Cyprus. For Denmark, this higher unemployment rate for *recent* EU-28 movers may correspond to the lower employment rates for *recent* EU-28 movers compared with nationals. For all the main countries of destination, the unemployment rate was higher among *recent* EU-28 movers than among nationals, ranging from 5 p.p. higher in France to close to 0 p.p. in the UK.

[87] FDI is the category of international investment in which an enterprise resident in one country (the direct investor) acquires an interest of at least 10% in an enterprise resident in another country (the direct investment enterprise). Subsequent transactions between affiliated enterprises are also direct investment transactions. (Source: Eurostat's Concepts and Definitions Database, accessed 1 August 2017).
[88] 2016 Annual Report on Labour Mobility, p. 67.

Figure 26: Difference in unemployment rates between recent EU-28 movers and nationals, by country of residence, 2016 and 2015 (in p.p.)



* LOW RELIABILITY FOR 2016 EU-28 MOVERS: CZ AND FI; LOW RELIABILITY FOR 2015 EU-28 MOVERS: CZ AND FI.

BG, EE, HR, HU, IS, LT, LV, MT, PL, PT, RO, SI, AND SK: FIGURES ARE NOT PRESENTED, AS FIGURES FOR EU-28 MOVERS FOR 2015 AND 2016 ARE TOO LOW TO BE PUBLISHED.

THE FIGURES PRESENTED MAY VARY BY ±1 P.P.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Employment and unemployment trends

The ***employment situation among both recent EU-28 movers and nationals has improved in recent years (since 2011)***, as indicated by increasing employment and decreasing unemployment rates for both groups. In addition, ***the economic integration of recent EU-28 movers improved in that period, as shown by unemployment decreasing to a similar level to that of nationals***.

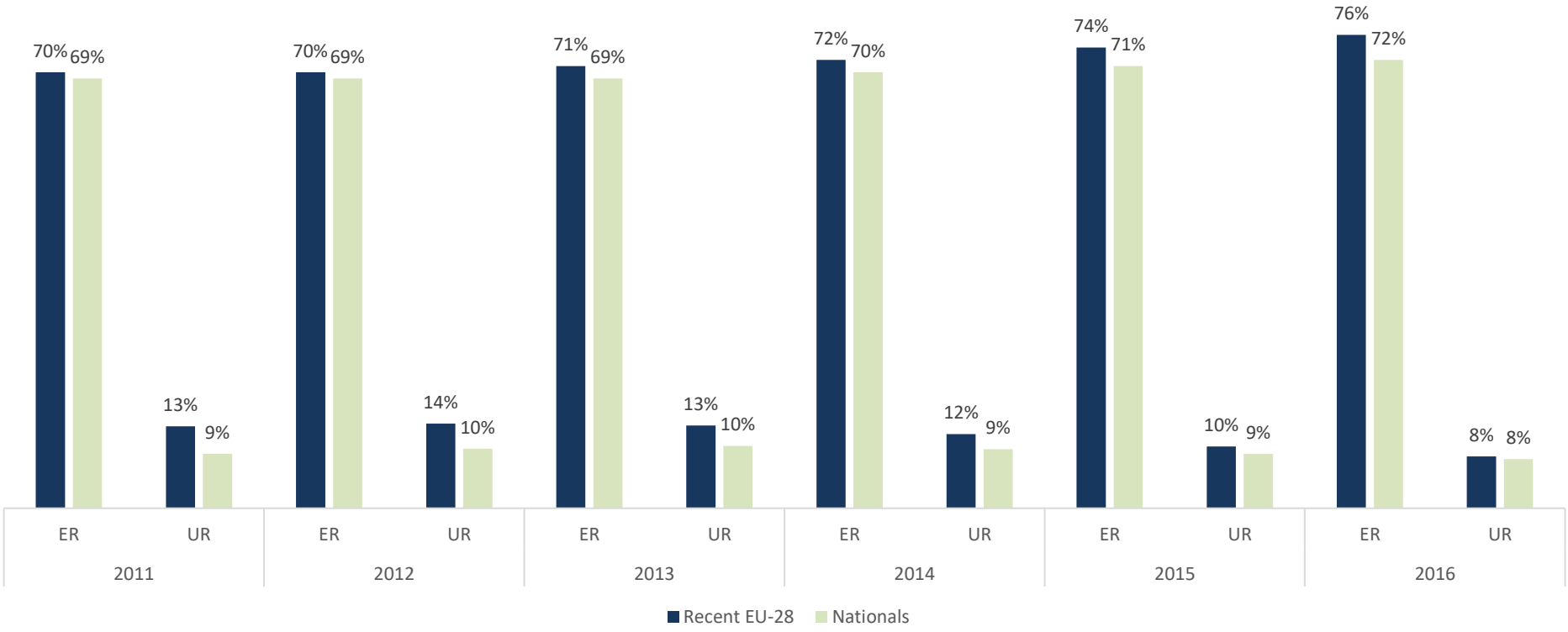
Since 2011, the employment rate of *recent* EU-28 movers has been consistently higher than that of nationals (see **Figure 27**). The 2015 Labour Mobility report found that the gap in employment rates had widened in the previous five years, due to a slightly higher increase in the movers' rate than that of nationals. This development continued in 2016, with the recent movers' employment rate at 76% and nationals' at 72%, the largest positive difference since 2011. Similarly, the gap in unemployment rates (which were con-

stantly higher among recent EU-28 movers) also decreased in recent years, reaching 0 p.p. in 2016 (8% for both groups).

While the economic situation of movers and nationals has thus recovered somewhat since the onset of the economic crisis, movers appear to have recovered more rapidly, or than nationals. This may reflect their ability to move to other EU-28 countries where the economic situation is better, an assertion which may be supported by the movement of EU-28 movers from traditional Southern countries of destination (Spain, Italy and Greece) to Northern Member States (the UK and Germany) and the Scandinavian countries, as described in the 2016 Annual report on Labour Mobility[89].

[89]2016 Annual Report on Labour Mobility, pp. 59-61.

Figure 27: Employment and unemployment rates of *recent* EU-28 movers and nationals of working age (20-64), EU-28 aggregate, 2011-2016



EU-28 FIGURES ARE BASED ON DIFFERENCE IN EMPLOYMENT AND UNEMPLOYMENT RATES OF AGGREGATES OF EU-28 MOVERS AND NATIONALS.

DUE TO RELATIVELY LOW EMPLOYMENT AMONG NATIONALS IN SEVERAL VERY LARGE COUNTRIES (E.G. IT, ES, FR) AND HIGH EMPLOYMENT IN THE UK (THE COUNTRY WITH THE LARGEST NUMBER OF EU-28 MOVERS) THIS 'AVERAGE' IS SKEWED TOWARDS HIGHER EMPLOYMENT AMONG EU-28 MOVERS.

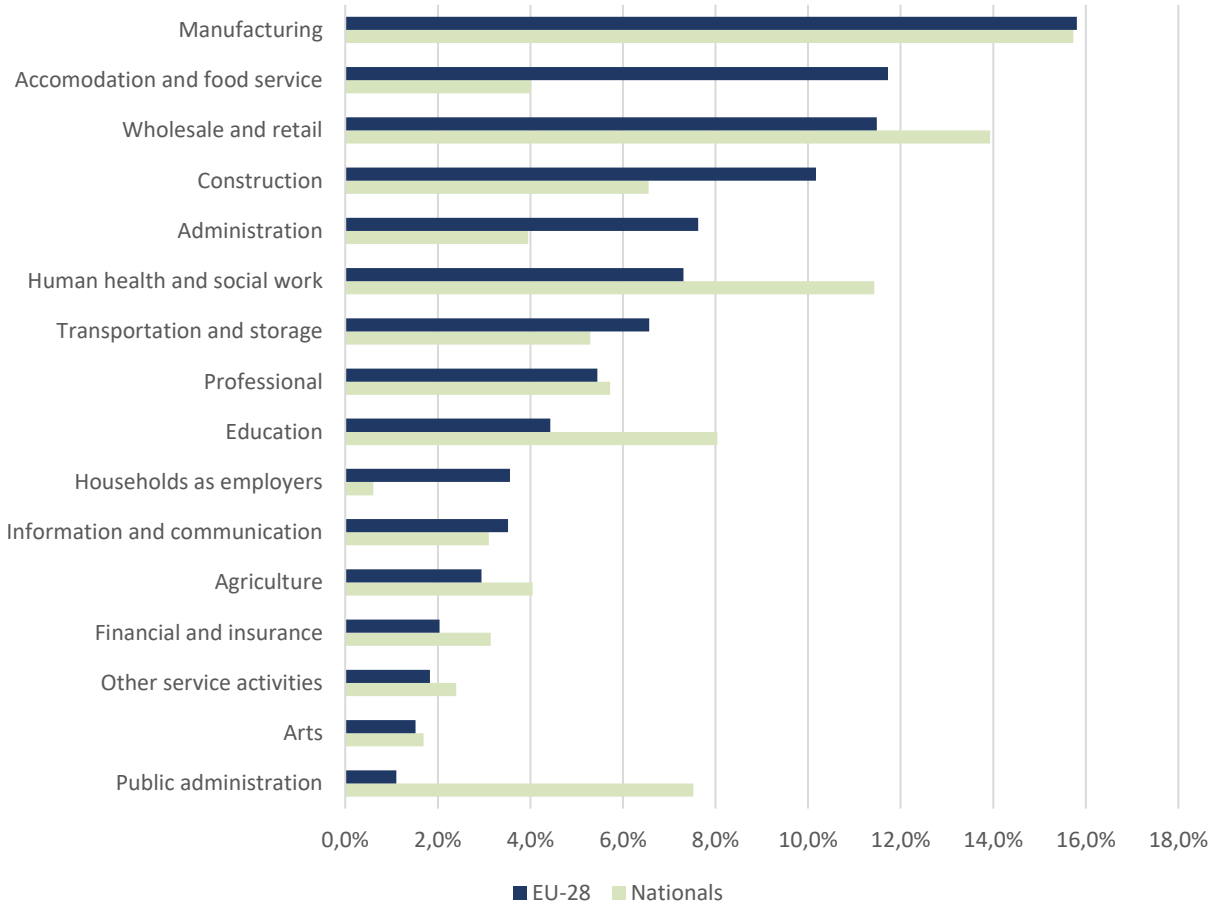
THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

Sectors of activity and occupations

There are considerable differences in the distribution of nationals and *recent* EU-28 movers among different sectors across the EU-28 Member States (**Figure 28**). Firstly, ***recent movers were generally greatly over-represented compared to nationals in construction, and accommodation and food service.*** Manufacturing employed the highest share of both nationals and *recent* movers, at 16% for each. Wholesale and retail was another important employment sector among both *recent* movers and nationals, with the latter having a slightly higher share working in this sector.

Recent movers were under-represented in the human health and social work sector, a relatively important sector of employment among nationals (11% of nationals and 7% of *recent* movers). The same was true of ***education and public administration***, where *recent* movers were under-represented compared to nationals.

Figure 28: Employment of *recent* EU-28 movers and nationals by sector, EU-28 aggregate level, 2016



* SECTORS IN WHICH LESS THAN 1% WORKED ARE EXCLUDED FROM THE GRAPH: EXTRATERRITORIAL ORGANISATIONS AND BODIES; REAL ESTATE ACTIVITIES; WATER SUPPLY- SEWERAGE; AND OTHER

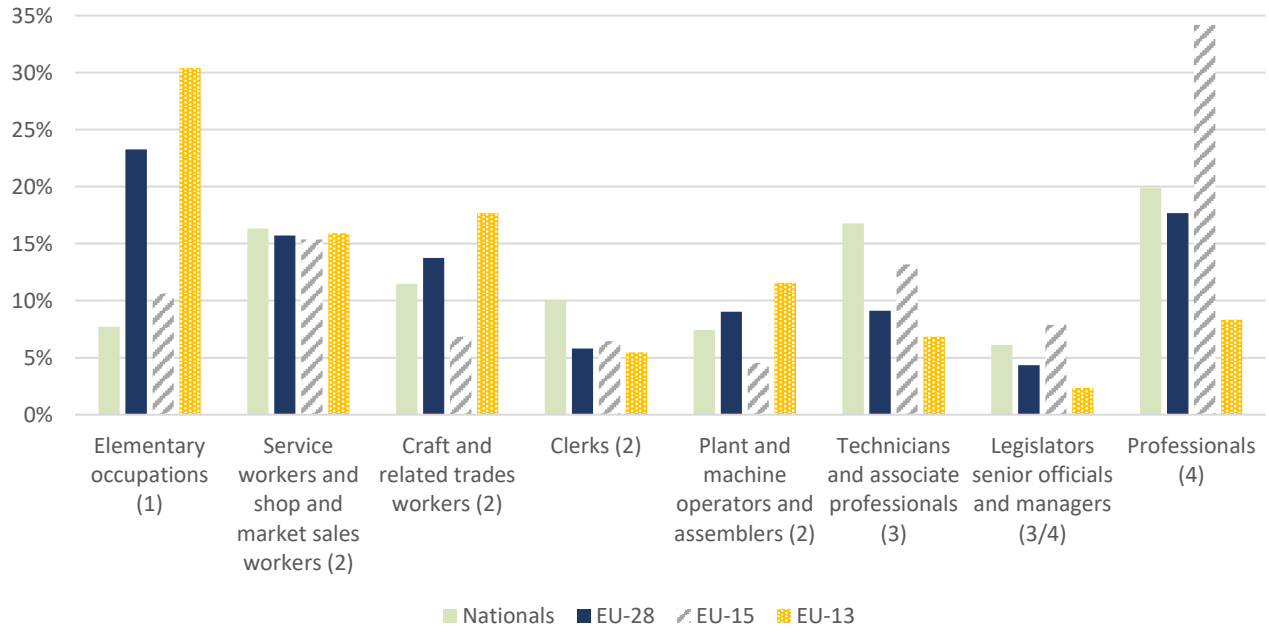
THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Types of occupations (**Figure 29**) reflect the required skill level to a greater extent than sectors, given that the latter include a wide variety of jobs and skill levels. For occupations, then, ***major differences were evident between recent movers and nationals, especially in elementary occupations (where movers were highly over-represented)***, with smaller differences in professional occupations (in which movers were slightly under-represented). In the individual mid-level occupations (level 2), while there were differences between movers and nationals, there was an overall balance between over-and under-representation, with the exception of technicians and associate professionals, where movers were under-represented compared to nationals.

A closer look at ***these differences shows that they are largely attributable to the differences between nationals and EU-13 movers*** (which have a high weight in the aggregate, due to their size). In fact, when looking at ***EU-15 recent movers alone***, the opposite is true, i.e. they ***were under-represented in elementary occupations and over-represented as professionals.***

Figure 29: Employment of recent EU-28/EU-15/EU-13 movers and nationals by occupation, 2016



OCCUPATIONS ARE SORTED ACCORDING TO THE CORRESPONDING SKILL LEVELS (NUMBER IN BRACKETS), WHERE 4=HIGHEST SKILL LEVEL AND 1=LOWEST SKILL LEVEL[90].

ACCORDING TO THE INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (ISCO), ELEMENTARY OCCUPATIONS INCLUDE SALES AND SERVICES, AGRICULTURAL, FISHERIES AND RELATED LABOURERS, AND LABOURERS IN MINING, CONSTRUCTION, MANUFACTURING AND TRANSPORT.

* SKILLED AGRICULTURAL AND FISHERIES WORKERS ARE EXCLUDED DUE TO LOW RELIABILITY FOR NATIONALS, AND FIGURES FOR EU-15 MOVERS BEING TOO LOW TO BE PUBLISHED; FOR EU-28 AND EU-13 CATEGORIES, THEY MAKE UP AROUND 1% OF THE TOTAL.

ARMED FORCES ARE EXCLUDED DUE TO ALL CATEGORIES BEING BELOW RELIABILITY LIMITS.

[90] ILO, ISCO-08 Part I, 'Introductory and methodological notes', Chapter 2.3, p. 14, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

SORTED BY EU-28 SHARE IN DESCENDING ORDER.

THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

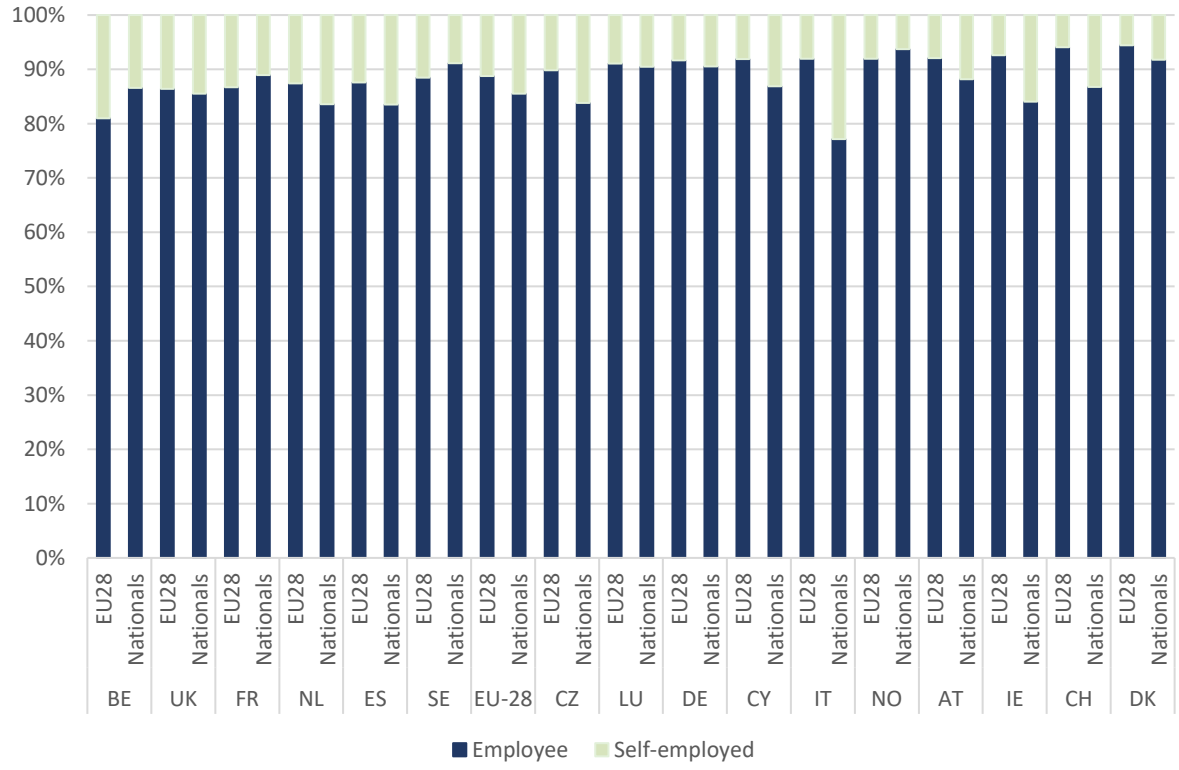
SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Self-employment

At the EU level, ***11% of recent movers were self-employed in 2016***, a slight decrease from the 12% figure in 2015[91] (see **Figure 30**). This share was ***lower than among nationals*** (14%). ***Belgium had the highest share of self-employed recent movers*** (19%), where there was also quite a high over-representation compared to nationals (13%). The share of self-employed among recent movers was also above 10% in the UK, France, the Netherlands, Spain, Sweden and the Czech Republic.

The largest difference between *recent* movers and nationals can be found in Ireland, where self-employment was at 7% and 16%, respectively.

Figure 30: Shares of self-employed and employees among EU-28 movers and nationals, by country of residence, 2016 (sorted by share of EU-28 self-employed movers in descending order)



* LOW RELIABILITY FOR SELF-EMPLOYED EU-28 MOVERS: CZ.

BG, EE, FI, GR, HR, HU, LT, LV, MT, PL, PT, RO, SI, SK AND IS: ARE NOT DISPLAYED AS FIGURES FOR ONE OR MORE CATEGORIES FOR EU-28 MOVERS ARE BELOW RELIABILITY LIMITS.

CH: THE SHARE OF SELF-EMPLOYED NATIONALS MAY VARY BETWEEN 13.25% AND 13.26%.

NO: THE SHARE OF SELF-EMPLOYED NATIONALS MAY VARY BETWEEN 6.28% AND 6.30%.

[91] Figure from 2016 Annual Report on intra-EU Labour Mobility.

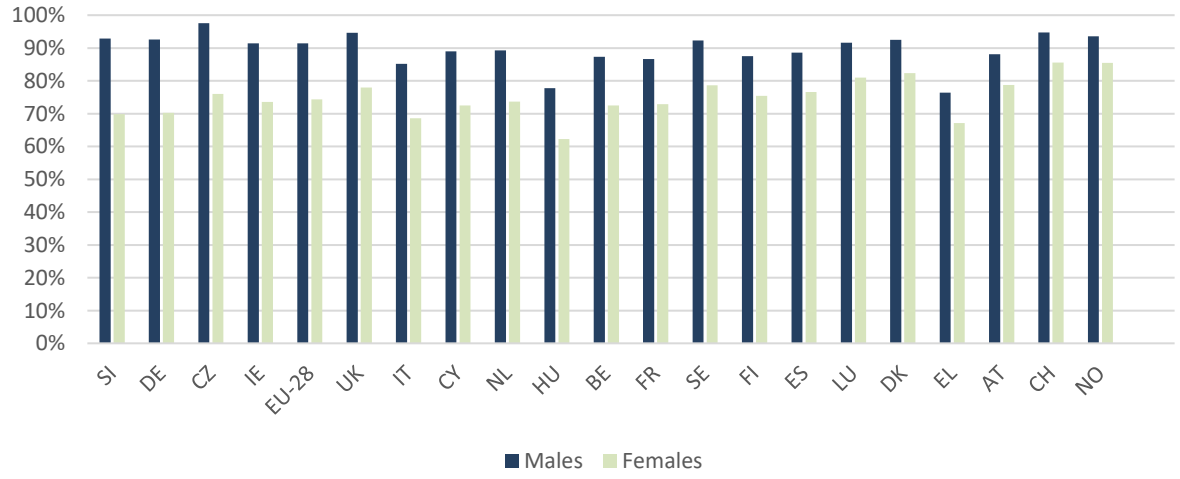
SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

Gender dimension of the labour situation among recent EU-28 movers

Considerable differences are evident in the labour situation of men and women among *recent* EU-28 movers in some EU Member States. This sub-section details the employment and unemployment situation, the type of work carried out and over-qualification among male and female recent EU-28 movers.

A comparison of activity rates by gender indicates that male recent EU-28 movers were more likely to be active than female: at EU-28 level, ***the activity rate of recent male movers was 17 p.p. higher than that of females***. **Figure 31** illustrates that ***in all EU-28/EFTA countries of residence*** (except Iceland), the activity rates for recent male movers were significantly higher than for equivalent females. Slovenia, Germany and Czech Republic showed the greatest differences, with rates for males being over 20 p.p. higher than females. The lowest differences were observed in the EFTA countries, Greece and Austria (all below 10%). At the aggregate (EU-28 level), the different in activity rates for *recent* male versus female movers was far higher than the difference in active movers in total (10%, see **Figure 22** Section 2.2.1). The larger proportion of *recent* inactive female movers compared to males suggests that women may have moved to accompany active male workers.

Figure 31: Activity rate of recent working age EU-28 movers, by gender, 2016, by EU-28/EFTA country of residence and EU-28 aggregate, sorted by difference in activity rate, in descending order



* LOW RELIABILITY FOR MALES: SI; LOW RELIABILITY FOR FEMALES: SI AND HU.

BG, EE, HR, IS, LT, LV, MT, PL, PT, RO AND SK ARE NOT PRESENTED IN THE GRAPH BECAUSE ONE OR MORE FIGURES ARE TOO LOW TO BE PUBLISHED.

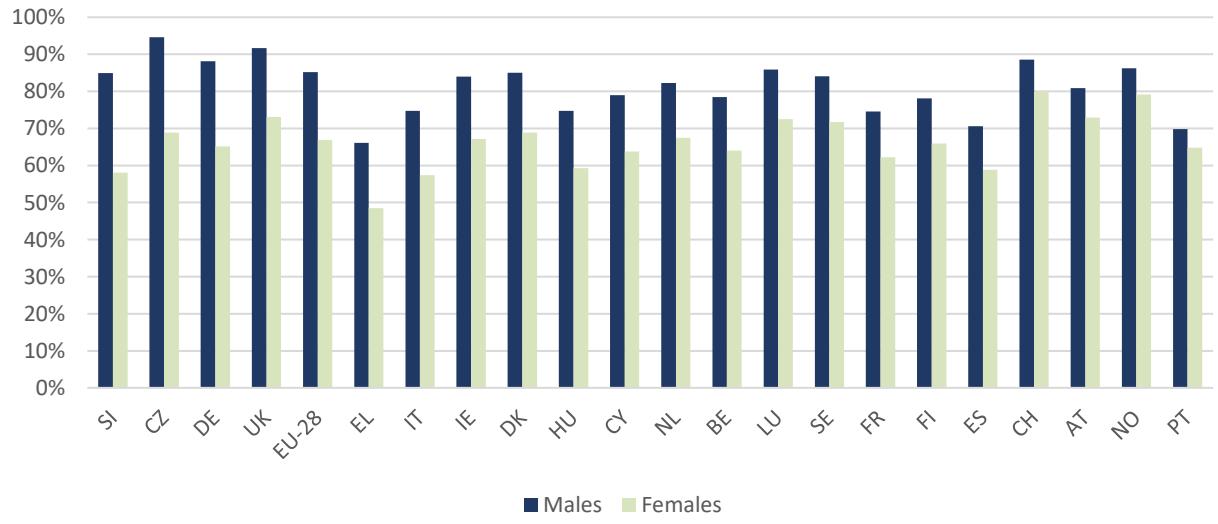
SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

A comparison of employment and unemployment rates by gender (**Figure 32** and **Figure 33**) indicates that ***male recent EU-28 movers*** also ***had higher chances of being employed in the majority of countries for which figures are available***, and also

had lower rates of unemployment compared to females in most Member States/EFTA countries. In Austria, Norway and Sweden, however, males were slightly more likely to be unemployed.

Overall, for the EU-28 and for each individual country of destination, the employment rate of *recent* EU-28 males was significantly higher (18 p.p.) than that of females. **Figure 32** shows the difference in the employment rates for male and female *recent* EU-28 movers in 2016, sorted according to the largest difference between males and females in descending order. The differences between men and women range from a gap of 27 p.p. in Slovenia[92], to a gap of 5 p.p. in Portugal. Of the main countries of destination, Germany and the UK had the biggest gap between men and women, with 23 p.p. and 19 p.p., respectively. The country with the highest employment rate for females was Switzerland with 80%, closely followed by Norway with 79%, while the country with the lowest employment rate for females was Greece, at 48%. Given that Greece had one of the largest shares of women among its incoming movers in 2015 (**Figure 10**, Section 2.1.2), this suggests a marked impact on the labour situation of movers in Greece. Greece also had the lowest employment rate for males, with 66%, while the country with the highest employment rate for males was Czech Republic, at 95%.

Figure 32: Employment rate of recent working age EU-28 movers, by gender, 2016, by EU-28/EFTA country of residence and EU-28 aggregate, sorted by difference in employment rate, in descending order



* LOW RELIABILITY FOR MALES: SI; LOW RELIABILITY FOR FEMALES: SI AND HU.

BG, EE, HR, LT, LV, MT, PL, RO AND SK ARE NOT PRESENTED IN THE GRAPH BECAUSE ONE OR MORE FIGURES ARE TOO LOW TO BE PUBLISHED.

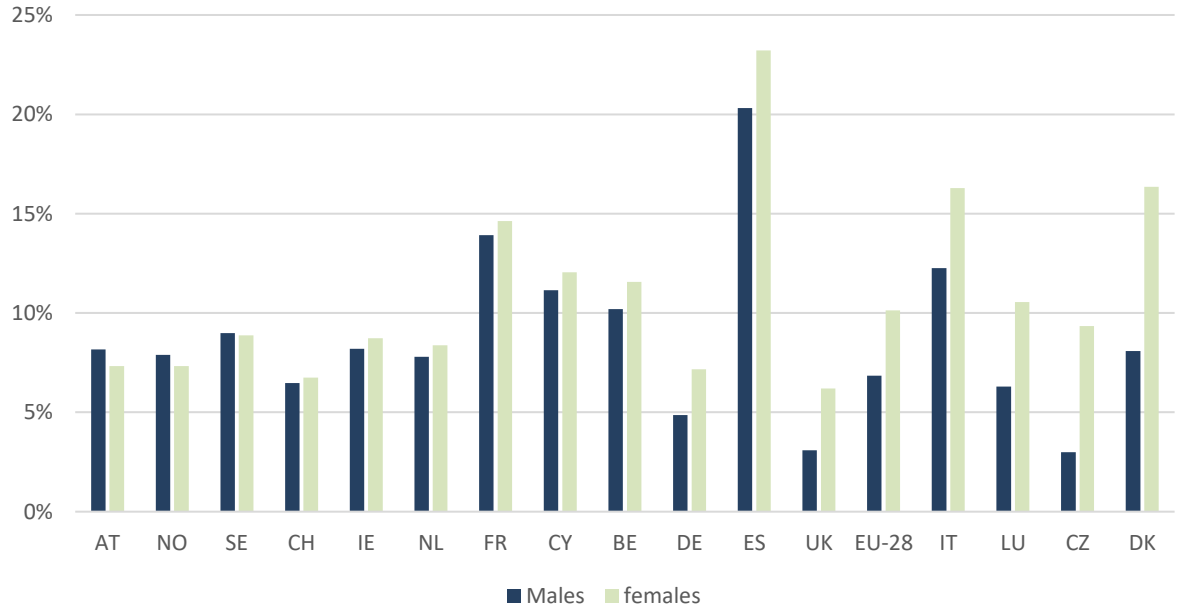
SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

The ***gender difference in the unemployment rate of recent EU-28 movers was less noticeable than the difference in the employment rate***, with 10% of unem-

[92] Figures are of low reliability.

ployed women and 7% of unemployed men. This is most likely because female movers were more likely to be inactive in general. Among those who were active, however, almost as many had jobs as their male counterparts. Denmark had the largest difference in unemployment between men and women, at 8% and 16%, respectively, for *recent* movers. Austria had the largest positive difference for female *recent* EU-28 movers, with the unemployment rate for females 1 p.p. lower (at 7%) than that of males. There were also substantial differences between men and women in Czech Republic and Luxembourg, suggesting that unemployment amongst women may be driving (at least in part) the higher unemployment rate for all *recent* EU-28 movers compared with nationals in those countries. In some of the main countries of residence, such as France and Switzerland, there was little or no difference in unemployment rates between male and female *recent* EU-28 movers. In others, notably Germany, Italy, Spain and the UK, the unemployment rate was relatively larger for women than men (+2 to +4 p.p.).

Figure 33: Unemployment rate of recent working age EU-28 movers, by gender, 2016, by EU-28/EFTA country of residence and EU-28/EFTA aggregate



* LOW RELIABILITY FOR MALES: CZ AND DK; LOW RELIABILITY FOR FEMALES: CZ.

BG, EL, HR, LV, RO, EE, HU, LT, MT, IS, FI, SI, PL, PT, AND SK ARE NOT PRESENTED IN THE GRAPH BECAUSE ONE OR MORE FIGURES ARE TOO LOW TO BE PUBLISHED.

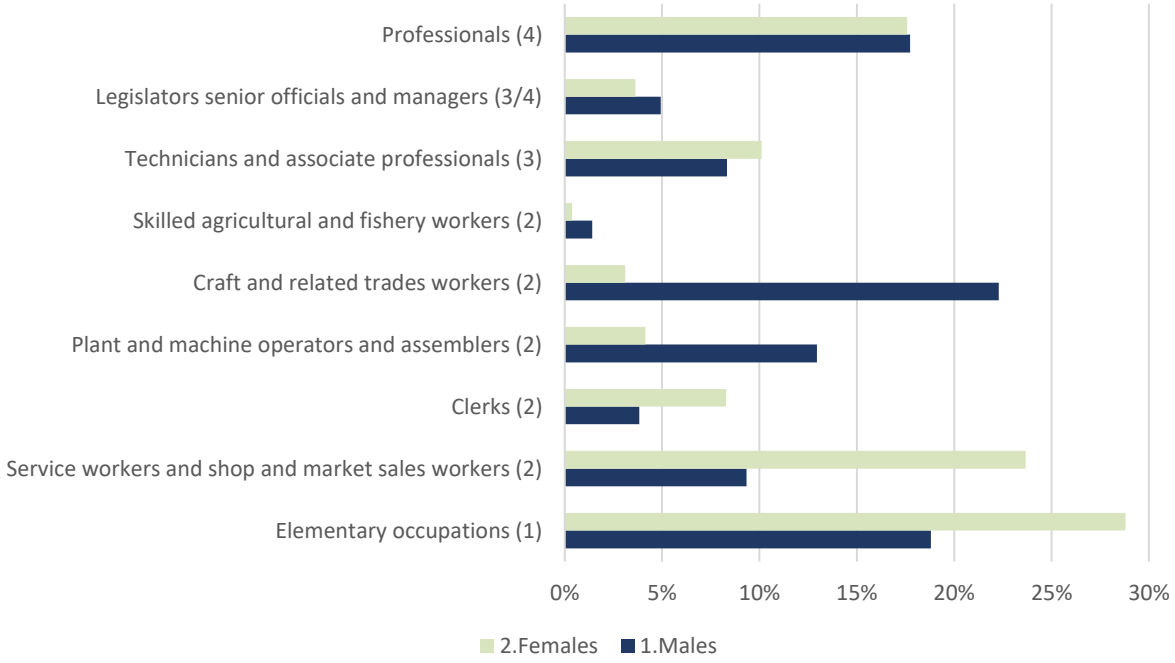
THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

As can be seen in **Figure 34**, ***female and male movers were equally likely to be employed in highly skilled occupations*** (skill levels three and four), with around one-third of each group employed in these occupations. Women were slightly over-represented as technicians and associate professionals, and slightly under-represented as legislators, senior officials and managers. On the other hand, ***female movers were highly over-represented in low-skilled ('elementary') occupations*** (around 30% of

women compared to 19% of men). Again, it bears noting that the share of female movers with a low education level was only 18% (and 22% among men). In mid-level occupations, women were more likely to work as service workers, shop and market sales workers, and clerks, while men were more likely to work in crafts and related trades, as plant and machine operators and assemblers, or in agriculture.

Figure 34: Employment of recent EU-28 movers by occupation and gender, 2016



OCCUPATIONS ARE SORTED ACCORDING TO THE CORRESPONDING SKILL LEVELS (NUMBER IN BRACKETS), WHERE 4=HIGHEST SKILL LEVEL AND 1=LOWEST SKILL LEVEL[93]; CATEGORIES 3 AND 4 ARE CONSIDERED 'HIGH-SKILLED OCCUPATIONS'.

ACCORDING TO THE INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (ISCO), ELEMENTARY OCCUPATIONS INCLUDE SALES AND SERVICES, AGRICULTURAL, FISHERIES AND RELATED LABOURERS, AND LABOURERS IN MINING, CONSTRUCTION, MANUFACTURING AND TRANSPORT.

* LOW RELIABILITY FOR FEMALE SKILLED AGRICULTURAL AND FISHERIES WORKERS.

FIGURES FOR ARMED FORCES ARE TOO LOW TO BE PUBLISHED.

THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

SOURCE : EU-LFS, 2016, MILIEU CALCULATIONS.

While over-qualification was generally higher among movers than nationals, this was particularly true for female movers. This can be seen not only from subjective views (as expressed in surveys), but also from the fact that the share of women working in highly skilled occupations was about equal to that of men (approx. one-third) and the share working in low-skilled ('elementary') occupations far exceeds that of men,

[93] ILO, ISCO-08 Part I, 'Introductory and methodological notes', Chapter 2.3, p. 14, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

despite female movers accounting for an 8 p.p. higher share of highly educated persons, and having a 4 p.p. lower share of persons with low education level (Section 2.2.1).

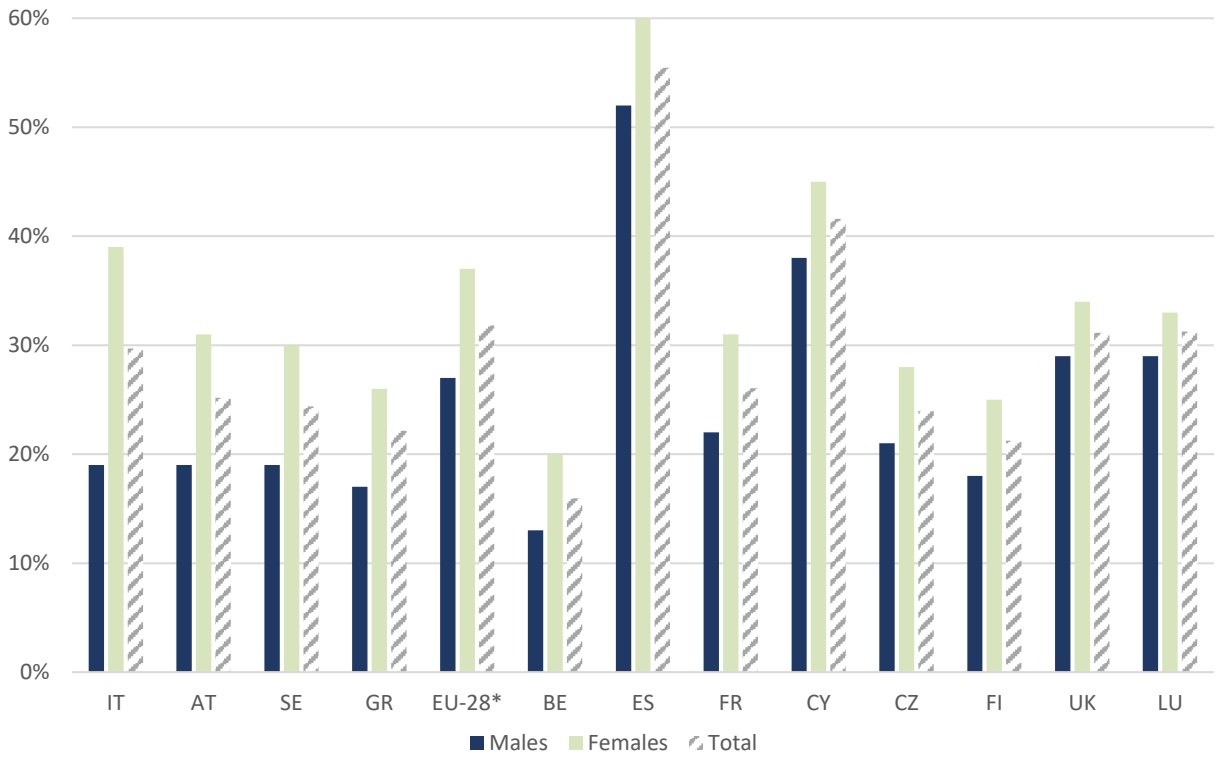
The subjective views expressed by female and male EU-28 movers in the 2014 LFS ad-hoc module confirmed these findings: the shares of female recent EU-28 movers who felt over-qualified for their jobs were consistently higher in all Member States for which figures are available, as well as at EU level (**Figure 35**). At EU-28 level, 37% of female and 27% of male EU-28 movers believed themselves over-qualified for their jobs. This can also be seen from the fact that while female movers accounted for an 8 p.p. higher share of highly educated persons and a 4 p.p. lower share of persons with low education level (Section 2.2.1), the share of women working in highly skilled occupations was about equal to that of men (around one-third), implying that women were far more likely than men to work in low-skilled ('elementary') occupations.

Spain had by far the highest share of movers (both men and women) feeling over-qualified (60% among women, 50% among men). ***The largest difference in over-qualification between men and women, however, was in Italy*** (20 p.p. difference), ***followed by Austria and Sweden***, which both however had below-average rates of over-qualification. Italy, on the other hand, had a lower rate of over-qualification than the EU average, but only among men, with women over-qualified to a larger extent than the EU average. Even before the economic crisis, Italy had a particularly high concentration of mobile workers in unskilled jobs[94], compared to other Member States. The economic crisis increased this concentration, given that many of the high-skilled Italian nationals themselves moved, due to the lack of job opportunities. In 2016, Italy had much higher shares of EU-28 movers working in elementary occupations (30%, compared to 20% EU average) and in services (25% compared to 17% EU average) and in craft and related trades (20% compared to 14% EU average). As elementary occupations and services were female dominated, this suggests that Italy still had a very high concentration of female movers working in low-skilled occupations. In addition, research on Romanian movers in Italy has found downgrading equally common among men and women in high-skilled occupations, but more frequent[95] among women in medium and low-skilled occupations[96].

These gender differences correspond to those reported in the 2015 Annual Report on intra-EU Labour Mobility, in respect of the differences between EU-13 (female dominated) and EU-15 movers, showing that EU-13 movers felt over-qualified to a larger extent than EU-15 movers.

[94] Eurofound, European Observatory of Working Life (2007), 'Employment and working conditions of migrant workers – Italy'.
[95] Downgrading was measured by comparing the type of occupation (and the related ISCO skill-level) held before and after the move, and finding that the occupation after the move was at a lower skill level than the one before.
[96] Mara, I. (2012) 'Surveying Romanian Migrants in Italy Before and After the EU Accession: Migration Plans, Labour Market Features and Social Inclusion', The Vienna Institute for International Economic Studies, p.43.

Figure 35: Share of male and female EU-28 movers of working age (20-64) feeling overqualified for their jobs, by country of residence, 2014



* EU-28 TOTAL IS THE SUM OF THE VALUES FOR EU-28 MEMBER STATES, EXCLUDING FIGURES THAT ARE BELOW RELIABILITY LIMITS. THIS MAY THEREFORE BE LOWER THAN THE ACTUAL EU-28 AGGREGATE FIGURE.

** LOW RELIABILITY FOR MALES AND FEMALES: FI.

BG, DE, DK, EE, HR, HU, IE, LT, LV, MT, NL, PL, PT, RO, SI AND SK: FIGURES FOR MALE AND/OR FEMALES ARE TOO LOW TO BE PUBLISHED.

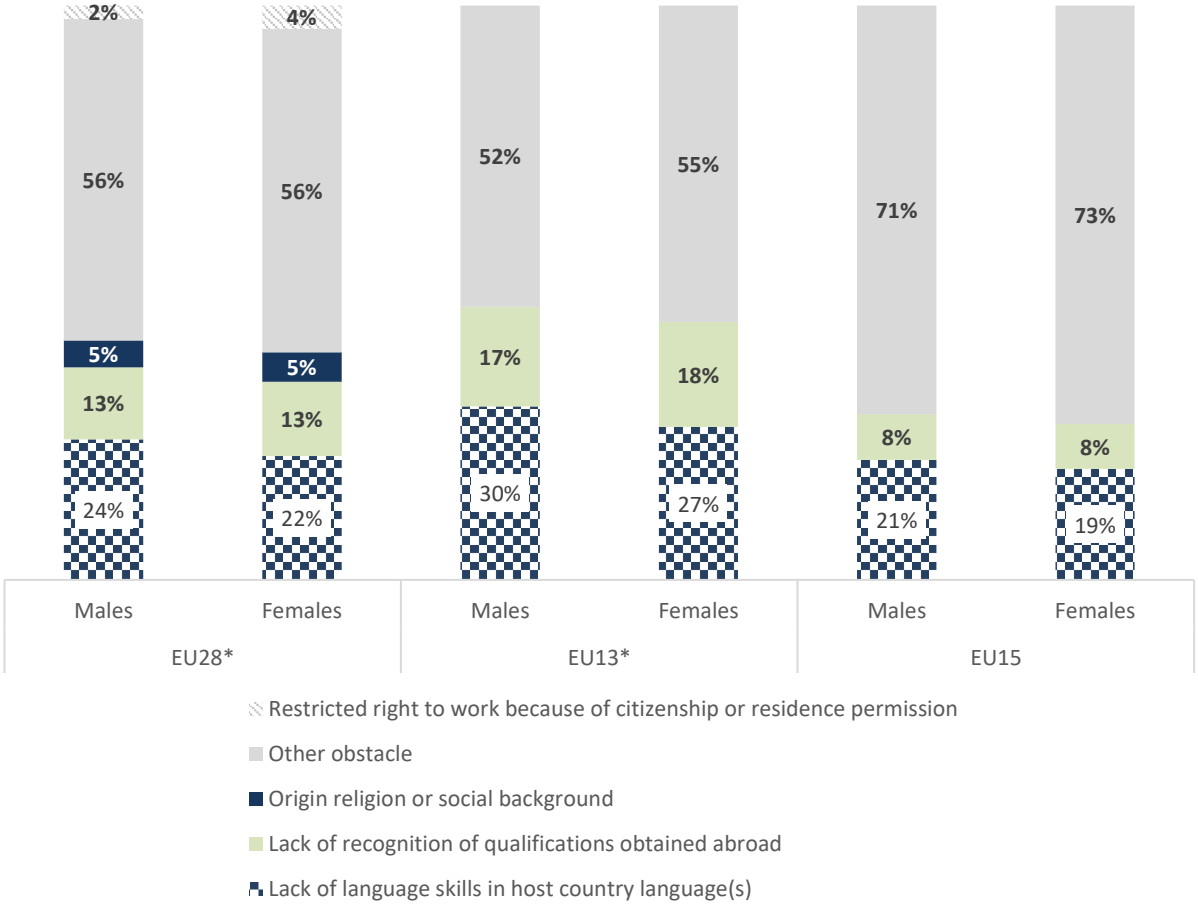
THERE ARE NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.

SOURCE : EU-LFS, 2014, MILIEU CALCULATIONS.

Lack of language skills is the main recognized obstacle to getting a suitable job among both EU-15 and EU-13 movers, with ***the second being lack of recognition of qualifications obtained abroad*** (see **Figure 36**). However, both types of obstacles were mentioned ***more often by EU-13 movers***, with EU-15 movers more frequently mentioning 'other obstacles'. *Religion and social background* and *working right restrictions* were infrequently mentioned obstacles that appeared only at EU-28 level.

An interesting gender difference at EU-28 level is that ***restricted right to work was more frequent among women***, while the ***lack of language skills was a more frequent obstacle among men***. Also within the separate groups of EU-15 and EU-13 movers, lack of language skills was perceived as an obstacle more frequently by male movers.

Figure 36: Main obstacle to getting a suitable job by gender, for EU-28/EU-15/EU-13 movers



THE SHARES OF EU-13 AND EU-15 MALE AND FEMALE MOVERS WHO MENTIONED 'ORIGIN RELIGION OR SOCIAL BACKGROUND' AS THE MAIN OBSTACLE COULD NOT BE DISPLAYED BECAUSE FIGURES ARE BELOW RELIABILITY LIMITS. THEREFORE, THE SHARES FOR THESE OBSTACLES ARE ONLY DISPLAYED AT EU-28 AGGREGATE LEVEL.

MARGINS OF ERROR ARE PRESENTED IN ANNEX, Table 63.

SOURCE : EU-LFS, 2014, MILIEU CALCULATIONS.

2.2.3 Cross-border workers

This section presents the extent and characteristics of movement of a specific type of EU movers, 'cross-border workers' (also called 'cross-border commuters').

Cross-border workers are defined as EU/EFTA citizens who live in one EU or EFTA country and work in another, regardless of their precise citizenship (provided they are EU-28/EFTA citizens). Cross-border workers therefore move across borders more or less regularly. They can be EU-28/EFTA movers – meaning they live in a different Member State than their country of citizenship – and cross-border workers at the same time (for example, where a British person lives in Belgium and works in Luxembourg)[97]. Cross-border workers are employed or self-employed in a country other than their country of residence.

The definition of cross-border workers/commuters used in this report is that used in a previous report on cross-border commuting published by the European Commission in 2011[98]. Use of the same definition ensures temporal comparability and permits the use of EU-wide data (see below). There is no legal definition of cross-border workers, however this concept is empirically measurable with the EU-LFS, unlike the legally defined concepts of 'frontier workers', 'seasonal workers' and 'posted workers' (see definitions below). The EU-LFS only captures residents of the country in which the national survey is conducted. However, it also captures as residents those persons who stay away from their family dwelling for a longer period, up to one year[99]. This includes, for example, persons who work in another country but regularly return to their family dwelling[100]. Additionally, the survey explicitly asks for the respondent's 'country of place of work' which may be different than the country of residence and which allows for cross-border workers to be identified.
Previous reports and the introduction to Section 2 highlight the overlaps between the notion of cross-border workers/commuters and concepts such as circular migration, long-term commuting[101], posting of workers, and frontier and seasonal work (see below). While the concept of 'cross-border workers' is a fair approximation of 'frontier and seasonal workers', posted workers are different in that the person is employed in the country of establishment of the employer, which usually corresponds to the country in which he or she usually resides but is sent abroad for a certain period. By contrast, cross-border workers (including frontier and seasonal workers) are employed in a different country. While it is acknowledged that the figures on cross-border workers may include some posted workers (see explanation at the beginning of section 2), the specific topic of

[97] For a more detailed definition, see European Commission, 2011, Mobility in Europe 2011, p. 86.
[98] European Commission (2011) 'Mobility in Europe 2011', p.85.
[99] Ibid.
[100] Ibid.
[101] See, for example, MKW Wirtschaftsforschung GmbH/Empirica Kft., Scientific Report on the Mobility of Cross-Border Workers within the EU-27/EEA/EFTA Countries, European Commission, 2009.

posted workers is subject of a separate report, with its extent examined through administrative data[102].

Cross border workers have the right to equal treatment with national workers in the host Member State in terms of access to employment, conditions of employment and work and others as laid down in Regulation 492/2011.

The following provides brief definitions of the legal concepts that the concept of cross-border workers includes:

Frontier workers are defined in Regulation (EC) No. 883/2004 as 'any person pursuing an activity as an employed or self-employed person in a Member State and who resides in another Member State to which he returns as a rule daily or at least once a week'.[103]. This regulation assigns specific rights to social security to such workers and their family members. Frontier workers are mentioned (although without being defined) in Regulation (EU) No. 492/2011 and Directive 2014/54/EU as benefitting from the right of free movement. As outlined above, the number of frontier workers cannot be measured with EU-LFS data because it does not capture the frequency of commuting.

Seasonal workers were previously defined in Regulation (EEC) No 1408/71, Article 1(c) as 'any worker who goes to the territory of a Member State other than the one in which he is resident to do work there of a seasonal nature for an undertaking or an employer of that State for a period which may on no account exceed eight months, and who stays in the territory of the said State for the duration of his work; work of a seasonal nature shall be taken to mean work which, being dependent on the succession of the seasons, automatically recurs each year'[104]. Seasonal workers are specifically mentioned (although without being defined) in Regulation (EU) No. 492/2011 as benefitting from the right of free movement.

Extent of cross-border work in 2016

In 2016, the total number of EU-28 cross-border workers working in another EU-28 country was around 1.4 million[105], an increase of around 8% on 2015. Of these, 94% were working in an EU-15 Member State, with the remaining 6% working in EU-13 countries. Around 688,000 (50%) were residing in an EU-15 Member State and around 694,000 (50%) were residing in an EU-13 Member State. This shows that while cross-border workers nearly all work in an EU-15 Member State, they reside roughly equally in EU-15 and EU-13 Member States.

Including the EFTA countries as countries of residence and countries of work, the total numbers of cross-border workers amounted to 1.8 million in 2016.

[102] J. Pacolet, and F. De Wispelaere, Posting of workers. Report on A1 portable documents issued in 2014, Network Statistics FMSSFE, European Commission, 2015.
[103] Regulation (EC) No. 883/2004, Article 1 (f).
[104] Regulation (EEC) No 1408/71 of the Council of 14 June 1971 on the application of social security schemes to employed persons and their families moving within the Community, available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31971R1408
[105] This figure refers to EU-28 and EFTA citizens residing in one EU Member State and working in another one.

Switzerland is the main country of work in the EU-28/EFTA for EU-28 cross-border workers, with 22% (388,000) of the total cross-border workers in 2015. Following this was Germany where 21% (364,000) of cross-border workers were working, Luxembourg with 9% (175,000), Austria with 9% (166,000), the UK with 6% (111,000) and the Netherlands with 6% (109,000). The remaining countries all had 5% of the total number of cross-border workers. Looking at changes on 2015 in these main countries of work, the numbers increased in Switzerland (+9%), in Germany (+12%), Austria (+5%), the Netherlands (+13%) and the UK (+11%). Numbers decreased in Luxembourg (-2%). Other major changes compared to 2015 could be seen in Sweden (+36%), Slovakia (+35%), Hungary (+14%) and the Netherlands (+13%).

In 2016, of the cross-border workers working in Switzerland, the largest group came from France (56%), followed by Germany (21%) and Italy (17%). Of those working in Germany, the largest group came from Poland (28%), followed by Hungary, Romania and the Czech Republic (each 9%) and then closely followed by workers from Austria and Slovakia (each 8%). Cross-border workers working in Luxembourg mainly reside in France (50%), in Germany (26%) and in Belgium (24%). Cross-border workers working in Austria mainly reside in Hungary (31%), Slovakia (30%) and in Germany (17%).

The main countries of residence of cross-border workers among the EU-28 Member States in 2016 were: France (385,000 or 21%), Germany (238,000 or 13%) and Poland (175,000 or 10%).

In 2016, the share of cross-border workers of the total employed[106] in the EU-28 and EFTA countries was 0.8%. The share of employed EU-28 movers was over five times higher, at 4.1%.

The outlier Luxembourg has the highest share of EU-28/EFTA cross-border workers from its total number of employed, namely 41%. Following far behind is Switzerland, with 8% of cross-border workers, then Austria with 4%, Belgium with 2% and the Netherlands, Denmark, Germany, Ireland and Finland with 1% each.

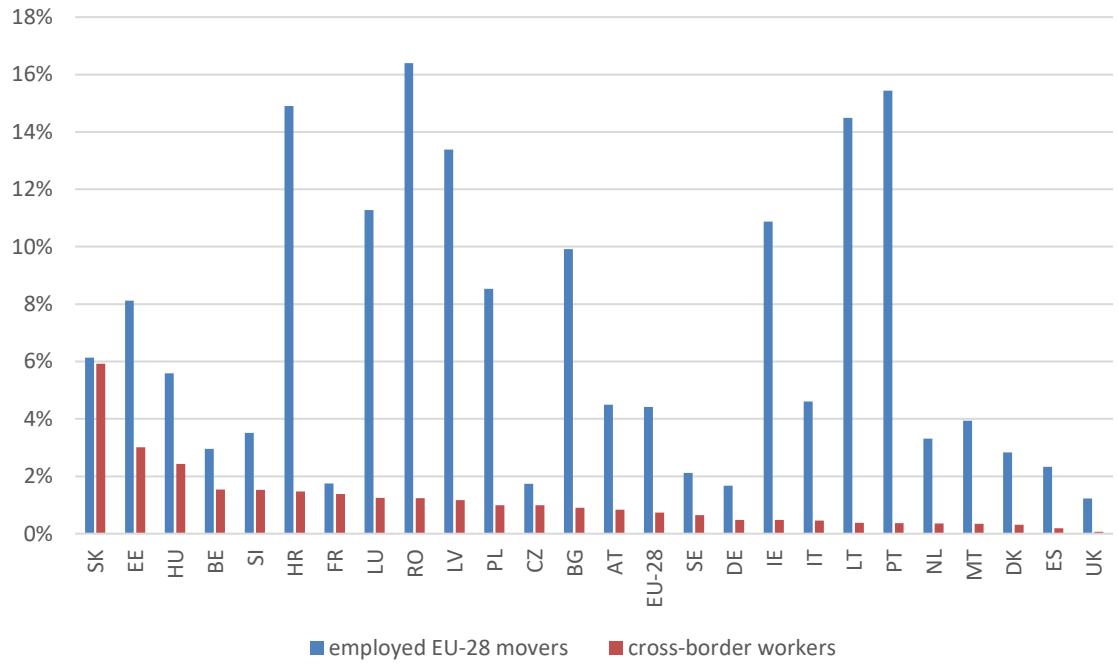
From the country of origin perspective, a comparison can be made between a) the number of nationals who reside and work in their country of origin, b) the number of nationals who reside in their country of origin but work in another Member State or EFTA country and c) the number of nationals who reside and work in another Member State or EFTA country. The shares of cross-border workers from all nationals working either in the country of origin or in another Member State/EFTA country are much lower than the shares of those nationals who reside and work in another EU-28 or EFTA country (**Table 64**).

The share of cross-border workers from the total of the groups mentioned above (a to c) varies between 0% and 2% in most Member States, and is only higher in Hungary

[106] Total employed were calculated as EU-28/EFTA citizens and third country nationals employed in the EU-28/EFTA country of residence PLUS cross-border workers as defined above.

(2.4%), Estonia (3%) and Slovakia (5.9%). These countries are interesting examples, given that their share of EU-28/EFTA movers are still higher than that of cross-border workers, but not as excessively high, when compared to other countries of origin. This means that in these countries cross-border work, has a quite significant role and is a more frequent alternative to long-term mobility than in other countries. This is particularly the case in Slovakia where the share of Slovakian cross-border workers almost equals the share of Slovakian movers.

Figure 37, Share of employed EU-28 movers and cross-border workers from all employed nationals of country of origin, by country of origin, 2016, 20-64[107]



THE GRAPH SHOWS THE SHARE OF EMPLOYED NATIONALS WHO LIVE AND WORK IN ANOTHER EU-28/EFTA COUNTRY ('EMPLOYED EU-28 MOVERS) AND THE SHARE OF NATIONALS WORKING IN ANOTHER EU-28 OR EFTA COUNTRY (CROSS-BORDER WORKERS) FROM ALL EMPLOYED NATIONALS OF THE COUNTRY OF ORIGIN.

FIGURES FOR MALTA AND LITHUANIA FOR CROSS-BORDER WORKERS ARE OF LOW RELIABILITY.

FIGURES FOR GREECE AND FINLAND ARE NOT DISPLAYED DUE TO SMALL NUMBERS.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

[107] For full table of total numbers of cross-border workers by country of residence and country of work, see Table 64 in Annex.

2.3 The role of language compared to other obstacles and drivers of intra-EU labour mobility between neighbouring regions

2.3.1 Introduction

Purpose of the analysis

Section 2.3 aims to support the analysis of the role of language in intra-EU labour mobility compared to other key drivers and barriers, namely the economic context and administrative barriers. The focus is on mobility between neighbouring regions and countries and looks at both cross-border commuting and long-term mobility. The analysis is based on six case studies and exploits the fact that some regions have neighbouring regions with the same or similar as well as neighbouring regions with a different official language, providing for a good basis for comparison.

Key findings

A comparison of the results from the case studies gives indications that a common language is an important driver for cross-border commuting and that language obstacles may overshadow economic opportunities of different labour markets in cross-border areas. This was derived from the specific findings that

- cross-border work is higher between neighbouring regions sharing the same or a similar language in two cases;
- commuting within the same country to a region with the same language is more frequent than commuting to a region with a different language in another case;
- commuting to neighbouring regions in the country of origin (with the same language) was found to be more frequent than commuting to the neighbouring regions abroad (with a different language) in four cases;

On the other hand, results concerning long-term mobility were less clear:

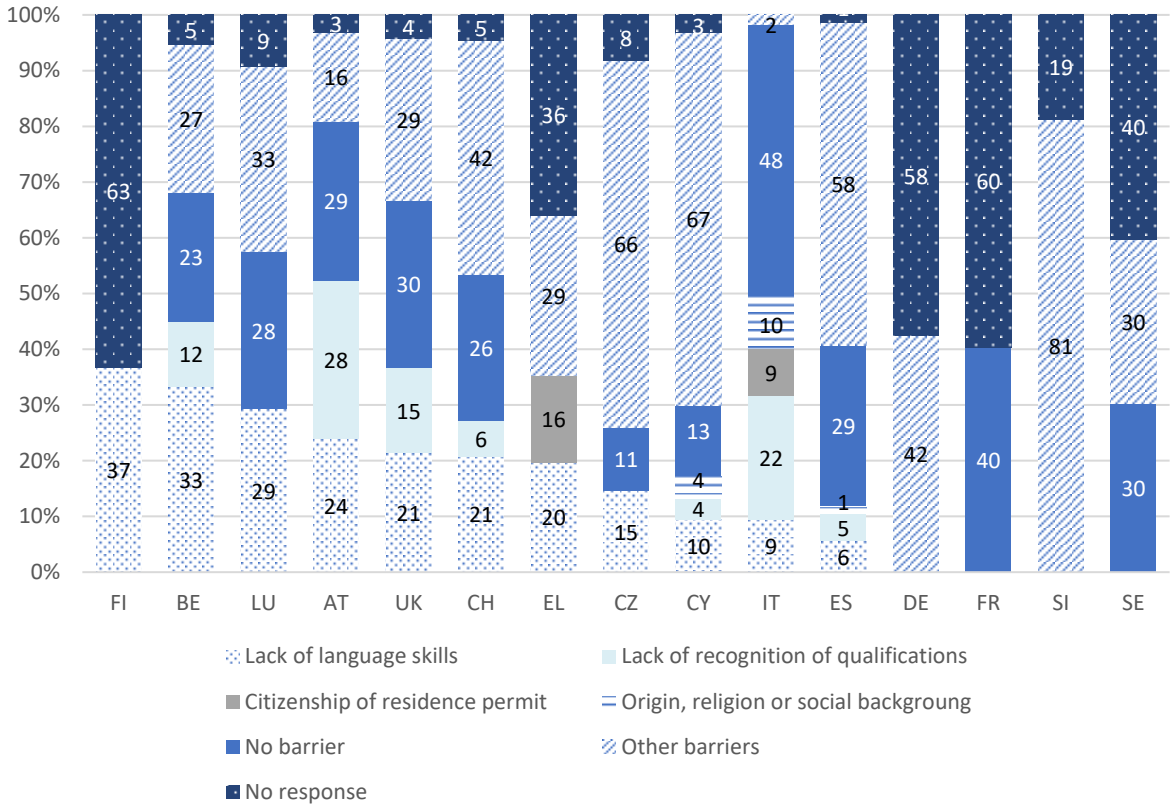
- in three cases, long-term movers rather move to such neighbouring regions or countries with the same language;
- the economic context seemed to be a pull factor that outweighs language barriers in two cases

Existing literature generally indicates that language is an obstacle to intra-EU labour mobility. The LFS ad-hoc module on obstacles to employment by migration background shows that lack of language skills is perceived as one of the main barriers to find a suitable job among EU movers of the first generation[108]. In particular, language skills constitute an obstacle in certain Member States: Finland, Belgium, Luxembourg, Austria, UK,

[108] Figures refer to EU citizens who reside in an EU-28 country other than their citizenship and who were also born in another EU-28 country than their current country of residence.

Switzerland, Greece, Czech Republic, Cyprus, Italy and Spain (see **Figure 38**). Comparable results were found during a public consultation carried out by the European Commission in 2015 across border citizens, businesses and public authorities. While legal and administrative barriers where reported as an obstacle to mobility by the majority of respondents (53%), language barriers were perceived as an obstacle by 38% of respondents[109].

Figure 38: Reported obstacles to getting a suitable job for foreign-born employed EU-28 movers, 2014 (%)



SOURCE: EUROSTAT, LABOUR FORCE SURVEY, OBSTACLES TO GETTING A SUITABLE JOB BY MIGRATION STATUS, LABOUR STATUS AND CITIZENSHIP (LFSO_14OCITI)
NOTE: DATA ON LACK OF LANGUAGE SKILLS IS NOT AVAILABLE IN DE, FR AND SE DUE TO LOW RELIABILITY.

Results from academic literature also point to the role of language in explaining low intra-EU mobility. Bartz and Fuchs-Schündeln (2012) developed an econometric model to analyse the role of borders, languages and currencies in impeding labour mobility within the EU. The results of the model show that different languages between EU countries seem to constitute the main obstacle to intra-EU labour mobility[110]. Similarly, Bonin et al. (2008) conclude that language and cultural barriers represent an important obstacle to geographic mobility in Europe and suggest promoting language learning as a means to

[109] European Commission, 2017, Commission Staff Working Document accompanying the document 'Communication from the Commission to the Council and the European Parliament on boosting growth and cohesion in EU border regions, SWD(2017) 307 final.
[110] Bartz, K. and N. Fuchs-Schündeln, The role of borders, languages, and currencies as obstacles to labor market integration, European Economic Review, no. 56, 2012, pp.1148–1163.

increase EU mobility. According to this study, additional obstacles to intra-EU mobility are 'the persistence of national forms of labour market and housing market organisation, welfare state and fiscal systems'[111].

Administrative difficulties are a further common obstacle faced by EU workers when moving to another Member State. According to the Eurobarometer on 'Geographical and labour market mobility'[112] the main administrative difficulties faced in the destination country are the length of administrative procedures and the lack of clarity in administrative requirements. The underlying causes of these difficulties are multiple and include the difficulty of understanding the administrative processes because of language differences.

A study conducted for the European Parliament in 2016 on obstacles to the right of free movement within the EU[113] shows that bureaucratic issues represent the most common barrier to exercise the right of residence for EU citizens and their family members. Another issue identified is access to social benefits, in particular access to old-age pensions. This problem seems linked to the lack of coordination between different national authorities and could have an important impact on the decision to move across borders. The study also highlights that barriers to access employment in another EU Member State still exist and relate mainly to non-recognition of professional qualifications.

The analysis of LFS data at national level from 2015 shows that cross-border mobility is concentrated to a large extent in the bordering regions of the following countries: Belgium, France, Luxembourg and Germany; Germany, Luxembourg and Netherlands; Germany and Austria; Germany and Poland; Hungary, Slovakia and Austria; and Switzerland and its neighbouring countries.[114] Switzerland could not be included in the case studies, because its variety of official languages was not suitable for the cases and figures for the individual regions which would have fitted the selection criteria (see Annex A.4) were not available. Apart from that and Hungary, all the countries mentioned are part of the case studies. The case studies cover in total 176,600 cross-border workers, which makes 14% of the total of 1.3 million cross-border workers in the EU-28 in 2015.

2.3.2 Case Studies

In the case studies presented below the role of language in border regions was investigated. The analysis of mobility flows between EU cross-border regions confirms the literature findings that different languages seem to represent an obstacle for cross-border

[111] Bonin, H. et al., Geographic Mobility in the European Union: Optimising its Economic and Social Benefits, IZA Research Report No. 19, July 2008, p. 9.
[112] The survey is based on in-depth interviews and group discussions with new movers, established movers and returners carried out in June-July 2010. Nearly a third of the respondents had previous experience of living in another Member State prior to the move on which the study focused and less than half the respondents cited work as their primary reason for moving.
European Commission, Geographical and labour market mobility, Special Eurobarometer 337, June 2010.
[113] Ballesteros, M. et al., Obstacles to the right of free movement and residence for EU citizens and their families - Comparative Analysis, study for the Directorate General for Internal Policies, Policy Department C: Citizens' Rights and Constitutional Affairs, September 2016.
[114] Fries-Tersch, E., Tugran, T. and Bradley, H. (2016), 2016 Annual Report on intra-EU labour mobility, Network Statistics FMSSFE, European Commission, table 36 in Annex.

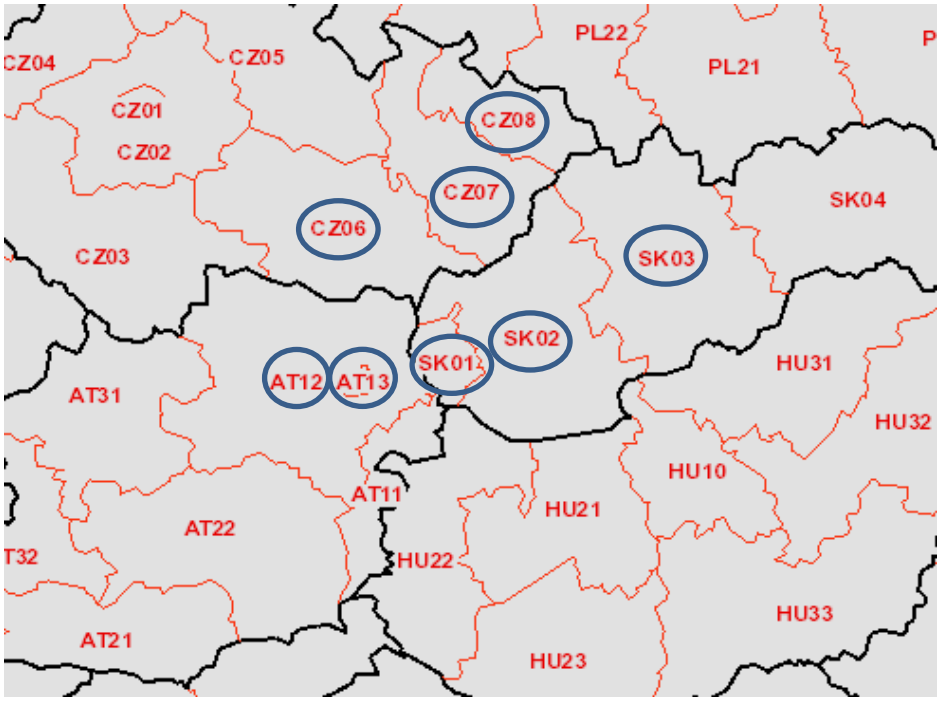
workers. However, less clear results emerge from the analysis of long-term mobility across border regions.

2.3.2.1 Case study no. 1 – Slovakia, Czech Republic and Austria

The first case study analyses labour mobility from three Slovakian regions at the border, i.e. Bratislavský kraj (SK01), Západné Slovensko (SK02) and Stredné Slovensko (SK03), to the neighbouring regions of Niederösterreich (AT12) and Wien (AT13) in Austria[115] and to Jihovychod (CZ06), Střední Morava (CZ07) and Moravskoslezsko (CZ08) in Czech Republic (see Figure 39).

For completeness, cross-border mobility from the three Slovakian regions to the whole of Austria (AT00) and the whole of the Czech Republic (CZ00) were also considered.

Figure 39: Map at NUTS2 level of selected regions in Slovakia, Austria and Czech Republic



SOURCE: EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS, HTTP://WWW.EFGS.INFO/DATA/EUROPEAN/

The number of **cross-border workers** from the selected regions in Slovakia to the selected neighbouring regions in Austria and Czech Republic decreased between 2008 and 2015 both in Austria and Czech Republic, by around 50% in each country (see Table 13). At the same time, both in 2008 and 2015 the number of Slovak cross-border workers to the neighbouring Czech regions was higher than to the Austrian neighbouring regions. Yet, the geographical proximity between Slovakia and the two areas considered is similar and the Austrian regions have higher GDP and annual net income tempered by higher consumer price levels. In 2015, the average GDP in the Austrian regions considered was

[115] Burgenland, another neighbouring region to Slovakia, was excluded, because figures are below reliability limits for presentation.

37,600 PPS compared to 21,800 PPS in the Czech regions, while the annual net income was 21,150 PPS and 11,100 PPS respectively (see Table 40 and Table 41 in ANNEX B Data Annex). The similarity of the Czech and Slovak languages and the same cultural heritage that the two countries share, due to their common history, can represent a valid explanation of this mobility pattern.

Table 13: Number (thousand) of cross-border workers (age 20-64) from Slovakia (regions SK01, SK 02 and SK03) to Austria (AT12 and AT13) and to Czech Republic (CZ06, CZ07 and CZ08), 2008-2016

Destination region(s)	2008	2009	2010	2011	2012	2013	2014	2015
AT12 and AT13	6.2	6.0	7.2	5.6	4.5	4.9	4.0	(2.2)
CZ06, CZ07 and CZ08	10.0	8.8	10.5	8.7	8.5	8.1	7.5	6.3

NOTES: THE FIGURES PRESENTED REFER ONLY TO SLOVAKIAN NATIONALS.
THE NUMBER OF SLOVAKIAN CROSS-BORDER WORKERS MAY VARY UP TO +1,200 PERSONS. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

A different pattern for Slovakian **long-term movers** that relocated in the Czech and Austrian neighbouring regions has emerged. The number of Slovakian long-term movers in Austria and the Czech Republic (in the border regions and throughout the country) increased between 2008 and 2015 (see Table 14). Furthermore, long-term mobility to Austria has increased to a higher extent than to the Czech Republic. While the number of recent Slovak movers was comparable between the Czech and Austrian regions in 2008, the number of Slovak recent movers in 2015 doubled in the Austrian regions and slightly decreased in the Czech regions (see Table 14). This can probably be attributed to the labour mobility restrictions that Slovakian citizens faced, preventing them to freely move to EU-15 Member States, including Austria, until 2011[116]. Such legal restrictions could have played a role in explaining the comparatively larger increase between 2008 and 2015 of recent movers with 0 to 10 years of residence in Austria than in the Czech Republic. At national level, however, the total number of Slovak movers, as well as the number of recent movers and those with 0 to 5 years of residence were still higher in the Czech Republic than in Austria in 2015 and 2016 (see Table 14). However, the number of new movers (0 to 5 years of residence) to the Czech Republic receded slightly, while it strongly increased in Austria, indicating a turn in mobility towards Austria.

[116] European Commission, 2011, Press release, Free movement: workers from eight Member States that joined EU in 2004 finally enjoy full rights, viewed 7 August 2017, http://europa.eu/rapid/press-release_IP-11-506_en.htm.

Table 14: Number (thousand) of Slovak long-term movers working in the selected Austrian regions (AT12 and AT13) and all over Austria (AT00) and the selected regions in Czech Republic (CZ06, CZ07 and CZ08) and all over the Czech Republic (CZ00) in 2008 and 2015, by years of residence.

Destination region(s)	2008			2015		
	0-5 years	6-10 years	**Total**	0-5 years	6-10 years	**Total**
AT12 and AT13	:	(3.3)	**5.2**	(5.7)	(5.1)	**10.8**
AT 00	(4.5)	(4.3)	**8.8**			**14.6**
CZ06, CZ07 and CZ08	3.0	(2.6)	**5.6**	(2.2)	3.3	**5.5**
CZ 00	13.7	7.0	**20.7**			**22.2**

NOTES: NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

A 2009 study suggests that national labour market restrictions represented an important obstacle also for cross-border workers between Slovakia and Austria[117]. However, it can be seen that cross-border work decreased both in Czech Republic and in Austria, whereas long-term mobility to Austria has increased significantly. This seems to indicate that free access to the Austrian labour market represents probably an important incentive for mobility of Slovakian citizens and might even weaken the effect of the language barriers.

Recent research on cross-border commuters from Slovakia, Hungary and the Czech Republic to Austria found that language proficiency was more important than formal education for determining the wage level in certain branches, especially gastronomy and domestic work, although overall it did not have an effect on the level of wages of cross-border workers[118]. Another study on the same target regions[119] found that people who know the German language are more willing to both commute and migrate to Austria, than people who stay. According to this study, the knowledge of German has a stronger impact on the willingness to commute compared to age, sex, knowledge of English, deprivation and distance, but it has a weaker impact than having an existing network and previous mobility. However, the results slightly change if the impact of knowing German on the willingness to migrate is analysed. Knowing German increases the probability to migrate to Austria more than being young and being a male, but less than having tertiary education, knowing English and other foreign languages, being single, not having children, having an existing network and having moved in the past[120].

[117] MKW Wirtschaftsforschung GmbH and Empirica Kft, 2009, Scientific Report on the Mobility of Cross-Border Workers within the EU-27/EEA/EFTA Countries, Final report, January 2009, p. 53.
[118] Verwiebe, R. et al. (2015) 'How to succeed in a transnational labor market: job search and wages among Hungarian, Slovak and Czech Commuters in Austria', International Migration Review vol. 51, no.1, DOI: 10.1111/imre.12193 p. 274
[119] Based on individual-level survey data.
[120] Huber, P. and K. Nowotny (2013) 'Moving across borders: who is willing to migrate or to commute?', Regional Studies, 47:9, 1462-1481, DOI: 10.1080/00343404.2011.624509, p. 1469

Results from the ad-hoc module of the EU-LFS show that Slovak movers in the Czech Republic do not feel over-qualified for the jobs to a larger extent than nationals (in both groups, around 20% feel over-qualified EU-LFS AHM 2014 data; Milieu calculations), indicating that discrimination of Slovaks on the labour market is probably low. Figures for Austria are below reliability.

To assess the role of language in labour mobility, an additional aspect to consider is labour mobility within the origin country. According to Vagac (2013), intra-national labour mobility in Slovakia is mainly determined by commuting while long-term mobility is less common. In 2011, only about 2% of the population aged 15-64 changed place of residence within Slovakia and only 3% of them relocated for employment-related reasons[121]. The number of commuters within the country was much higher than to the Czech Republic or Austrian both in 2008 and 2015: 51,700 workers in 2008 and 50,700 in 2015 were commuting from the Zapadne Slovensko region (SK02) to the Bratislavský kraj region (SK01) (see Table 40 and Table 41 in ANNEX B Data Annex). The significantly higher number of commuters within the country than to neighbouring countries does not contradict the possible importance of language in the choice of commuting. An additional reason for higher shares of commuters within the country could be the lack of administrative barriers, which are likely to exist between different countries. Comparison of long-term movers within the country was not possible due to data limitations, as highlighted in the methodological section.

Conclusively, our findings show that Slovaks more frequently choose the Czech Republic as a destination of cross-border work, but Austria as a destination for long-term mobility (after 2011, when the restrictions were lifted) and are in line with the results from previous research mentioned above. Namely, German language knowledge is an important driver for cross-border mobility to Austria, but less important when it comes to long-term mobility. These differences may be due, among other, to the fact that different segments of the population choose to move their residence or to commute. This is suggested, for instance, by the fact that certain migration drivers, such as having tertiary education and knowing English and other foreign languages, are more important than German language knowledge.

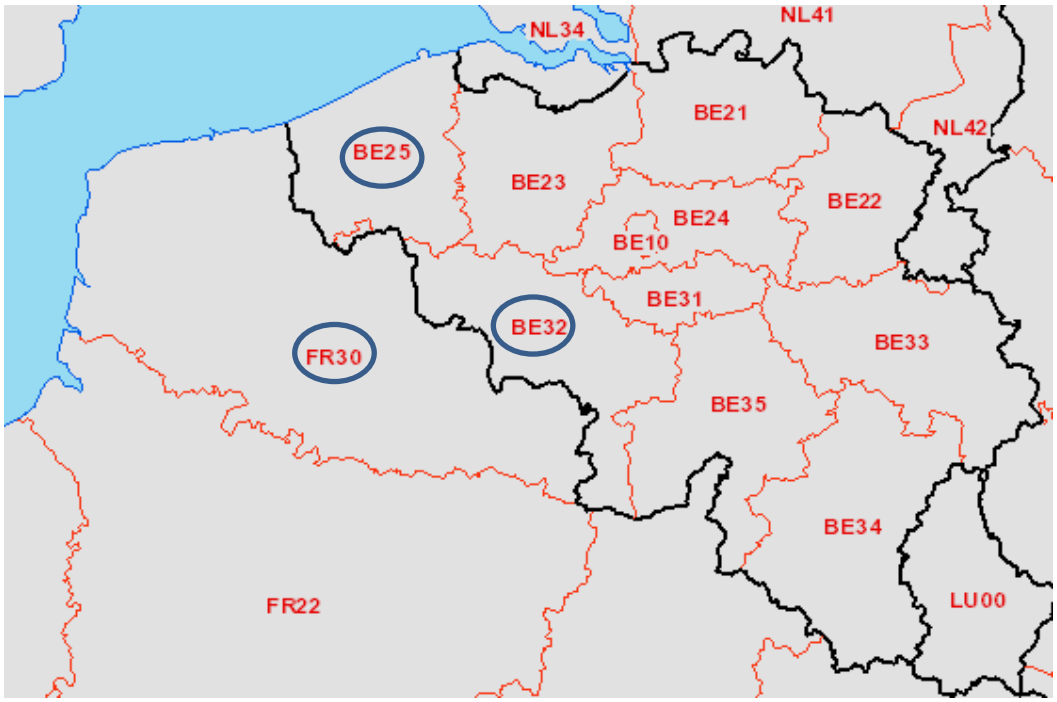
2.3.2.2 Case study no. 2 – France and Belgium

The second case study analyses labour mobility from the region Nord-Pas-de-Calais[122] in France (FR30) to the Dutch speaking region of West-Flanders (BE25) and the French speaking region of Hainaut (BE32) in Belgium (see Figure 40).

[121] L. Vagac, 2013, Internal Labour Mobility in Slovakia: European Employment Observatory Ad hoc request, Centre for Economic Development, June 2013.

[122] The Nord-Pas-de-Calais regions is nowadays called Hauts-de-France. However, for consistency the Nord-Pas-de-Calais denomination is used in this section.

Figure 40: Map at NUTS2 level of selected regions in France and Belgium



SOURCE: EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS, HTTP://WWW.EFGS.INFO/DATA/EUROPEAN/

Table 15 shows the number of **cross-border workers** from the selected region in France to the selected regions in Belgium from 2008 and 2015. Although data have low reliability for most years, the comparison of cross-border mobility between Flanders and Wallonia in 2015 seems to indicate that more French workers from the Nord-Pas-de-Calais region worked in the French speaking region of Hainaut than in the Flemish region of West Flanders in Belgium. Nevertheless, the employment rate, GDP per capita and net income were higher in West Flanders than in Wallonia in 2015 (see Table 42 in ANNEX B Data Annex) and the two regions have similar geographic proximity to Nord-Pas-de-Calais. Moreover, as the Hainaut and West Flanders regions are in the same country, other socio-economic factors, such as social security, are roughly the same. This reinforces the argument that language plays a key role in the decision of labour mobility. Overall, the comparison seems to show that sharing the same language is a major pull factor for Nord-Pas-de-Calais workers in deciding which region they commute to. The number of cross-border workers from Nord-Pas-de-Calais working in the Belgian region of Hainaut was comparable to the number of people working in the French neighbouring region of Picardie both in 2015 and 2008 (see **Table 42** and **Table 44** in ANNEX B Data Annex).

Table 15: Number (thousand) of cross-border workers from France (region FR30) to Belgium (BE25 and BE32), by region, 2008-2016

Destination region	2008	2009	2010	2011	2012	2013	2014	2015
BE25 West-Vlaanderen	:	:	:	:	:	:	:	(7.2)
BE32 Hainaut	(8.8)	11.3	10.1	12.1	12.2	13.0	14.8	11.6

NOTES: THE FIGURES PRESENTED REFER ONLY TO FRENCH NATIONALS.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
THE NUMBER OF FRENCH CROSS-BORDER WORKERS MAY VARY UP TO +800 PERSONS.
SOURCE : MILIEU CALCULATIONS BASED ON LFS

Similarly, the number of French recent **long-term movers** in the Dutch speaking regions in Belgium was much lower than in the French speaking regions[123] both in 2008 and 2015 (see **Table 16**), despite average economic conditions being better in the Dutch speaking area (see **Table 43** and **Table 45** in ANNEX B Data Annex). Comparison of long-term movers within the country was not possible due to data limitations, as highlighted in the methodological section.

Table 16: Number (thousand) of French long-term movers working in Dutch and French speaking regions in 2008 and 2015, by years of residence

Destination country	2008			2015		
	0-5 years	6-10 years	**Total**	0-5 years	6-10 years	**Total**
Dutch speaking regions	(4.0)	:	**(4.7)**	:	:	**(2.6)**
French speaking regions	10.1	6.0	**16.1**	12.6	8.3	**20.9**

NOTES: THE NUMBER OF FRENCH LONG-TERM MOVERS MAY VARY UP TO +400 PERSONS.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

The importance of labour mobility flows from Nord-Pas-de-Calais to Belgium is confirmed by an INSEE study (Fabre, 2014). According to this study, 98% of cross-border workers (i.e. 27,000 active people) from Nord-Pas-de-Calais commute to Belgium and 2% to other countries (Luxemburg and the UK). The principal areas of origin in Nord-Pas-de-Calais are Dunkerque, Flandre-Lys, Roubaix-Tourcoing, Lille, Valenciennes and Maubeuge. Moreover, the study shows an increasing trend of cross-border workers from France to Belgium between the 1980s and 2010, when the number of commuters stabilized until 2012. Two possible reasons for the change in trend are envisioned by the study. One reason is reportedly the worsening situation of the Belgian labour market due to the crisis. The second potential reason is the adoption of a new legislation, according to which French residents working in Belgium should pay taxes in the country of work. Therefore, the new legislation makes commuting to Belgium less favorable. The study also highlights the importance of proximity and existence of public transport as drivers for commuting. This is exemplified by the high number of cross-border workers from the French area of Roubaix–Tourcoing (Nord-Pas-de-Calais) to the Belgian city of Mouscron (Hainaut), which is just across the French border. Another key factor explaining the commut-

[123] Due to data limitations, the comparison is made between all Dutch speaking regions and French speaking regions in Belgium rather than between Hainaut and West-Vlaanderen. Dutch speaking regions include Prov. Antwerpen (BE21), Prov. Limburg (BE22), Prov. Oost-Vlaanderen (BE23), Prov. Vlaams-Brabant (BE24), Prov. West-Vlaanderen (BE25). French speaking regions include Prov. Brabant Wallon (BE31), Prov. Hainaut (BE32), Prov. Liege (BE33), Prov. Luxembourg (BE34), Prov. Namur (BE35).

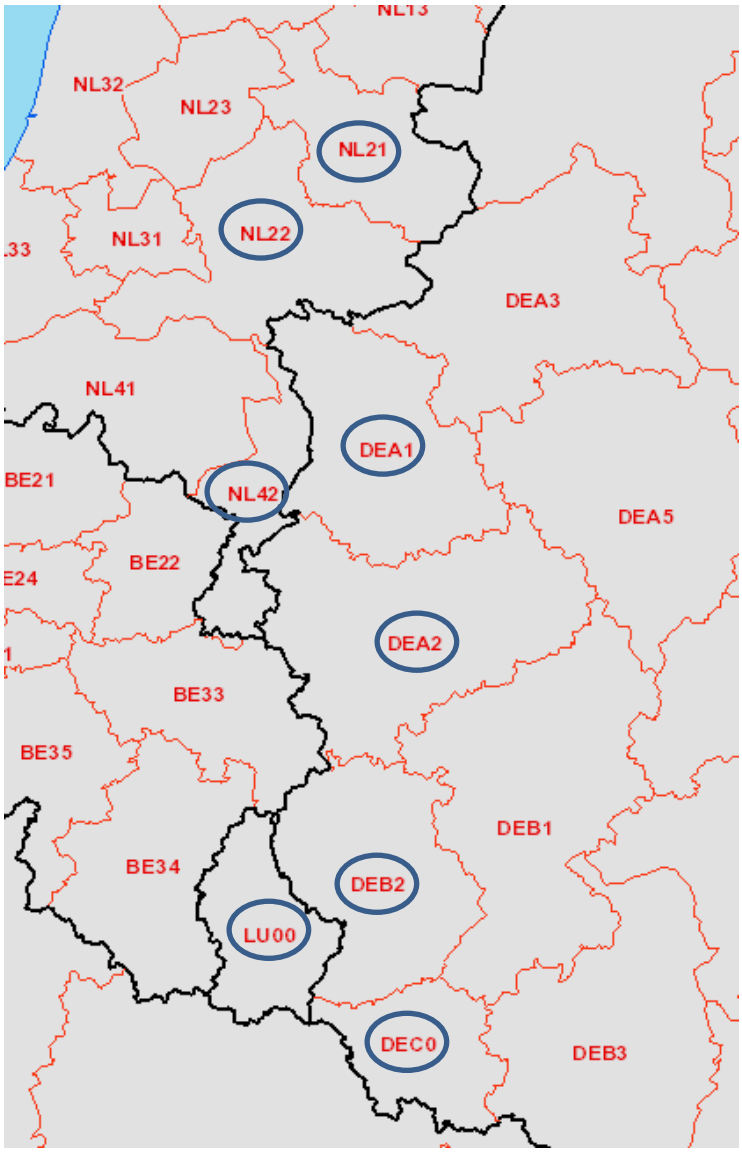
ers' flows is the number of job vacancies in the destination area. Gender and social characteristics of the workers also play a role in determining whether French nationals would commute or not. For instance, male workers in Nord-Pas-de-Calais are 1.6 times more likely to work in Belgium than female workers. While the study does not present absolute values of cross-border workers from French to Belgian regions, [124] interestingly, the francophone character of the Belgian region of destination does not seem to play a role. On the contrary, if the closest Belgian region is not francophone the probability of working in Belgium is 1.2 times higher than if the area is francophone. This last finding contrasts with the findings of this report, which are based on the analysis of the LFS data for the years 2008, 2015 and 2016. The differences are likely due to different definitions used. In fact, the INSEE analysis is based on active people living in an area in Nord-Pas-de-Calais that is less than 30 minutes away from a border town.

2.3.2.4 Case study no. 3 – Germany, Luxembourg and the Netherlands

The third case study analyses labour mobility from the German regions of Trier (DEB2) and Saarland (DEC0) to the neighbouring country of Luxembourg (LU00) on the one hand, and from the German regions of Düsseldorf (DEA1) and Köln (DEA2) to Limburg (NL42), Overijssel (NL21) and Gelderland (NL22) on the other hand (see **Figure 41**).

[124] J. Fabre, February 2014, Opportunités d'emploi et accessibilité favorisent le travail frontalier, INSEE Nord-Pas-de-Calais, Pages de Profils, no. 149.

Figure 41: Map at NUTS2 level of selected regions in Germany, Luxemburg and the Netherlands



SOURCE: EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS, HTTP://WWW.EFGS.INFO/DATA/EUROPEAN/

From 2008 until 2015, the number of German **cross-border workers** commuting to Luxembourg was significantly higher than the number of German cross-border workers commuting to the Netherlands (see **Table 17** and **Table 18**). Although the fact that German is one of the three official languages in Luxembourg[125] could represent a partial explanation for this trend, higher salaries and better economic conditions in Luxembourg compared to Germany are probably a key factor. Economic reasons could also explain the fact that the share of workers commuting between regions within Germany is lower than the share of German cross-border workers commuting to Luxembourg: (5% versus 1% in

[125] Luxembourgish, French and German are the administrative and judicial languages in Luxembourg (The Grand Duchy of Luxembourg, viewed 26 October 2017, http://www.luxembourg.public.lu/en/le-grand-duche-se-presente/langues/utilisation-langues/index.html).

2015 and 2008, see Table 46 and Table 47 in ANNEX B Data Annex). Economic factors, such as comparatively higher GDP (76,200 PPS in Luxembourg compared to 30,800 PPS in Germany in 2015) and net earnings (32,290 in Luxembourg compared to 28,446 in Germany in 2015[126]), seem therefore to represent in this case a major pull factor for labour mobility and are more influent than language and national borders.

Moreover, the number of German cross-border workers commuting to the Netherlands decreased from 2008 to 2015. This decrease is associated with a lower employment rate in the Dutch regions considered in the analysis in 2015 (76%) compared to the 2008 level (78%) (see Table 46 and Table 47 in ANNEX B Data Annex).

Table 17: Number (thousand) of cross-border workers from Germany (regions DEB2 and DEC0) to Luxembourg (LU00), 2008-2016

Destination	2008	2009	2010	2011	2012	2013	2014	2015
LU00 Luxembourg	26.8	28.3	28.2	26.6	29.0	29.3	29.6	33.6

NOTE: THE FIGURES PRESENTED REFER ONLY TO GERMAN NATIONALS.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

Table 18: Number (thousand) of cross-border workers from Germany (regions DEA2 and DEA1) to the Netherlands (regions NL21, NL22 and NL42), 2008-2016

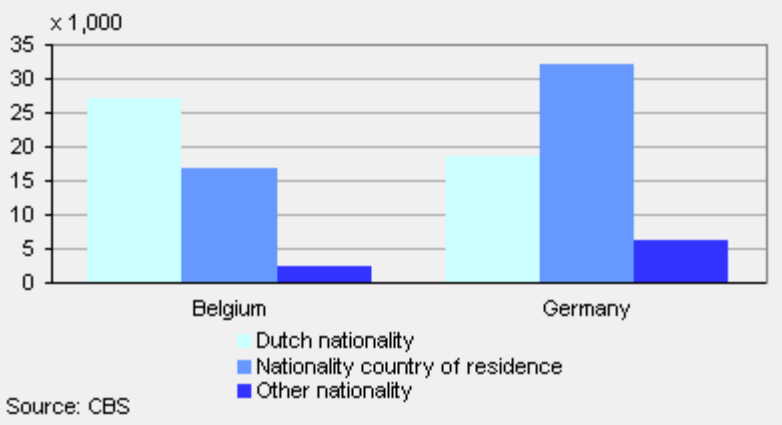
Destination regions	2008	2009	2010	2011	2012	2013	2014	2015
NL21, NL22 and NL42	7.5	6.7	:	:	6.1	:	5.2	:

NOTES: THE FIGURES PRESENTED REFER ONLY TO GERMAN NATIONALS.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. THE NUMBER OF GERMAN CROSS-BORDER WORKERS MAY VARY UP TO +1,600 PERSONS.
SOURCE : MILIEU CALCULATIONS BASED ON LFS

It should be stressed that the data presented refers only to German nationals. In fact, Statistics Netherlands (CBS) reports that almost 60,000 German residents were working in the Netherlands in September 2008, and that 35% of them were of Dutch nationality (see **Figure 42**).[127] According to Statistics Netherlands (CBS), the number of cross-border workers living in Germany and working in the Netherlands was equal to 40,000 in 2012, including both German and Dutch nationals. The majority of them (24%) worked in the province of Overijssel, one quarter in Limburg and nearly a quarter in Gelderland.[128]

[126] Net earnings in PPS for a single person without children earning 100% of average wage (Eurostat, Annual net earnings [earn_nt_net]).
[127] CBS, Cross-border commuting, viewed 15 September 2017, https://www.cbs.nl/en-gb/news/2009/51/cross-border-commuting
[128] CBS, Cross-border commuting, viewed 15 September 2017, https://www.cbs.nl/en-gb/news/2015/16/80-thousand-workers-live-in-belgium-and-germany

Figure 42: Cross-border commuters to the Netherlands by nationality and country of residence, September 2008[129]



Similar to the pattern of cross-border workers, the number of German recent **long-term movers** in Luxembourg was higher than in the Dutch regions at the border in 2015, while the opposite was true in 2008 (see Table 19).

Table 19: Number (thousand) of German recent long-term movers working in Luxembourg and the Netherlands (NL21, NL22 and NL42) in 2008 and 2015, by years of residence

Destination country	2008			2015		
	0-5 years	6-10 years	**Total**	0-5 years	6-10 years	**Total**
LU00 Luxembourg	2.4	1.8	**4.3**	3.8	1.8	**5.6**
NL21, NL22 and NL42	3.8	3.1	**6.9**	3.3	:	**4.2**

NOTES: NO MARGINS OF ERROR FOR THE FIGURES PRESENTED.
NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
SOURCE : MILIEU CALCULATIONS BASED ON LFS

If compared to **labour mobility within Germany**, the data shows that the number of commuters from Düsseldorf and Köln to Arnsberg was higher than those commuting to the neighbouring regions in the Netherlands. This is particularly evident for the year 2015, when 0.1% of German workers commuted to the Netherlands and almost 1% commuted to Arnsberg, while in 2008, 0.4% of German workers commuted to the Netherlands and 0.5% to Arnsberg. The large difference between these two years could be explained by the change in employment rates: while the employment rate increased from 70% to 74% in Arnsberg, it decreased from 78% to 76% in the Dutch regions (see **Table 46** and **Table 47** in ANNEX B Data Annex). Comparison of long-term movers within the country was not possible due to data limitations, as highlighted in the methodological section.

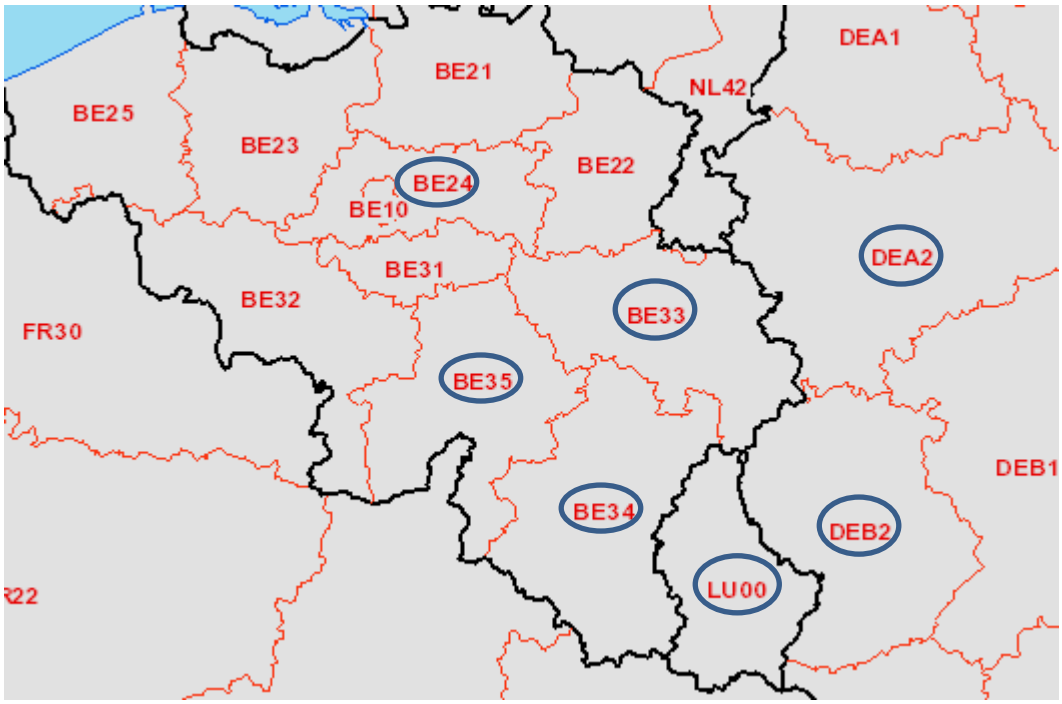
[129] CBS, Cross-border commuting, viewed 15 September 2017, https://www.cbs.nl/en-gb/news/2009/51/cross-border-commuting

The trends of cross-border workers and long-term movers within Germany and to the Netherlands and Luxembourg might be an indication that workers tend to move to an area where they can speak their native language. However, Luxembourg represents a very specific case, as significant pull economic factors exist. Not only Luxembourg constitutes a financial hub and hosts several international institutions (e.g. the European Investment Bank and the Court of Justice of the EU) but GDP per capita and net income in Luxembourg are also much higher than in Germany.

2.3.2.5 Case study no. 4 – Belgium, Luxembourg and Germany

The fifth case study analyses labour mobility from the Belgian region of Liège (BE33) to the neighbouring regions of Luxembourg (LU00), Köln (DEA2) and Trier (DEB2) in Germany, Namur (BE35) and Luxembourg (BE34), and Vlaams-Brabant (BE24) (see Figure 43).

Figure 43: Map at NUTS2 level of selected regions in Belgium, Luxembourg and Germany



SOURCE: EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS, HTTP://WWW.EFGS.INFO/DATA/EUROPEAN/

Between 2008 and 2015, the number of **cross-border workers** from the Belgian region of Liège to French speaking areas, such as Luxembourg and the Belgian regions of Bruxelles, Luxembourg and Namur, has been higher than the number of commuters to either the Belgian region of Vlaams-Brabant or Germany, where a different language is spoken (Dutch and German respectively) (see Table 20).

As the regions of Vlaams-Brabant, Bruxelles, Namur and Luxembourg are all part of Belgium, it can be assumed that there are almost no administrative barriers to labour mobility across them. Therefore, the main differences between these regions seem to be in

terms of economic context and language spoken. In 2015, net disposable income and the employment rate was significantly higher in Vlaams-Brabant (20,200 in PPS and 74%) than in the regions of Namur and Luxembourg (16,100 in PPS and 65%). Furthermore, the size of the labour market (approximated by the number of employed people) in Vlaams-Brabant is almost as large as the one in Brussels, and the ones in Namur and Luxembourg are even smaller (see Table 48 in ANNEX B Data Annex). Despite these more advantageous economic conditions in Vlaams-Brabant and similar proximity, a greater number of Belgian workers from Liège commuted to the French speaking regions both in 2015 and 2008.

Table 20: Number (thousand) of cross-border workers from the Belgian region of Liège (BE33) to Germany (DE00), Luxembourg (LU00) and other Belgian regions (BE24 and BE34, BE35), 2008-2016

Destination region	2008	2009	2010	2011	2012	2013	2014	2015
DE00 Germany	:	(2.1)	(2.4)	:	(2.4)	(2.2)	(2.3)	(3.1)
LU00 Luxembourg	5.8	5.8	5.1	7.2	5.5	(4.1)	(4.2)	(4.7)
BE10 Bruxelles	12.4	14.6	15.8	15.2	17.0	14.2	17.0	16.1
BE24 Vlaams-Brabant	:	(3.5)	(2.0)	(3.00)	(4.5)	(3.6)	(3.9)	(2.9)
BE34 Luxembourg and BE35 Namur	11.5	12.0	12.2	15.0	12.5	10.0	11.5	11.5

NOTES: THE FIGURES PRESENTED REFER ONLY TO BELGIAN NATIONALS. IN THE CASE OF CROSS-BORDER WORKERS COMMUTING TO GERMANY, THE FIGURES WOULD DOUBLE IF EU-28 NATIONALS (EXCEPT BELGIANS) WOULD BE INCLUDED.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
THE NUMBER OF BELGIAN CROSS-BORDER WORKERS MAY VARY UP TO +400 PERSONS.
SOURCE : MILIEU CALCULATIONS BASED ON LFS

The number of Belgian **long-term movers** living in Germany were lower than those in Luxembourg in 2008 and the gap was even larger in 2015, after the economic crisis (see Table 21). This is even though Germany is a much larger country with a much larger labour market and number of posts. As the data refers to Belgian nationals, without further distinction between regions of origin, it was not possible to draw any conclusions on the long-term mobility pattern between Dutch and French speaking regions within Belgium. Instead, long-term mobility towards France and the Netherlands was considered. Figures from 2008 and 2015 show that Belgian long-term movers also prefer to relocate to the Netherlands and France, rather than Germany (see Table 21), although both France and the Netherlands have a weaker economy than Germany and the Netherlands have a smaller labour market (see Table 49 and Table 51 in ANNEX B Data Annex). Although it is around four times smaller than France, the Netherlands host a number of Belgian movers (21,500) that is only half of the number of those hosted by France (49,900) and much higher than that hosted by Germany (7,500). While the economic situation in the Netherlands is better than in France (higher employment rate and GDP), it is similar to that in Germany, the latter additionally having a much larger labour market (see Table 49 and Table 51 in ANNEX B Data Annex). Therefore, it can be assumed that other pull-

factors, such as potentially the same language and social networks, are more important in explaining the comparatively large mobility of Belgians to the Netherlands. However, before the crisis, in 2008, the economic situation in the Netherlands was slightly better than in Germany. Thus, this may have been an additional pull factor at the time, as is indicated also by the slight decrease in Belgian movers in the Netherlands in 2015 (see Table 21).

Table 21: Number (thousand) of Belgian long-term movers in Luxembourg (LU00), France (FR00), the Netherlands (NL00) and Germany (DE00) in 2008 and 2015, by years of residence

Destination country	2008				2015			
	0-5 years	6-10 years	10+ years	**Total**	0-5 years	6-10 years	10+ years	**Total**
LU00 Luxembourg	3.3	3.3	8.0	**14.6**	4.2	2.3	7.6	**14.1**
FR00 France	15.6	14.5	25.7	**55.8**	10.5	(8.8)	30.5	**49.9**
NL00 Netherlands	4.9	4.9	13.8	**23.6**	5.9	2.5	13.1	**21.5**
DE00 Germany	:	:	7.3	**8.7**	:	:	5.0	**7.5**

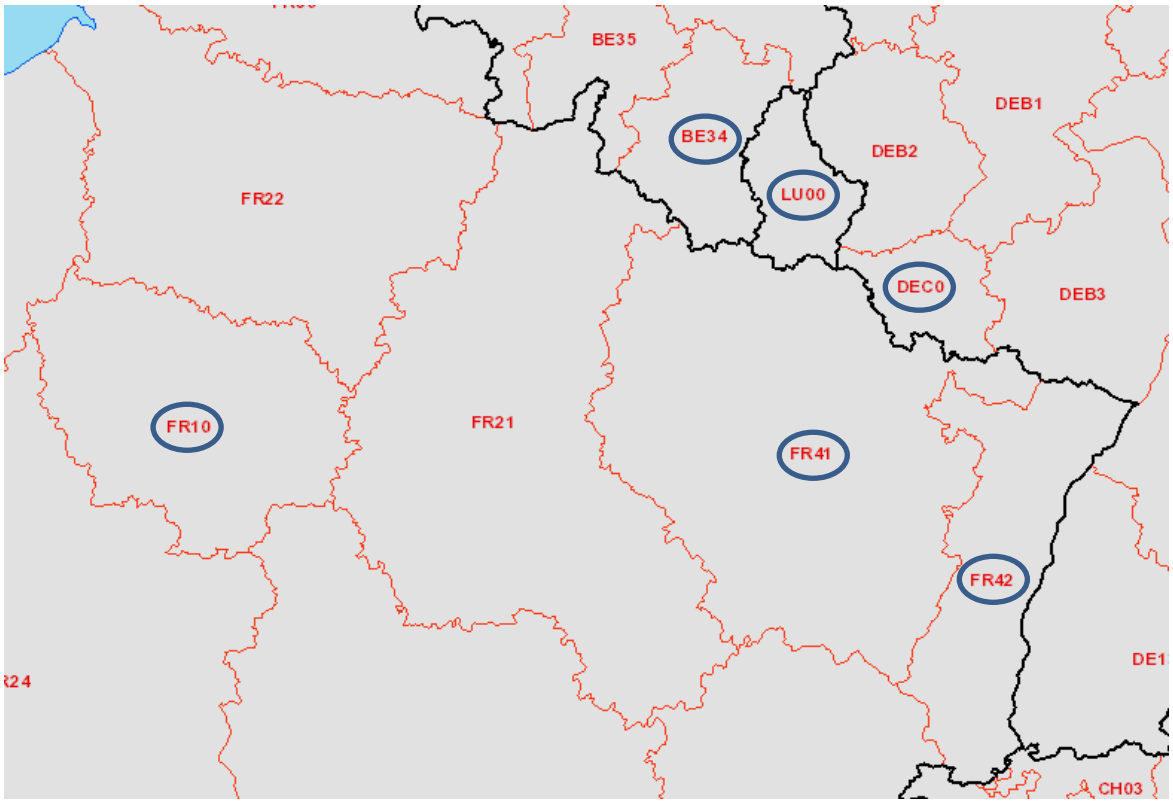
NOTES: THE NUMBER OF BELGIAN LONG-TERM MOVERS MAY VARY UP TO +5,200 PERSONS FOR GERMANY, UP TO 2,800 PERSONS FOR FRANCE AND UP TO 1,200 FOR THE NETHERLANDS.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

Conclusively, both the figures on Belgian cross-border workers and long-term movers in neighbouring regions seem to indicate that a common language is an important driver, even more important than economic factors. This is particularly suggested by the fact that Belgians living in Liège tend to go to Brussels or Wallonia to work, rather than Flanders or Germany; and that Belgians in general tend to move to France or the Netherlands, rather than Germany or Luxembourg.

2.3.2.6 Case study no. 5 – France, Luxembourg, Belgium and Germany

The fifth case study analyses labour mobility from the French region of Lorraine (FR41) to the neighbouring country of Luxembourg (LU00), and to the regions of Saarland (DEC0) in Germany, Luxembourg (BE34) in Belgium, Alsace (FR42) and Ile-de-France (FR10) in France (see **Figure 44**).

Figure 44: Map at NUTS2 level of selected regions in France, Belgium, Luxembourg and Germany



SOURCE: EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS, HTTP://WWW.EFGS.INFO/DATA/EUROPEAN/

From 2008 until 2016 there has been a large number of French **cross-border workers** from the region of Lorraine commuting to Luxembourg. The number of commuters from Lorraine to Alsace has also been relatively high, but still lower than to Luxembourg. The number of commuters to the neighbouring region in Germany has been declining over the years, and in the years 2014 and 2015 was comparable to the number of cross-border workers moving to the French-speaking region of Luxembourg in Belgium (see Table 22). The high cross-border commuting from Lorraine to Luxembourg, both in absolute numbers and as share of the employed population (10% in 2015 and 6% in 2008), could be associated to better economic conditions in Luxembourg than in the region of Lorraine. In fact, Luxembourg had higher employment rates and significantly higher GDP both in 2008 and 2015 (see **Table 52** and **Table 54** in ANNEX B Data Annex). Higher net earnings in Luxembourg (32,290 PPS in 2015 and 29,066 PPS in 2008) compared to France (25,475 in 2015 and 21,629 in 2008) could constitute an additional pull factor for French cross-border workers living in Lorraine. Although French is one of the three official languages in Luxembourg, sharing the same language does not seem to be the main factor that attracts cross-border workers from Lorraine. In fact, the number of cross-border workers moving to the Belgian region of Luxembourg or even to the French regions of Alsace and Ile-de-France are much lower (see Table 22). Moreover, despite higher employment rate, GDP and disposable income in the German region of Saarland compared

both to Lorraine and Alsace, the number of cross-border workers is lower than the number of commuters to Alsace (see Table 22).

Table 22: Number (thousand) of cross-border workers from France (region FR41 Lorraine) to Luxembourg (LU00), Germany (DE00), Belgium (BE34) and other French regions (FR10 and FR42), 2008-2016

Destination region	2008	2009	2010	2011	2012	2013	2014	2015	2016
BE34 Luxembourg	:	:	:	:	:	:	(5.6)	(5.0)	:
DEC0 Saarland	17.1	19.5	11.7	(6.1)	:	(5.2)	(6.3)	(5.0)	:
LU00 Luxembourg	57.2	43.8	49.8	70.4	60.3	62.6	81.2	88.1	77.4
FR10 Ile-de-France	:	:	(8.2)	(7.1)	(8.4)	10.4	11.6	(7.8)	(6.4)
FR42 Alsace	21.5	16.6	(10.8)	(8.0)	(9.5)	18.1	15.1	10.3	(9.8)

NOTES: THE FIGURES PRESENTED REFER ONLY TO FRENCH NATIONALS.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY. THE NUMBER OF FRENCH CROSS-BORDER WORKERS MAY VARY UP TO +400 PERSONS.
SOURCE : MILIEU CALCULATIONS BASED ON LFS

Due to the unreliability of data on **long-term mobility** to the Belgian region of Luxembourg and to the German region of Saarland, figures on French long-term movers to Belgium, Germany and Luxembourg are instead presented. Belgium attracted more French long-term movers than Germany and Luxembourg both in 2008 and 2015 (see Table 23). However, it should be noted that Germany has a significantly larger economy and labour market than Belgium and that Luxembourg attracts a very large number of French long-term movers despite its small labour market (see Table 53 and Table 55 in ANNEX B Data Annex). Comparison of long-term movers within the country was not possible due to data limitations, as highlighted in the methodological section.

Table 23: Number (thousand) of French recent long-term movers working in Belgium (BE00), Germany (DE00) and Luxembourg (LU00) in 2008 and 2015, by years of residence

Destination country	2008			2015		
	0-5 years	6-10 years	**Total**	0-5 years	6-10 years	**Total**
BE00	26.6	11.6	**38.3**	29.7	19.2	**48.9**
DE00	18.1	8.2	**26.3**	17.6	10.8	**28.4**
LU00	6.9	4.8	**11.7**	11.6	6.0	**17.6**

NOTES: THE NUMBER OF FRENCH LONG-TERM MOVERS MAY VARY UP TO +1,200 PERSONS FOR BELGIUM AND UP TO +5,600 PERSONS FOR GERMANY.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

As an indicator for (structural) discrimination on the labour market, figures on subjectively perceived over-qualification show that there are no remarkable differences between French nationals in Belgium and Luxembourg and nationals, respectively (in Belgium, the share of those feeling overqualified is 9% for French and nationals and in Luxembourg it

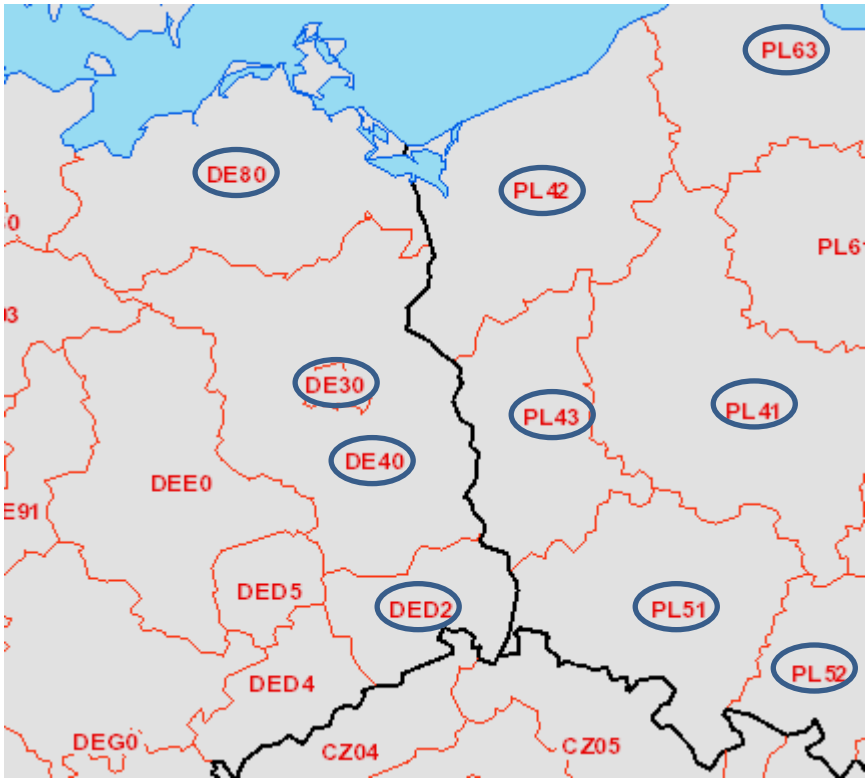
is 11% for nationals and 13% for French; source: EU-LFS AHM 2014, Milieu calculations). Data for Germany is not available.

Conclusively it can be seen that cross-regional commuting from Lorraine is mainly directed towards Luxembourg and other regions in France (Alsace, Ile de France) rather than Belgium and Germany, whereas long-term mobility is mainly directed towards Belgium (rather than Luxembourg or Germany). Commuting and long-term mobility to Germany is lower than to the French-speaking countries, despite a more favorable economic context than Belgium and the French region of Alsace. Both cases seem to indicate that a common language may play a role in determining mobility trends. It should be, however, noted that Luxembourg represents a specific case. Due to its high GDP (most likely resulting in high salaries) but also high living costs, Luxembourg is particularly attractive to commuters.

2.3.2.7 Case study no. 6 – Poland and Germany

The sixth case study analyses labour mobility from the Polish border regions of Zachodniopomorskie (PL42), Lubuskie (PL43) and Dolnośląskie (PL51) to the neighbouring regions of Mecklenburg-Vorpommern (DE80), Berlin (DE30), Brandenburg (DE40) and Dresden (DED2) in Germany, and within the country to the regions Wielkopolskie (PL41), Opolskie (PL52) and Pomorskie (PL63) (see **Figure 45**).

Figure 45: Map at NUTS2 level of selected regions in Poland and Germany



SOURCE: EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS, HTTP://WWW.EFGS.INFO/DATA/EUROPEAN/

The number of Polish **cross-border workers** to Germany was much lower than the number of Polish commuters to neighbouring Polish regions between 2013 and 2016, although the number of cross-border commuters to Germany has been increasing compared to 2013 (see Table 24). A significantly higher number of Polish workers were commuting to neighbouring Polish regions rather than to neighbouring German regions. These figures are in contrast with the idea that better economic conditions represent a major pull factor for labour mobility. In fact, the German regions considered in the analysis had higher employment rates (76% versus 66%), a larger employed population, higher GDP (27,750 versus 18,467 in PPS) and disposable income (17,925 versus 10,867 in PPS) in 2015 (see Table 56 in ANNEX B Data Annex). However, administrative and linguistic barriers could play a significant role in explaining these figures. This finding is corroborated by a 2012 study that indicates that 'culture issues and foreign language command are important obstacles to cross-border Polish-German mobility'[130].

Table 24: Number (thousand) of cross-border workers from Poland (regions PL42, PL43 and PL51) to Germany (DE30, DE40, DE80 and DED2) and within Poland (regions PL41, PL52 and PL63), 2008-2016

Destination regions	2008	2009	2010	2011	2012	2013	2014	2015	2016
DE30 Berlin, DE40 Brandenburg, DE80 Mecklenburg-Vorpommern and DED2 Dresden	:	:	:	:	:	(7.2)	(5.6)	(5.8)	(9.5)
PL41 Wielkopolskie, PL52 Opolskie, PL63 Pomorskie	16.3	14.4	10.2	14.2	15.8	17.7	14.3	13.9	18.1

NOTES: THE FIGURES PRESENTED REFER ONLY TO POLISH NATIONALS.
THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
THE NUMBER OF POLISH CROSS-BORDER WORKERS MAY VARY UP TO +1,200 PERSONS.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

An increasing trend in the number of Polish 'new' **long-term movers** (years of residence up to 5 years) working in the border regions in Germany is evident between 2008 and 2015 (**Table 25**). This increase is likely to be correlated to the opening of the German labour market to Polish workers in 2011[131]. However, due to data limitations it was not possible to analyse the number of Polish long-term movers between different regions within the country.

[130] West Pomeranian Business School and VIRTUS, Cross-border labour mobility between Poland and Germany, viewed 15 September 2017, http://www.sb-professionals-project.eu/news/Case-Study-Poland-Germany.pdf
[131] West Pomeranian Business School and VIRTUS, Cross-border labour mobility between Poland and Germany, viewed 15 September 2017, http://www.sb-professionals-project.eu/news/Case-Study-Poland-Germany.pdf

Table 25: Number (thousand) of Polish long-term movers working in Germany (DE30, DE40, DE80 and DED2) in 2008 and 2015, by years of residence

Destination region(s)	2008			2015		
	0-5 years	6-10 years	**Total**	0-5 years	6-10 years	**Total**
DE30 Berlin, DE40 Brandenburg, DE80 Mecklenburg-Vorpommern and DED2 Dresden	11.6	6.7	**18.3**	18.8	9.3	**28.0**

NOTES: THE NUMBER OF POLISH LONG-TERM MOVERS MAY VARY UP TO +400 PERSONS.
SOURCE: MILIEU CALCULATIONS BASED ON LFS

2.3.3 Synthesis of findings from the case studies

From the case studies conducted, it can be concluded that language seems to play a role in determining the extent of cross-border commuting between neighbouring regions abroad or in the same country. Our findings indicate that a same or similar language in the destination region may outweigh a better economic context as a driver for cross-regional commuting. First, **cross-border work is higher between neighbouring regions sharing the same or a similar language** than between neighbouring regions with a different language, as shown case for Slovakia and Czech Republic (see case study 1) and for France and Belgium (see case study 2). This was found to be the case even when the neighbouring regions with different language have a more favourable economic context, especially in terms of higher levels of net disposable income – a proxy for salaries – which are considered one of the main pull factors for labour mobility. Second, **commuting within the same country to a region with the same language is more frequent than commuting to a region with a different language**, although the latter has a much more favourable economic context, as shown in the case of Wallonia, Flanders and Brussels in Belgium (case study 4). Third, **commuting to neighbouring regions in the country of origin (with the same language) was found to be more frequent than commuting to the neighbouring regions abroad (with a different language)**, although the economic context of the latter is more favourable. This was found in case study 1 (Slovakia, Czech Republic and Austria), case study 4 (Belgium and Germany), case study 5 (France and Germany) and case study 6 (Poland and Germany). This third finding may also indicate that administrative barriers play a role in the preference to commute to another region in the same country than to a neighbouring region abroad. For example, commuting within Slovakia is higher than commuting to the Czech Republic, despite linguistic and cultural similarities. Lastly, a few case studies have pointed to the fact that **administrative barriers can be overcome if strong pull economic factors exist**. This is particularly the case in cross-border work in Luxembourg. Luxembourg is a representative example of how workers are attracted in large numbers from the neighbouring regions in France, Belgium (Wallonia) and Germany. Sharing a common language (French and German) might play a role in these mobility decisions. Furthermore, the economic context seems important: despite having a relatively small labour market (for example, compared to the German regions of Cologne, Trier, and Arnsberg

as well as compared to Alsace) and lower employment rate than the neighbouring German regions, Luxembourg has in fact a comparatively very high GDP (and subsequently assumed very high-income level). Moreover, the case of Belgium (case study 4) shows that Belgians living in Liège would rather commute to Germany than to Vlaams-Brabant (although both flows are much lower than to the French-speaking regions in Belgium, as mentioned above). As the economic context of the German regions in question is slightly better than that of Vlaams-Brabant (as is the economic context of Bratislava compared to the Czech regions in question), this might indicate that economic pull factors may alleviate any administrative barriers.

Insights from the comparison of preferred cross-border regions of **long-term movers** are less clear. This is firstly because figures are rather small and therefore, data on all movers was compared, including inactive. For the latter, especially in the case of pensioners, the economic context may play a comparatively minor role as a pull factor. Second, it is not possible to identify the region of origin for long-term movers with the data from the EU-LFS, thus, figures are less precise. Third, the case studies showed contradicting results.

On the one hand, in the cases looking at Belgium, France, the Netherlands, Luxembourg and Germany (cases 2, 4 and 5), figures show quite clearly that **long-term movers rather move to such neighbouring regions or countries with the same language**, although another neighbouring region or country at the same distance may have a more favorable economic context. This was found to be the case for French movers in Belgium who are highly concentrated in Wallonia, although Flanders has a better economic situation. It is equally the case for Belgian movers who prefer the Netherlands or France over Germany as destination countries, although the latter has higher employment rates and net disposable income. Last, French citizens prefer to relocate to Belgium rather than Germany or Luxembourg, despite a more favorable economic context in the latter two countries. These cases indicate quite clearly that language and cultural ties seem to be a stronger pull factor than the economic context for long-term movers, including inactive ones.

On the other hand, the case of Slovak movers shows that **the economic context may well be a pull factor that outweighs language barriers**. After the lifting of restrictions of access to the Austrian labour market, the number of long-term movers in Austria increased strongly and exceeded those to the Czech Republic, when looking at the border regions only. Nevertheless, figures at national level show that the numbers of Slovak movers were still a lot higher in the Czech Republic than in Austria. However, the gap decreased compared to 2008, and especially when looking at 'new' movers with up to 5 years of residence. This indicates that the free access to the Austrian labour market, combined with a more favorable economic context, was an important pull factor in the past years. Although the number of employed and the employment rate in the examined regions in Austria and the Czech Republic were similar, Austria's GDP and net disposable income was almost twice as high than that of the Czech regions. Language as well as cultural and social ties still seem to play a very important role, given that Slovaks still move to the Czech Republic to a larger extent than to Austria. Case 3 shows that mobility

of German citizens is almost equally strong to Luxembourg and to the Netherlands, even though the official language in the Netherlands is different. This may again be explained by economic factors, namely that the Dutch employment rate and size of the labour market in the respective regions are a lot higher than the one of Luxembourg. It might also be a result of mobility before the crisis, when the Dutch economic situation was better than the one in the German region in question.

The results from this analysis are based on only a few cases and very low figures. Therefore, the derived generalized results should only be understood as hypotheses that are based on these specific cases. Their application and general validity would need to be tested through further analysis. Furthermore, the analysis has several limitations (see Annex 1 on methodology) and results should therefore be understood as indications only.

2.4 Mobility of health professionals

Purpose of the analysis

Healthcare is an important sector of employment, both for nationals and for EU movers. Furthermore, certain health professions[132] are the ones for which EU-wide recognition is the most regulated. This section provides an overview of the mobility of health professionals[133] and health associate professionals[134] in recent years (mainly since 2011), the distribution of mobile health professionals across EU Member States, the main countries of origin and the reliance[135] on health professionals in countries of destination. The section also looks at the same indicators for personal care workers[136] who are a very large group of mobile healthcare professionals, although classified as carrying out tasks at a lower skill level.

Key findings

- In 2016, the three groups of health mobile health professionals represented ***roughly 7% of all employed EU-28 movers***: there were 184,000 health professionals, 168,000 health associate professionals and 257,000 mobile personal care workers. Germany and the UK hosted over half of the mobile health (associate) professionals and Italy hosted by far the largest group of mobile personal care workers.
- The ***majority of mobile health professionals were women*** and their shares were particularly high in lower-skilled health professions.
- ***EU level reliance[137]*** on EU-28 mobile health professionals and health associate professionals was at ***3%*** and ***reliance on mobile personal care workers was at 5%***, broadly corresponding to the share of active EU-28 movers from the total EU labour force, which was at 4% in 2016.
- ***Romanian, Polish and Italian*** citizens were the ***largest groups of mobile health (associate) professionals,*** but ***Romanians*** constitute ***by far the largest group of mobile personal care workers.***
- The accession of Croatia and the complete opening of labour markets to EU-2 movers in different countries in different years may be related to an increase in

[132] Doctors, nurses, midwives, dentists, pharmacists, veterinarians

[133] medical doctors, nursing and midwifery professionals, traditional and complementary medicine professionals, paramedical practitioners, veterinarians, other health professionals

[134] medical and pharmaceutical technicians, nursing and midwifery associate professionals, traditional and complementary medicine associate professionals, veterinary technicians and assistants, other health associate professionals

[135] 'Reliance' shows the extent of dependency on a certain group of workers in a country, calculated as the share of health professionals from another country in the total group of health professionals employed in a country.

[136] 'Personal care workers in health services provide personal care and assistance with mobility and activities of daily living to patients and elderly, convalescent and disabled people in health care and residential settings.' (ISCO definition, for more detailed definition see Annex A.4)

[137] 'Reliance' shows the extent of dependency on a certain group of workers in a country.

mobility of the mentioned groups of health professionals.

- Despite high recognition rates of professional qualifications, ***over-qualification is a wide-spread phenomenon in particular among personal care workers***

2.4.1 Introduction

Healthcare is one of the largest sectors in the EU (8% of all jobs) and it continues to grow[138]. The healthcare sector plays a key role in intra-EU labour mobility, with 7.3% of EU-28 *recent* movers employed in human health and social work (see **Figure 28**). Nevertheless, in many Member States, the sector has experienced severe budget constraints due to cuts in public spending in recent years, chiefly triggered by reforms taken in response to the 2008 economic crisis[139]. These developments, as well as the opening of the labour market after the accession of the new Member States, have affected the mobility of health professionals in the past 10 years. Mobility of health professionals brings both costs and benefits: on the cost-side, studies frequently point to brain-drain and skills shortages in countries that see high rates of their health professionals leave (see Section 2.4.3); by contrast, benefits include the supply of healthcare professions to areas where there may be a lack of the same, the fact that international mobility can alleviate unemployment among healthcare professionals, the financial benefits to source countries in the form of remittances, and the application of skills by returning mobile health professionals in their home countries[140].

The right to EU free movement of health professionals is, like in the case of all other workers, guaranteed by Article 45 TFEU and cannot simply be restricted. Directive 2005/36/EC lays down specific rules on the recognition of qualifications for health professions and for their pursuit in another Member State. For certain health professions like doctors, dentists, pharmacists, nurses and midwifes, there is a possibility under the Directive of an automatic recognition of qualifications based on established minimum harmonisation of the education and training in the Member States. In 2013, the Professional Qualifications Directive from 2005 was modernised[141], simplifying the rules and making it easier for health and other regulated professionals to practise in other EU countries.[142]

In addition, two large EU wide research projects investigated the mobility of health professionals (for a brief description, see section 2.4.3):

[138] Buchan, J., Glinos, I. and Wismar, M. (2014) 'Introduction to health professional mobility in a changing Europe', in Buchan, J. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 9.
[139] See, for example, Ivanković Tamamović, A. (2015) 'The Impact of the crisis on fundamental rights across Member States of the EU – Comparative Analysis', European Parliament.
[140] Buchan, J., Glinos, I. and Wismar, M. (2014) 'Introduction to health professional mobility in a changing Europe', in Buchan, J. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 6.
[141] Directive 2013/55/EU of the European Parliament and of the Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System, available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:354:0132:0170:en:PDF
[142] Buchan, J., Glinos, I. and Wismar, M. (2014) 'Introduction to health professional mobility in a changing Europe', in Buchan, J. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 8.

1. Health Professional Mobility and Health Systems[143] (PROMeTHEUS), which ran from 2009-2012.
2. Mobility of Health Professionals[144] (MoHPRof), which ran from 2007-2013.

Since these research projects covered developments up to 2012, including the accession of the new Member States and the effects of the economic crisis, this section focuses on more recent developments in mobility of health professionals[145] and personal care workers[146]. It provides an overview of the scale and pattern of mobility of health professionals both from a country of destination perspective (Section 2.4.2) and from a country of origin perspective (Section 2.4.3). The trends examined cover the years 2011-2016, for the reasons outlined above, as well as for methodological reasons[147]. Section 2.4.4 provides an overview of the sources and definitions used in this section.

2.4.2 Mobility trends and reliance on mobile health professionals – country of destination perspective

The following sub-section provides an overview of the mobility of health professionals in recent years (mainly since 2011), the distribution of mobile health professionals across EU Member States and the reliance on health professionals in countries of destination. Closer attention is paid to the following countries of destination: Cyprus, Austria, Ireland, Belgium, Norway, the UK, France, Italy and Germany, as these countries received important numbers of health professionals either/both in total numbers or/and compared to their own population.

This sub-section looks at mobility of all types of health professionals and health associate professionals (ISCO-2D codes 220 and 320, see Annex A.4) as well as personal care workers (ISCO-3D 532). Here, the mobility of doctors (ISCO-3D 221) and nurses (ISCO-3D 222 and 322) is examined in more detail.

Key findings:

- In 2016, there are 352,000 mobile health (associate) professionals[148], 20% of which were doctors and 40% of which were nurses; furthermore, there are

[143] EHMA, (Prometheus) Health Professional Mobility in the EU Study.
[144] MoHProf, Mobility of Health Professionals.
[145] This includes the following ISCO groups (220+320): medical doctors, nursing and midwifery professionals, traditional and complementary medicine professionals, paramedical practitioners, veterinarians, other health professionals; medical and pharmaceutical technicians, nursing and midwifery associate professionals, traditional and complementary medicine associate professionals, veterinary technicians and assistants, other health associate professionals.
[146] ISCO Group 532 Personal care workers in health services: 'Personal care workers in health services provide personal care and assistance with mobility and activities of daily living to patients and elderly, convalescent and disabled people in health care and residential settings' (see Annex A.4 for more detailed description)
[147] There was a break in series for the ISCO codes used in the EU-LFS in 2011.
[148] This includes the following ISCO groups (220+320): medical doctors, nursing and midwifery professionals, traditional and complementary medicine professionals, paramedical practitioners, veterinarians, other health

257,000 mobile personal care workers. These groups of health mobile health professionals represented roughly 7% of all employed EU-28 movers.

- Similar as overall mobility, Germany and the UK host over half of the mobile health (associate) professionals; Italy hosted by far the largest group of mobile personal care workers (almost half of them), followed by the UK (one fifth) and Germany (one tenth).
- The stocks of all mentioned mobile health professionals increased steadily in the 2011-2016 period; the complete opening of the labour market to EU-2 citizens in 2014 in several important countries of residence seems to have affected the stocks of mobile health professionals, which increased to a larger extent than in 2013; in Germany, on the other hand, the increase in stocks of health professionals was stronger in 2012, while stocks of personal care workers were almost as strong in 2014 as in 2012.
- The share of EU-28 mobile health (associate) professionals from all health (associate) professionals is 3%, similar to the share of active EU-28 movers from the total EU labour force; there are no big variations between countries, except for Luxembourg where the share is much higher
- The share of EU-28 mobile personal care workers is 5%; however, apart from Luxembourg, Cyprus, Italy and Austria also depend to a much larger extent on mobile personal care workers who make up 20%, 16% and 9%, respectively.
- At EU level, Romanian, Polish and Italian citizens were the largest groups of mobile health (associate) professionals, corresponding to the main national groups of EU-28 movers in general; Romanians were by far the largest group, constituting almost half of all mobile personal care workers.
- For health professionals (doctors) trained in another EU country, there are well-established links between neighbouring countries that speak the same language; for example, Ireland is an important country of training for doctors in the UK, Denmark and Sweden for doctors in Norway, France for doctors in Belgium; other important countries of training are Germany, Italy, Greece, Romania, Poland and Hungary.
- The share of nurses trained in another country is much lower than that of doctors.

- ***In 2016, there were 184,142 health professionals and 168,005 health associate professionals between the ages of 20 and 64 years living in a Member State other than their country of citizenship***. Of these, 68,068 ***(19%) were medical doctors*** and 145,487 ***(41%) were nurses***. In addition, there were ***256,858 mobile personal care workers living in another EU Member State, almost as many as all other health professionals and health associate professionals combined***. These three groups of health mobile health professionals represented roughly 7% of all employed EU-28 movers.

professionals; medical and pharmaceutical technicians, nursing and midwifery associate professionals, traditional and complementary medicine associate professionals, veterinary technicians and assistants, other health associate professionals.

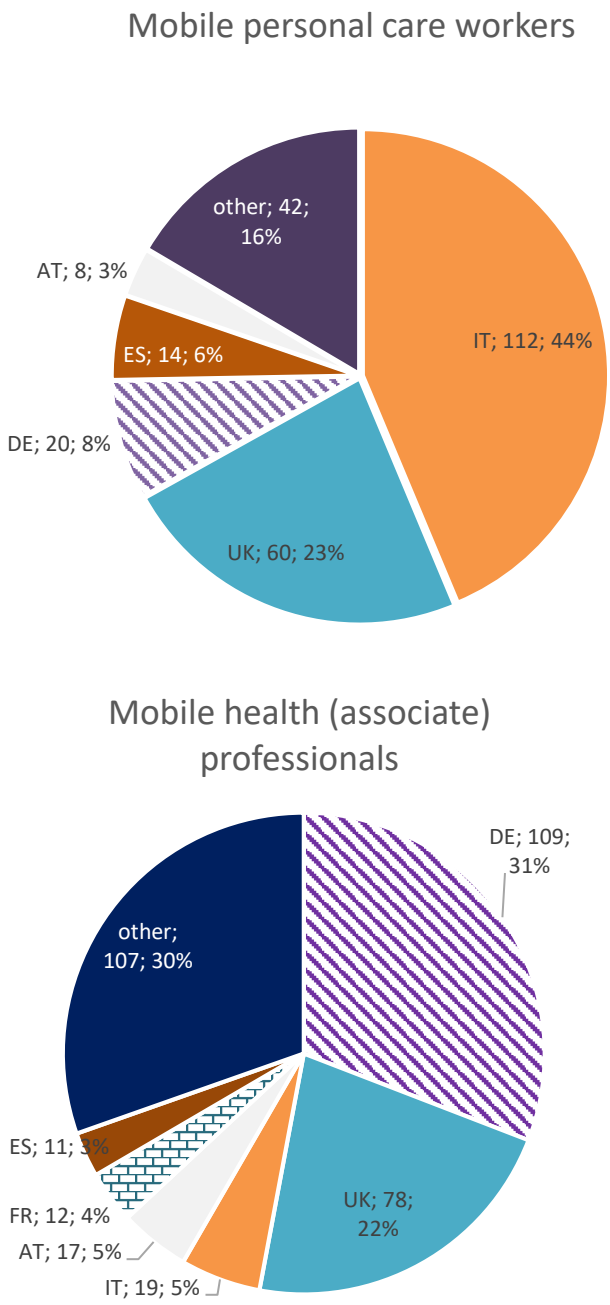
Main countries of residence

The two main countries of residence of mobile health (associate) professionals in 2016 were Germany (with around 109,000, or 31%) ***and the UK*** (with around 78,000, or 22% of the total). Other important countries of residence were Italy, Austria, France and Spain, each of which hosted over 10,000 (3%) of all health (associate) professionals. For personal care workers, ***Italy was by far the most important country of destination***, hosting around 44% (or 112,000) of this group, ***followed by the UK***, with 23% (around 60,000) ***and Germany***, with 7%.

The figures show that mobile health professionals were more evenly spread across the Member States than EU-28 movers in general, with only one or two very important countries of destination and then several equally important ones.

Apart from the Member States, Switzerland and Norway were also important countries of residence of mobile health professionals. In 2016, Switzerland hosted 50,000 health (associate) professionals and 16,000 personal care workers of EU nationality, while Norway hosted 10,000 health (associate) professionals and 3,000 personal care workers of EU nationality, a considerable number compared to its population (see below on reliance).

Figure 46: Main countries of residence of mobile health (associate) professionals and personal care workers, 2016 (in thousands)



SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Developments 2011-2016 across the EU-28

The stocks of all mentioned mobile health professionals increased steadily in the 2011-2016 period. When looking at all health (associate) professionals together (including doctors and nurses), the strongest increases were in 2014 (+14%) and 2016 (+12%). The most substantial increases among personal care workers were in 2014 (+11%) and 2015 (+11%). This broadly reflects the development of the annual mobility

flows of healthcare professionals between the EU-28 countries overall (**Figure 48**). The trend in flows shows the largest increase between 2011 and 2014, with a subsequent decrease until 2016. However, the flows in 2016 (including Germany) were still higher than in 2011, which may explain the continued increase in stocks in 2016. Excluding figures for Germany has a negative impact on the growth rates both on stocks[149] and on flows in 2015 and 2016, indicating the relationship between flow and stock data.

The strongest annual increase in stocks of the different groups was among nurses between 2014 and 2015 (+23%). In 2016, the increase in nurses and personal care workers was marginal, while the increase in doctors and other health (associate) professionals was more significant (+10% and above).

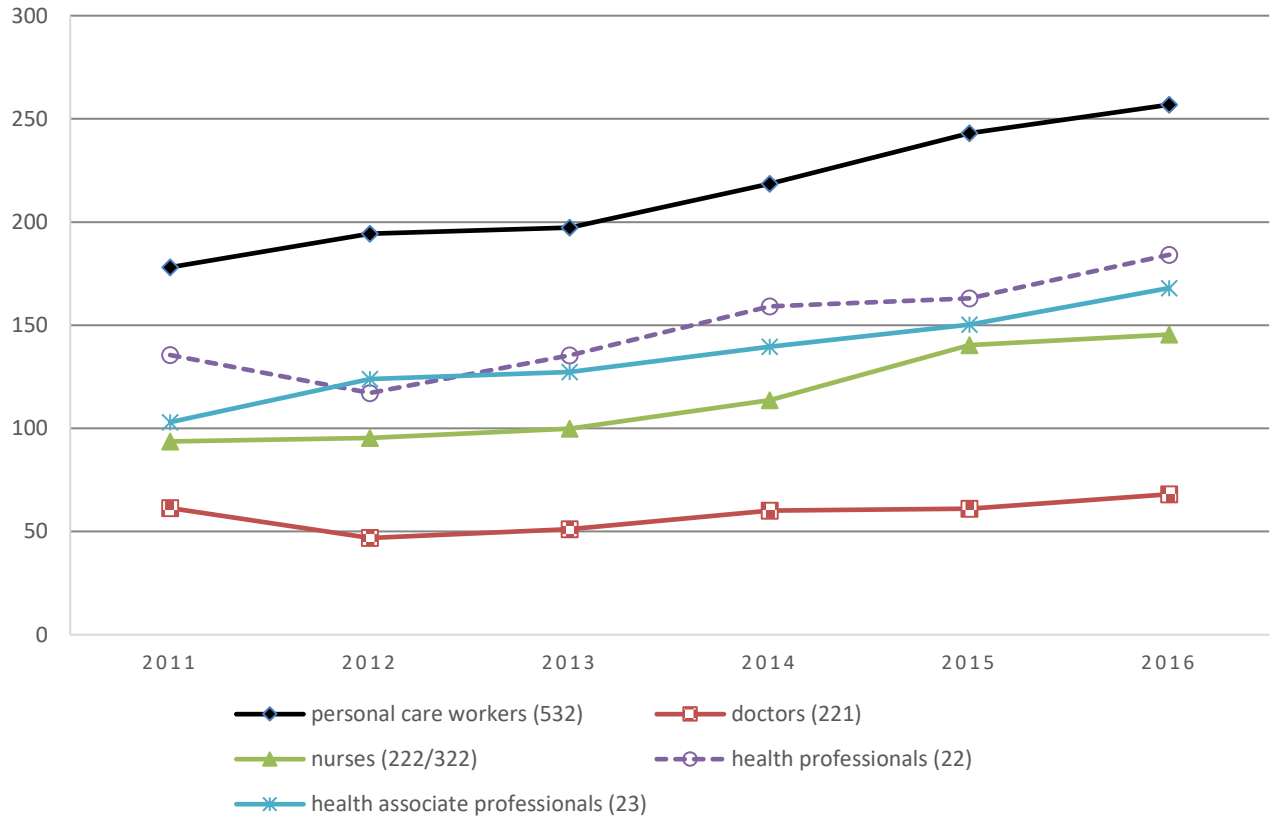
An exception to the continuous upwards trend since 2011 was the decrease of mobile health professionals (and medical doctors) in 2012. Here, the stock of mobile doctors decreased by one-quarter year-on-year. Figures at country level suggest that this was largely due to a decrease in stocks of mobile health professionals by 25% in the UK in 2012. Looking at the UK figures in more detail shows that there was a particular decrease in Irish health professionals in 2012 (the stock shrank to half its size in 2012). This decrease was exceptional, and was followed by a return to annual increases, albeit not to 2011 levels). This corresponds to the figures on stocks of Irish health professionals living in another EU Member State (**Figure 58**) which also decreased dramatically between 2011 and 2012, before increasing again. A decrease of health professionals in 2012 was also observed in France and Italy, but to a minor extent.

The complete opening of the labour market to EU-2 citizens in 2014 in several important countries of residence seems to have affected the stocks of mobile health professionals, which increased to a larger extent than in 2013 (62% compared to 17%). At country level, ***the strongest increase was seen in Spain***, where stocks more than doubled in 2014, whereas they had decreased in 2012 and 2013. Relatively ***strong increases in stocks in 2014 were also seen among health professionals and personal care workers in the UK*** (+60% and +40%, respectively), among health professionals in ***Belgium*** (+60%) and among personal care workers in ***Austria*** (+93%). These strong increases were most likely related to the complete opening of the labour markets in these countries.

In Germany, on the other hand, the increase in stocks of health professionals was stronger in 2012, while stocks of personal care workers were almost as strong in 2014 as in 2012.

[149] Stocks including Germany increased by 5% and 12% in 2015 and 2016, respectively; stocks excluding Germany increased by 2% and 10% in 2015 and 2016, respectively; source: EU-LFS, Milieu calculations.

Figure 47: Evolution of stocks of different groups of mobile health professionals (20-64) across the EU-28, 2011-2016 (in thousands)



FIGURES RELATE TO HEALTH PROFESSIONALS WITH EU CITIZENSHIP WHO LIVE IN AN EU MEMBER STATE OTHER THAN THEIR COUNTRY OF CITIZENSHIP.

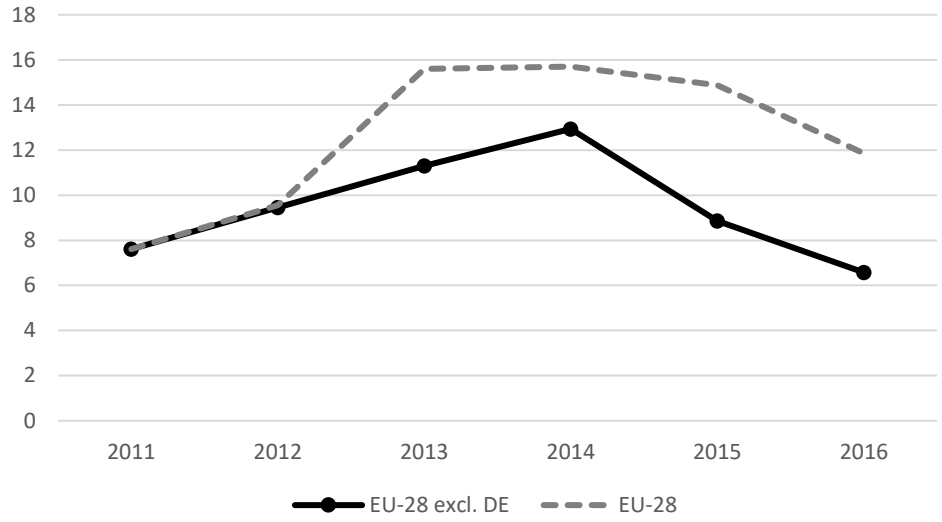
SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Figure 48 presents an approximation of annual flows of health (associate) professionals and personal care workers[150]. For methodological reasons (see legend below the graph), figures are presented with and without Germany. Throughout the EU, annual mobility flows of health professionals increased quite strongly between 2011 and 2016, driven by a particularly substantial increase between 2011 and 2014, when the number of annual flows increased by 70%. The subsequent decrease saw 2016 figures below 2011 levels.

Figure 48: Annual flows of health (associate) professionals and personal care workers (all ages) between EU-28

[150] When using the EU-LFS figures, flows are approximated by the number of persons resident in a different EU Member State one year ago, and thus have only moved to the current country in the past year.

Member States, 2011-2016 (in thousands)



THE GRAPH SHOWS THE NUMBER OF HEALTH PROFESSIONALS WHO MOVED FROM ONE EU-28 MEMBER STATE TO ANOTHER EU-28 MEMBER STATE OF WHICH THEY ARE NOT CITIZENS, IN THE RESPECTIVE YEAR; IT DOES NOT INCLUDE RETURN MOBILITY (WHICH WOULD BE INFLOWS OF THE NATIONALS OF THE COUNTRY OF RESIDENCE).

FIGURES REFER TO HEALTH PROFESSIONALS (ISCO2D=22), HEALTH ASSOCIATE PROFESSIONALS (ISCO2D=23) AND PERSONAL CARE WORKERS (ISCO3D=532).

THE GRAPH PRESENTS THE EU-WIDE AGGREGATE WITH AND WITHOUT GERMANY, AS GERMANY HAS A PARTICULARLY HIGH NON-RESPONSE RATE TO THE QUESTION 'COUNTRY OF RESIDENCE ONE YEAR BEFORE THE SURVEY' AND FIGURES MAY THEREFORE BE INACCURATE; HOWEVER, FIGURES WITHOUT GERMANY ARE OF LOW RELIABILITY.

SOURCE: EU-LFS, MILIEU CALCULATIONS

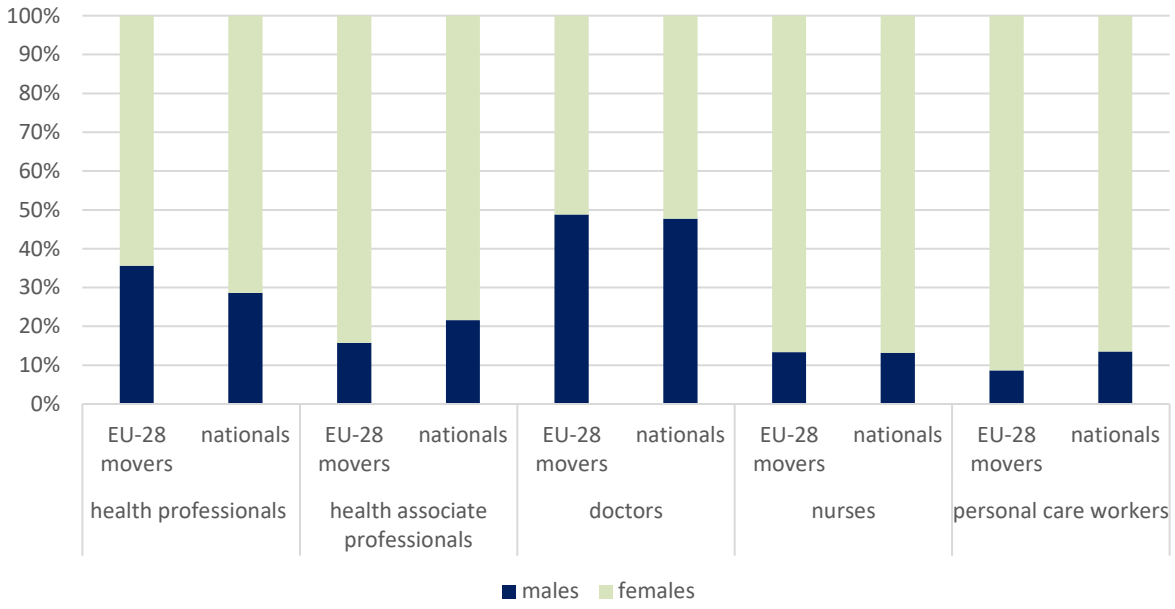
Gender distribution

Most of mobile health professionals, health associate professionals and of personal care workers are women. Mobile personal care workers have the largest share of women with 91%, followed by nurses (87%) and health associate professionals. The share of women is lower in the higher-skilled occupations of health professionals (64%) and especially among doctors (51%).

These distributions are similar among nationals of the same professional groups. Nevertheless, the share of women among health professionals is higher in the group of nationals than in the group of movers and the share of women in the group of health associate professionals and personal care workers is slightly lower in the group of nationals than in the group of movers.

The fact that women have a slightly higher chance to carry out higher-skilled professions among nationals than among EU-28 movers may be related to the fact that mobile health professionals are more likely to be over-qualified than nationals (see section 2.4.3 below).

Figure 49, Gender distribution in different groups of health professionals, among EU-28 movers and among nationals, 2016



SOURCE: EU-LFS, MILIEU CALCULATIONS

Reliance in countries of residence

'Reliance' shows the extent of dependency on a certain group of workers in a country. This section looks at reliance on mobile health professionals (of another EU nationality) in a country, compared to the total number of health professionals in that country. Reliance on foreign-trained health professionals ('Reliance by country of training') is also addressed, irrespective of nationality.

In 2016, ***EU level reliance on EU-28 mobile health professionals and health associate professionals was at 3%, broadly corresponding to the share of active EU-28 movers from the total EU labour force***, which was at 4% in 2016 (**Table 1**). There are no major differences between the Member States, except for Luxembourg, where mobile health (associate) professionals made up 36% of all health professionals in the country. In the remaining countries, reliance varied between 1% (in Spain and France) and 7% in Austria (for the countries for which reliable data were available, see **Table 59** in Annex).

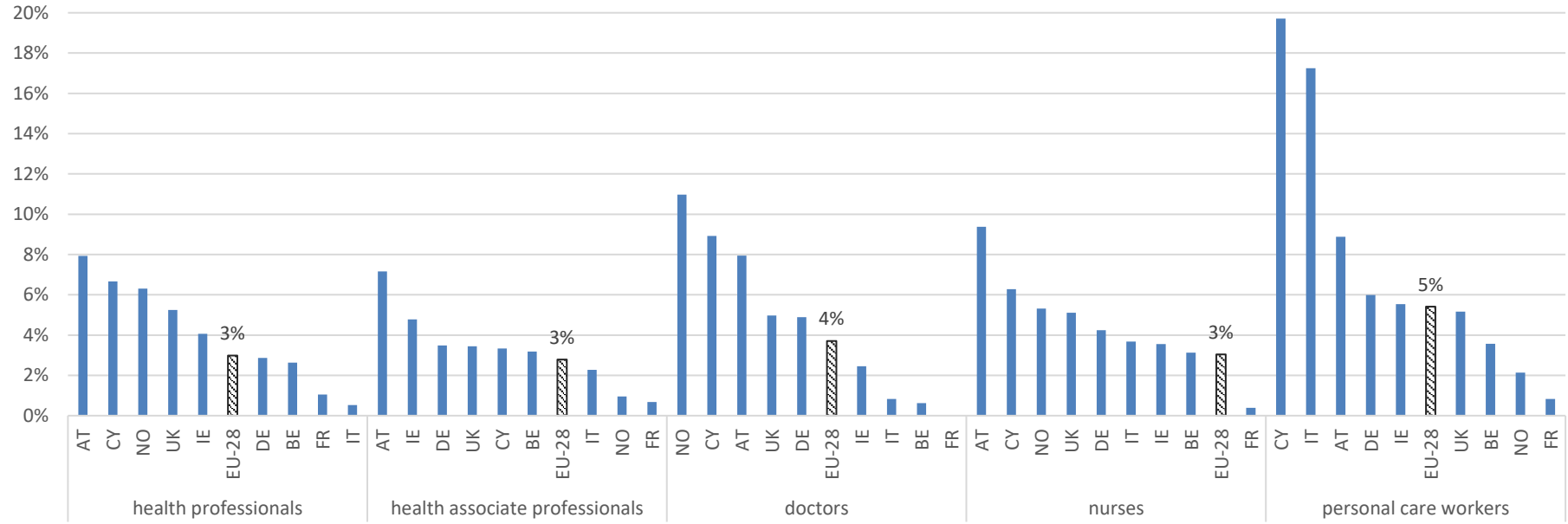
Reliance on personal care workers was different, with ***Italy and Luxembourg showing a fairly large dependency on EU mobile personal care workers*** (17% and 16%, respectively).

Reliance on health professionals and personal care workers with an EU nationality was also quite high in Switzerland (18% and 15%, respectively).

As **Figure 50** shows, ***reliance on different types of health professionals varied substantially within and between Member States***. ***Mobile EU-28 nationals were***

most represented among personal care workers, both at EU aggregate levels and in several important Member States (Belgium, Germany, Ireland and, in particular, Cyprus and Italy). ***At EU level, doctors had the second highest level of reliance, closely followed by nurses***. Reliance on doctors was similar to the other groups in several of the named Member States, but was particularly high in Cyprus (and Norway). Reliance on EU-28 mobile doctors was extremely low in Belgium, France and Italy, compared to the other groups.

Figure 50: Reliance on different types of mobile health professionals in important countries of residence, 2016, aged 20-64



SOURCE : EU-LFS 2016, MILIEU CALCULATIONS

EU mobile workers were not the only crucial element of Member States' health personnel; so, too, were TCNs. As Table 59 in Annex shows, reliance on third-country nationals working as health (associate) professionals was lower than reliance on mobile EU-28 health professionals in most Member States. Exceptions were the UK and Spain, where reliance on TCNs and EU-28 nationals was similarly high, and Ireland, where reliance on TCNs was significantly higher. For personal care workers, reliance on TCNs was particularly high (and higher than EU-28 movers) in Italy and Spain (24% and 10%, respectively).

Reliance by countries of origin

The following countries were chosen for a more detailed analysis, being important counties of destinations in both total numbers and/or in terms of reliance: Cyprus, Austria, Ireland, Belgium, Norway, the UK, France, Italy and Germany.

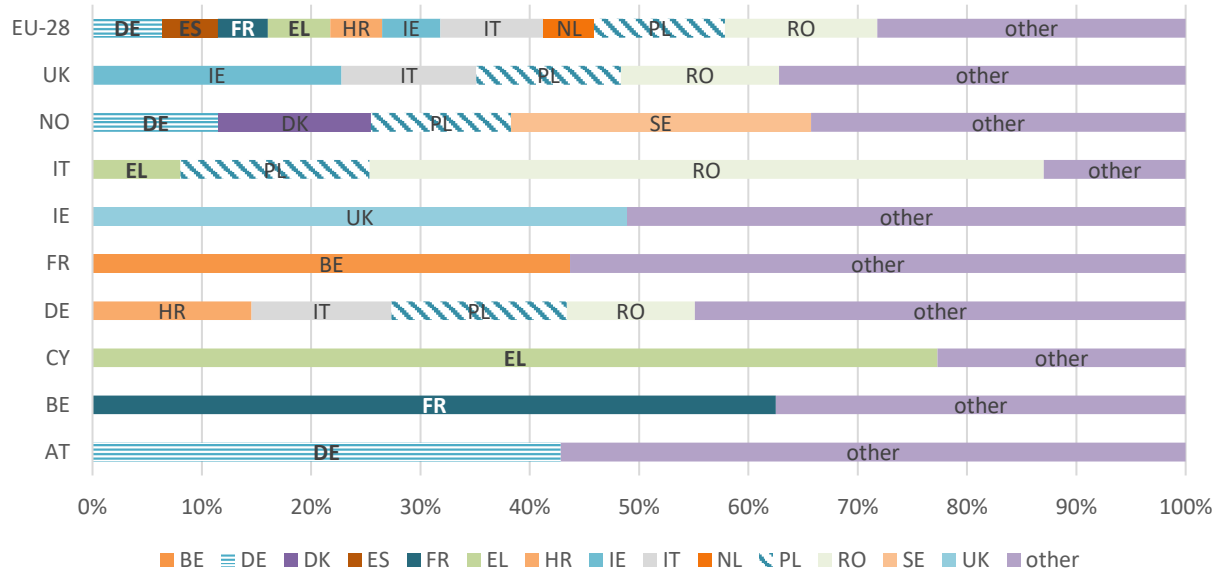
Figure 51 and **Figure 52** show the main countries of origin (country of citizenship) of the mobile health professionals and personal care workers living in these countries, and at EU level.

At EU level, Romanian (14%), Polish (12%) and Italian (9%) citizens were the largest groups of mobile health (associate) professionals, corresponding to the main national groups of EU-28 movers in general (see Section 2.1.1,

Figure 2). There were several national groups of mobile health professionals of similar sizes (5-6%), including from several EU-15 countries (Germans, Spanish, French, Greek, Irish, Dutch) and Croatia.

In the Member States, the composition by citizenship varied. In most countries there was one major national group of mobile health professionals, namely, the Romanians in Italy (67%), the British in Ireland (49%), the Belgians in France (44%), the Greeks in Cyprus (77%), the French in Belgium (63%), and the Germans in Austria (43%). The remaining countries (the UK, Norway and Germany) had several major groups of comparable size. Here, these major groups largely corresponded to the main groups of all EU-28 movers in the respective countries, with some exceptions: the Irish in the UK had a much higher share of health professional movers compared to all EU-28 movers, whereas the Polish had a lower share; in France, the Portuguese were by far the largest group of all EU-28 movers, whereas among health professionals the Belgians were the most significant group, while the Portuguese constituted only a very small share.

Figure 51: EU-28 mobile health (associate) professionals (aged 20-64) in important destination countries, by country of citizenship, 2016



THE GRAPH PRESENTS DATA FOR HEALTH PROFESSIONALS (ISCO2D=22) AND HEALTH ASSOCIATE PROFESSIONALS (ISCO2D=32)

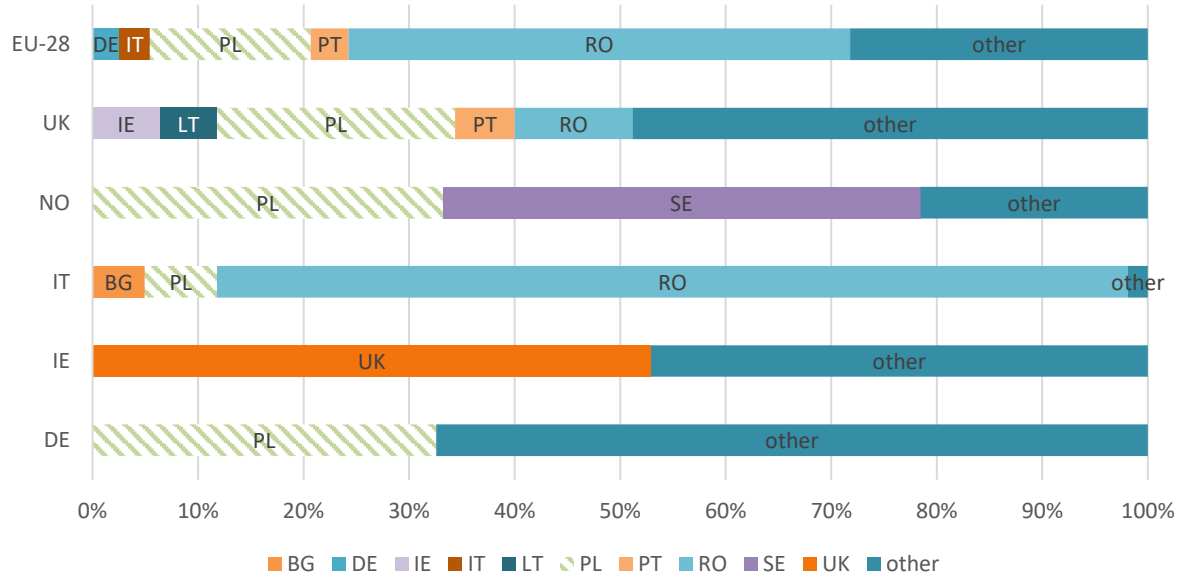
FIGURES FOR THE FOLLOWING GROUPS OF CITIZENS ARE OF LOW RELIABILITY:

CYPRUS: GREECE; FRANCE: BELGIUM; IRELAND: UK; ITALY: GREECE; NORWAY: GERMANY, DENMARK, POLAND; UK: ITALY.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

The picture is different for mobile personal care workers. At EU level, ***Romanians were by far the largest group, constituting 48% of all mobile personal care workers***. This is likely due to the high weighting of Italy as a country of destination for mobile personal care workers, where Romanians made up 86% of that group. ***In the UK***, the share of Irish was considerably smaller among mobile personal care workers than among health professionals, and the share of ***Polish*** was larger. ***There was also a considerable number of Lithuanians and Portuguese among the mobile personal care workers***. Similarly, ***Polish citizens were more represented among mobile personal care workers than among mobile health professionals in Norway and Germany***. The ***importance of the British in Ireland was similar among mobile personal care workers and mobile health professionals***.

Figure 52: EU-28 mobile personal care workers (aged 20-64) in important destination countries, by country of citizenship, 2016



THE GRAPH PRESENTS DATA FOR PERSONAL CARE WORKERS (ISCO3D=532).

FIGURES FOR THE FOLLOWING GROUPS OF CITIZENS ARE OF LOW RELIABILITY:

IRELAND: UK; NORWAY: POLAND, SWEDEN; UK: IRELAND, LITHUANIA, PORTUGAL, ROMANIA; EU-28: GERMANY, ITALY, PORTUGAL

*FIGURES FOR AT, BE, CY AND FR COULD NOT BE PRESENTED BECAUSE FIGURES ARE BELOW RELIABILITY.

SOURCE: EU-LFS, MILIEU CALCULATIONS

Reliance by country of training

Another important aspect of mobility of health professionals is the question of where those health professionals are trained. Given that training is an investment from the government's point of view, when looking at reliance it is interesting to see how many of the health professionals in the country were actually trained elsewhere. Figures on the country of training are provided by the OECD for doctors and nurses (see Annex A.4 for details on the data). It should be noted that 'foreign-trained' does not necessarily mean 'of foreign citizens' and includes nationals trained in another country. The levels of reliance are therefore very different when looking at 'foreign nationals' and at 'foreign-trained' among the health professionals in a country, but both constitute an important aspect of mobility.

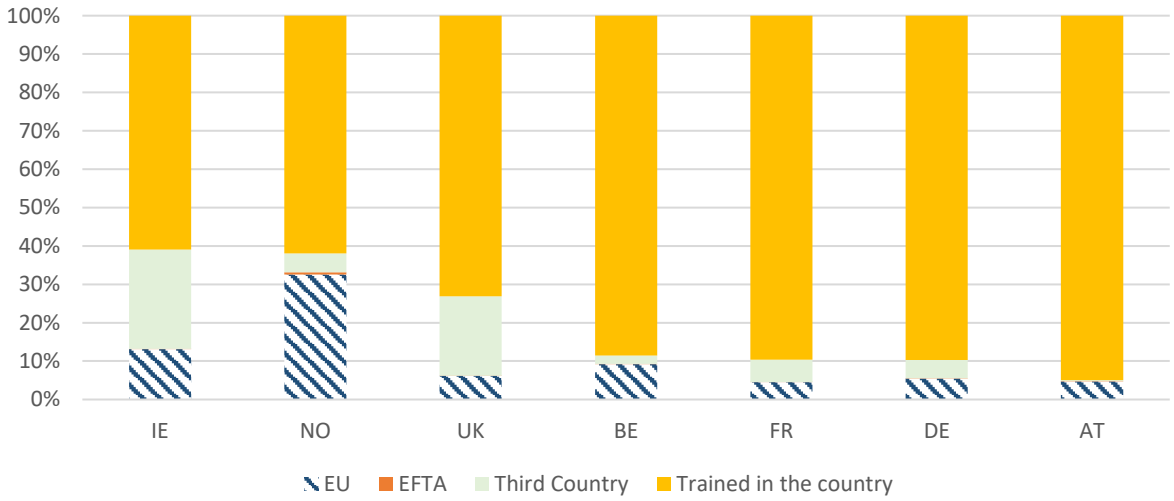
Available data shows that in 2014 (the year for which numbers are available for most countries), ***the share of foreign trained doctors (in other EU or third countries) within the EU-28 varied considerably*** (**Figure 73** in Annex), from almost 0% in Lithuania to 37% in Norway. Other ***countries that relied heavily on doctors trained abroad were Ireland (36%), the UK (28%), Switzerland (27%), Sweden (26%) and Finland (20%).***

Figure 53 below shows the composition of doctors by region of training for those selected countries of destination for which figures are available. ***In the UK and Ireland, a significant share of doctors was trained outside of the EU***, making up 26% and

21% of all trained doctors in Ireland and the UK, respectively. The shares of doctors trained in another EU country were quite a bit smaller (around 12% in Ireland and 5% in the UK). ***In Norway, on the other hand, the majority of foreign-trained doctors were trained in an EU-28 country***, making up 33%, with only 5% trained outside the EU. ***In Belgium and Austria, the majority of foreign-trained doctors were trained in another EU country, while in France and Germany the figure was around half***.

Trends, where data are available, show that in Norway, Germany, Belgium and France, shares of doctors trained abroad increased steadily but not significantly, by around 3-5 p.p. from 2008 to 2015. In Ireland, there was a slight decrease in 2012 of 3 p.p., followed by a steady increase of 2-3 p.p. annually. In the UK, the shares were also stable, but declining every year by around 1 p.p. since 2009.

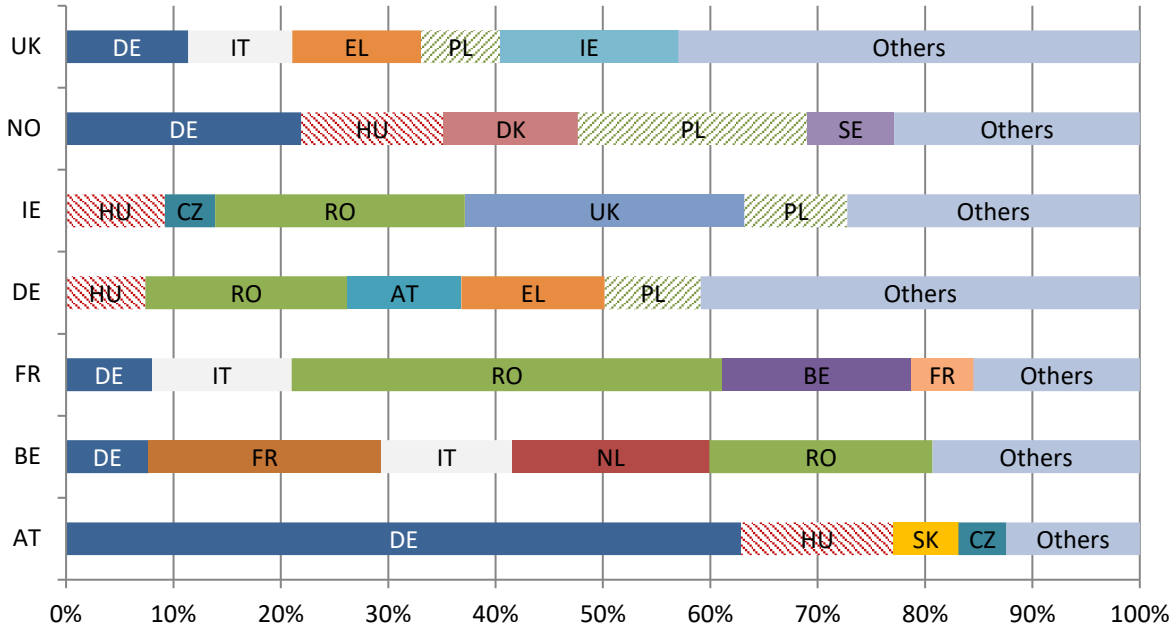
Figure 53: Composition of doctors by country of training (all ages), in important receiving countries, 2015



SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

For health professionals (doctors) trained in another EU country, there are well-established links between neighbouring countries that speak the same language, such as Austria and Germany, Belgium and France, and Ireland and the UK. However, countries of training are diverse. ***Important EU-15 Member States where doctors in the main countries of destination were trained are Germany, Italy, Greece, Ireland*** (only for the UK), ***Denmark and Sweden*** (only for Norway), ***France*** (only for Belgium) and ***Belgium*** (only for France). ***Romania, in particular, but also Poland and Hungary, were important EU-13 countries of training for foreign-trained doctors***.

Figure 54: Foreign-trained doctors in important countries of destination, by country of training, 2015

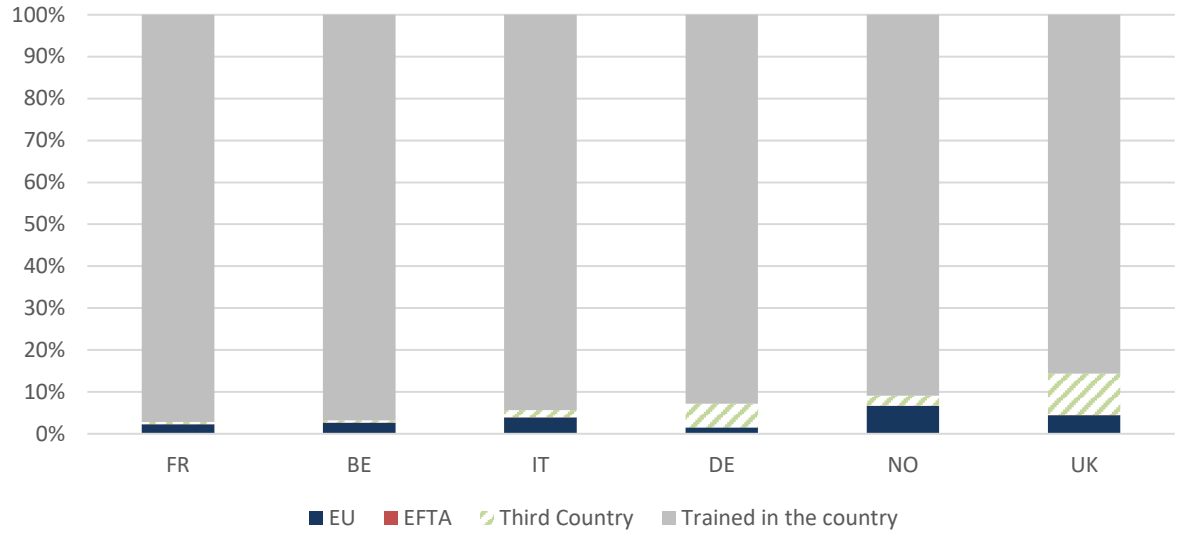


SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

For nurses in the main countries of destination in 2015, ***the share of nurses trained outside the country was much lower than that of doctors*** (**Figure 74** in Annex). Their share was largest in the UK, where they made up around 15% of all nurses in the country. In Belgium and France, they made up around 3%, in Italy 6% and in Norway 9%. The composition of these foreign-trained nurses, however, was like that of doctors (**Figure 55** below): in the UK, the share of the nurses trained outside the EU was more than double that of nurses trained in another EU country (10% and 4%, respectively, within the total number). In the other countries, the share of EU-trained nurses remained higher than those trained in a third country. Even in Italy, which hosted a considerable number of nurses from a diverse range of third countries, their share was around 2% of the total, compared to 4% of nurses trained in another EU country.

Where data are available, the trends over the years show a very stable distribution by region of training, without any noteworthy changes.

Figure 55: Composition of nurses by country of training, 2015



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SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

2.4.3 Mobility of health professionals – country of origin perspective

While Member States rely on health professionals from other Member States (or trained in those other Member States) in their health workforce, they also see health professionals of their own country leave to work in other countries. In the past decade, the accessions in 2004 and 2007 have affected mobility of health professionals coming from the new Member States to the old, although to a smaller extent than anticipated[151]. Another influential factor was the 2008 economic crisis and related austerity measures, which included cuts in public spending on healthcare[152]. As a result of the worsening working conditions and lower pay, many health professionals chose to move to other Member States[153] and there was a 're-emergence of flows from poorer to wealthier countries, often going south to north'[154]. This created shortages among health professionals in certain countries and regions, although this seemed to be the case mainly in specific underserved regions and for specific specialist positions[155]. Subsequently, some countries (such as Poland, Lithuania and Estonia) introduced 'retention strategies' (such as salary in-

[151] Ognyanova, D. et al. (2012) 'Mobility of health professionals before and after the 2004 and 2007 enlargements: evidence from the EU PROMeTHEUS project', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 85.
[152] Buchan, J. et al. (2012) 'Introduction to health professional mobility in a changing Europe', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p.21.
[153] Ognyanova, D. et al. (2012) 'Mobility of health professionals before and after the 2004 and 2007 enlargements: evidence from the EU PROMeTHEUS project', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 85.
[154] Buchan, J. Et al. (2012) 'Introduction to health professional mobility in a changing Europe', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p.18.
[155] Ibid.

creases, improvements in working conditions, and facility renovation with new equipment) which have been proven to attract returnees. Two large research projects investigated the topic. Firstly, the studies conducted as part of the project Health Professional Mobility and Health Systems (PROMeTHEUS), which ran from 2009-2012, provided more detail on[156]: persistence of mobility of healthcare professionals, even during the economic crisis, and the volatility in mobility flows; a typology of mobile health professionals and their motivations, behaviours and problems; the interdependence of health systems; the response of policy to certain mobility patterns; the policy implications of increased asymmetries between the Member States and the resulting mobility flows. The project also included case studies from 17 EU Member States, among them important countries of origin of mobile healthcare professionals[157]. Secondly, Mobility of Health Professionals (MoHPRof), which ran from 2007-2013, provides information on trends of mobility of health professionals to, from and within the EU, as well as recommendations on human resources policies in EU and third countries.

Given that several years have passed since two major triggering events – the two accessions and the peak of the financial economic crisis – it is useful to look at how the situation has developed in recent years.

While data on stocks of foreign and foreign-trained health professionals are readily available (see Section 2.4.2), and data on inflows are collected in several countries, this is not the case for numbers of outflows of health professionals, which are not available in most countries (as shown by previous research[158] and by research for this study[159]). This subsection therefore uses data from the EU-LFS to look at stocks of health professionals living abroad, from a country of origin perspective; and OECD data on foreign-trained doctors and nurses by country of training.

Key findings:

- In 2016, the countries with the largest groups of health (associate) professionals living in other EU Member States were Romania, Poland and Italy.
- Ireland, Croatia and Romania had the highest rates of health (associate) professionals abroad.
- There are three times more mobile personal care workers from Romania than from any other Member State. More Romanian personal care workers work in another EU Member State than in Romania itself.
- Poland and Bulgaria are the other most important sending countries of personal care workers in total numbers

[156] Buchan, J. et al. (2012) 'Introduction to health professional mobility in a changing Europe', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe'.
[157] Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies.
[158] Maier, C. et al. (2014) 'Monitoring health professional mobility in Europe', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 108.
[159] An enquiry was sent to national authorities, national statistical institutes and medical chambers of the selected countries of origin (see Section 2.4.1), and data on outflows are only available in Germany; Portugal gathers data on intent of leaving among nurses, and other countries gather data collected by the European Commission, DG GROW (certificates to work in another country).

- Most EU-13 countries had high rates of their personal care workers working in other EU Member States, although total figures are sometimes small; on the other hand, some EU-15 countries (especially Italy and Germany) are important sending countries of personal care workers in total numbers, but not in shares.
- The share of mobile health (associate) professionals increased at EU level and in most important countries of origin between 2011 and 2016.
- The share of mobile personal care workers also increased at EU level between 2011 and 2016. However, there were larger variations between countries concerning this trend. Trends show that the Croatian accession and the opening of labour markets to EU-2 movers in different countries in different years may have impacted these trends (see more details below).
- The share of doctors who were trained in the country but work in another EU country varied between 2% in Estonia and 13% in Ireland; they mainly work in other EU countries, except those from Spain and Poland, among which a considerable share works in third countries.
- Concerning recognition of qualifications, on average 92% of applications from doctors and 96% of applications from nurses receive positive decisions.
- For countries of origin, the development of positive decisions over time mirrors the trend changes in stocks of the respective country.
- Among mobile personal care workers, 20% received higher education than necessary for their job and 42% feel over-qualified for their job. Furthermore, mobile personal care workers feel over-qualified at an above-average level when compared to all mobile workers.
- Mobile Health (associate) professionals, on the other hand, do not feel over-qualified to a larger extent than other mobile workers.

In 2016, the countries with the largest groups of health (associate) professionals living in other EU Member States were Romania (49,000), ***Poland*** (42,000) and ***Italy*** (33,000) (**Table 60** in Annex). ***At EU level (and in Romania and Poland), the personal care workers accounted for the highest shares of persons working abroad*** (compared to the 'stayers' in the same profession)***, followed by doctors***. It is highly likely that many of these movers working as personal care workers (a profession which requires only secondary education[160)] were trained in medical professions requiring a higher skill level, or had even learned another profession entirely. ***The assumption that many of these movers have experienced a 'downscaling' of their profession seems highly likely, given that 40% of mobile personal care workers from the EU-13 reported being over-qualified for their jobs***. In addition, 20% of mobile personal care workers had higher education levels than those required for this occupation.

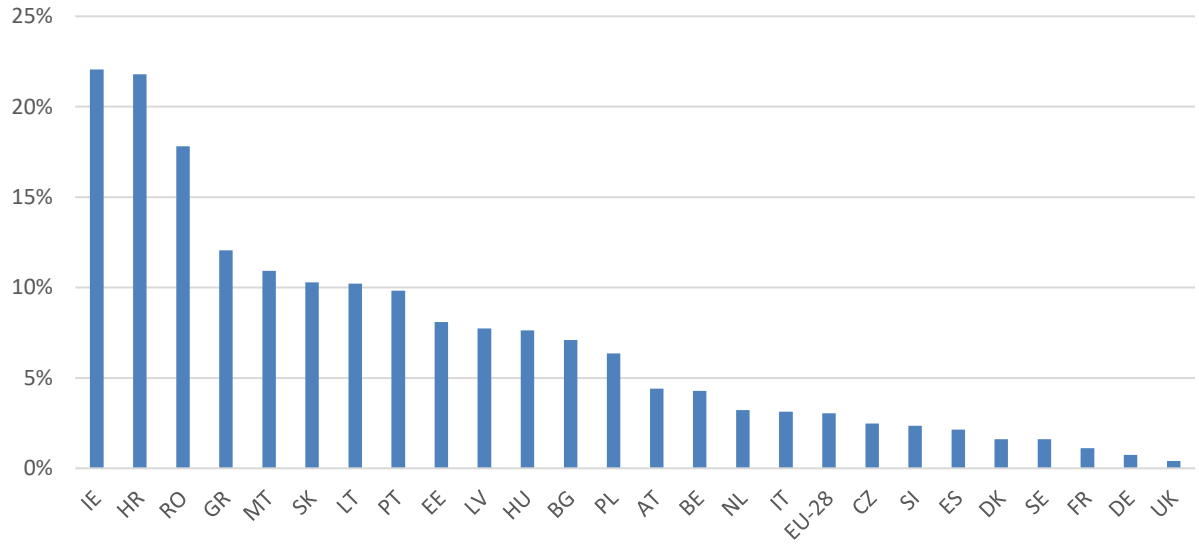
[160] This comparison is made based on the ISCO code and the skill levels indicated for this code (see Section 3.2. on over-qualification).

Finally, these figures are likely to be seriously under-estimated, given that these jobs are often undeclared[161].

Countries of origin of health professionals living in another EU Member State

In 2016, ***the countries with the largest groups of health (associate) professionals living in other EU Member States were Romania*** (49,000), ***Poland*** (42,000) and ***Italy*** (33,000) (**Table 60** in Annex). These were closely followed by Germany, Greece, Ireland, Portugal, Spain, Croatia, the Netherlands and France, each of which had over 15,000 national health professionals living and working in another EU Member State. However, in terms of shares of those health professionals living abroad from the national population in the country of origin, ***Ireland*** (22%), ***Croatia*** (22%) and ***Romania*** (18%) ***were the countries that had seen the highest 'rates of movers abroad'***.

Figure 56: Health (associate) professionals (aged 20-64) living in another EU Member State, by country of origin, as share from all nationals in country of origin working as health (associate) professionals) (aged 20-64), 2016



THE LABELS ON THE X-AXIS INDICATE THE NATIONALITY OF THE HEALTH (ASSOCIATE) PROFESSIONALS; BARS SHOW THE SHARE OF THOSE HEALTH PROFESSIONALS LIVING IN ANOTHER EU MEMBER STATE FROM THOSE LIVING IN THE COUNTRY OF ORIGIN.

FIGURES REFER TO HEALTH PROFESSIONALS (ISCO2D=22) AND HEALTH ASSOCIATE PROFESSIONALS (ISCO2D=23).

THE FOLLOWING BARS ARE BASED ON FIGURES WITH LOW RELIABILITY: LT, EE, LV, BG, SI, DK.

FIGURES FOR THE MISSING COUNTRIES COULDD NOT BE DISPLAYED BECAUSE FIGURES ARE BELOW RELIABILITY.

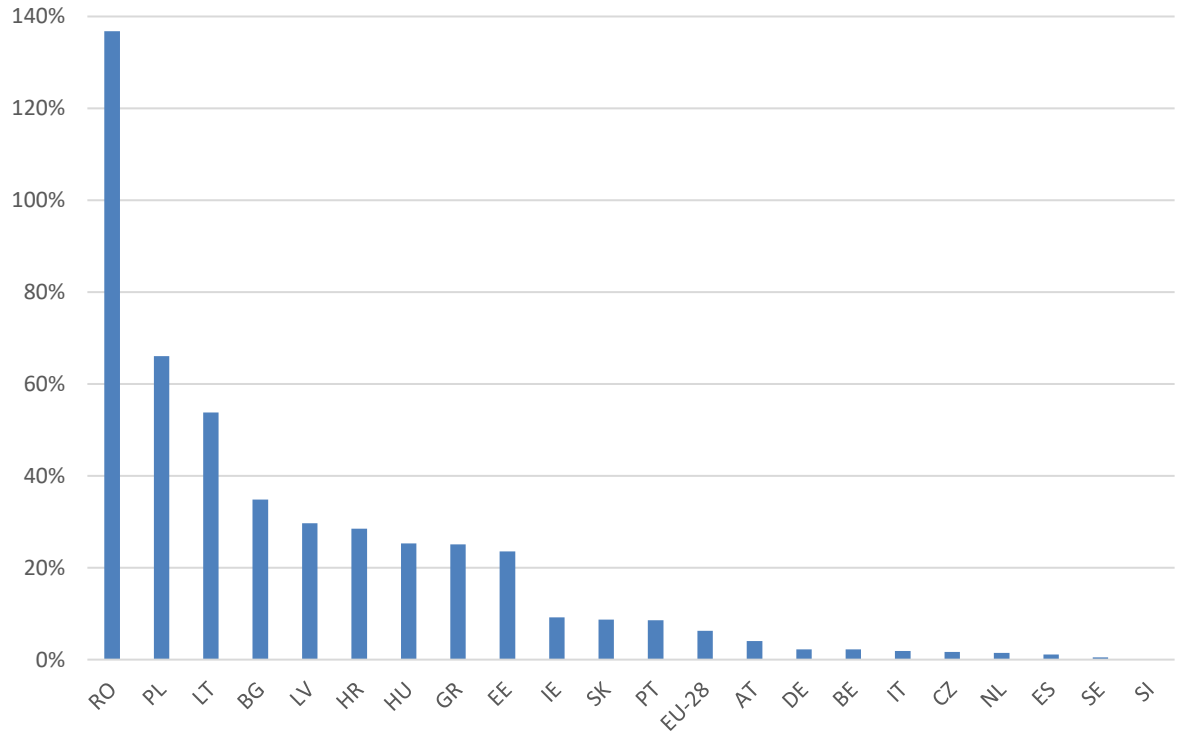
SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Romania had the largest number of its nationals working as personal care workers abroad by a considerable margin: the number of Romanian personal care workers working in another EU Member State was ***120,000***. The next largest number

[161] Maier, Claudia et al. 'Cross-country analysis of health professional mobility in Europe: the results', in Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies, p. 44.

was that of ***Polish mobile personal care workers with 40,000***, followed by ***Bulgaria*** with ***13,000***. The figures for the remaining countries were all below 10,000. This ranking also translates to the rates of personal care workers living in another Member State, compared to those who still worked in the origin country. These data show that ***more Romanian personal care workers worked in another EU country than in Romania*** (with a rate of 137%), the share of ***Polish personal care workers in another EU Member State was two thirds***, and that of ***Lithuanian personal care workers was around 50%***. The figures also demonstrate that ***although some of the EU-15 Member States (in particular, Italy and Germany) had a reasonably high total number of national personal care workers in another EU Member State, this was a very small group when compared to the nationals working in the country as personal care workers.*** On the other hand, ***most of the new Member States had high shares of their personal care workers in other EU Member States*** (between 20 and 60%, when compared with those still working in the country), although for some (Latvia, Estonia, Croatia) ***the overall figures were quite small***. ***Czech Republic, Slovakia and Slovenia were the only new Member States almost entirely unaffected by mobility of their nationals working as personal care workers in other countries***. This however, may be covered by the high extent of cross-border work between these countries and also between these countries and Austria (see section 2.3), which may well include personal care workers.

Figure 57: Personal care workers (aged 20-64) living in another EU Member State, by country of origin, as share from all nationals in country of origin working as health (associate) professionals) (aged 20-64), 2016



THE LABELS ON THE X-AXIS INDICATE THE NATIONALITY OF THE HEALTH (ASSOCIATE) PROFESSIONALS; BARS SHOW THE SHARE OF THOSE HEALTH PROFESSIONALS LIVING IN ANOTHER EU MEMBER STATE FROM THOSE LIVING IN THE COUNTRY OF ORIGIN.

FIGURES REFER TO PERSONAL CARE WORKERS (ISCO3D=532).

THE FOLLOWING BARS ARE BASED ON FIGURES WITH LOW RELIABILITY: LT, BG, LV, EE, AT, BE, CZ, ES, SE, SI.

FIGURES FOR THE MISSING COUNTRIES COULD NOT BE DISPLAYED BECAUSE FIGURES ARE BELOW RELIABILITY.

SOURCE : EU-LFS 2016, MILIEU CALCULATIONS

Development since 2011

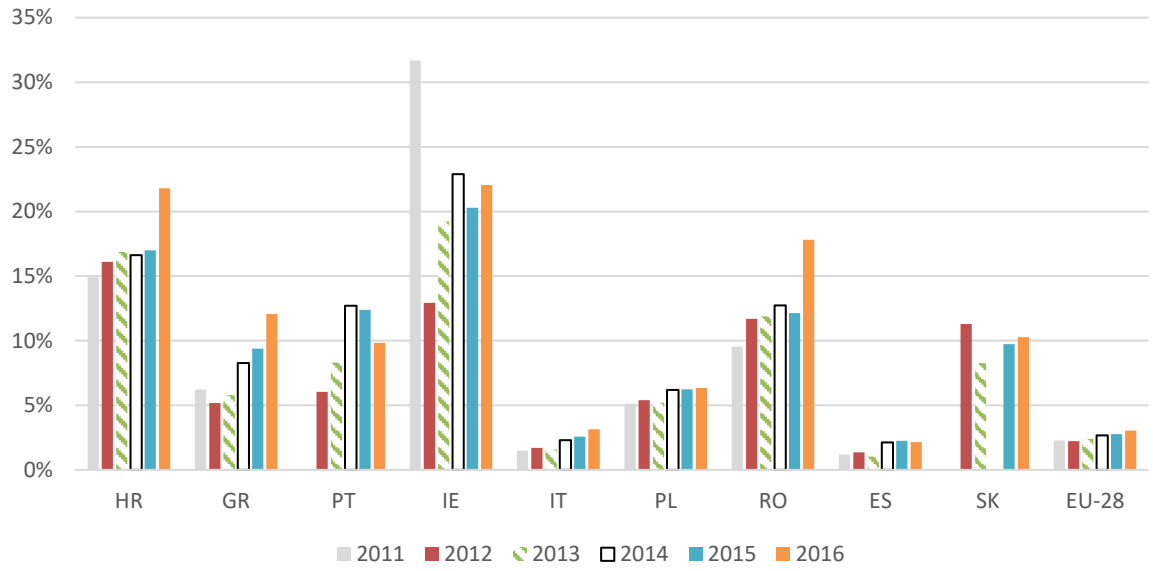
This sub-section examines year-on-year changes in stocks of health professionals working in another EU country, by country of origin.

The share of health (associate) professionals living in another EU Member State from national health professionals still living in the country increased between 2011 and 2016 at EU level and in most important countries of origin (**Figure 58**). This mirrors the increase noted in stocks in the countries of destination (**Figure 47**). This increase was of the same order as that in total stocks of health professionals living abroad (**Figure 75** in Annex). When looking at the selected countries of origin, the 'rate of movers abroad' increased between 2011 and 2016 in all countries except Ireland, where it was very high in 2011, and then decreased. Spanish, Portuguese and Polish figures show that the main increases were between 2011 and 2014, since which time they have decreased or stagnated. 'Rates of movers abroad' from the remaining countries (Croatia, Greece, Italy, Romania and Slovakia) all increased in 2016 compared to earlier years.

In two countries, the increase in total stocks of health professionals living abroad was substantially larger than the increase in shares from the nationals still working in the country: for Croatian health professionals in 2012-2014; and for the Portuguese in 2013-2016[162]. This indicates that the number of health professionals living abroad grew at a higher pace than the number of health professionals working in the respective country, or that the latter even stagnated or decreased.

[162] In 2015 and 2016, the decrease in shares was larger than the decrease in total numbers.

Figure 58: Number of health (associate) professionals (aged 20-64) working in another EU Member State, as a share from the national health (associate) professionals still working in the country of origin, by country of origin, 2011-2016



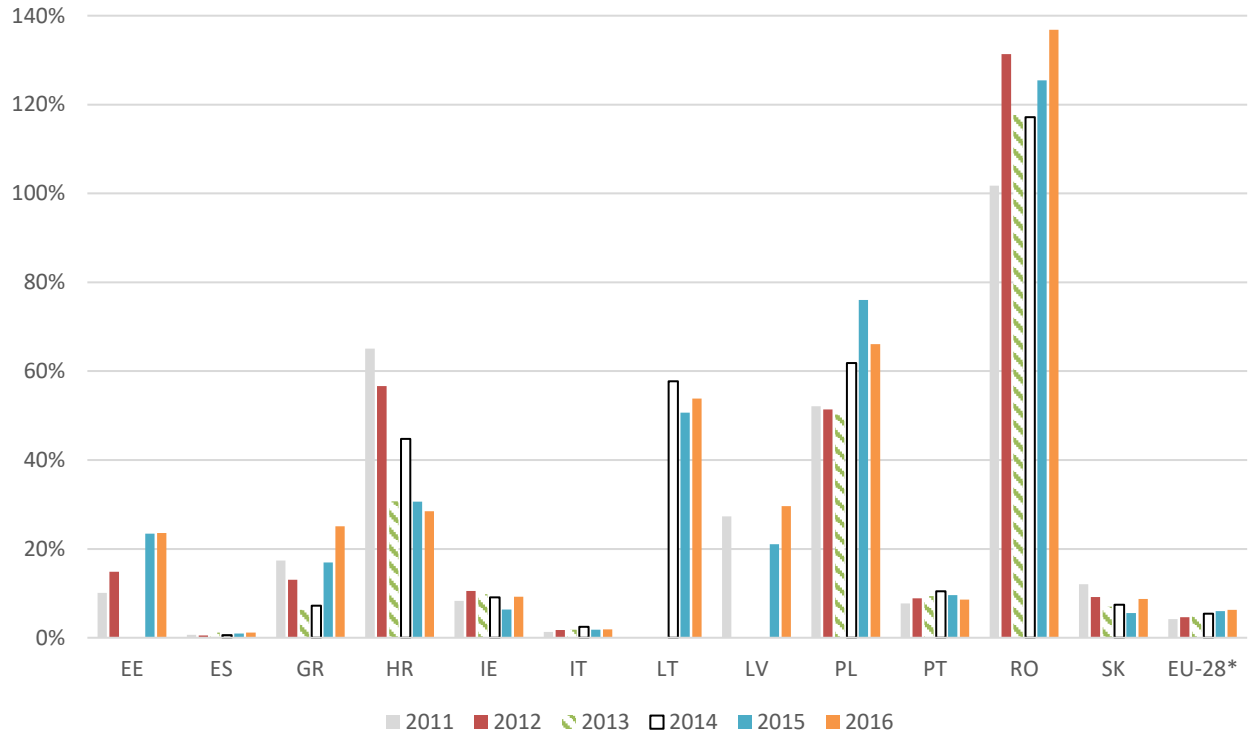
FIGURES FOR EE, LV AND LT WERE TOO LOW TO BE PRESENTED.

SEVERAL FIGURES FOR THE FOLLOWING COUNTRIES ARE OF LOW RELIABILITY: HR (2011-2015), EL (2011-2014), ES (2011-2013), SK (2012, 2013, 2015).

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

The same figures for ***personal care workers show a similar development at EU level, i.e. a steady increase between 2011 and 2016***. However, developments at Member State level varied widely. An overall increase between 2011 and 2016 in the shares of personal care workers living in another EU Member State was evident in Estonia, Greece, Latvia, Poland and Romania. By contrast, figures decreased during that time span in Croatia and Slovakia, while in Portugal and Ireland, 2016 levels approximated those of 2011.

Figure 59: Number of personal care workers (aged 20-64) working in another EU Member State, as a share from the national personal care workers still working in the country of origin, by country of origin, 2011-2016



SEVERAL FIGURES FOR THE FOLLOWING COUNTRIES ARE OF LOW RELIABILITY: ES (2011-2016), EL (2011, 2012, 2015, 2016), HR (2011-2016), LT (2014-2016), LV (2011, 2015-2016).

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Overall, there are indications of links between the development of 'rates of movers abroad' among nationals from a country working in healthcare professions and major political events:

1. The accession of Croatia to the EU in 2013 may have prompted the relatively substantial increase in shares of Croatian personal care workers living in another EU Member State in 2014 (there was also quite a substantial increase in total numbers living abroad); however, a similar development cannot be seen for health (associate) professionals, while among personal care workers, the 'rate of movers abroad' was already higher in 2011 and 2012 than in 2014.
2. The complete opening of the labour market to Romanian workers in several countries of destination in 2014 may explain the increase in both the shares and total numbers of health (associate) professionals working abroad, which was larger in 2014 than in 2013, and among personal care workers, where a relatively strong increase was seen in 2015 and 2016. Here, too, the largest increase among both groups of mobile health professionals was noted in 2012.

At EU level, there was a steady increase in shares of health (associate) professionals (from 2% in 2011 to 3% in 2016) and personal care workers (from 4% in 2011 to 6% in 2016) living abroad, although not to significant extent.

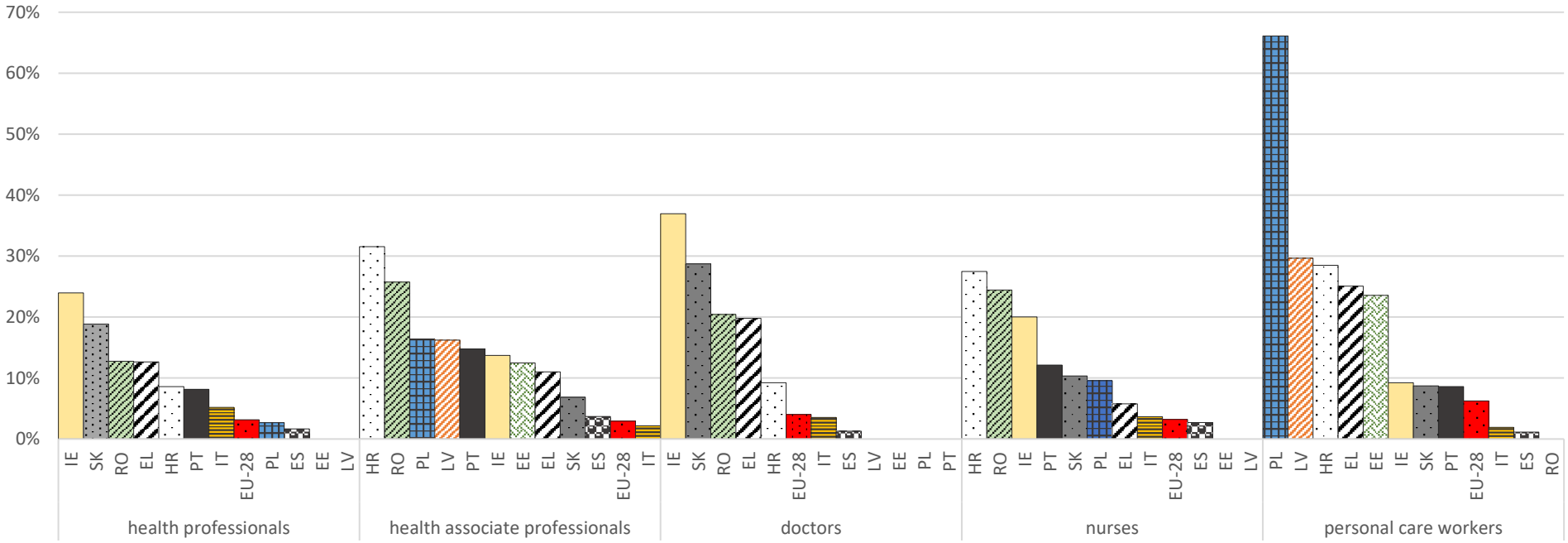
Movers living abroad, by type of health professionals

When talking about nationals leaving and potential 'brain-drain', it is interesting to question whether certain groups of health professionals tend to leave their country more than others. As can be seen, this differed considerably between countries. ***In Romania, Greece, Latvia and Poland, personal care workers were the most likely to leave***, with by far the highest rate of movers.

In ***Ireland and Slovakia, doctors had the highest 'rate of movers abroad'***.

At EU level, the personal care workers accounted for the highest shares of persons working abroad, followed by doctors.

Figure 60: 'Rate of movers abroad' among different groups of health professionals (aged 20-64), 2016



THE GRAPH SHOWS THE NUMBERS OF DIFFERENT GROUPS OF HEALTH PROFESSIONALS WORKING IN AN EU COUNTRY OTHER THAN THEIR COUNTRY OF CITIZENSHIP, AS A SHARE FROM ALL NATIONAL HEALTH PROFESSIONALS WHO STILL WORK IN THE COUNTRY OF CITIZENSHIP.

FIGURES RELATE TO HEALTH PROFESSIONALS (ISCO2D=22), HEALTH ASSOCIATE PROFESSIONALS (ISCO2D=23), DOCTORS (ISCO3D=221), NURSES (ISCO3D=222 AND 322) AND PERSONAL CARE WORKERS (ISCO3D=532); GROUPS OVERLAP, AS DOCTORS AND NURSES ARE ALSO PART OF SOME OTHER GROUPS.

SEVERAL FIGURES HAVE LOW RELIABILITY.

MISSING FIGURES ARE TOO LOW TO BE PRESENTED.

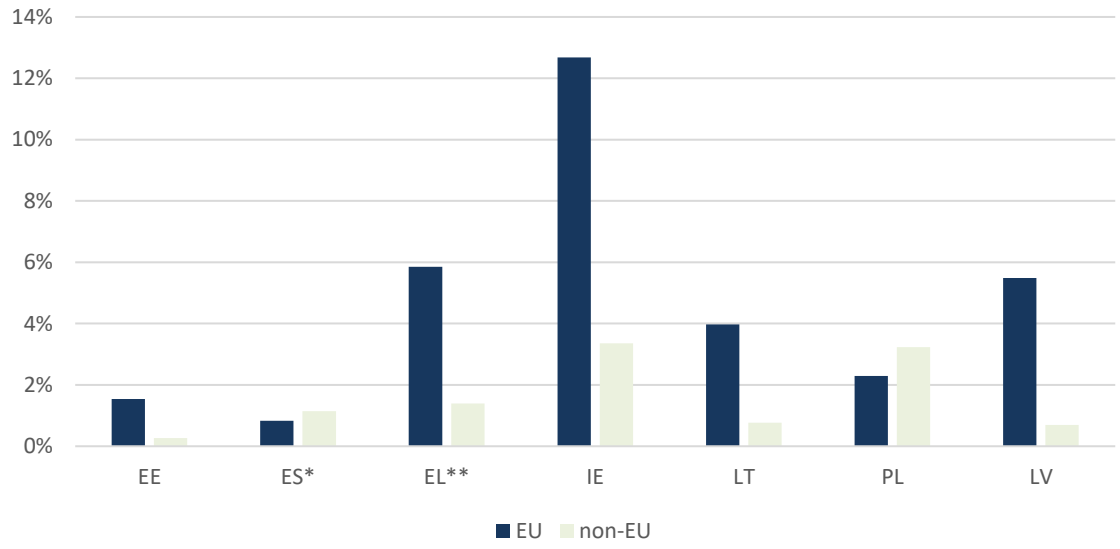
THE SHARE OF ROMANIAN MOBILE PERSONAL CARE WORKERS WAS NOT INCLUDED BECAUSE IT IS SO LARGE (137%) THAT IT WOULD HAVE DISTORTED THE GRAPH.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Health professionals trained in the country and practising abroad

From a public spending point of view, if the loss of health professionals of its own nationality is important to a country, so too is the loss of the health professionals it trained. OECD figures show that for the selected countries of origin (for which data are available), ***the share of doctors who were trained in the country but work in another EU country varied between 2% in Estonia and 13% in Ireland***. Greece and Latvia also had fairly high rates of leaving, with roughly 6% each. ***Other EU countries were the main attraction for leaving doctors, while the rates of movers living in non-EU countries were much smaller***. ***Exceptions were Poland and Spain***, where rates of movers living in non-EU countries were slightly higher than other EU countries.

Figure 61 : Share of doctors working in another EU/non-EU country, from all doctors trained in the respective country, by country of training, all ages, 2015



THE REFERENCE POPULATION OF THESE SHARES (DENOMINATOR) IS THE SUM OF 'DOMESTICALLY TRAINED DOCTORS' IN THE RESPECTIVE COUNTRY ON THE X-AXIS AND THE 'FOREIGN-TRAINED DOCTORS' WITH COUNTRY OF TRAINING AS THE COUNTRY ON THE X-AXIS.

*FIGURES FOR SPAIN ARE FROM 2011, AS THIS IS THE ONLY YEAR FOR WHICH THE TOTAL NUMBER OF DOCTORS IN THE COUNTRY IS AVAILABLE.

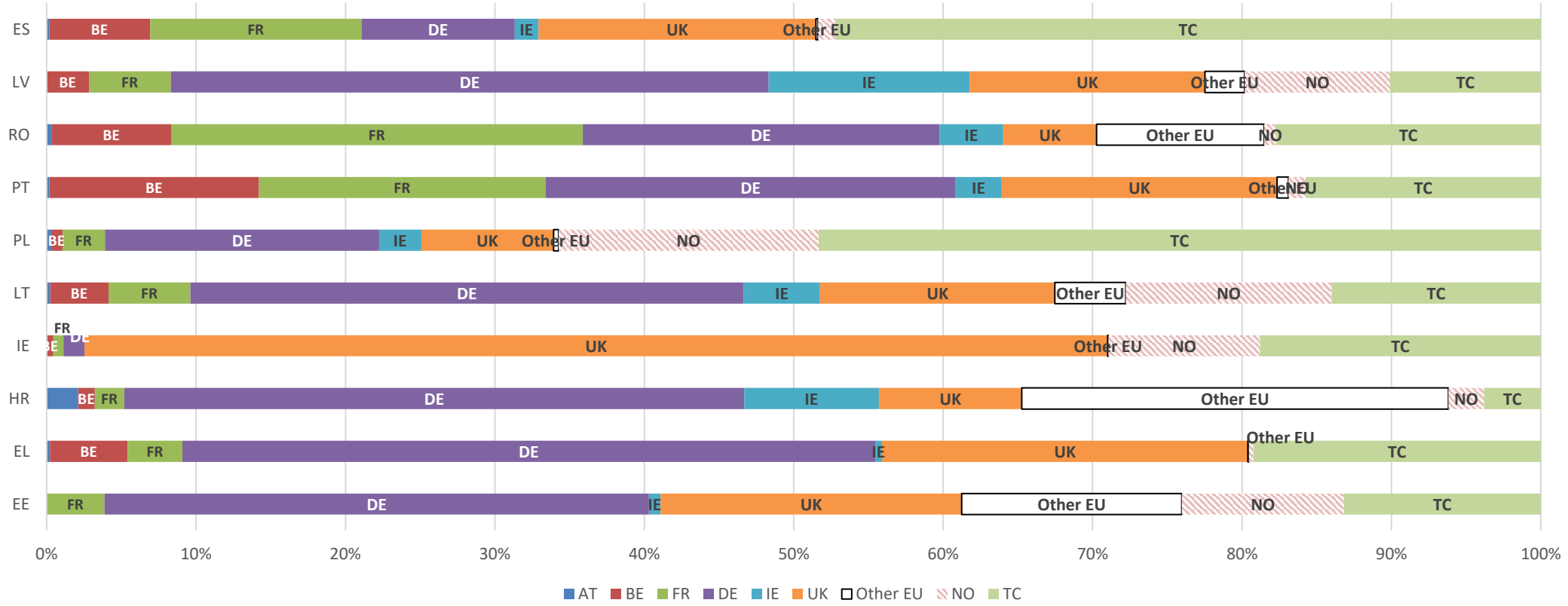
** FIGURES FOR EL ARE PRESENTED AS A SHARE FROM ALL DOCTORS IN THE COUNTRY (INCLUDING FOREIGN-TRAINED).

SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

Figure 62 shows where the mobile doctors trained in the selected countries of origin were practicing in 2015. Almost half of the mobile doctors from Greece worked in Germany (47%). Very similar shares were observed for Latvia (44%), Croatia and Lithuania (43% each), and Estonia (41%). The other important country was the UK, hosting around one- quarter of the mobile doctors trained in Estonia (23%) and Greece (25%), and a little less than 20% in Portugal (19%), Latvia (17%) and Lithuania (18%). However, the strongest relationship was between the UK and Ireland, where 76% of the mobile doctors trained in Ireland worked in the UK. Third countries hosted an important share of some of the professionals trained in the selected countries of origin. The smallest share

was for Croatia (4%), with the biggest being doctors trained in Poland, with 59%. In fact, among the selected countries of origin, only the doctors trained in Poland had a higher share leaving to third countries (including Norway) than to other EU countries. Spain, too had a considerable share of its doctors living in a third country in 2015, most notably the U.S.

Figure 62: Main countries of origin/ training (Y-Axis) and main countries of destination (X-Axis) of doctors who practiced outside the country of training, 2015



SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

Return mobility among health professionals

Return mobility of health professionals, while highly relevant, is extremely difficult to measure. Member States do not seem to track return mobility[163] and approximate figures from the EU-LFS are so low that analysis at Member State level, or a trend analysis, is not possible. The only figure that is above reliability limits (although still of low reliability) is for 2016, when the number of health professionals who had lived in another EU country one year prior to the survey and subsequently returned to their country of citizenship, amounted to around 7,000[164], representing around 60% of the annual outflows/inflows (**Figure 48**) of mobile healthcare professionals.

As a consequence of the lack of data, there is limited research on return mobility of health professionals, at least at a comparative, EU wide level[165]. A study conducted by IOM in 2014 included some findings on return mobility of health professionals, most of which related to TCNs, thus insights cannot be extrapolated to intra-EU movers[166]. The report did point out that a lack of recognition of qualification in the host country can also be an issue for movers upon their return, as the working experience gained abroad may not acknowledged in the country to which they return. This was found to be the case for Poland, where 'data shows that nurses may lose their licence to practise, as they cannot prove having continuously worked as a nurse (abroad)'[167]. The project Health Professional Mobility and Health Systems (PROMeTHEUS) included some country studies looking at this issue, providing some further insights on general trends and drivers of return mobility. As with intra-EU labour mobility in general, health professionals showed an increase in short-term mobility. This was observed in general after the enlargement of the EU. This 'short-term mobility' can take the form of weekly commuting (such as, for example, among health professionals from Estonia working in Sweden, Finland or Norway), but also that of moving with short-term contracts, which was found to be widespread among movers from Eastern Europe to the UK and Belgium[168] and among Romanian movers to Cyprus[169]. While this indicates higher rates of return mobility it can also indicate in increase in circular mobility, adding to the volatility of mobility of health professionals described earlier. A study on mobility of health professionals to and from the UK found that the length of stay abroad was seldom planned at the moment of emigration to the host

[163] Maier, C. et al. (2014) 'Monitoring health professional mobility in Europe', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 101; Schultz, C., Rijks, B. (2014) 'Mobility of health professionals to, from and within the European Union', IOM Migration Research Series No.48, p. 25; research in the realm of this study has shown that none of the contacted authorities of selected countries of origin collect data on returned health professionals.
[164] Source: EU-LFS 2016, Milieu calculations; the concept of returned health professionals is measured in the same way as that of returnees (see Table 2 for definition).
[165] Ognyanova, D. et al. (2012) 'Why do health professionals leave Germany and what attracts foreigners?', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 204.
[166] Schultz, C. and Rijks, B. (2014) 'Mobility of health professionals to, from and within the European Union', IOM Migration Research Series No.48, p. 25.
[167] Schultz, C. and Rijks, B. (2014) 'Mobility of health professionals to, from and within the European Union', IOM Migration Research Series No.48, p. 27.
[168] Maier, Claudia et al. 'Cross-country analysis of health professional mobility in Europe: the results', in Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies, p. 44.
[169] Galan, A. et al. (2012) 'Emergent challenge of health professional emigration: Romania's accession to the EU', in Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies, p. 456.

country, nor was return. Rather, these decisions developed over time as a result of the social and economic contexts in both the host country and the country of origin[170]. Among the main factors prompting movers to return to their home countries were the improvement of working conditions and salaries, as well as professional opportunities. Some evidence suggests that the improvement of working conditions and salaries in some of the Eastern European countries (for example Poland) may have motivated health professionals to return[171]. Research also found that most of the practitioners emigrating from Poland and requesting a certificate of recognition set a date limit[172]. Among the country studies conducted in the realm of this project, 'income is the most cited factor in deciding whether or not to migrate, and influences leavers, returnees and those who remain'[173].

Recognition of qualifications and over-qualification among mobile health professionals

The aim of the revision of the Professional Qualifications Directive in 2013 was to simplify recognition of qualifications obtained in other EU Member States and thereby facilitate intra-EU mobility of persons carrying out certain regulated professions. Many health professions are highly regulated and are thus covered by this Directive (medical doctors, dentists, nurses and midwives). Health professionals intending to carry out their profession in another country must apply for recognition of their qualifications. Data on these applications and the final decisions are collected by the European Commission, DG GROW. The rates of decisions also give an insight into the numbers of health professionals who actually want to move, and the proportion who would be able to carry out their profession in their intended country of destination.

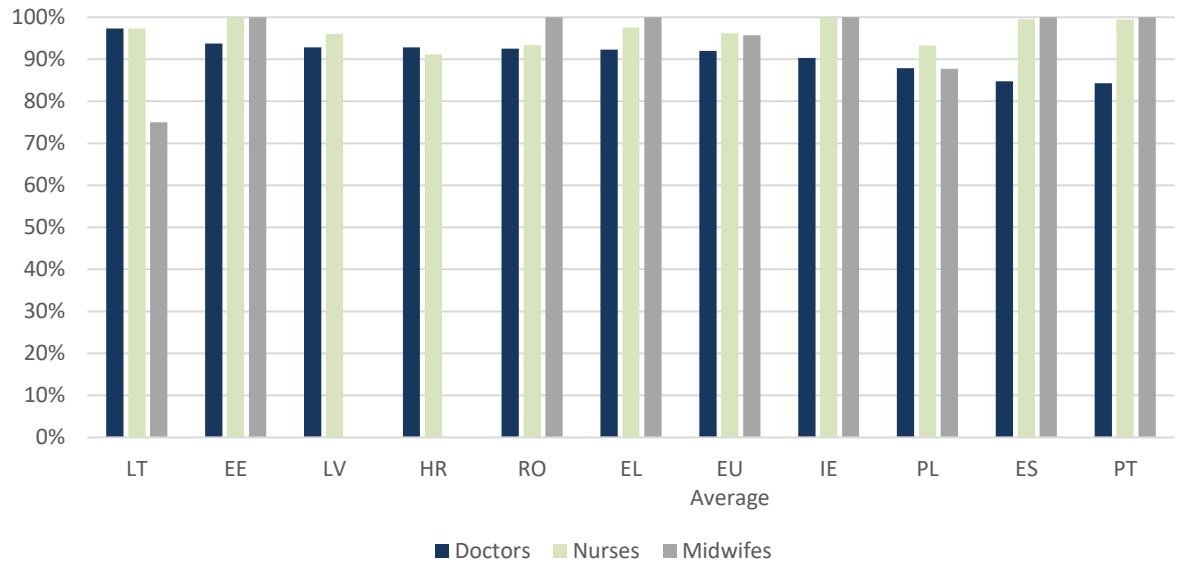
Figure 63 below shows the share of positive decisions taken in all EU-28 countries on recognition of qualifications of doctors, nurses and midwives obtained in the main countries of origin in the period 2015-2016. ***For doctors, qualifications obtained by applicants from Lithuania had the highest positive recognition rate among the countries selected, at 97%.*** Applications ***from Estonia (94%) and Latvia (93%)*** as well as ***Croatia (93%)*** had similarly high rates. All these countries, followed by ***Romania*** and ***Greece*** have higher recognition rates than ***EU average (92%)***. The ***lowest recognition rates were for qualifications obtained by applicants from Spain and Portugal*** (85% and 84% respectively).

[170] Young, R. et al. (2012) 'Motivations and experience of health professionals who migrate to the United Kingdom from other EU countries', in Buchan, W. et al. (2014) 'Vol.2 Health Professional Mobility in a Changing Europe', p. 191.
[171] Maier, Claudia et al. 'Cross-country analysis of health professional mobility in Europe: the results', in Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies, p. 45.
[172] Kautsch, M. and Czabanowska, K. (2012) 'When the grass gets greener at home: Poland's changing incentives for health professional mobility', in Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies, p. 429.
[173] Glinos, I. et al. (2012) 'Health professional mobility and health systems in Europe: conclusions from the case-studies', in Wismar, M. et al. (2011) 'Health Professional Mobility and Health Systems. Evidence from 17 European countries', World Health Organization on behalf of the European Observatory on Health Systems and Policies, p. 75.

In all countries of origin except Croatia, ***nurses' qualifications had a higher share (or equal in the case of Lithuania) of positive recognition than those of doctors*** but there are still variations between countries. Qualifications obtained in Estonia and Ireland reach 100%, Greece and Portugal following closely behind (98% and 99% respectively). The qualifications obtained in Romania (93%), Poland (93%) and Croatia (91%) obtained lower recognition rates than the ***EU average (96%)***.

The EU average for positive decisions on qualifications related to midwives was higher than doctors' (96%) and is the same as nurses' (96%). For most of the countries of origin, recognition rates for midwives are higher than that of doctors, except for qualifications obtained in Poland where they have the same ratio (88%)[174]. Similarly, the positive recognition rates for midwives is either higher than those for nurses (RO, EL, PT) or equal (ES). Only for Polish qualifications, the situation is reversed, with higher recognition rates for nurses (93%) compared to midwives (88%).

Figure 63: Share of all positive decisions taken in EU-28 countries for qualifications obtained in the main countries of origin, 2015-2016



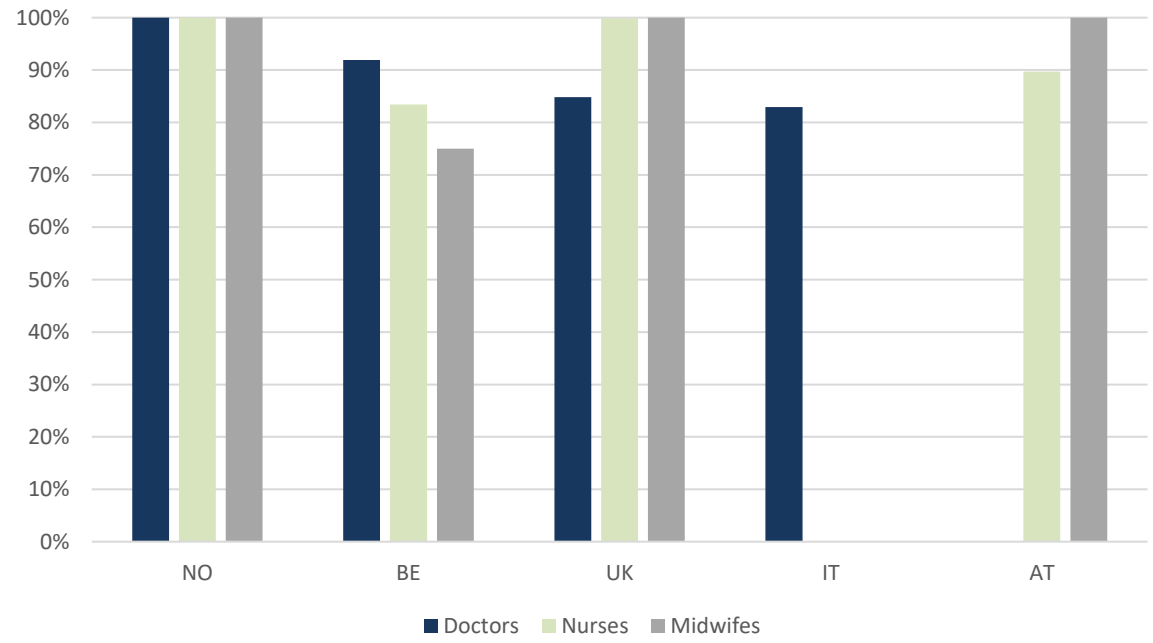
SHARE OF ALL TYPES OF POSITIVE DECISIONS WITHIN THE OVERALL DECISIONS TAKEN IN THE EU-28 BY COUNTRY OF ORIGIN BY SELECTED REGIMES (DOCTORS/NURSES/MIDWIVES). SORTED BY DECISIONS FOR DOCTORS' QUALIFICATIONS IN DESCENDING ORDER. FIGURES UPDATED ON 11/28/2017.
THERE MAY BE INACCURACIES DUE TO TIME LAGS IN NOTIFICATIONS BY MEMBER STATES TO THE EUROPEAN COMMISSION.
NUMBER OF DECISIONS REGARDING MIDWIVES IN EE (1), LV (0) AND LT (3) ARE VERY LOW THEREFORE SHOULD BE INTERPRETED CAREFULLY.
SOURCE: EUROPEAN COMMISSION DG GROW, DATABASE ON REGULATED PROFESSIONS, PROFESSIONALS MOVING ABROAD (ESTABLISHMENT), OVERALL STATISTICS

[174] Shares of positive decisions for midwifes in Lithuania, Estonia and Latvia are not considered in the comparative analysis since their numbers are very low therefore can be misleading.

Among the main countries of destination, data on the positive decisions taken in the period 2015-2016 for qualifications obtained in another EU-28 country were available for the countries in the graph below. The shares of positive decisions taken can provide insight into the accessibility of the profession in the destination country. Lower rates might constitute a barrier for health professionals who plan to move to a given country. In addition, the rates can be interpreted as signals for future movers, influencing their decisions on where to move. For instance, among the destination countries, ***Italy (83%) had the lowest positive decision rate for recognition of diplomas of doctors from other EU-28 countries***. On the other hand, in the same period, all qualifications obtained in the EU were accepted in Norway which is another important destination country assessed in this report. However, as indicated above, the data concerning midwives should be interpreted carefully due to relatively small amount of applications.

For ***positive decisions on nurses' and midwives' qualifications, the UK had the highest rate, with 100%.*** Midwives had similar rates in ***Norway and Austria (100%),*** but ***Belgium (75%) was less accessible.***

Figure 64: Share of all types of positive decisions taken in the country of destination, for qualifications obtained in EU-28 countries, 2015-2016

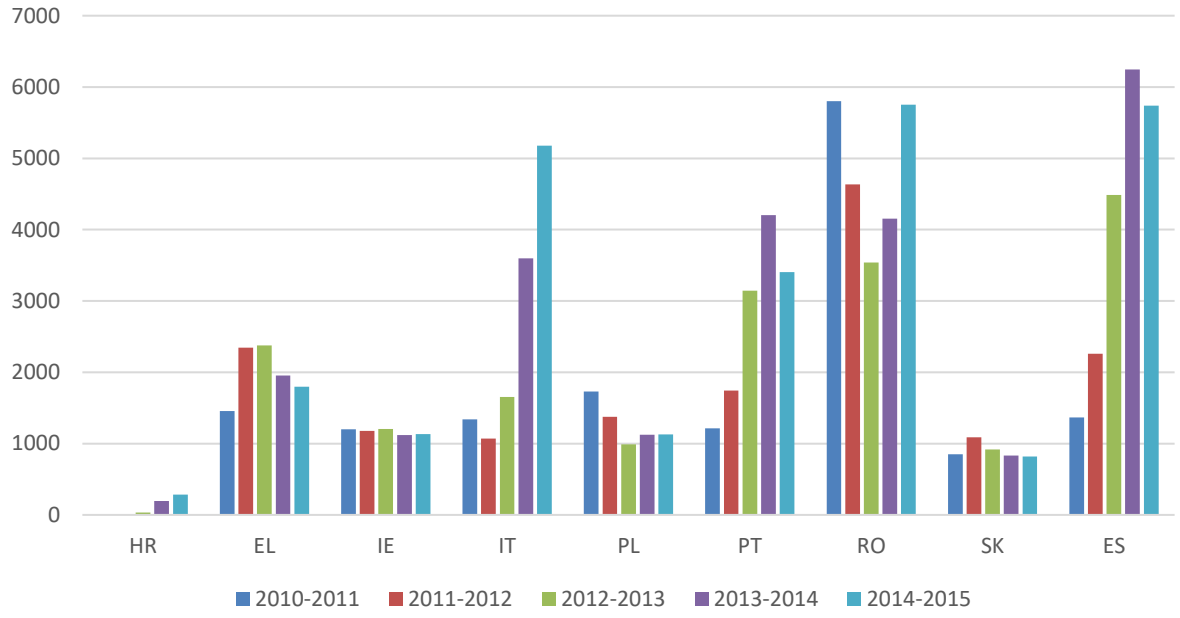


SHARE OF ALL TYPES OF POSITIVE DECISIONS WITHIN THE OVERALL DECISIONS TAKEN IN THE MAIN DESTINATION COUNTRIES FOR QUALIFICATIONS OBTAINED IN THE EU-28 FOR SELECTED REGIMES (DOCTORS/NURSES/MIDWIVES). SORTED BY DECISIONS FOR DOCTORS' QUALIFICATIONS IN ASCENDING ORDER.
THERE ARE NO DATA AVAILABLE FOR NURSES' QUALIFICATIONS FROM IT. NUMBERS FOR MIDWIVES FOR IT WERE TOO LOW TO BE RELIABLE THEREFORE NOT INCLUDED IN THE GRAPH.
THERE ARE NO DATA AVAILABLE FOR DOCTORS' QUALIFICATIONS FROM AT.
THERE MAY BE INACCURACIES DUE TO TIME LAGS IN NOTIFICATIONS BY MEMBER STATES TO THE EUROPEAN COMMISSION.
SOURCE: DG GROW, DATABASE ON REGULATED PROFESSIONS, PROFESSIONALS MOVING ABROAD (ESTABLISHMENT), OVERALL STATISTICS

Figure 65 below shows the total numbers of positive decisions taken for the recognition of qualifications for doctors and nurses from the main countries of origin in the EU-28. ***The numbers of decisions on qualifications obtained in Ireland and Slovakia remained constant between 2010-2015***. For other countries of origin, however, numbers varied considerably: professional qualifications obtained in Greece rose until 2013 then started to decline. Decisions on qualifications from Spain and Portugal increased until 2014, then declined. The positive decisions for Romanian and Polish nurses' and doctors' qualifications declined from 2010 to 2012, then immediately began to increase again.

The trends in positive decisions taken per year can be compared to the annual change in stocks of health professionals living in another EU Member State (**Figure 58** and **Figure 65**), although data on decisions cover the time span from 2010 to 2015, while data on stocks cover the time span 2011-2016. It can, however, be assumed that the decisions in one year would show in the change in stocks in the following year, as movers are likely to wait to receive a positive decision before moving. ***Indeed, for some countries of origin, the change in stocks followed a fairly similar trend (in terms of decrease or increase, not magnitude) to the change in positive decisions, with a one-year delay***. This was the case for Portugal, Ireland, Italy, Spain and Slovakia. ***In Poland and Romania, by contrast, the trends did not match***. In Poland, the number of decisions decreased and then stagnated since 2010-2011, whereas stocks increased continuously since 2011. This may be related to fewer positive decisions for Polish movers compared to very large stocks, which was also reflected in slightly lower approval rates than other countries (**Figure 63**). Romania had very high numbers of positive decisions compared to its stocks and only slightly higher approval rates than Poland, suggesting that Romanian health professionals were more likely to ask for recognition. Nevertheless, while the number of positive decisions from Romania were very high in 2010-2011, before decreasing and subsequently increasing again, stocks increased continuously since 2011. The substantial increase in decisions in 2015 was, however, reflected in an extremely substantial increase in stocks in 2016.

Figure 65: Total number of positive decisions taken in EU-28 for qualifications obtained in selected countries of origin, by selected regimes (doctors and nurses combined), 2010-2015



NUMBER OF TOTAL POSITIVE DECISIONS TAKEN IN THE EU-28 BY COUNTRY OF ORIGIN FOR SELECTED COUNTRIES AND BY SELECTED REGIMES (DOCTORS/NURSES COMBINED). YEARS FROM 2010 TO 2015.
DATA ARE MISSING FOR HR FOR 2010 TO 2012.
THERE MAY BE INACCURACIES DUE TO TIME LAGS IN NOTIFICATIONS BY MEMBER STATES TO THE EUROPEAN COMMISSION.
SOURCE: EUROPEAN COMMISSION DG GROW, DATABASE ON REGULATED PROFESSIONS, PROFESSIONALS MOVING ABROAD (ESTABLISHMENT), OVERALL STATISTICS

Given that the recognition levels of qualifications of mobile health professionals are very high, it raises questions of whether mobile health professionals then actually carry out occupations adequate to their obtained training and qualifications, and the extent to which they carry out health professions at a lower level than they are trained for. Over-qualification is a frequent phenomenon among EU-28 movers, and the following paragraphs look at over-qualification among mobile health professionals, in particular.

This report measures over-qualification in two ways: firstly, by comparing workers' educational level with their current occupation; secondly, by looking at reported over-qualification, in response to a targeted question in the 2014 EU-LFS ad-hoc module.

The first type of estimation is based on the ISCO classification system, where occupations are classified according to type and also the level of skill needed to carry out a certain occupation. There are also correspondence tables which allow comparison of ISCO classes with ISCED levels, the codification system in which the level of education is measured.

The EU-LFS provides figures on education level (ISCED level) in three groups, according to the highest level of education acquired: lower secondary education, upper secondary education, tertiary education. Both the ISCO groups health professionals (22) and health associate professionals (32) correspond to the highest level, meaning that tertiary educa-

tion is required for these occupations (see Table 28 in Section 2.4.4). On the other hand, the occupation of personal care workers corresponds to a medium or educational level, meaning that only lower or upper secondary education is required for this type of job. For the purposes of this study, therefore, over-qualification is defined as persons who have acquired a tertiary education level but who work as personal care workers (a job for which this education level would not be necessary). The study includes both those persons who were trained in the field of health and welfare and those trained in any field, on the assumption that there are likely to be professionals trained in other fields but working as personal care workers.

Figures are only available at EU aggregate level as they are otherwise too small to be presented. These figures show that ***roughly 20% of EU-28 movers working as personal care workers and previously trained in health and welfare were over-qualified for their job***; among those who were trained in any field, 17% were over-qualified. These shares were ***slightly higher than among nationals***, where they were 13% and 14%, respectively.

Table 26: Over-qualification among mobile personal care workers and among national personal care workers (aged 20-64), 2016

Personal care workers trained in the field		Personal care workers trained in any field	
EU-28 movers	20%	EU-28 movers	17%
Nationals	13%	Nationals	14%

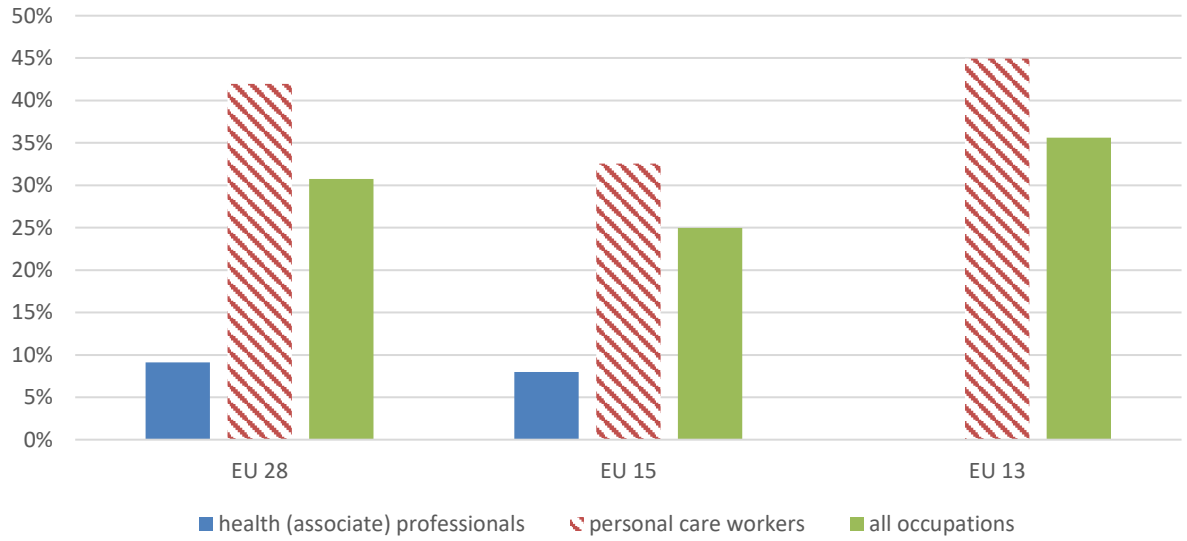
THE TABLE SHOWS THE SHARE OF THOSE PERSONAL CARE WORKERS WHOSE HIGHEST EDUCATION LEVEL IS TERTIARY EDUCATION AND WHO WORK AS PERSONAL CARE WORKERS (WHICH ONLY REQUIRES UPPER SECONDARY EDUCATION LEVEL), AS SHARES FROM PERSONAL CARE WORKERS WITH ANY LEVEL OF EDUCATION; FIGURES ARE DISPLAYED FOR PERSONAL CARE WORKERS WHO WERE TRAINED IN THE FIELD OF HEALTH AND WELFARE AND FOR THOSE WHO WERE TRAINED IN ANY FIELD.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

The second estimate of over-qualification is based on a survey question asking whether health professionals perceived their current employment as corresponding to their skill level. Results varied depending on their country of origin and specific occupation (**Figure 66**). The ***highest share of health professionals believing themselves over-qualified was among personal care workers coming from EU-13 countries, of whom 45% stated they were over-qualified for their job***. The share was slightly lower for EU-28 movers (42%), dropping to ***33% for EU-15 movers working in the same field.*** For ***higher skilled health professionals, the rates of those believing themselves over-qualified were much lower***, among both movers from EU-28 (9%) and from EU-15 (8%) (figures for EU-13 movers are below reliability).

When compared with all employed EU-28 movers in the respective countries (see **Figure 66**), ***health (associate) professionals felt significantly less over-qualified, while personal care workers felt over-qualified at an above-average level.***

Figure 66: Share of respondents who replied 'yes' to the question of whether they believed themselves over-qualified for the job they perform, EU-28 aggregate, 2014



SHARE OF RESPONDENTS FROM ALL EMPLOYED WHO REPLIED 'YES' TO THE QUESTION OF WHETHER THEY WERE OVER-QUALIFIED FOR THE JOB THEY PERFORM.

THE FIGURES REFER TO HEALTH PROFESSIONALS (ISCO2D=22) AND HEALTH ASSOCIATE PROFESSIONALS (ISCO2D=32), AS WELL AS PERSONAL CARE WORKERS (ISCO3D=532).

NOT ALL COUNTRIES ARE PRESENTED IN THE AGGREGATES.

EU-28 AGGREGATE FOR MOVERS FROM EU-28 AND FOR CODES 22 AND 32 IS THE TOTAL OF ES, LU, SE AND THE UK AS DESTINATION COUNTRIES. EU-28 AGGREGATE FOR CODE 532 IS THE TOTAL OF AT, ES, IT, LU AND THE UK AS DESTINATION COUNTRIES.

EU-28 AGGREGATE FOR EU-15 AS COUNTRY OF ORIGIN: CODES 220 AND 320 INCLUDE LU, SE AND THE UK. CODE 532 INCLUDES AT, LU AND THE UK.

EU-28 AGGREGATE FOR EU-13 AS COUNTRY OF ORIGIN: NO DATA FOR CODES 220 AND 320. CODE 532 INCLUDES AT, ES, IT AND THE UK.

SOURCE: EU-LFS AD-HOC MODULE, 2014. MILIEU CALCULATIONS.

2.5 EURES contribution to intra-EU labour mobility

Regulation (EU) 2016/589 lays down an EU framework for cooperation to facilitate the exercise of free movement of workers in accordance with Art. 45 TFEU and to reinforce coordination and information exchange between Member States. The regulation has made some changes to EURES (European Employment Services), which are elaborated below. EURES is a network designed for the benefit of workers and employers as well as any citizen wishing to benefit from the principle of the free movement of workers. The network is composed of different organisations including the Public Employment Services. The EU Member States, Norway, Lichtenstein and Iceland are part of the network. Switzerland cooperates with the network.

EURES provides support services to jobseekers and employers through a human network composed by staff working in the participating organisations.

EURES organisations provide information to jobseekers on individual employment opportunities. They work together to match individual jobseekers with opportunities in other countries and thus support the recruitment process of employers who are looking for workers from other countries to fill their vacancies.

The following services for jobseekers are offered:

- providing or referring to general information on living and working conditions as well as on relevant administrative procedures regarding employment in the country of destination;
- aiding with the drawing up of job applications and CVs to ensure conformity with the European technical standards and formats.

For employers, EURES organisations offer the following services:

- providing information on specific rules relating to recruitment from another Member State and on factors which can facilitate such recruitment;
- where appropriate, providing information on and assistance with the formulation of individual job requirements in a job vacancy and with ensuring its conformity with the European technical standards and formats.

Services at national level are complemented by information online at central level, via the EURES Job Mobility portal.

The portal provides access to job vacancies made available by the Public Employment Services. The portal also contains online CVs of registered jobseekers as well as user friendly means of accessing information needed for employers, jobseekers and job changers willing to recruit / be recruited from abroad. The portal is run by the Commission and is free of charge for jobseekers and employers.

Latest developments

Recent changes brought by the Regulation (EU) 2016/589 aim at creating a more inclusive platform including a wider spectrum of institutions. It aims to establish baseline standards for collecting and exchanging data between the Member states and to improve the efficiency of the system and to foster further cooperation between the Member States. These improvements will result in better data collection and sharing, which will in turn provide additional insight into the phenomenon of workers' mobility in the EU.

During September 2017, there were around 340,000 CVs and a total of 5.26 million Job Vacancies registered on the EURES website[175], an increase of 90,000 CVs and 1.61 million posts compared to September 2016. The following indicators on job vacancies measure the part of the EURES in the whole labour market.

[175] European Job Mobility Portal, EURES Statistics, accessed 09/27/2017.

Figure 68, Indicator [1]: Vacancies posted on EURES as a proportion of vacancies held by EURES member organisations

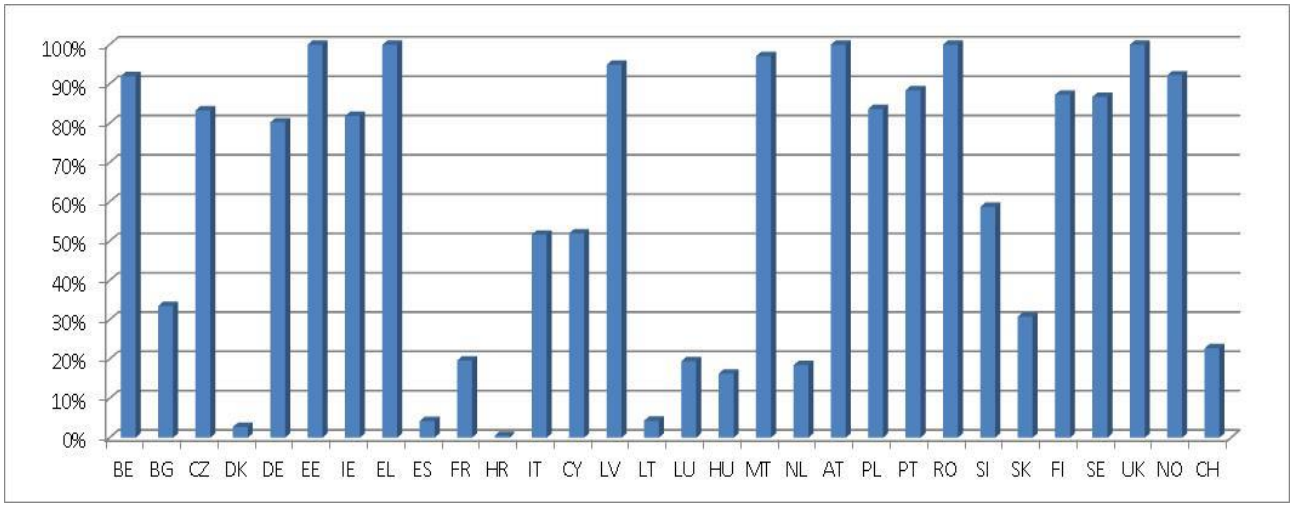
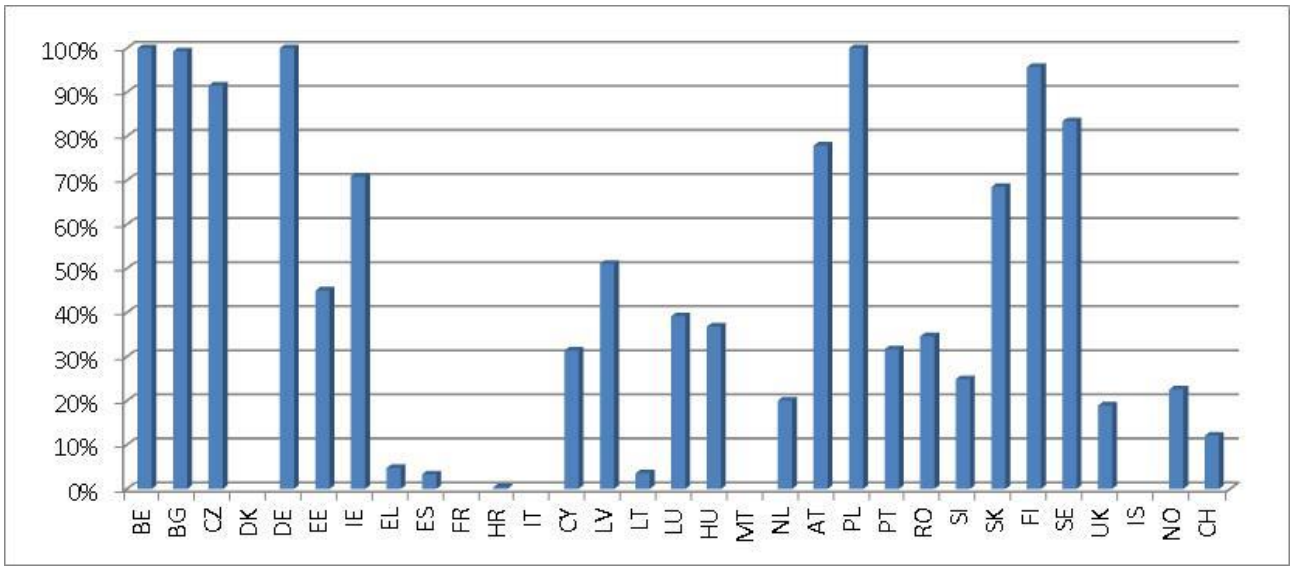


Figure 67, Indicator [2]: Vacancies posted on EURES as a proportion of all national vacancies

SOURCE: PES, EURES PORTALS - TOTAL NUMBER OF VACANCIES ON THE CENTRAL NATIONAL DATABASES DIVIDED BY THE NUMBER OF VACANCIES EXCHANGED WITH EURES



SOURCE: EURES PORTAL AND QUARTERLY JOB VACANCIES FIGURES FROM EUROSTAT - COMPARISON IS MADE FOR THE LAST AVAILABLE FIGURES (THIRD QUARTER OF 2016). JOB VACANCIES FIGURES IN EUROSTAT NOT AVAILABLE FOR DENMARK, FRANCE, ITALY, MALTA AND ICELAND.

⚠ THE NUMBERS IN THE CHART MAY NOT FULLY REFLECT THE COUNTRIES' EFFORTS TO INFORM EURES OF ALL THEIR VACANCIES. THIS IS BECAUSE THE NETWORK IS ORGANISED IN DIVERSE WAYS IN EACH COUNTRY.

Regulation (EU) 2016/589 requires each Member State to make available to the EURES portal all job vacancies made publicly available through PES and those provided by other EURES member organisations under Article 12(3) of the same Regulation. Indicator [1] measures how transparent the national databases are. However, the databases in some

countries may host vacancies not directly handled by the PES. Since these should not be provided to EURES, we did not take them into account in the calculation where possible. On the other hand, some countries' national databases do not include vacancies managed at local or regional level.

Compared with 2015 figures, the rate for Denmark severely decreased due to a corresponding drop in the number of vacancies provided to the EURES portal. To prevent a possible decline in interest among Danish employers in posting vacancies on the Danish PES website, vacancies have been made available to the EURES platform only if the employers had given explicit consent. This scheme will be changed to ensure compliance with the EURES Regulation by the date of application of the relevant provisions.

The rate for the UK increased, but this was due to a reduced number of job vacancies available on the national databases. This reflects a provision in the EURES Regulation, enabling employers to opt-out of making available their vacancies on EURES.

Indicator [2] measures the ratio of

- job vacancies available on the EURES portal

compared to

- all job vacancies available in the Member States, whether or not they are made available by EURES member organisations.

Given the emergence of a variety of employment services, the Commission and the Member States will need to work together to broaden the EURES network as the EU's main tool for delivering recruitment services across the Union. The EURES network could be more effective in the provision of quality services and cover a larger portion of the labour market if it had more member organisations.

Note: the available information was produced using different methods. For example, observations refer to different dates. In countries with low rates for these 2 indicators, it could be worth looking at ways of improving the EURES network's coverage.

ANNEX A METHODOLOGICAL NOTES

A.1. Definitions and measurement

When measuring labour mobility for the purposes of supporting policy-making, it is important that what is captured empirically relates to what is defined by the legislation. Table 27 below explains the groups covered and defined by the EU legislation on free movement, and their measurement in this report.

Table 27: Legal and statistical definitions of mobile citizens

Legal definition	Statistical concept and definition
Free movement of citizens	EU-28 movers
All EU citizens and their family members have the right to move and reside freely within the territory of the Member States[176]; inactive EU citizens have the right to reside in another Member State for more than three months if they have sufficient resources and comprehensive sickness insurance cover[177].	EU-28 movers are defined as EU citizens who have their usual residence in a Member State other than their country of citizenship at a given point in time *(stocks)*, or who moved their usual residence to a Member State other than their country of citizenship in a given period of time *(flows)*. The concept of 'usual residence' is reflected similarly in Eurostat population and migration statistics and the EU-LFS. All three sources refer to the usually resident population as those persons who have resided, or intend to reside, in a country for at least 12 months[178].
Mobile workers	Active EU-28 movers
According to EU legislation, 'migrant workers' are EU citizens who are in an employment relationship, and who carry out real and genuine activities which are not purely marginal and ancillary, in a Member State other than their state of citizenship[179]. In cases of unemployment, these citizens can retain their status as workers under certain conditions, or move to the status of jobseekers[180]. EU citizens have the right to move to another Member State in order to look for work and to receive the same assistance from national employment offices; they have the right to reside in another Member	The legal concepts of migrant workers and jobseekers are approximated by looking at 'active EU-28 movers'. These include EU-28 citizens who are employed or unemployed in an EU Member State other than their country of citizenship. The main data source for looking at this group is the EU-LFS. According to EU-LFS methodology, the group of 'employed' includes persons who did any work (one hour or more) for pay or profit during the reference week, and those who had a job or business but were temporarily absent. The group of 'unemployed' includes those who were not working during the

[176] Council Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States.
[177] Juravle, C. et al., 2013, 'A fact finding analysis on the impact on the Member States' social security systems (…)', p.1.
[178] Eurostat, Metadata on population statistics, point 3.4; Eurostat, Metadata on International Migration Statistics, point 3.4; Eurostat, EU Labour Force Survey Explanatory Notes (from 2014Q1 onwards), p.4.
[179] Directive EC 2004/38 and CJEU case law, source: Verschueren, H. (2015) 'Free movement of workers: the role of Directive 2014/54/EU in tackling current and future challenges', presentation at an Equinet conference, p. 6.
[180] Ibid.

State with the status of 'jobseeker' as long as they continue to seek employment and have a genuine chance of being engaged[181].	reference week, but who had found a job starting within three months, or who are actively seeking employment and are available to work[182].
Frontier workers, seasonal workers	Cross-border workers
Frontier workers are defined as cross-border workers who return to their country of residence 'as a rule daily or at least once a week'[183]. This definition stems from Regulation (EC) No 883/2004 which assigns specific rights to social security to such workers and their family members. Seasonal workers are migrants who come to work in another Member State for a limited amount of time. Such workers are specifically mentioned in Regulation (EU) No 492/2011, without being defined, as benefitting from the right of free movement.	The EU-LFS explicitly asks for respondents' 'country of place of work' which may be different to the country of residence and which allows for cross-border workers to be identified. However, the survey does not ask for the frequency of commute between the country of residence and the country of work. Cross-border workers are therefore defined as EU citizens who live in one EU country and work in another, regardless of their precise citizenship (provided they are EU-28 citizens). Thus, they include the group which as legally defined as 'frontier workers' but may also include persons who commute at a longer interval than once a week and might even include seasonal workers (who only work in another country for part of the year).

A.2. Main data sources for Sections 2.1 – 2.4: EU Labour Force Survey and Eurostat population and migration statistics

EU Labour Force Survey (EU-LFS)

The EU-LFS is a large household sample survey providing quarterly results on labour participation of people aged 15 and over, as well as on persons outside the labour force. The EU-LFS measures unemployment and labour market participation, and also collects other information on the resident population, in particular nationality, which can be used to produce estimates of the number of EU citizens living/working in another Member State. EU-LFS data is therefore the best EU wide source to estimate numbers of active EU movers (mobile workers). In addition, it can provide more information about specific characteristics of EU mobile citizens, such as age and gender, sector of employment, occupation, education level, etc.

Since the EU-LFS has a legal basis (Council Regulation (EEC) No 577/98 of 9 March 1998), data collection in the Member States are harmonised to a considerable extent. Comparability of figures is ensured by: using the same concepts and definitions; follow-

[181] Article 5 Regulation 492/2011 and Article 14(4)(b) Directive 2004/38, source: Verschueren, H. (2015) 'Free movement of workers: the role of Directive 2014/54/EU in tackling current and future challenges', presentation at an Equinet conference, p. 6.
[182] Eurostat 'EU-LFS database user guide. Version November 2016', p.55; description of variables WSTATOR and SEEKWORK.
[183] Regulation (EC) No 883/2004, Article 1(f).

ing ILO guidelines; using common classifications (NACE, ISCO, etc.); and recording the same set of characteristics in each country. Microdata are accessible for researchers, albeit with a time lag of over one year.

The EU-LFS has the following distinct advantages:

- For some countries, it seems to be simply the only source (apart from Census) of data on the stocks of EU foreigners broken down by citizenship.
- EU-LFS data are available on a quarterly basis and published around four months after data collection, making it possible to identify recent trends.
- One variable in the EU-LFS provides information about the length of time for which foreigners have been established in the country. It thus enables an estimate of the inflows that occurred over a certain time and helps to distinguish the recent intra-EU movers from the 'EU foreigners' that have been in the country for a longer time.
- While the use of EU-LFS data might underestimate the absolute number of EU movers, it is likely to give a reasonable indication of the changes in stocks over time.
- it includes many variables related to the employment situation and socio-demographic profile of respondents.
- It allows estimating of stocks and analysis of characteristics of cross-border workers[184].

However, estimations of 'EU foreigners' can suffer the following limitations[185]:

- Higher non-response rate among foreigners.
- Under-coverage of recently arrived foreigners due to delay in entering the reference sample frame[186].
- EU-LFS estimations of stocks of EU foreigners are consistently lower than figures from migration statistics.
- Small sample sizes of EU movers in many countries reduce the possibility of providing detailed analysis of data.

[184] For example, a specific chapter on cross-border workers based on EU-LFS data was included in the 2015 Annual Report on intra-EU Labour Mobility.
[185] Limitations are described in Employment in Europe, 2008 (Chapters 2 and 3).
[186] This seems to be particularly true for some countries (France, Italy, Austria and the Netherlands), see 'EU Employment and Social Situation. Quarterly Review', June 2014, p. 52, footnote 34; the under-estimation is likely to be due to the fact that those movers are not captured adequately by the sample (under-coverage). The Quality Report of the EU-LFS (2012), for example, shows that in many countries, household samples are drawn according to a rotation scheme, meaning that the same households are interviewed for several quarters and only a part of the sample is replaced by new households each quarter or every two quarters; therefore, there is a delay in capturing newly established households (especially if the dwelling is also new). Another reason for under-coverage is that better integrated migrants are generally covered more adequately, for example due to language issues (as mentioned, for example in the Austrian Standard Documentation on the LFS 'Mikrozensus ab 2004 Arbeitskräfte-und Wohnungserhebung').

Eurostat population and migration statistics

The EU and its Member States have made considerable efforts to improve the quality and comparability of migration data at EU level. In 2007, a Regulation[187] was adopted to set the framework for collection and publishing of migration statistics, in particular the population stocks (of foreigners 'usually resident'[188] in the country, and flows, disaggregated either by citizenship or country of birth. The adoption and implementation of this Regulation has led to a substantial improvement of data availability.

The Eurostat database of population statistics provides data on the *stocks* of foreigners/foreign-born persons[189]. The Eurostat database of migration and citizenship data provides data on *inflows and outflows* of foreigners and nationals, according to citizenship or previous/next country of residence[190]. Due to delays in producing statistics and the need for Eurostat to collect the data from national statistics institutes, Eurostat migration statistics are currently published more than one year after the reference period/date[191].

Important gaps remain, especially when measuring the extent of intra-EU mobility. There is no obligation for Member States to breakdown the numbers of EU foreigners by individual citizenship. While many Member States go beyond the minimum requirements and publish data broken down by individual citizenship for EU foreigners, this is not the case for all countries (or indeed for all years). Twelve Member States[192] only publish the total number of 'EU foreigners', with no breakdown by individual citizenship.

Another data limitation, from a labour market perspective, is that the only additional variables available (apart from citizenship) are age group and gender (i.e. there is no information on duration of residence, employment status, or education level). While the population data are fairly complete when dealing with all age classes taken together, for the specific working-age population (15-64) less data about 'EU foreigners' are available. Finally, the fact that the 2007 Regulation of migration statistics has been implemented recently implies some breaks in the series from 2008 onwards. For data on mobility flows, most countries adapted their data provisions in 2008, but several countries show breaks in series in 2009, with some even later. This break in series in 2008/2009 renders the analysis of long-term trends (for example, over the past 10 years) impossible.

Two other limitations should be mentioned: firstly, the fact that they are mostly based on administrative registers may lead to underestimation, as some foreigners may not regis-

[187] Regulation (EC) No 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection and repealing Council Regulation (EEC) No 311/76 on the compilation of statistics on foreign workers, OJ L 199, 31 July 2007, p. 23.
[188] 'Usual residence' means the place at which a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage or, by default, the place of legal or registered residence (Regulation (EC) No 862/2007, Article 2, section 1 (a)).
[189] Data sets: migr_pop1ctz and migr_pop2ctz, migr_pop3ctb, migr_pop4ctb, migra_pop5ctz, migr_pop6ctb.
[190] Data sets: migr_immi, migr_emi and respective subsets.
[191] As of October 2014, the latest data on 'stock' refers to the situation on 1st January 2013 and the latest data on 'in- and outflows' refers to flows that occurred during 2012.
[192] As far as the latest data on stock of EU foreigners (1st January 2014) are concerned, there is no detail by individual citizenship provided for eight Member States (EL, FR, HR, CY, LU, MT, AT and PL) and for the UK, figures are provided only for the largest communities of EU citizens.

ter out of fear, lack of discipline or motivation; secondly, registration may be delayed, potentially creating a bias in any dynamic analysis of these data.

Analysis of the data on inflows and outflows of citizens, notably by Holland et al. (2011)[193], seems to indicate that its availability and comparability (to the population stock data) is more limited. In particular, the difference between inflows and outflows for a certain year rarely match the evolution of the population stock (beyond the differences explained by natural evolution of the stock of foreigners). The difference could be partly due to the fact that Member States are obliged to count immigration and emigration of persons who establish their usual residence in a Member State 'for a period that is, or is expected to be, of at least 12 months'[194]. However, the Regulation does not refer to these 12 months when talking about data on stocks. The flow statistics are aggregates of flows during an entire year (reference period), while the stock data is a figure at a certain point in time (usually 1 January of every year).

Another limitation is that the change in reporting following the implementation of the Regulation mentioned above created breaks in series in the data reported by Eurostat for many Member States, in particular in the years 2008-2010; special attention is therefore given to the flags indicating these breaks and, if needed, missing data can be replaced with EU-LFS or national data.

Although both citizenship and previous/next country of residence are collected for in-flow/outflow data, the two cannot be combined. This constitutes an important limitation in the estimation of intra-EU mobility flows. For example, the estimates on inflows to Member States either have to be based on previous country residence being another Member State (and thus include TCNs) or have to be based on citizenship of another Member States (and thus include EU citizens immigrating from third countries). This has been flagged in previous labour mobility reports.

Finally, the quality of data on outflows may be limited by the fact that foreigners leaving a country might not de-register from their local administration.

A.3. Methodological notes for Section 2.3

A few notes on the terminology used in Section 2.3 of the study should be highlighted. First, cross-border workers are defined as EU citizens who live in one EU or EFTA country and work in another (see Table 27). Note that in this section however, only nationals of the country of residence are counted (so, for example, cross-border workers from Belgium to Germany would only include Belgian citizens). This was done in order to avoid including nationals from the other side of the border who have different language competence, and which would distort the results. Long-term movers are defined as EU citizens

[193] Holland D., Fic T., Rincon-Aznar A., Stokes L. and Paluchowski, P. (2011) 'Labour mobility within the EU - the impact of enlargement and the functioning of the transitional arrangements', Study commissioned by the Directorate-General for Employment, Social Affairs and Inclusion, NIESR, London, available at:http://ec.europa.eu/social/BlobServlet?docId=7120&langId=en and case studies available at : http://ec.europa.eu/social/BlobServlet?docId=7191&langId=en

[194] Regulation (EC) No 862/2007, Article 2, section 1 (b) and (c).

who live and work in an EU or EFTA country different from their country of citizenship for at least one year[195]. This corresponds to the definition of mobile workers in the rest of the report. Second, the term 'origin region' is used for the region of residence (in the case of cross-border workers) and for the citizenship (in the case of long-term movers); the term 'destination region' is used for the region of work (in the case of cross-border workers) and for the region of current residence (in the case of long-term movers).[196]

Given the small number of cases and the data limitations that made it impossible to measure more precise indicators (see below), this chapter can only be seen as an exploration of relationships between language, economic context and administrative barriers and results should be seen as indicative.

Selection of case studies

For the purposes of the analysis, six case studies were selected. For each case study, mobility flows of cross-border workers from one (or two) origin regions in a country to different destination regions in another country and in the same country were analysed. Flows of long-term movers from the origin country to destination regions in another country were also analysed. The selection of case studies was mainly based on the following criteria:

- Relevance[197] of the country of work as a destination country of cross-border workers and long-term movers;
- Proximity of the regions under consideration, giving priority to neighbouring regions and considering the existence of good transport infrastructure, where this information is available and/or relevant;
- Similar employment rates between origin and destination regions, where possible, to account for possible economic pull-factors
- Higher employment rates in the destination regions than in the origin region of the same case, but similarity between employment rates in the destination regions of one case – to ensure similar economic pull-factors to different regions;
- To investigate the role of language in explaining labour mobility flows across neighbouring regions, different combinations of origin and destination regions are compared for each case study:
    - Regions with similar/same language, but in different countries;
    - Regions with different languages in different countries;
    - Regions with the same language in the same country;

Check size of footnotes195 In this section, EU citizens from a different country than their country of residence who were born in the country of residence are not considered as long-term movers and are therefore not included in the figures presented.

196 It is, of course, possible that a person is a long-term mover in one region, but works in yet another region in another country (e.g. a person having moved from Bratislava to Vienna and commuting every day to the border region in the Czech Republic). However, these cases cannot be accounted for in this study.

[197] The relevance of a certain destination country was defined based on the number of mobility flows to that country, according to an analysis of existing data and literature on labour mobility in the area. For instance, if the existing literature shows that Belgium is a major destination country for workers in Northern France, Belgium should be considered as a relevant destination country.

- Regions with different languages, but in the same country (applicable only to certain case studies).

Data limitations

Based on the methodology described above, two additional case studies were initially envisaged: one that would compare labour mobility flows between neighbouring regions in Denmark, Germany and Sweden, and another one comparing mobility flows between a Northern-Italian region and the neighbouring Italian speaking and German speaking regions in Switzerland. However, data limitations did not make such analyses possible.

In some cases, data on mobility flows had to be aggregated between several regions situated at the border to meet data reliability limits for publication. Therefore, the sum of mobility flows between several regions at the border was presented. To make the analysis consistent data on other economic indicators was also aggregated: the average GDP, employment rates, disposable income and the sum of employed persons was presented for different regions.

Another limitation of the analysis, due to data availability, is the use of figures for employed persons as a proxy for number of job vacancies in the region. In fact, Eurostat data on job vacancies[198] are often not available at NUTS2 level and contains many missing values. Furthermore, earnings at regional level were not considered as Eurostat data on hourly earnings[199] dates to 2010. Instead, net disposable income in the region (for which data is available up to 2014) was presented.

Concerning long-term mobility across neighbouring region, a major data limitation was that the data refers to the nationality of the movers without further indication on the origin region. For this reason, the analysis of long-term mobility between regions within the same country was not possible. This implies that, in case study four, long-term mobility of Belgian nationals to Germany, Luxembourg, France and the Netherlands was analysed instead of looking at mobility within Belgium from Wallonia to Flanders.

A.4. Methodological notes for Section 2.4

The following sources and definitions are used in Section 2.4:

EU-Labour Force Data:

Using ISCO-codes[200] seemed most appropriate since it allows for differentiation between doctors and nurses, the two most important groups covered by the Professional Qualifications Directive. It also includes various health professions. The NACE codes on sectors of employment are divided into Human health activities (Q86) and Residential care activities (Q87), with no separate category for nurses and doctors and dentists in one code, and therefore seemed less relevant. ISCO classes of occupation also correspond to certain

[198] See Eurostat, Job vacancy statistics by occupation, NUTS 2 regions and NACE Rev. 2 activity - annual data (2008-2015) [jvs_a_nace2]
[199] See Eurostat, Mean hourly earnings by NUTS 1 regions (enterprises with 10 employees or more) - NACE Rev. 2, B-S excluding O [earn_ses10_rhr]
[200] ILO, ISCO-08 Part I, Introductory and methodological notes, Chapter 2.3, p. 14, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

skill levels and thus can be mapped to education levels. This coding system was therefore considered more suitable to provide estimations of over-qualification[201] (**Table 26** in Section 2.4.3).

Codes used in this section:

For a general overview of trends and reliance, the following codes were used[202]:

ISCO2D=22 Health professionals, including:

221 **Medical doctors**
222 **Nursing and midwifery professionals**
223 Traditional and complementary medicine professionals
224 Paramedical practitioners
225 Veterinarians
226 Other health professionals

ISCO2D=32 Health associate professionals, including:

321 Medical and pharmaceutical technicians
322 **Nursing and midwifery associate professionals**
323 Traditional and complementary medicine associate professionals
324 Veterinary technicians and assistants
325 Other health associate professionals

In some sections, separate figures for 'doctors' and 'nurses' are provided, in view of their importance and coverage by the Professional Qualifications Directive. The figures on **'nurses'** include both codes 222 and 322, the figures on **'doctors'** relate to code 221. Further health professions covered by the Professional Qualifications Directive are dentists and pharmacists. However, those groups are only distinguishable at ISCO-4D level and the likelihood of obtaining large enough data was too low. They are, however, included in the calculations that include ALL health professionals (they are included under 'Other Health (Associate) Professionals').

The analysis includes figures on personal care workers in health services because they constitute an important group of health professionals (as can be seen from the figures), and seem particularly relevant when it comes to questions of brain-drain and over-qualification.

Estimates of over-qualification

ISCO classes of occupation correspond to certain skill levels and therefore can be mapped to education levels[203]. ISCO codes 2D and 3D actually fall under the same

[201]Ibid.
[202]ILO, ISCO-08 Part3, Group definitions, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm
[203]Ibid.

ISCED-levels (tertiary education or, in the EU-LFS, 'high' level), but ISCO code 5 falls under a lower ISCED-level (secondary education, or, in the EU-LFS, 'medium' level). This group is the only one for which over-qualification can be objectively estimated, because over-qualification can be approximated by comparing a person's ISCED level and their ISCO occupation.

Nevertheless, there is a margin of error in these estimates, as this 'theoretical' mapping of correspondence between occupations and education level may not correspond entirely to empirical findings, as shown when cross-tabulating survey results of both variables[204].

Table 28: Correspondence between EU-LFS codes and ISCED codes on level of education with ISCO codes on occupations

EU-LFS code: HAT-LEVEL		ISCED 11 codes	ISCO skill levels	ISCO major groups	ISCO health professional groups
Lower secondary	L	ISCED 01	1	9 Elementary occupations	
Lower secondary	L	ISCED 02	1		
Lower secondary	L	ISCED 1	1		
Lower secondary	L	ISCED 2	2	4 Clerical Support Workers, 5 Service and Sales Workers, 6,7,8	532 Personal Care Workers in Health Services
Upper secondary	M	ISCED 3			
Upper secondary	M	ISCED 4			
Tertiary level	H	ISCED 5	3	3 Technicians and Associate Professionals, 1 Managers	22 Health Professionals, 32 Health Associate Professionals - - not distinguishable in HATLEVEL categories
Tertiary level	H	ISCED 6	3		
Tertiary level	H	ISCED 7	4	2 Professionals , 1 Managers	
Tertiary level	H	ISCED 8	4		

221 Medical doctors[205]

'Medical doctors (physicians) study, diagnose, treat and prevent illness, disease, injury and other physical and mental impairments in humans through the application of the principles and procedures of **modern medicine**. They plan, supervise and evaluate the implementation of care and treatment plans by other health care providers, and conduct medical education and research activities.'

204 Pacolet, J. and Merckx, S. (2006) 'Managed Migration and the Labour Market. The Health Sector. The Belgian case.', Table 9 'Employment in the health care sector (NACE 85) in Belgium according to profession (ISCO-classification) and education (ISCED-classification), 2004.

205 ILO, ISCO-08 Part3, Group definitions, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

222 Nursing and midwifery professionals and 322 Nursing and midwifery associate professionals[206]

'Nursing and midwifery professionals provide treatment and care services for people who are physically or mentally ill, disabled or infirm, and others in need of care due to potential risks to health including before, during and after childbirth. They assume responsibility for the planning, management and evaluation of the care of patients, including the supervision of other healthcare workers, working autonomously or in teams with medical doctors and others in the practical application of preventative and curative measures.

Nursing and midwifery *associate* professionals provide basic nursing and personal care for people who are physically or mentally ill, disabled or infirm, and for others in need of care due to potential risks to health including before, during and after childbirth. They generally work under the supervision of, and in support of, implementation of healthcare, treatment and referrals plans established by medical, nursing, midwifery and other health professionals.'

532: Personal care workers in health services[207]

'Personal care workers in health services provide personal care and assistance with mobility and activities of daily living to patients and elderly, convalescent and disabled people in health care and residential settings. Tasks performed usually include: assisting patients with mobility, personal care and communication needs; sterilising surgical and other instruments and equipment; observing and reporting concerns to the appropriate medical or social service workers; preparing patients for examination and treatment, and participating in planning the care of individuals.'

There was a change in coding systems in 2011 (EU-LFS used ISCO-08 codes as of 2011 and ISCO-88 codes before 2011), which is why there is a break in series in the data. Trends are therefore only looked at as of 2011.

OECD data

The data covers stocks and inflows of foreign-trained and domestically-trained doctors and nurses. In the case of stocks, foreign-trained doctors/nurses refer to those who obtained their first medical qualification in another country and who are entitled to practice in the receiving country. The number includes any type of registration in the receiving country, including interns and residents. It excludes doctors/nurses who are registered to practice in the receiving country but who are practicing in another country.

[206] ILO, ISCO-08 Part3, Group definitions, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm
[207] ILO, ISCO-08 Part3, Group definitions, available at: http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

In the case of annual inflows, it refers to the doctors/nurses who obtained their medical qualification in another country and have obtained a new authorisation to practice in the receiving county in the given year. The number includes any type of registration in the receiving country (long-term or short-term status) or any kind of work permit, as well as interns and residents.

The reference period is the end of the calendar year. Sources of data include medical chambers, Ministries of Labour, medical associations and statistical institutes. More information at country level can be obtained via this link.

European Commission DG GROW data

The statistics show the number of decisions taken on recognition of professional qualifications for permanent establishment within the EU Member States, EEA countries and Switzerland.

The information comes from the database on regulated professions of the European Commission. The numbers are based on the total number of positive decisions taken on recognition of professional qualifications for permanent establishment within the EU Member States. To obtain the total number of positive decisions taken for the professions related to the health sector, the recognition regimes listed below were used. Please note that the numbers available in the database do not change based on the type of regime selected for the general group (doctors/nurses/midwives). For some of the groups, data are not available as there are no decisions taken for this specific regime. If data are not available, the profession is not presented in the graphs.

Doctors:
Doctor in basic (listed) medicine and specialised medicine in the field not listed in Annex V
Doctor in basic medicine
Doctor in basic medicine and general medical practice
Doctor in basic and specialised medicine both listed n Annex V
Nurses:
General care nurse
Specialist (and general) care nurse
Midwives:
Midwife
Midwife specialist

When measuring labour mobility, it is not possible to make clear-cut distinctions between the different types as they are described at the beginning of Section 2. As the EU-LFS is the main EU wide source for labour mobility, it is useful to identify the possible overlaps stemming from this source. Firstly, figures of long-term EU-28 movers in a certain country may include both posted workers and cross-border workers. The EU-LFS captures persons as 'resident' in a certain country if they stay or intend to stay there for one year or longer. Thus, if a person is posted abroad for one year or more, they may be counted

as residents of that country in the EU-LFS. The number of long-term EU-28 movers may include persons who live in a Member State other than their country of citizenship and work in yet another Member State (for example, a French citizen resident in Belgium and working in Luxembourg). The number of cross-border workers, on the other hand, may also include posted workers, since the estimate of the number of cross-border workers is made with the two variables 'country of residence' and 'country of place of work'. While posted workers are technically employed in the country where they usually work (not the country to which they are posted), they may refer to the country to which they are posted as 'country of place of work', especially if they are posted for a longer period[208]. Ideally, the EU-LFS should make this distinction in order to avoid these kinds of interpretation problems. The analysis thus includes all of those who work in a country other than their country of residence as cross-border workers.

[208] The EU-LFS questionnaire asks for 'place of work', which is likely to be understood as the physical place of work. The German translation, for example, refers to the physical place of work, not the employer. Only in the case of changing workplaces is the respondent asked to state the country from which his work is organised.

ANNEX B DATA ANNEX

Table 29: Stocks of working age (20-64) foreigners, by EU/EFTA country of residence and broad groups of citizenship, totals in thousands and row %, 2016

	EU-28		EFTA		TCNs		Total
AT	464.5	51%	6.3	1%	437.9	48%	908.7
BE	601.3	65%	2.4	0%	325.7	35%	929.4
BG	9.3	17%	0.1	0%	44.5	82%	53.9
CH	979.6	67%	2.9	0%	486.9	33%	1469.4
CY	81.1	78%	0.2	0%	23.3	22%	104.5
CZ	166.4	43%	0.6	0%	222.0	57%	389.1
DE	2935.1	46%	32.8	1%	3461.6	54%	6429.5
DK	152.5	43%	19.8	6%	178.9	51%	351.2
EE	12.3	9%	0.2	0%	122.0	91%	134.5
EL	155.5	28%	0.9	0%	402.1	72%	558.5
ES	1402.2	44%	16.5	1%	1796.8	56%	3215.5
FI	72.4	41%	1.1	1%	101.0	58%	174.5
FR	959.7	34%	25.3	1%	1876.4	66%	2861.4
HR	8.1	29%	0.2	1%	19.2	70%	27.5
HU	66.1	55%	1.8	1%	52.2	43%	120.1
IE	283.6	65%	1.2	0%	151.6	35%	436.4
IS	17.5	82%	0.3	1%	3.6	17%	21.3
IT	1175.6	32%	5.6	0%	2514.4	68%	3695.7
LT	3.8	31%	0.1	1%	8.5	68%	12.5
LU	159.6	85%	0.8	0%	26.4	14%	186.8
LV	4.5	3%	0.1	0%	172.7	97%	177.2
MT	10.3	46%	0.2	1%	11.8	53%	22.3
NL	361.6	56%	4.0	1%	281.6	44%	647.2

	EU-28		EFTA		TCNs		Total
NO	267.3	66%	7.3	2%	131.1	32%	405.7
PL	19.1	15%	0.5	0%	104.0	84%	123.6
PT	75.0	25%	1.0	0%	224.4	75%	300.5
RO	40.9	46%	0.5	1%	47.5	53%	88.9
SE	215.6	40%	26.8	5%	294.6	55%	537.1
SI	14.2	17%	0.0	0%	71.2	83%	85.5
SK	40.6	77%	0.9	2%	11.3	21%	52.8
UK	2317.5	55%	19.2	0%	1872.4	44%	4209.1
EU-28	11808.4	44%	169.2	1%	14856.2	55%	26833.9
EFTA	1264.4	67%	10.4	1%	621.6	33%	1896.4

NUMBERS ARE EXPRESSED IN THOUSANDS AND AS SHARE OF TOTAL FOREIGN POPULATION.

SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP "MIGR_POP1CTZ", EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Table 30: Stocks of working age (20-64) foreigners by broad groups of citizenship, as shares of the total population in countries of residence, by broad groups of citizenship, 2016

	EU-28	EFTA	TCNs	Total foreign population
AT	8.6%	0.1%	8.1%	16.9%
BE	9.0%	0.0%	4.9%	13.9%
BG	0.2%	0.0%	1.0%	1.2%
CH	19.0%	0.1%	9.4%	28.5%
CY	15.5%	0.0%	4.4%	20.0%
CZ	2.5%	0.0%	3.4%	5.9%
DE	5.9%	0.1%	7.0%	12.9%
DK	4.6%	0.6%	5.4%	10.6%
EE	1.6%	0.0%	15.4%	16.9%
EL	2.4%	0.0%	6.3%	8.7%

	EU-28	EFTA	TCNs	Total foreign population
ES	4.9%	0.1%	6.3%	11.3%
FI	2.3%	0.0%	3.2%	5.5%
FR	2.5%	0.1%	5.0%	7.6%
HR	0.3%	0.0%	0.8%	1.1%
HU	1.1%	0.0%	0.9%	2.0%
IE	10.2%	0.0%	5.5%	15.7%
IS	8.8%	0.1%	1.8%	10.8%
IT	3.3%	0.0%	7.0%	10.2%
LT	0.2%	0.0%	0.5%	0.7%
LU	43.6%	0.2%	7.2%	51.0%
LV	0.4%	0.0%	14.4%	14.8%
MT	3.9%	0.1%	4.4%	8.4%
NL	3.6%	0.0%	2.8%	6.5%
NO	8.6%	0.2%	4.2%	13.1%
PL	0.1%	0.0%	0.4%	0.5%
PT	1.2%	0.0%	3.6%	4.9%
RO	0.3%	0.0%	0.4%	0.7%
SE	3.8%	0.5%	5.2%	9.5%
SI	1.1%	0.0%	5.6%	6.7%
SK	1.2%	0.0%	0.3%	1.5%
UK	6.1%	0.1%	4.9%	11.0%
EU-28	3.9%	0.1%	4.9%	8.8%
EFTA	15.0%	0.1%	7.4%	22.4%

NUMBERS ARE EXPRESSED IN PERCENTAGES.

SOURCE: EUROSTAT DATA ON POPULATION BY CITIZENSHIP AND AGE GROUP "MIGR_POP1CTZ", EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Table 31: Stocks of EU-28/EFTA movers of working age (20-64), by citizenship and by EU-28/EFTA country and EU-28/EFTA aggregates, total numbers (in thousands), 2016

Country of residence	Citizenship																														
	AT	BE	BG	CH	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK	IS	NO
AT		.	12	(4)	.	9	129	.		(4)	(4)	.	5	62	42	.	21	.	.	.		(5)	47	.	55	.	10	26	(6)		.
BE	.		16	.		.	22	.		8	36	.	104		(4)	.	96	.	(2)			75	39	31	46	.		(2)	12		.
CH	27	10	(5)			11	225	(4)	.	9	62	(3)	85	23	15	(4)	207	(4)	.	(3)		11	17	197	11	(3)	(1)	9	25		(1)
CY			11			.	(1)			23		.	.		.	.	.	.		.	.	.	(1)	.	15	.		(1)	7		.
CZ	.		3				(2)	.		.	(1)							(1)		.		(1)	5		(1)		.	45			
DE	125	20	143	31	.	37		14	.	246	118	6	80	228	130	8	488	29	16	23		98	526	113	282	8	14	31	70	.	.
DK	.	.	5	(2)		.	19		.	(2)	5	(2)	5	.	(3)	.	7	8		4		7	24	.	17	12		.	15	6	13
EL	.	.	24	.	6	.	5	.				.	(2)		.	.	(1)	.				(1)	7		17			.	3		
ES	6	10	109	6		(3)	59			.		(1)	60	(3)	9	6	115	11		(1)		22	48	73	525	5	(3)	(2)	99		(1)
FI	.		.	.		.	(2)		29		(2)		(2)		.	.	.	.		.		.	.		.	4			(3)		.
FR	.	59	15	24		.	39	.	.	.	83	.			.	(5)	85	.	.	.		22	36	356	64	.		.	65		.

HU	.						(3)					.	.				.					.	.		11	.		(4)	.		
IE	.	.	(2)	.		(3)	3	.	.	.	5	.	5	6	7		5	30		17	.	(2)	87	(2)	23	.	.	5	80	.	.
IS			.				.	1					.					.		.			5	.	.	.			.		
IT	4	3	43	4		5	18	(2)	.	4	16	.	16	12	6	.		3		(2)		4	77	3	935	.	.	7	13		.
LU	(1)	19	1	.		1	13	1	(1)	1	4	(1)	35	.	(1)	1	14	1		(1)	.	3	4	51	2	(1)	(1)	(1)	4	.	.
MT							.						.				1											2		
NL	3	24	6	(2)		.	45	.	.	4	13	.	13	.	9	3	15	.		.	.		54	12	6	(2)	.	(2)	29		.
NO	.	.	3	.		(1)	12	16	2	(1)	4	5	3	.	(1)	(1)	3	19		6		6	49	2	6	31		(1)	10	3	
PL		.	.			.	.			.	.		.		.		.	.				.							.		
PT		.		.			.				.	.	7				.					.			12	.			.		.
SE	3		3	.		.	21	17	3	4	6	28	5	(2)	3	(2)	6	6	.	3		7	22	(1)	9		.		13	3	21
SI			(1)											(3)	.		(1)											.			
SK						(2)	.								.								.		.						
UK	16	16	69	5	(9)	34	113	17	11	54	128	(8)	133	.	77	212	179	149		75	(4)	62	764	156	246	38	.	52		.	9
EFTA	27	10	7	0	0	12	238	20	3	10	65	8	89	24	16	5	209	23	0	9	0	18	71	199	17	34	1	10	35	3	1

EU-28	169	164	470	85	20	108	503	65	55	361	428	59	477	327	298	245	1044	250	25	136	8	317	1747	805	2273	84	37	189	430	(13)	56

NUMBERS ARE EXPRESSED IN THOUSANDS.

CELLS DISPLAYING '.' INDICATE VALUES BELOW RELIABILITY LIMITS. DATA FOR BG, EE, HR, LT, LV AND RO ARE ENTIRELY BELOW RELIABILITY LIMITS. FIGURES BETWEEN BRACKETS HAVE LOW RELIABILITY.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Table 32: Inflows of EU-28 and EFTA movers of working age (20-64) by country of destination, total numbers and shares of the total working-age population in country of destination, 2015

Country of destination	Citizenship					
	EU-28		EFTA		Total	
	EU-28		EFTA		Total	
AT	55	1.0%	0	0.0%	55	1%
BE	47	0.7%	0	0.0%	48	1%
BG	1	0.0%	0	0.0%	1	0%
CH	74	1.4%	0	0.0%	74	1%
CY	5	0.9%	0	0.0%	5	1%
CZ	12	0.2%	0	0.0%	12	0%
DE	366	0.7%	2	0.0%	368	1%
DK	21	0.6%	2	0.1%	23	1%
EE	3	0.4%	0	0.0%	3	0%
EL	12	0.2%	0	0.0%	12	0%
ES	79	0.3%	1	0.0%	80	0%
FI	6	0.2%	0	0.0%	6	0%
FR	59	0.2%	3	0.0%	62	0%
HR	2	0.1%	0	0.0%	2	0%
HU	8	0.1%	0	0.0%	9	0%
IE	20	0.7%	0	0.0%	20	1%
IS	3	1.4%	0	0.0%	3	1%
IT	51	0.1%	0	0.0%	51	0%
LT	1	0.0%	0	0.0%	1	0%
LU	13	3.6%	0	0.0%	13	4%
LV	1	0.0%	0	0.0%	1	0%
MT	5	1.8%	0	0.0%	5	2%
NL	50	0.5%	1	0.0%	50	0%
NO	23	0.7%	1	0.0%	23	1%
PL	23	0.1%	0	0.0%	23	0%

Country of destination	Citizenship					
	EU-28		EFTA		Total	
PT	5	0.1%	0	0.0%	5	0%
RO	7	0.1%	0	0.0%	7	0%
SE	24	0.4%	2	0.0%	26	0%
SI	2	0.2%	0	0.0%	2	0%
SK	3	0.1%	0	0.0%	3	0%
UK	229	0.6%	7	0.0%	236	1%
EU-28	1109	0.4%	20	0.0%	1130	0%

NUMBERS ARE EXPRESSED IN THOUSANDS AND AS SHARES OF THE TOTAL WORKING AGE POPULATION IN COUNTRY OF DESTINATION.

FIGURES FROM IE, EL, AT, RO, SI AND UK REFER TO 'AGE IN COMPLETED YEARS'.

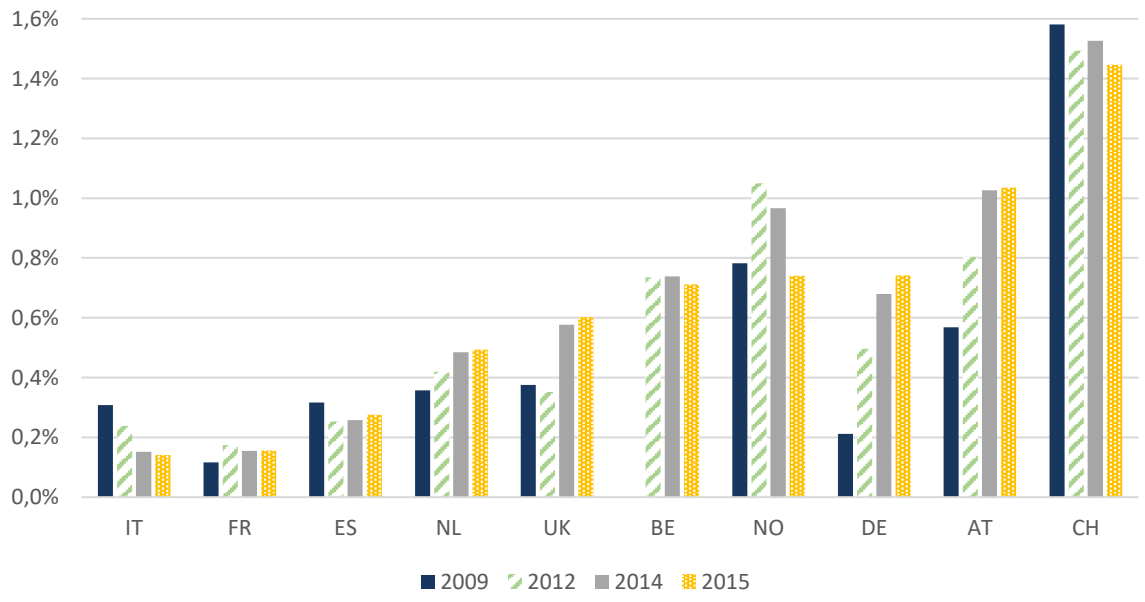
PROVISIONAL DATA: PL, BG, SK FOR ONE OR MORE AGE GROUPS.

ESTIMATED FIGURES: DE, PT, RO (2015).

BREAK IN TIME SERIES: EE (2015).

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Figure 69: Inflow rate of EU-28 nationals of working age (20-64) (as a percentage of the total population) for the top 10 countries of destination, 2009-2015



EVOLUTION OF INFLOWS OF EU-28 CITIZENS FOR THE YEARS 2009, 2012, 2014 AND 2015 IN THE 10 COUNTRIES WHERE THEIR NUMBERS WERE HIGHEST IN 2015.

FIGURES RELATE TO FOREIGN EU-28 CITIZENS MOVING TO THE COUNTRY INDICATED ON THE X-AXIS (COUNTRY OF DESTINATION), REGARDLESS OF THEIR COUNTRY OF PREVIOUS RESIDENCE. NATIONALS OF THE COUNTRY ON THE X-AXIS ARE EXCLUDED. FIGURES MAY INCLUDE EU-28 AND EFTA CITIZENS MOVING TO THE COUNTRY ON THE X-AXIS FROM THIRD COUNTRIES.

FIGURES FOR BE FOR 2009 NOT AVAILABLE.

BREAK IN TIME SERIES DE, NL IN 2009.

THE LATEST FLOW DATA AVAILABLE ARE FROM 2015.

FIGURES FOR AT AND UK USE AGE DEFINITION 'AGE COMPLETED IN YEARS'.

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 15 MAY 2017, MILIEU CALCULATIONS.

Table 33: Evolution of the inflows of foreign EU and EFTA citizens of working age (20-64), by EU/EFTA country of destination, 2009, 2012, 2014 and 2015

	2009				2012				2014				2015			
	EU		EFTA		EU		EFTA		EU		EFTA		EU		EFTA	
AT	29	0.6%	0	0.0%	42	0.8%	0	0.0%	54	1.0%	0	0.0%	55	1.0%	0	0.0%
BE	:	0.0%	:	0.0%	49	0.7%	0	0.0%	49	0.7%	0	0.0%	47	0.7%	0	0.0%
BG	:	0.0%	:	0.0%	3	0.1%	0	0.0%	1	0.0%	0	0.0%	1	0.0%	0	0.0%
CH	76	1.6%	0	0.0%	74	1.5%	0	0.0%	77	1.5%	0	0.0%	74	1.4%	0	0.0%
CY	9	1.8%	0	0.0%	9	1.6%	0	0.0%	3	0.5%	0	0.0%	5	0.9%	0	0.0%
CZ	14	0.2%	0	0.0%	10	0.2%	0	0.0%	12	0.2%	0	0.0%	12	0.2%	0	0.0%
DE	105	0.2%	2	0.0%	248	0.5%	2	0.0%	335	0.7%	2	0.0%	366	0.7%	2	0.0%
DK	13	0.4%	2	0.1%	16	0.5%	2	0.1%	20	0.6%	2	0.1%	21	0.6%	2	0.1%
EE	1	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	0.4%	0	0.0%
EL	9	0.1%	0	0.0%	11	0.2%	0	0.0%	12	0.2%	0	0.0%	12	0.2%	0	0.0%
ES	93	0.3%	1	0.0%	75	0.3%	2	0.0%	74	0.3%	1	0.0%	79	0.3%	1	0.0%
FI	5	0.2%	0	0.0%	8	0.3%	0	0.0%	8	0.2%	0	0.0%	6	0.2%	0	0.0%
FR	44	0.1%	3	0.0%	66	0.2%	3	0.0%	59	0.2%	3	0.0%	59	0.2%	3	0.0%
HR	0	0.0%	0	0.0%	1	0.0%	0	0.0%	2	0.1%	0	0.0%	2	0.1%	0	0.0%
HU	11	0.2%	0	0.0%	8	0.1%	0	0.0%	8	0.1%	0	0.0%	8	0.1%	0	0.0%

IE	17	0.6%	0	0.0%	17	0.6%	0	0.0%	20	0.7%	0	0.0%	20	0.7%	0	0.0%
IS	2	0.9%	0	0.0%	2	0.8%	0	0.0%	2	1.3%	0	0.0%	3	1.4%	0	0.0%
IT	110	0.3%	0	0.0%	85	0.2%	0	0.0%	55	0.2%	0	0.0%	51	0.1%	0	0.0%
LT	0	0.0%	0	0.0%	1	0.0%	0	0.0%	1	0.0%	0	0.0%	1	0.0%	0	0.0%
LU	9	3.0%	0	0.0%	12	3.6%	0	0.0%	13	3.8%	0	0.0%	13	3.6%	0	0.0%
LV	:	0.0%	:	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	1	0.0%	0	0.0%
MT	2	0.8%	0	0.0%	2	0.8%	0	0.0%	4	1.4%	0	0.0%	5	1.8%	0	0.0%
NL	36	0.4%	0	0.0%	42	0.4%	0	0.0%	49	0.5%	1	0.0%	50	0.5%	1	0.0%
NO	22	0.8%	1	0.0%	31	1.1%	1	0.0%	29	1.0%	1	0.0%	23	0.7%	1	0.0%
PL	10	0.0%	0	0.0%	19	0.1%	0	0.0%	21	0.1%	0	0.0%	23	0.1%	0	0.0%
PT	3	0.0%	0	0.0%	1	0.0%	0	0.0%	3	0.0%	0	0.0%	5	0.1%	0	0.0%
R	4	0.0%	0	0.0%	3	0.0%	0	0.0%	1	0.0%	0	0.0%	7	0.1%	0	0.0%
SE	21	0.4%	2	0.0%	20	0.4%	2	0.0%	23	0.4%	2	0.0%	24	0.4%	2	0.0%
SI	2	0.1%	0	0.0%	2	0.1%	0	0.0%	3	0.2%	0	0.0%	2	0.2%	0	0.0%
SK	6	0.1%	0	0.0%	:	:	:	:	:	:	:	:	3	0.1%	0	0.0%
UK	139	0.4%	1	0.0%	133	0.4%	3	0.0%	218	0.6%	2	0.0%	229	0.6%	7	0.0%
EU-28	693	0.2%	13	0.0%	885	0.3%	16	0.0%	1046	0.3%	16	0.0%	1109	0.4%	20	0.0%
EFTA	100	1.3%	1	0.0%	107	1.3%	1	0.0%	109	1.3%	1	0.0%	99	1.2%	1	0.0%

NUMBERS ARE EXPRESSED IN THOUSANDS AND AS SHARES OF THE TOTAL POPULATION (20-64) IN THE COUNTRY OF DESTINATION.

FIGURES EXCLUDE INFLOWS OF CITIZENS OF THE REPORTING COUNTRY.

FIGURES FROM IE, EL, AT, RO, SI AND UK REFER TO 'AGE IN COMPLETED YEARS'.

CELLS DISPLAYING ':' INDICATE MISSING DATA.

BREAK IN TIME SERIES FOR INFLOW FIGURES DE, CY, IS, NL, PL (2009), BE, BG, SK (2012), EE (2015).

ESTIMATED FIGURES FOR INFLOW: DE, PT, RO (2015).

PROVISIONAL DATA: BG (2012), AT, IE, BG, PL (2014), SK (2015).

FOR POPULATION DATA: BREAK IN TIME SERIES ES, MT, SI (2009), SK (2012), DE (2014), FR, EE (2015).

FOR POPULATION DATA: PROVISIONAL FIGURES FOR BE (2009) PL, RO (2012), FR, PL (2014), IE, FR AND PL (2015).

SOURCE: EUROSTAT DATA ON IMMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_IMM1CTZ], EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Table 34: Outflows by groups of nationality, people of working age (20-64), 2015

Country of residence	Nationals	EU-28	EFTA	TCNs	Total
AT	11	23	0	10	44
BE	22	28	0	19	69
BG	18	1	0	3	22
CH	22	48	0	20	91
CY	0	0	0	0	0
CZ	6	3	0	12	21
DE	79	121	0	78	278
DK	10	15	2	11	37
EE	7	2	0	2	11
EL	0	0	0	0	0
ES	69	94	0	103	266
FI	7	3	0	2	11
FR	0	0	0	0	0
HR	21	0	0	1	22
HU	32	5	0	3	40
IE	26	21	0	14	61
IS	2	1	0	0	3
IT	75	16	0	16	108
LT	29	0	0	7	36
LU	2	6	0	2	10
LV	13	1	0	2	16
MT	1	4	0	2	7
NL	43	27	0	15	86
NO	6	12	0	5	23
PL	123	25	0	46	194
PT	0	0	0	0	0

Country of residence	Nationals	EU-28	EFTA	TCNs	Total
RO	157	2	0	1	159
SE	18	10	1	15	43
SI	6	2	0	3	12
SK	3	0	0	0	3
UK	105	78	0	80	263
EU-28	883	486	5	448	1,822
EFTA	29	61	1	26	117

NUMBER (IN THOUSANDS) OF OUTFLOWS BY BROAD GROUP OF CITIZENSHIP, 2014.

CELLS DISPLAYING ':' INDICATE MISSING DATA.

PROVISIONAL DATA FOR BG, PL.

TOTALS FOR DE, ES, LV, MT AND UK EXCLUDE MOVERS FROM EFTA COUNTRIES.

**THESE TOTALS EXCLUDE EL, CY, FR AND PT AS BREAKDOWNS BY NATIONALITY GROUPS ARE NOT AVAILABLE.

FIGURES FOR AT, EL, IE, RO, SI AND UK ARE BASED ON AGE DEFINITION 'AGE COMPLETED IN YEARS'.

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ], AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 6 APRIL 2017 AND 10 APRIL 2017, MILIEU CALCULATIONS

Table 35: Outflows of nationals (20-64) from EU and EFTA countries, 2009, 2012, 2014 and 2015

	Outflow of nationals				Total outflow			
	2009	2012	2014	2015	2009	2012	2014	2015
AT*	13	11	11	11	43	41	42	44
BE	:	20	21	22	:	58	69	69
BG	:	11	20	18	:	14	24	22
CH	21	22	21	22	67	81	87	91
CY	:	:	:	:	:	:	:	:
CZ	0	0	8	6	55	40	24	21
DE	87	73	84	79	223	188	261	278
DK	10	11	10	10	33	36	37	37
EE	3	4	3	7	4	5	4	11
EL*	:	:	:	:	:	:	:	:
ES	24	40	58	69	306	357	313	266
FI	6	7	8	7	10	11	12	11

FR	:	:	:	:	:	:	:	:
HR	0	8	16	21	:	10	17	22
HU	4	13	30	32	9	21	40	40
IE*	16	31	21	26	60	71	64	61
IS	3	2	2	2	5	3	3	3
IT	37	52	66	75	62	81	101	108
LT	27	30	26	29	31	33	29	36
LU	1	1	1	2	7	8	9	10
LV	:	16	13	13	0	20	15	16
MT	1	1	1	1	3	3	5	7
NL	39	41	42	43	74	89	90	86
NO	5	5	4	6	13	17	23	23
PL	140	155	146	123	180	211	203	194
PT	:	:	:	:	:	:	:	:
RO*	195	132	141	157	196	133	142	159
SE	15	18	18	18	30	40	39	43
SI*	1	1	3	6	4	2	3	12
SK	3	6	6	3	17	11	11	3
UK*	117	121	116	105	332	286	280	263
EU-28**	738	803	870	883	1931	2117	2188	1,822
EFTA	28	30	27	29	86	102	113	117

NUMBERS ARE EXPRESSED IN THOUSANDS.

FIGURES FOR IE, AT, EL, RO, SI AND UK ARE BASED ON AGE DEFINITION 'AGE COMPLETED IN YEARS'.

CELLS DISPLAYING ':' INDICATE MISSING DATA.

PROVISIONAL DATA: BG (2012), AT, IE, BG, PL (2014), BG, PL (2015).

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ], AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 6 APRIL 2017 AND 10 APRIL 2017, MILIEU CALCULATIONS

Table 36: Outflows of nationals of working age (20-64) as a percentage of the population in the country of origin, 2009, 2012, 2014 and 2015

Outflow rate among nationals	Total outflow rate

Country of residence	2009	2012	2014	2015	2009	2012	2014	2015
AT	0.30%	0.20%	0.20%	0.24%	0.80%	0.80%	0.80%	0.8%
BE	:	0.30%	0.40%	0.38%	:	0.90%	1.00%	1.0%
BG	:	0.20%	0.40%	0.40%	:	0.30%	0.50%	0.5%
CH	0.60%	0.60%	0.60%	0.59%	1.40%	1.60%	1.70%	1.8%
CY	:	:	:	:	0.70%	2.50%	4.20%	:
CZ	0.00%	0.00%	0.10%	0.10%	0.80%	0.60%	0.40%	0.3%
DE	0.20%	0.20%	0.20%	0.18%	0.40%	0.40%	0.50%	0.6%
DK	0.30%	0.40%	0.30%	0.34%	1.00%	1.10%	1.10%	1.1%
EE	0.50%	0.60%	0.50%	1.13%	0.40%	0.60%	0.40%	1.4%
EL	:	:	:	:	0.50%	1.60%	1.30%	:
ES	:	0.20%	0.20%	0.27%	1.00%	1.20%	1.10%	0.9%
FI	0.20%	0.20%	0.20%	0.24%	0.30%	0.30%	0.40%	0.4%
FR	:	:	:	:	0.50%	0.50%	0.50%	:
HR	:	:	0.60%	0.81%	:	:	0.60%	0.8%
HU	0.10%	0.20%	0.50%	0.53%	0.10%	0.30%	0.60%	0.7%
IE	0.70%	1.30%	0.90%	1.12%	2.10%	2.60%	2.30%	2.2%
IS	1.50%	1.40%	1.00%	1.11%	2.90%	1.80%	1.60%	1.5%
IT	0.10%	0.20%	0.20%	0.23%	0.20%	0.20%	0.30%	0.3%
LT	1.40%	1.70%	1.50%	1.67%	1.60%	1.80%	1.60%	2.0%
LU	0.80%	0.70%	0.70%	0.89%	2.20%	2.40%	2.50%	2.7%
LV	:	1.50%	1.30%	1.28%	0.00%	1.60%	1.20%	1.3%
MT	:	0.40%	0.40%	0.35%	1.20%	1.20%	1.80%	2.7%
NL	0.40%	0.40%	0.40%	0.46%	0.70%	0.90%	0.90%	0.9%
NO	0.20%	0.20%	0.20%	0.21%	0.50%	0.60%	0.70%	0.7%
PL	0.60%	0.60%	0.60%	0.51%	0.70%	0.90%	0.80%	0.8%
PT	:	:	:	:	0.20%	0.70%	0.70%	:
RO	1.40%	:	1.10%	1.28%	1.40%	1.00%	1.10%	1.3%
SE	0.30%	0.30%	0.30%	0.34%	0.50%	0.70%	0.70%	0.8%
SI	0.20%	0.50%	0.50%	0.53%	1.30%	0.90%	0.90%	0.9%

SK	0.00%	0.00%	0.10%	0.08%	0.10%	0.00%	0.10%	0.1%
UK	0.30%	0.40%	0.30%	0.31%	0.90%	0.80%	0.70%	0.7%
EU-28	0.30%	0.30%	0.30%	0.31%	0.60%	0.70%	0.70%	0.6%
EFTA	0.40%	0.50%	0.40%	0.45%	1.10%	1.30%	1.40%	1.4%

NUMBERS ARE EXPRESSED IN PERCENTAGES.

CELLS DISPLAYING ':' INDICATE MISSING DATA.

FIGURES FOR IE, AT, EL, RO, SI AND UK ARE BASED ON AGE DEFINITION 'AGE COMPLETED IN YEARS'.

PROVISIONAL DATA: BG (2012), AT, IE, BG, PL (2014), PL, BG (2015).

BREAK IN TIME SERIES DE, CY, IS, NL, PL (2009), BG (2012), EE (2015).

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ] EXTRACTED ON 18 MAY 2017, AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Table 37: Outflows of EU-27/28 citizens of working age (20-64) and total outflows as a percentage of the reference population in the host country, 2009, 2012, 2014, 2015

	Outflow rate among EU-28 movers (outflows of EU-28 movers as % of EU-28 movers in country)				Total outflow rate (total outflows as % of total population in country)			
Country of residence	2009	2012	2014	2015	2009	2012	2014	2015
AT	7.3%	6.6%	5.3%	5.3%	0.8%	0.8%	0.80%	0.8%
BE	:	4.4%	4.9%	4.8%	:	0.9%	1.0%	1.0%
BG	:	4.8%	9.4%	6.7%	:	0.3%	0.5%	0.5%
CH	4.2%	4.8%	5.0%	5.1%	1.4%	1.6%	1.7%	1.8%
CY	:	:	:	0.0%	0.7%	2.5%	4.2%	:
CZ	:	:	2.8%	1.8%	0.8%	0.6%	0.4%	0.3%
DE	3.7%	2.7%	4.4%	4.5%	0.4%	0.4%	0.5%	0.6%
DK	13.4%	11.5%	11.5%	10.6%	1.0%	1.1%	1.1%	1.1%
EE	3.4%	0.8%	1.3%	17.1%	0.4%	0.6%	0.4%	1.4%
EL	:	:	:	0.0%	0.5%	1.6%	1.3%	:
ES	6.9%	6.8%	7.6%	6.6%	1.0%	1.2%	1.1%	0.9%
FI	5.1%	3.4%	3.7%	3.6%	0.3%	0.3%	0.4%	0.4%
FR	:	:	:	0.0%	0.5%	0.5%	0.5%	:

HR	:	:	6.8%	4.8%	:	:	0.6%	0.8%
HU	3.4%	9.7%	10.2%	8.6%	0.1%	0.3%	0.6%	0.7%
IE	10.4%	9.8%	9.5%	7.5%	2.1%	2.6%	2.3%	2.2%
IS	15.5%	6.9%	6.7%	4.8%	2.9%	1.8%	1.6%	1.5%
IT	2.0%	1.5%	1.5%	1.4%	0.2%	0.2%	0.3%	0.3%
LT	14.2%	17.2%	2.0%	2.6%	1.6%	1.8%	1.6%	2.0%
LU	3.8%	3.8%	3.9%	4.1%	2.2%	2.4%	2.5%	2.7%
LV	:	10.6%	8.5%	21.1%	:	1.6%	1.2%	1.3%
MT	17.0%	15.7%	27.5%	40.0%	1.2%	1.2%	1.8%	2.7%
NL	8.0%	9.2%	8.8%	8.0%	0.7%	0.9%	0.9%	0.9%
NO	3.7%	3.8%	4.9%	4.5%	0.5%	0.6%	0.7%	0.7%
PL	91.5%	79.4%	63.8%	114.9%	0.7%	0.9%	0.8%	0.8%
PT	:	:	:	0.0%	0.2%	0.7%	0.7%	:
RO	14.3%	5.6%	1.6%	5.3%	1.4%	1.0%	1.1%	1.3%
SE	4.8%	5.4%	4.5%	4.5%	0.5%	0.7%	0.7%	0.8%
SI	38.3%	24.6%	16.0%	14.9%	1.3%	0.9%	0.9%	0.9%
SK	4.3%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%
UK	7.6%	3.9%	4.3%	3.6%	0.9%	0.8%	0.7%	0.7%
EU-28	4.7%	4.1%	4.6%	4.3%	0.6%	0.7%	0.7%	0.6%
EFTA	4.4%	4.6%	5.0%	5.0%	1.1%	1.3%	1.4%	1.4%

OUTFLOWS OF EU-27/28 CITIZENS AS SHARE OF THE TOTAL POPULATION OF EU-27/28 CITIZENS IN THE COUNTRY (OUTFLOW RATE AMONG EU-28 MOVERS) AND OUTFLOWS OF CITIZENS OF ANY CITIZENSHIP AS SHARE OF TOTAL POPULATION IN COUNTRY (TOTAL OUTFLOW RATE), 2009, 2012, 2014 AND 2015.

PROVISIONAL DATA: BE (2009), PL, RO (2012), FR, PL (2014) FOR POPULATION DATA; PL, BG (2014, 2015) FOR OUTFLOW DATA.

BREAK IN TIME SERIES SI (2009, 2012), DE (2014) FOR POPULATION DATA; DE, NL, PL (2009), EE (2015) FOR OUTFLOW DATA.

FIGURES FOR IE, AT, EL, RO, SI AND UK ARE BASED ON AGE DEFINITION 'AGE COMPLETED IN YEARS'.

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ] EXTRACTED ON 18 MAY 2017, AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Table 38: Net mobility by groups of nationality, people of working age (20-64) 2015

Country of residence	Nationals	EU-28	EFTA	TCNs	Total
AT	-4	32	0	44	73
BE	-10	19	0	27	37
BG	-10	1	0	6	-4
CH	-4	25	0	8	30
CY	:	:	:	:	:
CZ	-2	9	0	-5	2
DE	-23	245	2	532	756
DK	4	6	0	11	22
EE	-1	1	0	2	2
EL	:	:	:	:	:
ES	-38	-15	1	27	-23
FI	-2	4	0	8	9
FR	:	:	:	:	:
HR	-16	1	0	2	-13
HU	-4	3	0	8	8
IE	-11	-1	0	10	-2
IS	-1	2	0	0	2
IT	-56	35	0	123	102
LT	-14	1	0	-4	-17
LU	-1	7	0	3	9
LV	-10	0	0	1	-9
MT	0	1	0	2	3
NL	-18	22	0	31	35
NO	-2	11	0	13	22
PL	-68	-3	0	42	-29
PT	:	:	:	:	:

RO	-61	5	0	5	-51
SE	-5	15	1	36	47
SI	-4	0	0	4	0
SK	-2	3	0	1	1
UK	-42	151	7	141	257
EU-28	-396	543	13	1,055	1,215
EFTA	-7	39	0	21	53

NUMBERS ARE EXPRESSED IN THOUSANDS.

FIGURES EXCLUDE INFLOWS/OUTFLOWS OF CITIZENS OF THE REPORTING COUNTRY.

FIGURES FOR IE, AT, EL, RO, SI AND UK ARE BASED ON AGE DEFINITION 'AGE COMPLETED IN YEARS'.

CELLS DISPLAYING ':' INDICATE MISSING DATA.

NO OUTFLOW DATA IS AVAILABLE FOR CY, EL, FR AND PT THEREFORE THESE COUNTRIES ARE EXCLUDED FROM THE TABLE.

BREAK IN TIME SERIES FOR INFLOW FIGURES DE, CY, IS, NL, PL (2009), BE, BG, SK (2012), EE (2015).

PROVISIONAL DATA FOR INFLOW FIGURES: BG (2012), AT, IE, BG, PL (2014), PL (2015).

ESTIMATED DATA FOR INFLOWS DE, PT AND RO (2015).

SOURCE: EUROSTAT DATA ON EMIGRATION BY AGE GROUP AND CITIZENSHIP [MIGR_EMI1CTZ] EXTRACTED ON 18 MAY 2017, AND POPULATION DATA [MIGR_POP1CTZ] EXTRACTED ON 10 APRIL 2017, MILIEU CALCULATIONS

Table 39: Recent EU-28 movers of working age (20-64), by nationality (columns) and country of residence (rows), 2016

Country of residence	Citizenship																									
	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	NL	PL	PT	RO	SE	SI	SK	UK	Tot
AT		.	9		(4)	76	.		(4)	.	.	.	14	35	.	13			.	(3)	24	.	38	.	6	16	.	255
BE	.		14		.	10			(3)	16		49		(3)		18	.	.		35	32	13	43	.		.	(4)	243
CH	12	7	4		9	155	2	1	7	23	2	59	4	14	2	84	2	0	3	5	14	70	9	(1)	(1)	7	15	511
CY			8		.	.			10		.			.	.	.	.		.	.	.	.	11	.		.	3	35
CZ			(1)			(1)				(1)							(1)		.	(1)	(2)		(1)		.	25		33
DE	39	6	126	.	21		7	.	61	56	.	34	81	103	.	104	19	11	17	33	328	25	241	.	8	21	25	1378
DK	.		4		.	10		.	(2)	4	.	(3)	.	(3)	.	5	6		(4)	(3)	18	.	16	8		.	5	97
GR			8	4		.					.	.		.		.	.				.		6				.	22
ES		.	30		(1)	15						20		5	(3)	46	(2)		.	10	15	22	175	.		.	36	383
FI					.	.		17		.		.		1	.	.			.		.		.	.			.	26
FR	.	27	13		.	12			.	35	.			1		35		.	.	(8)	16	68	49			.	24	300
HU	.					.						.				1				.			6			(3)	.	12
IE	.	.	.		.	(2)	.	.	.	4	.	(3)	6	6		4	16		9	.	57	.	16	.	.	4	23	157
IS																					1							1

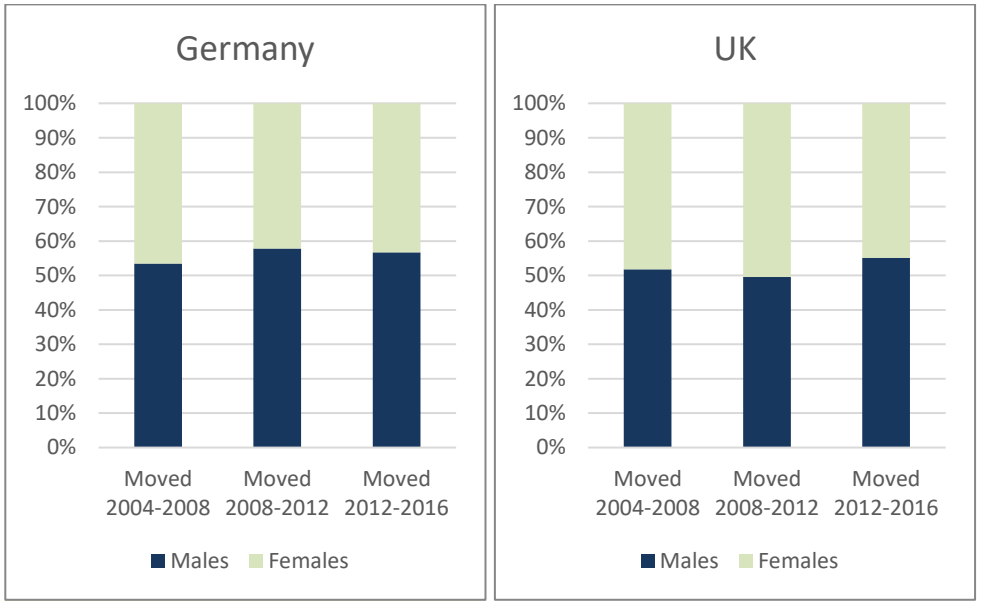
IT	.		15		.	3				6		6	(2)	3			.		.	.	18	.	391			3	3	454
LU	.	8	1		(1)	7	(1)	(1)	(1)	2		19	.	(1)	.	6	(1)		.	2	3	17	2	.	.	(1)	2	75
MT												.				(0)											(1)	1
NL		7	4		.	14	.	.	.	3		3	.	6	(2)	4	.		.		34	3	3	.		(2)	5	96
NO		.	2		(1)	8	4	2	(1)	3	2	2	.	(1)	.	(1)	19		6	4	44	2	6	18		(1)	4	132
PL		.	.		.	.			.	.		.		.		.	.			.							.	(13)
PT		.								.		.				.				.			6				.	10
SE	(1)		3		.	13	7	2	4	4	6	3	(1)	3	(1)	5	5		2	5	19	.	9				7	102
SI			(1)										(1)	.		.										.		(3)
UK	11	(10)	61	(6)	18	66	(9)	(9)	40	99	.	70		64	67	119	111		57	30	570	99	236	20	.	33		1811
EU-28	57	65	304	(12)	57	235	29	34	129	238	17	221	110	238	80	364	169	15	99	133	1139	254	1249	37	21	117	145	5572
EFTA	12	(7)	(6)	.	9	163	(6)	(2)	8	25	(4)	60	(5)	15	(2)	85	21	0	9	9	60	72	15	19	.	7	19	644

RECENT ACTIVE EU-28 MOVERS BY NATIONALITY (COLUMNS) AND COUNTRY OF RESIDENCE (ROWS).

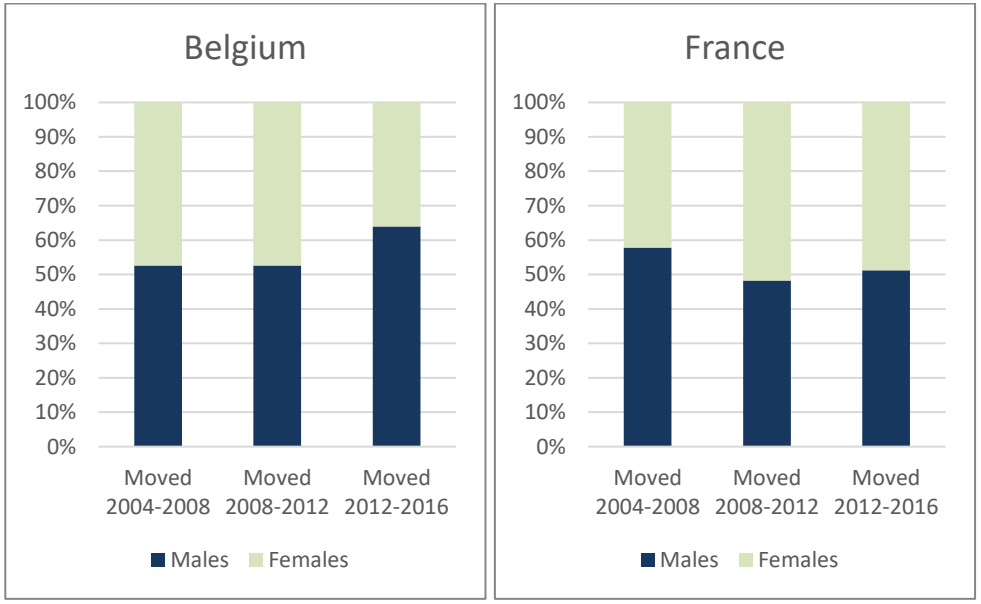
FIGURES FOR BG, EE, RO, SK ARE ENTIRELY BELOW RELIABILITY LIMITS.

SOURCE: EU-LFS, 2015, MILIEU CALCULATIONS

Figure 70: Female vs. male movers from Southern countries[209] to the main countries of destination, 2004-2016



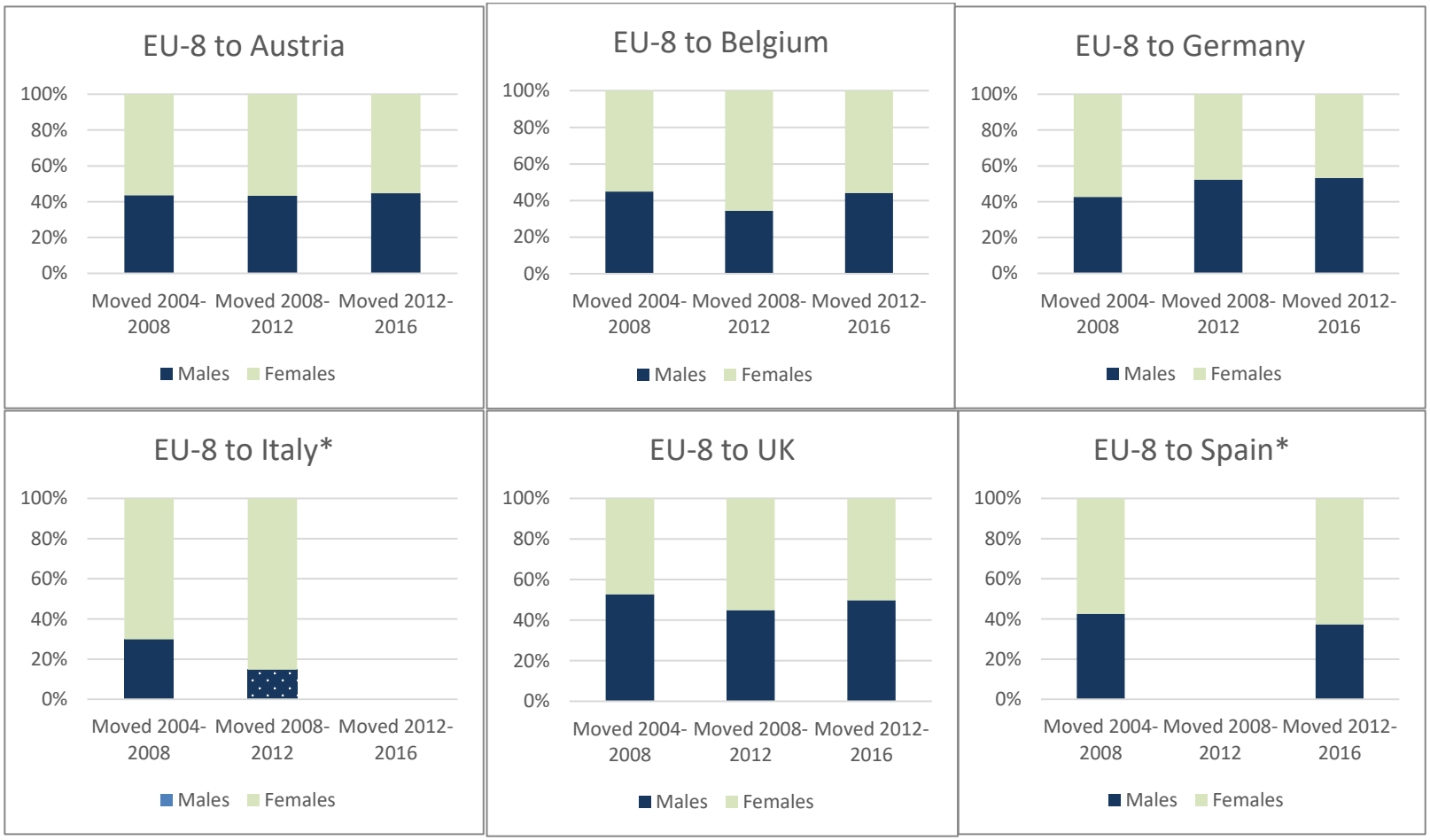
[209] Southern countries: ES, EL, PT, IT, CY.



MALE AND FEMALE MOVERS FROM SOUTHERN COUNTRIES WHO ARRIVED WITHIN THE LAST FOUR YEARS TO MAIN COUNTRIES OF DESTINATION FOR YEARS 2008/2012 AND 2016.

SOURCE: EU-LFS, MILIEU CALCULATIONS

Figure 71: Female vs. male movers from EU-8 to the main countries of destination[210], 2004-2016



MALE AND FEMALE EU-8 MOVERS WHO ARRIVED WITHIN THE LAST FOUR YEARS TO MAIN COUNTRIES OF DESTINATION FOR YEARS 2008/2012 AND 2016.

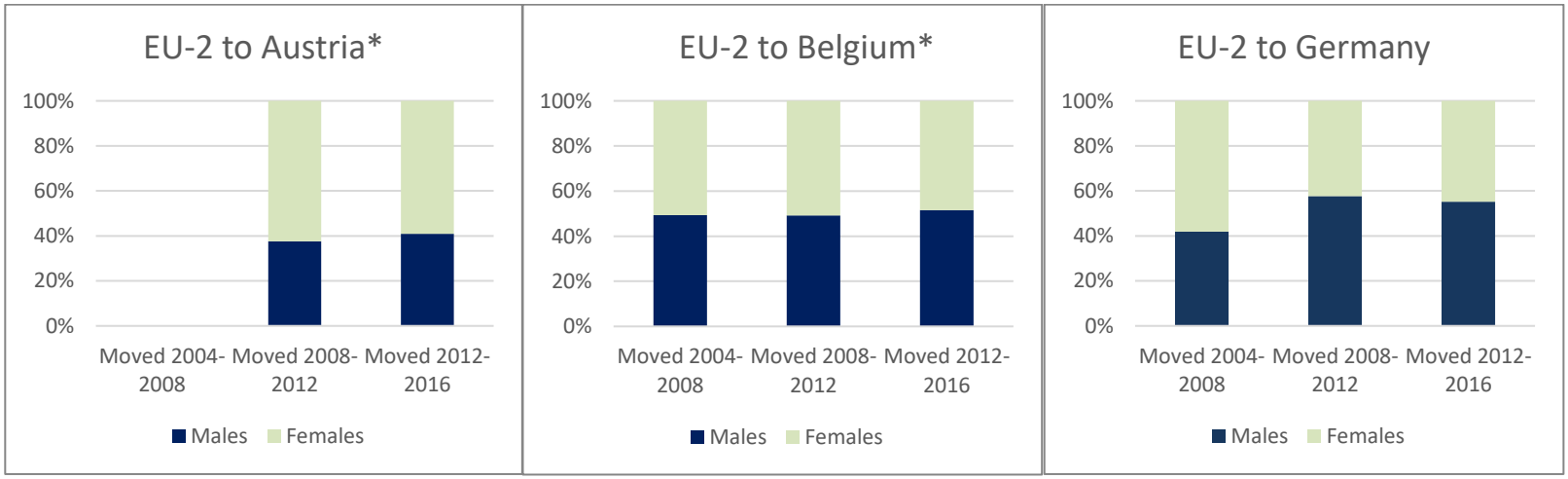
[210] * Indicates that there are one or more groups below reliability limits and therefore excluded from the graph. Dotted bars indicate low reliability.

FIGURES FOR EU-8 MALE MOVERS TO IT FOR 2012-2016 PERIOD ARE BELOW RELIABILITY LIMITS AND ARE EXCLUDED FROM THE GRAPH. NUMBER OF FEMALES IS ALSO EXCLUDED SINCE A COMPARISON IS NOT POSSIBLE. FIGURES FOR EU-8 MALE MOVERS TO IT FOR 2008-2012 PERIOD ARE OF LOW RELIABILITY.

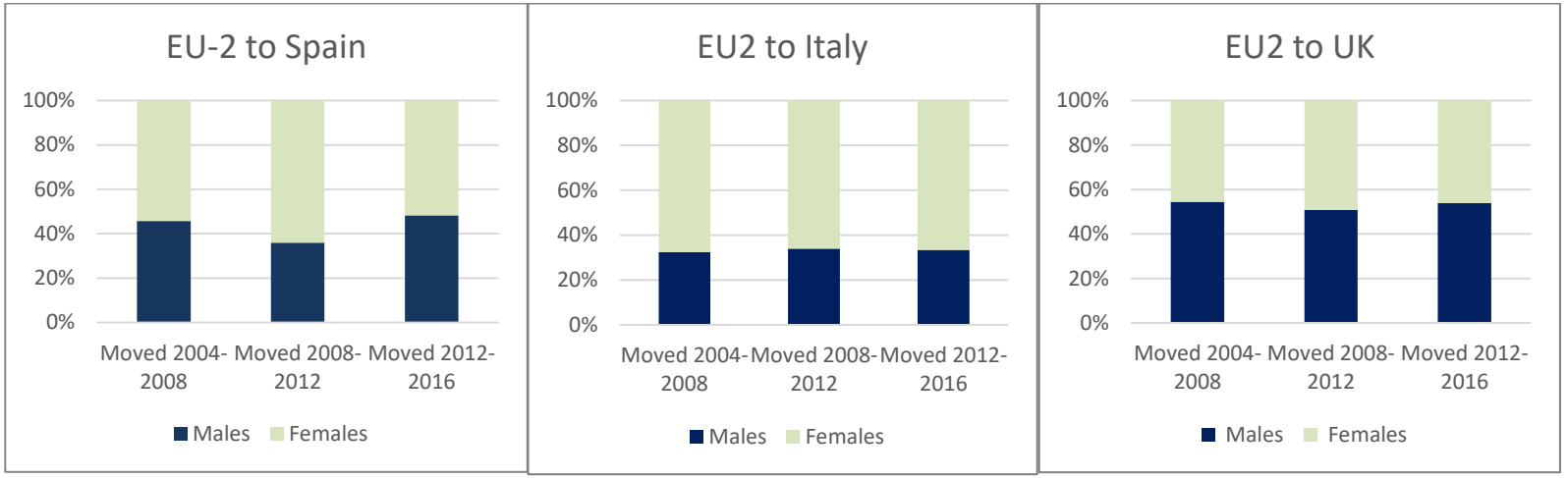
FIGURES FOR EU-8 MALE MOVERS TO ES FOR 2008-2012 PERIOD ARE BELOW RELIABILITY LIMITS AND ARE EXCLUDED FROM THE GRAPH. NUMBER OF FEMALES IS ALSO EXCLUDED SINCE A COMPARISON IS NOT POSSIBLE. FIGURES FOR EU-8 MALE AND FEMALE MOVERS TO ES FOR 2012-2016 PERIOD ARE OF LOW RELIABILITY.

SOURCE: EU-LFS, MILIEU CALCULATIONS

Figure 72: Female vs. male movers from EU-2 [211] to the main countries of destination, 2004-2016



[211] EU-2: Romania and Bulgaria. *indicates that there are one or more groups below reliability limits and these are excluded from the graph. Dotted bars indicate low reliability.



MALE AND FEMALE EU-2 MOVERS WHO ARRIVED WITHIN THE LAST FOUR YEARS TO MAIN COUNTRIES OF DESTINATION FOR YEARS 2008/2012 AND 2016.

FIGURES FOR EU-2 MALE MOVERS TO AT FOR 2004-2008 PERIOD ARE BELOW RELIABILITY LIMITS AND ARE EXCLUDED FROM THE GRAPH. NUMBER OF FEMALES IS ALSO EXCLUDED SINCE A COMPARISON IS NOT POSSIBLE. FIGURES FOR EU-2 MALE MOVERS TO AT FOR 2008-2012 PERIOD ARE OF LOW RELIABILITY.

FIGURES FOR EU-2 MALE MOVERS TO BE FOR 2004-2008 PERIOD ARE OF LOW RELIABILITY.

SOURCE: EU-LFS, MILIEU CALCULATIONS

Table 40: Case study 1, cross-border workers, long-term movers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions			Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Recent long-term movers, thousand [6]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**
Similar language, different countries	SK01 Bratislavský kraj; SK02 Zapadne Slovensko; SK03 Stredné Slovensko	71%	1,747.6	30,933	13,233	66.2	**6.3**	**0.36%**	**5.5 (total CZ=22.2)**	CZ06 Jihovychod; CZ07 Střední Morava and CZ08 Moravskoslezsko	73%	1,883.3	21,800	11,100	62.6
Different language, different countries	SK01 Bratislavský kraj; SK02 Zapad-	71%	1,747.6	30,933	13,233	66.2	**(2.2)**	**0.13%**	**10.8 (total AT=14.6)**	AT12 Niederösterreich and AT13	72%	1,523.1	37,600	21,150.00	104.2

	ne Slov-ensko; SK03 Stredné Slov-ensko									Wien					
Same lan-guage, same country	SK02 Zapad-ne Slov-ensko	69%	845.8	20,600	11,000	Not relevant for compar-ison	**50.7**	**6.00%**	Not relevant for compar-ison	SK01 Brati-slavski kraj	75.2%	310.0	54,400	17,700	Not relevant for compar-ison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to Slovakian nationals.
The number of Slovakian cross-border workers may vary up to +800 persons. The number of Slovakian long-term movers may vary up to +400 persons. Recent long-term movers include Slovak residents in the region(s) for up to 5 years, without further distinction between regions of origin. Numbers presented in parentheses have low reliability.
Source: Milieu calculations based on LFS.
[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region.
Source: Milieu calculations based on LFS and Eurostat, Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

Table 41: Case study 1, cross-border workers, long-term movers and socio-economic indicators in origin and destination regions, 2008

Scenario	Origin regions						Movements from origin to destination regions			Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Recent long-term movers, thousand [6]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**
Similar language, different countries	SK01 Bratislavský kraj; SK02 Zapadne Slovensko; SK03 Stredné Slovensko	72%	1,782.7	25,367	11,167	69.2	**10**	**0.56%**	**5.6 (total CZ = 21.7)**	CZ06 Jihovychod; CZ07 Střední Morava and CZ08 Moravskoslezsko	71%	1,896.8	18,333	9,933	72.3
Different language, different countries	SK01 Bratislavský kraj; SK02 Zapadne Slov-	72%	1,782.7	25,367	11,167	69.2	**6.2**	**0.35%**	**5.2 (total AT = 8.8)**	AT12 Niederösterreich and AT13	72%	1,443.8	34,400	20,550	102.9

	ensko; SK03 Stredné Slov-ensko									Wien					
Same lan-guage, same country	SK02 Zapad-ne Slov-ensko	72%	884.2	17,800	9,700	Not relevant for compar-ison	**51.7**	**5.85%**	Not relevant for compar-ison	SK01 Brati-slavski kraj	78%	325.0	43,100	14,600	Not relevant for compar-ison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to Slovakian nationals. The number of Slovakian cross-border workers may vary up to +1,200 persons. No margins of error for the figures on long-term movers. Recent long-term movers include Slovak residents in the region(s) for up to 5 years, without further distinction between regions of origin. The colon indicates that the figures cannot be presented because the values are below the reliability limits for publication.
Source: Milieu calculations based on LFS.
[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region.
Source: Milieu calculations based on LFS and Eurostat, Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

Table 42: Case study 2, cross-border workers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions		Destination regions					
	Regions	Employment rate [1]	Employed persons, thousand [2]	GDP PPS/inhabitant [3]	Net disposable income in the region, PPS/inh. (2014) [4]	Comparative price levels (EU28 = 100) [5]	Number of cross-border workers, thousand [6]	Share of cross-border workers [7]	Regions	Employment rate [1]	Employed persons, thousand [2]	GDP PPS per inhabitant [3]	Net disposable income in the region, PPS/inh. (2014) [4]	Comparative price levels (EU28 = 100) [5]
Same language, different countries	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	104.6	**11.6**	**0.81%**	BE32 Hainaut	58%	455.5	22,100	15,200	105.4
Different language, different countries	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	104.6	**(7.2)**	**0.50%**	BE25 Prov. West-Vlaanderen	74%	499.5	33,200	18,500	105.4
Same language, same country	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	Not relevant for comparison	**10.1**	**0.70%**	FR22 Picardie	67%	732.0	22,900	16,900	Not relevant for comparison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]

[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to French nationals. No margins of error for the figures on cross-border workers. Recent long-term movers include French residents in the region(s) for up to 10 years, without further distinction between regions of origin. The colon indicates that the figures cannot be presented because the values are below the reliability limits for publication. Numbers presented in parentheses have low reliability.
Source: Milieu calculations based on LFS.
[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region. Source: Milieu calculations based on LFS and Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

Table 43: Case study 2, long-term movers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions	Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Recent long-term movers, thousand [6]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**

Same language, different countries	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	104.6	**20.9**	French speaking regions	63.7%	1,303	25,900	16,440	105.4
Different language, different countries	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	104.6	**(2.6)**	Dutch speaking regions	71.9%	2,738	34,180	18,600	105.4

DUTCH SPEAKING REGIONS INCLUDE PROV. ANTWERPEN (BE21), PROV. LIMBURG (BE22), PROV. OOST-VLAANDEREN (BE23), PROV. VLAAMS-BRABANT (BE24), PROV. WEST-VLAANDEREN (BE25). FRENCH SPEAKING REGIONS INCLUDE PROV. BRABANT WALLON (BE31), PROV. HAINAUT (BE32), PROV. LIEGE (BE33), PROV. LUXEMBOURG (BE34), PROV. NAMUR (BE35).
[1] TO [5]: SEE FOOTNOTES UNDER TABLE 42
[6] THE FIGURES REFER ONLY TO FRENCH NATIONALS. THE NUMBER OF FRENCH LONG-TERM MOVERS MAY VARY UP TO +400 PERSONS. RECENT LONG-TERM MOVERS INCLUDE FRENCH RESIDENTS IN THE REGION(S) FOR UP TO 10 YEARS, WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY.
SOURCE: MILIEU CALCULATIONS BASED ON LFS.

Table 44: Case study 2, cross-border workers and socio-economic indicators in origin and destination regions, 2008

Scenario	**Origin regions**						**Movements from origin to destination regions**		**Destination regions**					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**

Same language, different countries	FR30 Nord-Pas-de-Calais	63%	1,470.4	22,700	14,500	109.1	**(8.8)**	**0.60%**	BE32 Hainaut	60%	461.1	20,000	14,500	108.2
Different language, different countries	FR30 Nord-Pas-de-Calais	63%	1,470.4	22,700	14,500	109.1	**:**	**0.29%**	BE25 Prov. West-Vlaanderen	73%	491.2	28,400	17,400	108.2
Same language, same country	FR30 Nord-Pas-de-Calais	63%	1,470.4	22,700	14,500	Not relevant for comparison	**(9.6)**	**0.65%**	FR22 Picardie	71%	785	21,500	16,300	Not relevant for comparison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to French nationals. The number of French cross-border workers may vary up to +400 persons. The number of French long-term movers may vary up to +400 persons. Recent long-term movers include French residents in the region(s) for up to 10 years, without further distinction between regions of origin. The colon indicates that the figures cannot be presented because the values are below the reliability limits for publication. Numbers presented in parentheses have low reliability.
Source: Milieu calculations based on LFS.

[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region. Source: Milieu calculations based on LFS and Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

Table 45: Case study 2, long-term movers and socio-economic indicators in origin and destination regions, 2008

Scenario	Origin regions						Movements from origin to destination regions	Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**	**Recent long-term movers, thousand [6]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**
Same language, different countries	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	104.6	**16.1**	French speaking regions	64.7%	1,292	23,340	15,660	108.2
Different language, different countries	FR30 Nord-Pas-de-Calais	62%	1,437.5	24,900	15,200	104.6	**(4.6)**	Dutch speaking regions	72.2%	2,683	29,520	17,920	108.2

Dutch speaking regions include Prov. Antwerpen (BE21), Prov. Limburg (BE22), Prov. Oost-Vlaanderen (BE23), Prov. Vlaams-Brabant (BE24), Prov. West-Vlaanderen (BE25). French speaking regions include Prov. Brabant Wallon (BE31), Prov. Hainaut (BE32), Prov. Liege (BE33), Prov. Luxembourg (BE34), Prov. Namur (BE35).

[1] to [5]: See footnotes under Table 44**Error! Reference source not found.**.
[6] The figures refer only to French nationals. The number of French long-term movers may vary up to +400 persons. Recent long-term movers include French residents in the region(s) for up to 10 years, without further distinction between regions of origin. Numbers presented in parentheses have low reliability.
Source: Milieu calculations based on LFS.

Table 46: Case study 3, cross-border workers, long-term movers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions			Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Recent long-term movers, thousand [6]**	**Regions [8]**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**
guage, different countries	DEB2 (Trier), DEC0 (Saarland)	77.1	690.5	30,800.0	20,450	100.3	**33.6**	**4.86 %**	**5.6**	LU00 (Luxembourg)	70.9	250.9	76,200.0	n.a.	120.5
guage, different countries	DEA1 (Düsseldorf), DEA2 (Köln)	74.7	4,272.7	38,200.0	20,950	100.3	**:**	**0.09 %**	**4.2**	NL42 (Limburg), NL21 (Overijssel), NlL22 (Gel-	76.0	1,889.6	30,800.0	14,667	108.3

										derland)					
guage, same country	DEA1 (Düssel-dorf), DEA2 (Köln)	74.7	4,272.7	38,200.0	20,950	Not relevant for comparison	**42.0**	**0.98 %**	Not relevant for comparison	DEA5 (Arnsberg)	74.0	1,571.7	31,500.0	20,900	Not relevant for comparison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to German nationals. The colon indicates that the figures cannot be presented because the values are below the reliability limits for publication. Numbers presented in parentheses have low reliability. The number of German cross-border workers can vary up to +800 persons. The number of German long-term movers can vary up to +400 persons. Recent long-term movers include German residents in the region(s) for up to 10 years, without further distinction between regions of origin.
Source: Milieu calculations based on LFS.
[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region.
Source: Milieu calculations based on LFS and Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[8] In the LFS, the NUTS2 codes '00' refer to the entire country. For instance, LU00 refers to Luxembourg. Moreover, it should be noted that Luxembourg is not divided into regions.

Table 47: Case study 3, cross-border workers, long-term movers and socio-economic indicators in origin and destination regions, 2008

Scenario	**Origin regions**						**Movements from origin to destination regions**			**Destination regions**					
	Re-	**Em-ploy-**	**Em-ployed**	**GDP PPS/in**	**Net dis-**	**Com-para-**	**Num-ber of**	**Share of**	**All Ger-**	**Re-**	**Em-ploy-**	**Em-ployed**	**GDP PPS**	**Net dis-**	**Com-para-**

	gions	ment rate [1]	per-sons, thou-sand [2]	habit-ant [3]	posa-ble income in the region, PPS/in h. [4]	tive price levels (EU28 = 100) [5]	cross-border work-ers, thou-sand [6]	cross-border work-ers [7]	man recent long-term mov-ers, thou-sand [6]	gions [8]	ment rate [1]	per-sons, thou-sand [2]	per inhab-itant [3]	posa-ble income in the region, PPS/in h. [4]	tive price levels (EU28 = 100) [5]
Same lan-guage, differ-ent countries	DE B2 (Trier), DEC0 (Saar-land)	74.9	672.4	26,700	17,550	103.4	**32.3**	**4.81%**	**4.3**	LU00 (Lux-em-bourg)	68.8	199.8	67,600.0	n.a.	113.0
Different language, dif-ferent countries	DEA1 (Düs-sel-dorf), DEA2 (Köln)	71.8	4,135.7	34,250	18,800	103.4	**16.6**	**0.40%**	**6.9**	NL42 (Lim-burg), NL21 (Over-ijssel), NIL 22 (Gelder-land)	78.3	1,996.3	29,566.7	15,567	102.4
Same language, same country	DEA1 (Düs-sel-dorf), DEA2 (Köln)	71.8	4,135.7	34,250	18,800	Not relevant for compar-ison	**21.3**	**0.52%**	Not relevant for compar-ison	DEA5 (Arns-berg)	70.4	1,552.6	27,300.0	18,500	Not relevant for compar-ison

[1] IF MORE THAN ONE REGION, THE EMPLOYMENT RATE IS CALCULATED AS THE AVERAGE EMPLOYMENT RATE ACROSS REGIONS.

SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND NUTS 2 REGIONS (%) [LFST_R_LFE2EMPRT]

[2] IF MORE THAN ONE REGION, THE NUMBER OF EMPLOYED PERSONS IS CALCULATED AS THE SUM OF EMPLOYED PERSONS IN EACH REGION.

SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[3] IF MORE THAN ONE REGION, THE GDP IS CALCULATED AS THE AVERAGE GDP ACROSS REGIONS.

SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AT CURRENT MARKET PRICES BY NUTS 2 REGIONS [NAMA_10R_2GDP]

[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.

SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES REFER TO ALL GERMAN NATIONALS, REGARDLESS OF THE REGION OF ORIGIN. NO MARGINS OF ERROR FOR THE FIGURES ON CROSS-BORDER WORKERS AND LONG-TERM MOVERS. THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. RECENT LONG-TERM MOVERS INCLUDE GERMAN RESIDENTS IN THE COUNTRY FOR UP TO 10 YEARS, WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.

SOURCE: MILIEU CALCULATIONS BASED ON LFS.

[7] THE SHARE OF CROSS-BORDER WORKERS REFERS TO THE SHARE OF CROSS-BORDER WORKERS OUT OF THE EMPLOYED PEOPLE IN THE REGION. SOURCE: MILIEU CALCULATIONS BASED ON LFS AND EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[8] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

Table 48: Case study 4, cross-border workers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions		Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Regions [8]**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**

Same language, different countries	BE33 (Liège)	60.8	394.3	24,700.0	15,700.0	105.4	**(4.7)**	**1.2%**	LU00 (Luxembourg)	70.9	250.9 (556) **	76,200.0	n.a.	120.5
Different language, different countries	BE33 (Liège)	60.8	394.3	24,700.0	15,700.0	105.4	**(3.1)**	**0.8%**	DEA2 (Köln), DEB2 (Trier)*	77.6	2,237.5	32,750.0	21,100	100.3
Same language, same country	BE33 (Liège)	60.8	394.3	24,700.0	15,700.0	Not relevant for comparison	**16.1**	**4.1%**	BE10 (Bruxelles-Capitale)	58.7	428.1 (549.6) **	59,200.0	15,800.0	Not relevant for comparison
Same language, same country	BE33 (Liège)	60.8	394.3	24,700.0	15,700.0	Not relevant for comparison	**11.5**	**2.9%**	BE35 (Namur), BE34 (Luxembourg)	65.3	293.4	22,650.0	16,100.0	Not relevant for comparison
Different language, same country	BE33 (Liège)	60.8	394.3	24,700.0	15,700.0	Not relevant for comparison	**(2.9)**	**0.7%**	BE24 (Vlaams-Brabant)	73.6	428.1	37,200.0	20,200.0	Not relevant for comparison

* The figure refers to people working in Germany overall (break-down by region was not possible). Since we consider cross-border workers, it is assumed that most of the cross-border workers are working in the regions of Köln or Trier.

** LU: to give a more precise estimate of the size of the labour market in the country, the value in parentheses includes also cross-border workers residing in other countries but working in Luxembourg.

**BE10 Bruxelles-Capitale: to give a more precise estimate of the size of the labour market in the country, the value in parentheses refers to all Belgian residents working in Brussels plus residents living abroad but working in Brussels.

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]

[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

[3] If more than one region, the GDP is calculated as the average GDP across regions.

SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AT CURRENT MARKET PRICES BY NUTS 2 REGIONS [NAMA_10R_2GDP]

[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.

SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES PRESENTED REFER ONLY TO BELGIAN NATIONALS. NO MARGINS OF ERROR FOR THE FIGURES ON CROSS-BORDER WORKERS. THE NUMBER OF BELGIAN LONG-TERM MOVERS MAY VARY UP TO +400 PERSONS.

RECENT LONG-TERM MOVERS INCLUDE BELGIAN RESIDENTS IN THE REGION(S) FOR UP TO 10 YEARS, WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.

SOURCE: MILIEU CALCULATIONS BASED ON LFS.

[7] THE SHARE OF CROSS-BORDER WORKERS REFERS TO THE SHARE OF CROSS-BORDER WORKERS OUT OF THE EMPLOYED PEOPLE IN THE REGION. SOURCE: MILIEU CALCULATIONS BASED ON LFS AND EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[8] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

Table 49: Case study 4, long-term movers and socio-economic indicators in origin and destination countries, 2015

Scenario	Origin country						Movements from origin to destination regions	Destination countries					
	Country	Employment rate [1]	Employed persons, thousand [2]	GDP PPS/inhabitant (2013) [3]	Net disposable income in the region, PPS/inh. (2014) [4]	Comparative price levels (EU28 = 100) [5]	Long-term movers, thousand [6]	Country [7]	Employment rate [1]	Employed persons, thousand [2]	GDP PPS per inhabitant [3]	Net disposable income, PPS/inh. (2014) [4]	Comparative price levels (EU28 = 100) [5]
lan- guag e, dif- fer- ent coun	BE00	67.2%	4,468	30,500	17,500	105.4	**14.1**	LU00 Luxem-	70.9%	251	67,900	Not avail-	120.5

								bourg				able	
Same language, different countries							**49.9**	FR00 France	69.5%	25,771	27,800	17,800	104.6
Same language, different countries							**21.5**	NL00 Netherlands	76.4%	7,602	32,600	15,600	108.3
Different language, different countries							**7.5**	DE00 Germany	78.0%	38,148	32,000	20,700	100.3

[1] SOURCE: EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND CITIZENSHIP (%) [LFSA_ERGAN]
[2] SOURCE: EUROSTAT, EMPLOYMENT BY SEX, AGE AND CITIZENSHIP (1,000) [LFSA_EGAN]
[3] SOURCE: EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AND MAIN COMPONENTS - CURRENT PRICES [NAMA_GDP_C]
[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.
SOURCE: INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]
[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120
[6] THE FIGURES PRESENTED REFER ONLY TO BELGIAN NATIONALS. THE NUMBER OF BELGIAN LONG-TERM MOVERS MAY VARY UP TO +5,200 PERSONS FOR GERMANY, +2,800 PERSONS FOR FRANCE AND +1,200 PERSONS FOR THE NETHERLANDS. LONG-TERM MOVERS INCLUDE BELGIAN RESIDENTS IN THE COUNTRY (EXCLUDING PEOPLE BORN IN THE DESTINATION COUNTRY), WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.
[7] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, FR00 REFERS TO FRANCE. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.SOURCE: MILIEU CALCULATIONS BASED ON LFS.

Table 50: Case study 4, cross-border workers and socio-economic indicators in origin and destination regions, 2008

Sce-nario	Origin regions	Movements from origin to destina-	Destination regions

							tion regions							
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Regions [8]**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**
Same language, different countries	BE 33 (Liège)	62.5	392.6	22,200.0	14,900.0	108.2	**5.8**	**1.5%**	LU00 (Luxembourg)	68.8	199.8 (434.3) **	67,600.0	Not available	113.0
Different language, different countries	BE33 (Liège)	62.5	392.6	22,200.0	14,900.0	108.2	**1.7**	**0.4%**	DEA2 (Köln), DEB2 (Trier)	75.1	2,153.5	32,750.0	18,400	103.4
Same language, same country	BE33 (Liège)	62.5	392.6	22,200.0	14,900.0	Not relevant for comparison	**12.4**	**3.2%**	BE10 (Bruxelles-Capitale)	60.2	391.3 (656.9)**	55,700.0	16,100.0	Not relevant for comparison
Same language, same country	BE33 (Liège)	62.5	392.6	22,200.0	14,900.0	Not relevant for comparison	**11.6**	**3.0%**	BE35 (Namur), BE34 (Luxembourg)	66.0	283.7	20,750.0	15,250.0	Not relevant for comparison
Different language, same country	BE33 (Liège)	62.5	392.6	22,200.0	14,900.0	Not relevant for comparison	**:**	**0.3%**	BE24 (Vlaams-Brabant)	73.7	468.4	31,500.0	20,000.0	Not relevant for comparison

* The figure refers to people working in Germany overall (break-down by region was not possible). Since we consider cross-border workers, it is assumed that most of the cross-border workers are working in the regions of Köln or Trier.
** LU: to give a more precise estimate of the size of the labour market in the country, the value in parentheses includes also cross-border workers residing in other countries but working in Luxembourg.
BE10 Bruxelles-Capitale: to give a more precise estimate of the size of the labour market in the country, the value in parentheses refers to all Belgian residents working in Brussels plus residents living abroad but working in Brussels.

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures presented refer only to Belgian nationals. The colon indicates that the figures cannot be presented because the values are below the reliability limits for publication. The number of Belgian cross-border workers and long-term movers may vary up to +400 persons. Recent long-term movers include Belgian residents in the country for up to 10 years, without further distinction between regions of origin.
Source: Milieu calculations based on LFS.
[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region. Source: Milieu calculations based on LFS and Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[8] In the LFS, the NUTS2 codes '00' refer to the entire country. For instance, LU00 refers to Luxembourg. Moreover, it should be noted that Luxembourg is not divided into regions.

Table 51: Case study 4, long-term movers and socio-economic indicators in origin and destination countries, 2008

Scenario	Origin country	Movements	Destination countries

							from origin to destination regions						
	Country	Employment rate [1]	Employed persons, thousand [2]	GDP PPS/inhabitant [3]	Net disposable income in the region, PPS/inh. [4]	Comparative price levels (EU28 = 100) [5]	Long-term movers, thousand [6]	Country [7]	Employment rate [1]	Employed persons, thousand [2]	GDP PPS per inhabitant [3]	Net disposable income in the region, PPS/inh. [4]	Comparative price levels (EU28 = 100) [5]
Same language, different countries	BE00	68.0%	4,367	28,900	16,900	108.2	**14.6**	LU00 Luxembourg	68.8%	200	65,800	Not available	113.0
Same language, different countries							**55.8**	FR00 France	70.5%	25,334	26,700	16,800	109.1
Same language, different countries							**23.6**	NL00 Netherlands	78.9%	7,866	33,500	16,200	102.4
Different language, different countries							**8.7**	DE00 Germany	74.0%	36,583	29,000	18,500	103.4

[1] SOURCE: EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND CITIZENSHIP (%) [LFSA_ERGAN]
[2] SOURCE: EUROSTAT, EMPLOYMENT BY SEX, AGE AND CITIZENSHIP (1,000) [LFSA_EGAN]
[3] SOURCE: EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AND MAIN COMPONENTS - CURRENT PRICES [NAMA_GDP_C]
[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.
SOURCE: INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES PRESENTED REFER ONLY TO BELGIAN NATIONALS. THE NUMBER OF BELGIAN LONG-TERM MOVERS MAY VARY UP TO +4,400 PERSONS FOR GERMANY, +1,600 PERSONS FOR FRANCE AND +800 PERSONS FOR THE NETHERLANDS. LONG-TERM MOVERS INCLUDE BELGIAN RESIDENTS IN THE COUNTRY (EXCLUDING PEOPLE BORN IN THE DESTINATION COUNTRY), WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.

[7] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

SOURCE: MILIEU CALCULATIONS BASED ON LFS.

Table 52: Case study 5, cross-border workers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions		Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Regions [8]**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**
Same language, different countries	FR 41 (Lorraine)	66.5	874.6	23,300.0	16,800	104.6	**88.1**	**10.1%**	LU00 (Luxembourg)	70.9	250.9 (556) **	76,200.0	n.a.	120.5
Same language, different countries	FR 41 (Lorraine)	66.5	874.6	23,300.0	16,800	104.6	**(5.0)**	**0.6%**	BE34 (Prov. Luxembourg)	68.2	110.5	21,800.0	16,100	105.4
ian-guage, different	FR 41 (Lor-	66.5	874.6	23,300.0	16,800	104.6	**(5.0)**	**0.6%**	DEC0 (Saar-	75.7	433.8	34,100.0	19,600	100.3

	raine)								land)					
Same language, same country	FR 41 (Lorraine)	66.5	874.6	23,300.0	16,800	Not relevant for comparison	**10.3**	**1.2%**	FR42 (Alsace)	71.0	788.9	28,400.0	17,500	Not relevant for comparison
	FR 41 (Lorraine)	66.5	874.6	23,300.0	16,800	Not relevant for comparison	**(7.8)**	**0.9%**	FR10 (Ile de France)	69.9	5,145.2	50,900.0	21,100	Not relevant for comparison

** LU: TO GIVE A MORE PRECISE ESTIMATE OF THE SIZE OF THE LABOUR MARKET IN THE COUNTRY, THE VALUE IN PARENTHESES INCLUDES ALSO CROSS-BORDER WORKERS RESIDING IN OTHER COUNTRIES BUT WORKING IN LUXEMBOURG.

[1] IF MORE THAN ONE REGION, THE EMPLOYMENT RATE IS CALCULATED AS THE AVERAGE EMPLOYMENT RATE ACROSS REGIONS.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND NUTS 2 REGIONS (%) [LFST_R_LFE2EMPRT]

[2] IF MORE THAN ONE REGION, THE NUMBER OF EMPLOYED PERSONS IS CALCULATED AS THE SUM OF EMPLOYED PERSONS IN EACH REGION.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[3] IF MORE THAN ONE REGION, THE GDP IS CALCULATED AS THE AVERAGE GDP ACROSS REGIONS.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AT CURRENT MARKET PRICES BY NUTS 2 REGIONS [NAMA_10R_2GDP]

[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES PRESENTED REFER ONLY TO FRENCH NATIONALS. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY. THE NUMBER OF FRENCH CROSS-BORDER WORKERS AND LONG-TERM MOVERS MAY VARY UP TO +400 PERSONS. RECENT LONG-TERM MOVERS INCLUDE FRENCH RESIDENTS IN THE REGION(S) FOR UP TO 10 YEARS, WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.
SOURCE: MILIEU CALCULATIONS BASED ON LFS.

[7] THE SHARE OF CROSS-BORDER WORKERS REFERS TO THE SHARE OF CROSS-BORDER WORKERS OUT OF THE EMPLOYED PEOPLE IN THE REGION. SOURCE: MILIEU CALCULATIONS BASED ON LFS AND EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[8] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

Table 53: Case study 5, long-term movers and socio-economic indicators in origin and destination countries, 2015

Scenario	Origin country						Movements from origin to destination countries	Destination countries					
	Country	Employment rate [1]	Employed persons, thousand [2]	GDP PPS/inhabitant (2013) [3]	Net disposable income, PPS/inh. (2014) [4]	Comparative price levels (EU28 = 100) [5]	Recent long-term movers, thousand [6]	Country [7]	Employment rate [1]	Employed persons, thousand [2]	GDP PPS per inhabitant (2013) [3]	Net disposable income, PPS/inh. (2014) [4]	Comparative price levels (EU28 = 100) [5]
Same language, different countries	FR00 France	69.5%	25,771	27,800	17,800	104.6	**17.6**	LU00 Luxembourg	70.9%	251	67,900	Not available	120.5
Same language, different countries							**48.9**	BE00 Belgium	67.2%	4,468	30,500	17,500	105.4
Different language, different countries							**28.4**	DE00 Germany	78.0%	38,148	32,000	20,700	100.3

[1] SOURCE: EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND CITIZENSHIP (%) [LFSA_ERGAN]
[2] SOURCE: EUROSTAT, EMPLOYMENT BY SEX, AGE AND CITIZENSHIP (1,000) [LFSA_EGAN]
[3] SOURCE: EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AND MAIN COMPONENTS - CURRENT PRICES [NAMA_GDP_C]
[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.
SOURCE: INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES PRESENTED REFER ONLY TO FRENCH NATIONALS. THE NUMBER OF FRENCH LONG-TERM MOVERS MAY VARY UP TO +1,600 PERSONS FOR BELGIUM AND UP TO +6,000 PERSONS FOR GERMANY. RECENT LONG-TERM MOVERS INCLUDE FRENCH RESIDENTS IN THE COUNTRY FOR UP TO 10 YEARS (EXCLUDING PEOPLE BORN IN THE DESTINATION COUNTRY), WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.

[7] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

SOURCE: MILIEU CALCULATIONS BASED ON LFS.

Table 54: Case study 5, cross-border workers and socio-economic indicators in origin and destination regions, 2008

Scenario	Origin regions						Movements from origin to destination regions		Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**Regions [8]**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**
Same language, different countries	FR 41 (Lorraine)	68.2	933.5	21,800.0	15,600	109.1	**57.2**	**6.1%**	LU 00 (Luxembourg)	68.8	199.8 (434.3)**	67,600.0	n.a.	113.0
Same language, different countries	FR 41 (Lorraine)	68.2	933.5	21,800.0	15,600	109.1	**:**	**0.5%**	BE 34 (Prov. Luxembourg)	67.3	104.4	20,200.0	15,300	108.2
ian-guag e, dif-fer-	FR 41 (Lor-	68.2	933.5	21,800.0	15,600	109.1	**17.1**	**1.8%**	DE C0 (Saar-	71.3	434.0 (480.8)*	30,000.0	17,000	103.4

	raine)								land)		*			
Same language, same country	FR 41 (Lorraine)	68.2	933.5	21,800.0	15,600	Not relevant for comparison	**21.5**	**2.3%**	FR 42 (Alsace)	73.6	819.9 (856.7)	26,200.0	16,600	Not relevant for comparison
	FR 41 (Lorraine)	68.2	933.5	21,800.0	15,600	Not relevant for comparison	**(5.4)**	**0.6%**	FR 10 (Ile de France)	70.0	5,208.2	45,600.0	20,300	Not relevant for comparison

** LU: TO GIVE A MORE PRECISE ESTIMATE OF THE SIZE OF THE LABOUR MARKET IN THE COUNTRY, THE VALUE IN PARENTHESES INCLUDES ALSO CROSS-BORDER WORKERS RESIDING IN OTHER COUNTRIES BUT WORKING IN LUXEMBOURG.

[1] IF MORE THAN ONE REGION, THE EMPLOYMENT RATE IS CALCULATED AS THE AVERAGE EMPLOYMENT RATE ACROSS REGIONS.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND NUTS 2 REGIONS (%) [LFST_R_LFE2EMPRT]

[2] IF MORE THAN ONE REGION, THE NUMBER OF EMPLOYED PERSONS IS CALCULATED AS THE SUM OF EMPLOYED PERSONS IN EACH REGION.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[3] IF MORE THAN ONE REGION, THE GDP IS CALCULATED AS THE AVERAGE GDP ACROSS REGIONS.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AT CURRENT MARKET PRICES BY NUTS 2 REGIONS [NAMA_10R_2GDP]

[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.
SOURCE: MILIEU CALCULATIONS BASED ON EUROSTAT, INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES PRESENTED REFER ONLY TO FRENCH NATIONALS. THE COLON INDICATES THAT THE FIGURES CANNOT BE PRESENTED BECAUSE THE VALUES ARE BELOW THE RELIABILITY LIMITS FOR PUBLICATION. NUMBERS PRESENTED IN PARENTHESES HAVE LOW RELIABILITY. NO MARGINS OF ERROR FOR THE FIGURES ON CROSS-BORDER WORKERS. THE NUMBER OF FRENCH LONG-TERM MOVERS MAY VARY UP TO +400 PERSONS. RECENT LONG-TERM MOVERS INCLUDE FRENCH RESIDENTS IN THE REGION(S) FOR UP TO 10 YEARS, WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.
SOURCE: MILIEU CALCULATIONS BASED ON LFS.

[7] THE SHARE OF CROSS-BORDER WORKERS REFERS TO THE SHARE OF CROSS-BORDER WORKERS OUT OF THE EMPLOYED PEOPLE IN THE REGION. SOURCE: MILIEU CALCULATIONS BASED ON LFS AND EUROSTAT, EMPLOYMENT BY SEX, AGE AND NUTS 2 REGIONS (1000) [LFST_R_LFE2EMP]

[8] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

Table 55: Case study 5, long-term movers and socio-economic indicators in origin and destination countries, 2008

Scenario	Origin country						Movements from origin to destination countries	Destination countries					
	Country	Employment rate [1]	Employed persons, thousand [2]	GDP PPS/inhabitant [3]	Net disposable income, PPS/inh. [4]	Comparative price levels (EU28 = 100) [5]	Recent long-term movers, thousand [6]	Country [7]	Employment rate [1]	Employed persons, thousand [2]	GDP PPS per inhabitant [3]	Net disposable income, PPS/inh. [4]	Comparative price levels (EU28 = 100) [5]
Same language, different countries	FR00 France	70.5%	25,334	26,700	16,800	109.1	**11.7**	LU00 Luxembourg	68.8%	200	65,800	Not available	113.0
Same language, different countries							**38.3**	BE00 Belgium	68.0%	4,367	28,900	16,900	108.2
Different language, different countries							**26.3**	DE00 Germany	74.0%	36,583	29,000	18,500	103.4

[1] SOURCE: EUROSTAT, EMPLOYMENT RATES BY SEX, AGE AND CITIZENSHIP (%) [LFSA_ERGAN]
[2] SOURCE: EUROSTAT, EMPLOYMENT BY SEX, AGE AND CITIZENSHIP (1,000) [LFSA_EGAN]
[3] SOURCE: EUROSTAT, GROSS DOMESTIC PRODUCT (GDP) AND MAIN COMPONENTS - CURRENT PRICES [NAMA_GDP_C]
[4] THE DISPOSABLE INCOME OF PRIVATE HOUSEHOLDS IS THE BALANCE OF PRIMARY INCOME AND THE REDISTRIBUTION OF INCOME IN CASH.
SOURCE: INCOME OF HOUSEHOLDS BY NUTS 2 REGIONS [NAMA_10R_2HHINC]

[5] SOURCE: EUROSTAT, COMPARATIVE PRICE LEVELS OF FINAL CONSUMPTION BY PRIVATE HOUSEHOLDS INCLUDING INDIRECT TAXES (EU28 = 100), HTTP://EC.EUROPA.EU/EUROSTAT/TGM/TABLE.DO?TAB=TABLE&INIT=1&PLUGIN=1&LANGUAGE=EN&PCODE=TEC00120

[6] THE FIGURES PRESENTED REFER ONLY TO FRENCH NATIONALS. THE NUMBER OF FRENCH LONG-TERM MOVERS MAY VARY UP TO +1,200 PERSONS FOR BELGIUM AND UP TO +5,600 PERSONS FOR GERMANY. RECENT LONG-TERM MOVERS INCLUDE FRENCH RESIDENTS IN THE COUNTRY FOR UP TO 10 YEARS (EXCLUDING PEOPLE BORN IN THE DESTINATION COUNTRY), WITHOUT FURTHER DISTINCTION BETWEEN REGIONS OF ORIGIN.

[7] IN THE LFS, THE NUTS2 CODES '00' REFER TO THE ENTIRE COUNTRY. FOR INSTANCE, LU00 REFERS TO LUXEMBOURG. MOREOVER, IT SHOULD BE NOTED THAT LUXEMBOURG IS NOT DIVIDED INTO REGIONS.

SOURCE: MILIEU CALCULATIONS BASED ON LFS.

Table 56: Case study 6, cross-border workers, long-term movers and socio-economic indicators in origin and destination regions, 2015

Scenario	Origin regions						Movements from origin to destination regions			Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**'New' long-term movers, thousand [6]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. (2014) [4]**	**Comparative price levels (EU28 = 100) [5]**
Different language, different countries	PL42 Zachodniopomorskie, PL43 Lubuskie, PL51	66.2%	2,057.0	18,467	10,867	54.2	**(5.8)**	**0.28%**	**18.8**	DE30 Berlin, DE40 Brandenburg, DE80 Mecklenburg-Vor-	76%	4,210.9	27,750	17,925	100.3

	Dolnośląskie									pom-mern, DED2 Dresden					
Same language, same country	PL42 Zachodniopomorskie, PL43 Lubuskie, PL51 Dolnośląskie	66.2%	2,057.0	18,467	10,867	Not relevant for comparison	**(13.9)**	**0.68%**	Not relevant for comparison	PL41 Wielkopolskie, PL52 Opolskie, PL63 Pomorskie	69%	2,623.0	18,833	10,867	Not relevant for comparison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to Polish nationals. The number of Polish cross-border workers may vary up to +800 persons. Numbers in parentheses have low reliability. No margins of error for the figures on long-term movers. 'New' long-term movers include Polish residents in the region(s) for up to 5 years, without further distinction between regions of origin; this group was chosen instead of 'recent' movers, since the only comparison in this case that can be made is the mobility to Germany over time; the group of 'new' movers' is more useful to indicate changes before and after the end of transitional arrangements in 2011.
Source: Milieu calculations based on LFS.

[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region. Source: Milieu calculations based on LFS and Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

Table 57: Case study 6, cross-border workers, long-term movers and socio-economic indicators in origin and destination regions, 2008

Scenario	Origin regions						Movements from origin to destination regions			Destination regions					
	Regions	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS/inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**	**Number of cross-border workers, thousand [6]**	**Share of cross-border workers [7]**	**'New' long-term movers, thousand [6]**	**Regions**	**Employment rate [1]**	**Employed persons, thousand [2]**	**GDP PPS per inhabitant [3]**	**Net disposable income in the region, PPS/inh. [4]**	**Comparative price levels (EU28 = 100) [5]**
Different language, different countries	PL42 Zachodniopomorskie, PL43 Lubuskie, PL51 Dolnośląskie	61.5%	2,095.1	13,767	8,500	67.4	:	**0.09%**	**11.6**	DE30 Berlin, DE40 Brandenburg, DE80 Mecklenburg-Vorpommern, DED2 Dresden	71%	4,069.6	23,225	15,850	103.4

Same language, same country	PL42 Zachod-niopo-morskie, PL43 Lubuskie, PL51 Dolnoślą-skie	61.5%	2,095.1	13,767	8,500	Not relevant for com-parison	**16.3**	**1.49%**	Not relevant for com-parison	PL41 Wielko-polskie, PL52 Opol-skie, PL63 Pomor-skie	65%	2,419.2	13,867	8,367	Not relevant for com-parison

[1] If more than one region, the employment rate is calculated as the average employment rate across regions.
Source: Milieu calculations based on Eurostat, Employment rates by sex, age and NUTS 2 regions (%) [lfst_r_lfe2emprt]
[2] If more than one region, the number of employed persons is calculated as the sum of employed persons in each region.
Source: Milieu calculations based on Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]
[3] If more than one region, the GDP is calculated as the average GDP across regions.
Source: Milieu calculations based on Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions [nama_10r_2gdp]
[4] The disposable income of private households is the balance of primary income and the redistribution of income in cash.
Source: Milieu calculations based on Eurostat, Income of households by NUTS 2 regions [nama_10r_2hhinc]
[5] Source: Eurostat, Comparative price levels of final consumption by private households including indirect taxes (EU28 = 100), http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120
[6] The figures refer only to Polish nationals. The number of Polish cross-border workers may vary up to +800 persons. The number of Polish long-term movers may vary up to +400 persons. The colon indicates that the figures cannot be presented because the values are below the reliability limits for publication. 'New' long-term movers include Polish residents in the region(s) for up to 5 years, without further distinction between regions of origin; this group was chosen instead of 'recent' movers, since the only comparison in this case that can be made is the mobility to Germany over time; the group of 'new' movers' is more useful to indicate changes before and after the end of transitional arrangements in 2011.
Source: Milieu calculations based on LFS.
[7] The share of cross-border workers refers to the share of cross-border workers out of the employed people in the region. Source: Milieu calculations based on LFS and Eurostat, Employment by sex, age and NUTS 2 regions (1000) [lfst_r_lfe2emp]

Table 58: Annual changes in stocks of different groups of mobile health professionals (20-64) across the EU-28, 2011-2016 *(in thousands)*

2011	2012	2013	2014	2015	2016

Doctors (221)	61	47	51	60	61	68
		-24%	9%	17%	2%	11%
Nurses (222 and 322)	94	95	100	114	140	145
		2%	5%	14%	23%	4%
Health professionals (22)	136	117	135	159	163	184
		-14%	16%	18%	2%	13%
Health associate professionals (23)	103	124	127	140	150	168
		20%	3%	10%	8%	12%
Personal care workers (532)	178	194	197	219	243	257
		9%	1%	11%	11%	6%

FIGURES RELATE TO HEALTH PROFESSIONALS WITH EU CITIZENSHIP WHO LIVE IN AN EU MEMBER STATE OTHER THAN THEIR COUNTRY OF CITIZENSHIP.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Table 59: Reliance on EU-28 mobile and on TCN health professionals (20-64) in the Member States, 2016

Health (associate) professionals				**Personal care workers**		
	EU-28	**TCN**			**EU-28**	**TCN**
LU	36%			IT	17%	24%
CH	18%	3%		LU	*16%*	
AT	7%	*2%*		CH	15%	12%

Health (associate) professionals				Personal care workers		
CY	6%			AT	9%	5%
NO	5%	2%		DE	6%	6%
UK	5%	6%		IE	6%	7%
IE	4%	8%		**EU-28**	**5%**	**8%**
DE	3%	3%		UK	5%	7%
EU-28	**3%**	**2%**		BE	*4%*	
BE	3%	*1%*		ES	3%	10%
SE	2%	2%		NO	2%	4%
CZ	2%			DK	*2%*	6%
IT	2%	1%		SE	2%	6%
NL	1%	1%		NL		1%
DK		*2%*		FI	*1%*	
ES	1%	2%				
FR	1%	1%				

FIGURES IN ITALICS ARE OF LOW RELIABILITY.

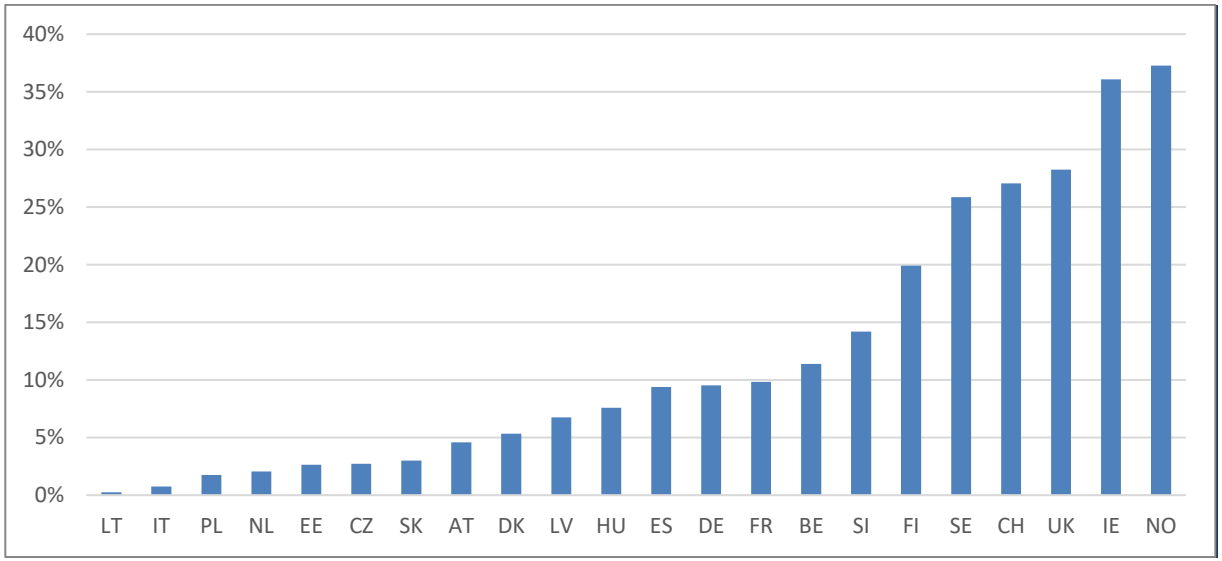
MISSING FIGURES WERE TOO LOW TO BE PUBLISHED.

FIGURES FOR FI, EL, PT, HU, EE, IS, MT AND SL ON HEALTH (ASSOCIATE) PROFESSIONALS AND FOR CY, EL, FR, SK, CZ, PT, IS, LV AND MT FOR PERSONAL CARE WORKERS WERE TOO LOW TO BE PUBLISHED.

THE TABLE SHOWS THE SHARE OF EU-28 MOVERS AND TCNS WITHIN THE TOTAL POPULATION OF HEALTHCARE PROFESSIONALS (IN THE REFERENCE GROUP) IN THE COUNTRY OF RESIDENCE (ROWS).

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Figure 73: Share of foreign-trained doctors within the total, 2014



NUMBERS FOR 2014 ARE NOT AVAILABLE FOR THE FOLLOWING COUNTRIES THUS THE DATA WERE REPLACED BY FIGURES OF LATEST AVAILABLE YEAR:

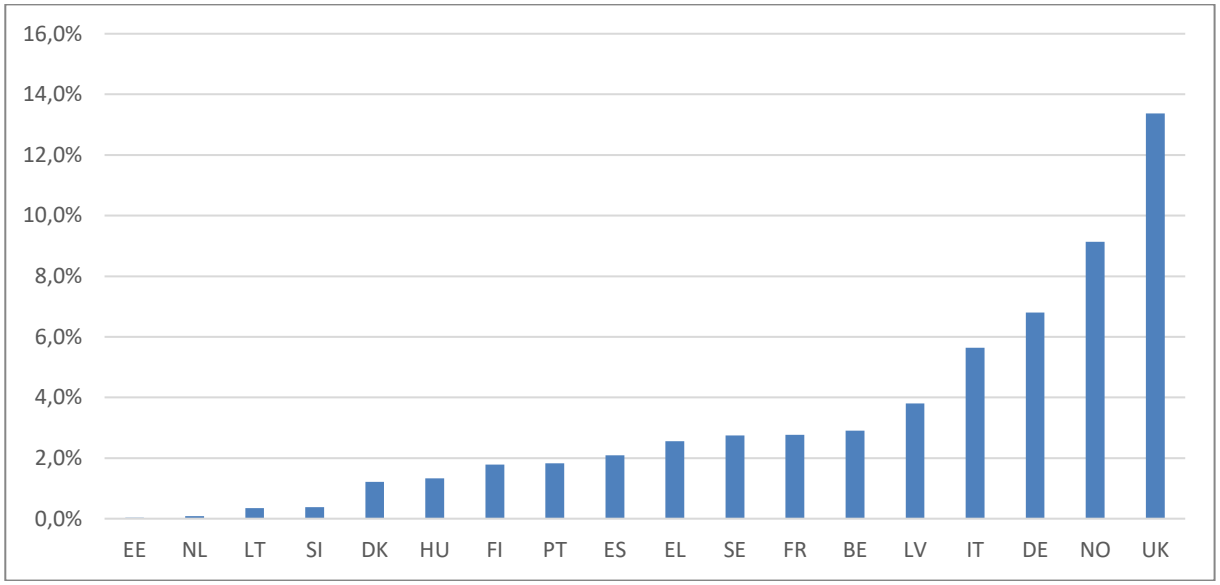
DK, NL AND SE (2013).

FI, PL, CH (2012).

SK, ES (2011).

SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

Figure 74: Share of foreign-trained nurses within the total, 2014



NUMBERS FOR 2014 ARE NOT AVAILABLE FOR THE FOLLOWING COUNTRIES THUS THE DATA WERE REPLACED BY FIGURES OF LATEST AVAILABLE YEAR:

FI (2012).

ES (2011).

SOURCE: OECD STATISTICS, DATASET 'Health Workforce Migration', AVAILABLE AT: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

Table 60: Number of health (associate) professionals and personal care workers (aged 20-64) living in a different country than their country of citizenship, by citizenship, 2016

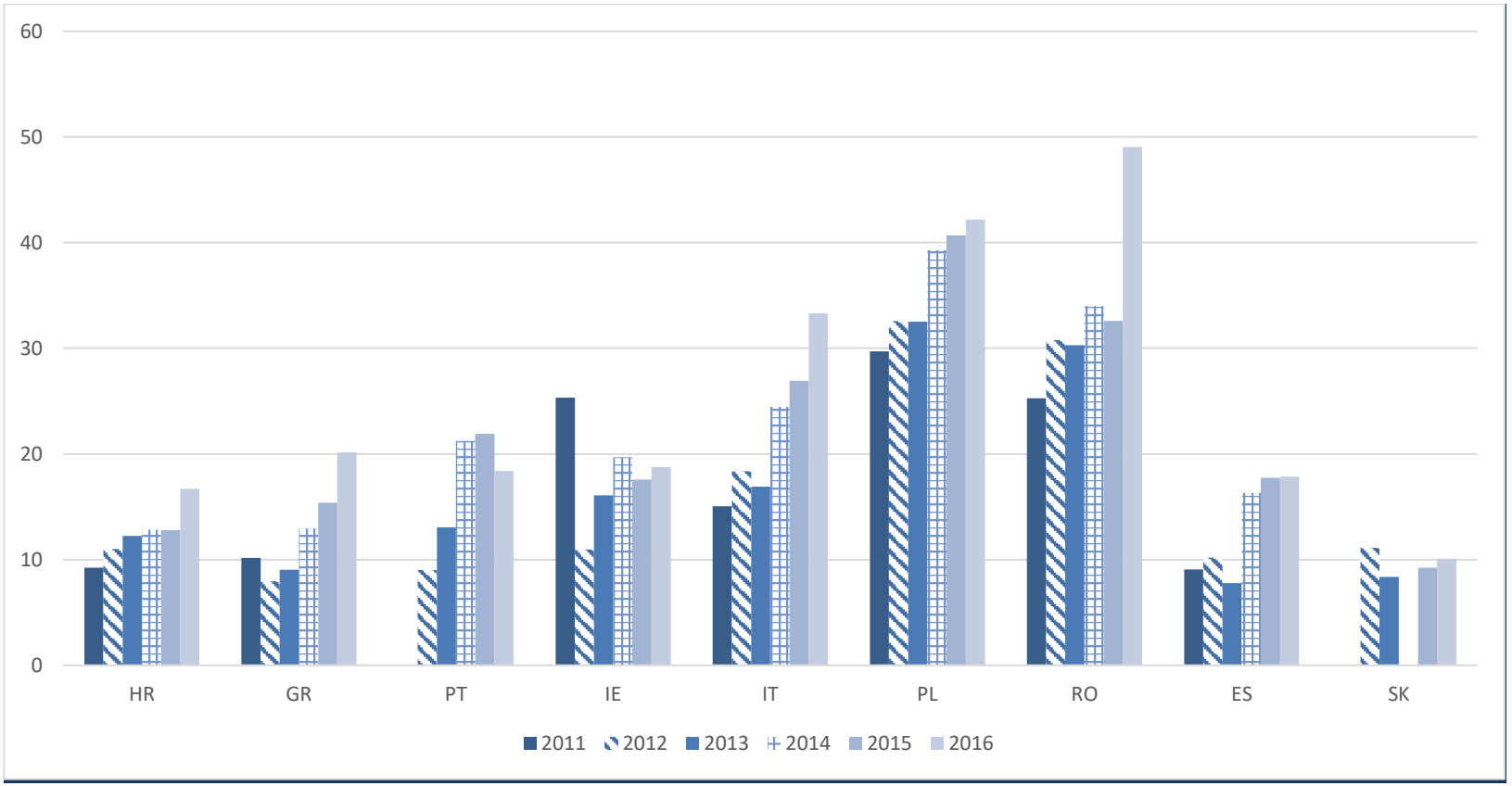
Citizenship	Mobile health (associate) professionals	Mobile personal care workers
AT	8,954	3,228
BE	11,932	2,150
BG	7,027	12,590
CZ	4,988	1,496
DE	22,504	6,638
DK	2,207	:
EE	1,664	1,795
ES	17,853	4,561
FR	16,098	:
EL	20,151	2,857
HR	16,702	3,674
HU	12,030	4,790
IE	18,765	5,471
IT	33,291	7,294
LT	5,844	6,466
LV	1,798	2,060
MT	0,929	:

Citizenship	Mobile health (associate) professionals	Mobile personal care workers
NL	16,242	3,158
PL	42,170	39,195
PT	18,385	9,203
RO	49,050	122,062
SE	4,127	1,567
SI	1,056	:
SK	10,053	5,743
UK	5,879	:
EU-28	**352,147**	**256,858**

THE FOLLOWING FIGURES ARE OF LOW RELIABILITY: MOBILE HEALTH (ASSOCIATE) PROFESSIONALS: BG, DK, EE, LT, LV, SK, UK; MOBILE PERSONAL CARE WORKERS: AT, BE, CZ, EE, ES, EL, HR, HU, LT, LV, SE.

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Figure 75: Number of health (associate) professionals (aged 20-64) working in another EU Member State, by country of origin, 2011-2016



FIGURES FOR EE, LV AND LT WERE TOO LOW TO BE PRESENTED.

SEVERAL FIGURES FOR THE FOLLOWING COUNTRIES ARE OF LOW RELIABILITY: HR (2011-2015), EL (2011-2014), ES (2011-2013), SK (2012, 2013, 2015).

SOURCE: EU-LFS 2016, MILIEU CALCULATIONS

Table 61: Margins of error: minimum, maximum and presented (see Figure 15) shares of EU-28 movers of working age (20-64) by country of residence and years of residence, 2016

Country/ years of residence	Minimum value			Value presented			Maximum value		
	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years
AT	36%	20%	42%	36%	21%	43%	37%	21%	44%
BE	26%	21%	49%	27%	22%	51%	28%	24%	53%
CH	32%	20%	47%	32%	21%	47%	32%	21%	48%
CY	19%	32%	36%	22%	36%	42%	28%	40%	46%
CZ	25%	21%	39%	29%	25%	46%	34%	31%	53%
DE	34%	14%	51%	35%	14%	51%	35%	14%	51%
DK	41%	24%	27%	44%	26%	30%	46%	31%	32%
ES	10%	22%	67%	10%	22%	67%	11%	23%	68%
FI	15%	25%	35%	20%	33%	47%	33%	44%	56%
FR	19%	16%	64%	19%	16%	65%	19%	17%	65%
GR	9%	19%	63%	9%	21%	69%	11%	27%	72%
HU	30%	14%	33%	39%	18%	43%	50%	18%	60%
IE	22%	32%	43%	23%	33%	45%	24%	34%	45%
IT	8%	31%	60%	8%	31%	61%	9%	32%	61%
LU	26%	17%	49%	28%	18%	53%	31%	22%	56%
MT	11%	8%	34%	20%	16%	64%	53%	49%	86%

Country/ years of residence	Minimum value			Value presented			Maximum value		
	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years
NL	14%	24%	58%	14%	25%	61%	17%	26%	62%
NO	40%	29%	26%	42%	31%	27%	43%	33%	29%
PT	15%	11%	52%	19%	14%	67%	30%	26%	73%
SE	37%	23%	37%	38%	24%	38%	40%	25%	39%
SI	15%	11%	16%	36%	27%	38%	95%	56%	83%
UK	40%	29%	31%	40%	29%	31%	40%	29%	31%
EU-28	28%	23%	49%	34%	23%	49%	28%	23%	49%
EFTA	33%	22%	43%	34%	22%	44%	34%	23%	45%

NOTE: THE VALUES PRESENTED SHOULD BE READ IN THE FOLLOWING WAY. THE SHARE OF EU-28 MOVERS OF WORKING AGE (20-64) RESIDING IN AUSTRIA FOR MORE THAN 10 YEARS WAS CALCULATED TO BE 43% IN 2016. HOWEVER, THIS SHARE MAY VARY BETWEEN 42% AND 44%. IN SOME CASES, AS THE VARIATIONS ARE MINIMAL AND THE FIGURES ARE ROUNDED, THE MINIMUM, PRESENTED AND MAXIMUM VALUES CORRESPOND.

Table 62: Margins of error: minimum, maximum and presented (see Figure 21) shares of active EU-28 movers of working age (20-64), by country of residence and EU-28 aggregate, 2016

Country/ years of residence	Min. possible fraction value			Presented values			Max. possible fraction value		
	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years
AT	36%	22%	43%	36%	22%	43%	36%	22%	43%
BE	28%	24%	48%	28%	24%	48%	28%	24%	48%
CY	20%	37%	43%	20%	37%	43%	20%	37%	43%
CZ	29%	25%	46%	29%	25%	46%	29%	25%	47%
DE	34%	15%	51%	34%	15%	51%	34%	15%	51%
DK	43%	27%	30%	43%	27%	30%	43%	27%	30%
ES	10%	23%	67%	10%	23%	67%	10%	23%	67%
FI	19%	34%	47%	19%	34%	47%	19%	34%	47%
FR	18%	18%	64%	18%	18%	64%	18%	18%	64%
GR	6%	24%	70%	6%	24%	70%	6%	24%	70%
HU	37%	16%	44%	38%	17%	45%	38%	17%	48%
IE	23%	34%	43%	23%	34%	43%	23%	34%	43%
IT	8%	30%	62%	8%	30%	62%	8%	30%	62%
LU	31%	19%	49%	31%	19%	49%	31%	19%	49%

Country/ years of residence	Min. possible fraction value			Presented values			Max. possible fraction value		
	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years	0 to 5 years	5 to 10 years	10+ years
MT	11%	10%	49%	16%	14%	70%	30%	14%	98%
NL	14%	25%	61%	14%	25%	61%	14%	25%	61%
SE	39%	24%	37%	39%	24%	37%	39%	24%	37%
SI	31%	28%	34%	34%	30%	37%	34%	30%	44%
UK	40%	30%	30%	40%	30%	30%	40%	30%	30%
CH	32%	21%	47%	32%	21%	47%	32%	21%	47%
NO	41%	31%	28%	41%	32%	28%	41%	32%	28%
EU-28	28%	23%	49%	28%	23%	49%	28%	23%	49%

NOTE: THE VALUES PRESENTED SHOULD BE READ IN THE FOLLOWING WAY. THE SHARE OF ACTIVE EU-28 MOVERS OF WORKING AGE (20-64) RESIDING IN AUSTRIA FOR MORE THAN 10 YEARS WAS CALCULATED TO BE 43% IN 2016. HOWEVER, THIS SHARE MAY VARY SLIGHTLY ABOVE OR BELOW 43%. IN SOME CASES, AS THE VARIATIONS ARE MINIMAL AND THE FIGURES ARE ROUNDED, THE MINIMUM, PRESENTED AND MAXIMUM VALUES CORRESPOND.

Table 63: Margins of error: minimum, maximum and presented (see Figure 36) shares of main obstacles to getting a suitable job by gender for EU-28/EU-15/EU-13 movers, 2014

Reported obstacle/ nationality	Sex	Min. possible fraction value			Presented values			Max. possible fraction value		
		EU-28	EU-15	EU-13	EU-28	EU-15	EU-13	EU-28	EU-15	EU-13
Lack of language skills in host country language(s)	Males	24%	20%	29%	24%	21%	30%	25%	22%	31%
	Females	21%	19%	26%	22%	19%	27%	22%	20%	27%
Lack of recognition of qualifications obtained abroad	Males	12%	8%	17%	13%	8%	17%	13%	9%	18%
	Females	13%	8%	18%	13%	8%	18%	13%	8%	19%
Origin religion or social background	Males	5%	:	:	5%	:	:	5%	:	:
	Females	5%	:	:	5%	:	:	5%	:	:
Other obstacle(s)	Males	55%	68%	51%	56%	71%	52%	56%	72%	53%
	Females	56%	71%	54%	56%	73%	55%	56%	73%	55%
Restricted right to work because of citizenship or residence permission	Males	2%	:	:	2%	:	:	3%	:	:
	Females	4%	:	:	4%	:	:	4%	:	:

NOTE: THE VALUES PRESENTED SHOULD BE READ IN THE FOLLOWING WAY. THE LACK OF LANGUAGE SKILLS WAS REPORTED AS AN OBSTACLE TO GET A SUITABLE JOB BY 21% OF EU-15 MALE MOVERS. HOWEVER, THIS SHARE MAY VARY BETWEEN 20% AND 22%. IN SOME CASES, AS THE VARIATIONS ARE MINIMAL AND THE FIGURES ARE ROUNDED, THE MINIMUM, PRESENTED AND MAXIMUM VALUES CORRESPOND.

Table 64, EU-28 and EFTA citizens of working age (20-64) who work in a different EU Member State/EFTA country than their country of residence (cross-border workers), by country of residence (columns) and country of work (rows), in thousands, 2016

Country of residence																				
	Country of work																			
	AT	BE	CH	CZ	DE	DK	ES	FI	FR	HU	IE	IT	LU	NL	NO	PT	SE	SK	UK	Total*	EU-28*
AT		.	11	.	28		.		.	.		.			.			.	.	47	36
BE					9				17			.	41	31					.	102	102
BG	.	.		.	12		.		.			.		.	.		.		(4)	31	30
CH	.				6				.			(2)								*10***	*10***
CZ	9	.	(1)		31	.		.	(1)		.			(1)			.	(3)	3	52	52
DE	28	.	80	.		9	.		7			.	45	44	.	.	.	.	6	242	162
DK			.		.		.				.			.	.		.		.	10	8
EE					.			14							(2)		.		.	18	16
ES	.	.	.		(3)	.			6		(2)	(1)		(2)	.	(4)			23	48	47
FR		35	218		34		(7)					.	88	.		.	.		(7)	396	178
HR	(3)	.			12				(1)		.	(3)		-1	.				.	30	29
HU	51	.	(3)	.	34	.	.		.		.	.	.	.	.		.	(3)	11	112	108
IE					.									.					10	10	10
IT	(2)	.	65		7	.	4		7					.		.	.		6	103	37
LT					.	.					.				.		.		.	7	4

LU		1	.		(2)		.		1							.			6	6
LV					.	.					.			.	2		(2)		4	11	9
MT		.											.						.	(1)	1
NL	.	15	.		15	.	.		.			.					.		(2)	37	36
PL	(9)	.	.	(9)	101	.			.		.	.		16	(11)		.		(10)	175	162
PT		.	.		.		7		5			.		.	.				.	19	17
RO	.	.		.	33		(10)		.		.	56		.		.	.		(9)	120	120
SE		.			.	16	.	.	.		.	.			14				(2)	37	23
SI	11				(1)							(2)								14	14
SK	50	(3)	5	39	28	.	.		4	6	.	4		5	.		(2)		7	156	150
UK		.		.	.	.			.		(8)			.	.					25	22
Total	166	74	388	51	364	33	34	15	62	8	15	76	175	109	41	7	15	8	111	*1,769***	*1,339***
EU-28	165	74	388	51	358	33	34	15	61	8	15	74	175	109	41	7	15	8	111	1,819	1,382

FIGURES FOR EL, FI AND NO AS COUNTRY OF RESIDENCE AND FOR BG, CY, EE, EL, HR, IS, LT, LV, MT, PL, RO AND SL AS COUNTRIES OF WORK ARE NOT DISPLAYED BECAUSE THEY ARE BELOW RELIABILITY LIMITS.

*FIGURES ARE BASED ON AGGREGATES (EU-28 AND EU-28+EFTA AS COUNTRIES OF WORK); THEY SLIGHTLY DEVIATE FROM THE ROW SUMS, BECAUSE OF SUPPRESSED FIGURES IN THE CALCULATIONS BY COUNTRY OF WORK

**AGGREGATE FIGURES FOR CH AND TOTAL EFTA NOT AVAILABLE, THEREFORE ROW SUMS ARE USED HERE.

SOURCE : EU-LFS 2015, MILIEU CALCULATIONS

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