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CENTROPE Regional Development Report

Focus and Stock Taking Report on Human Capital, Education and Labour Markets in the CENTROPE Executive Summary

Petr Rozmahel (Co-ordinator), Luděk Kouba, Nikola Najman, Marek Litzman (MENDELU), Márta Nárai (WHRI), Karol Frank (EU-SAV), Peter Huber (WIFO)



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Abstract

Despite the fact that all CENTROPE countries are members of the European Union, the labour market in the CENTROPE region is very heterogeneous. More than half of the CENTROPE labour force is located in Austrian regions, which are areas with significantly higher wages in comparison with regions in the three post-communist countries. Furthermore, there are substantial disparities between metropolitan areas of Vienna, Bratislava and Brno on the one hand and rural areas with relatively high share of agriculture on the other hand. These structural disparities are reflected in a dramatically varying rate of unemployment among the CENTROPE regions as well – from less than 4 percent in Lower Austria and Burgenland to 12 percent in the Trnava region. Concerning the quality of human capital the CENTROPE region disposes of a well developed education system. In particular there are a large number of institutions at the tertiary education level situated in the region. Here a survey on student mobility intentions shows high willingness of students to study abroad choosing Vienna as the most attractive place of study in CENTROPE.

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1. Introduction

1.1 In a European comparison CENTROPE is marked by a very favourable labour market situation

Already a first glance at the main macro-economic aggregate labour market indicators suggests that CENTROPE is a region with a more favourable labour market situation than the EU 27 in average. The unemployment rate of the region as a whole has been continuously below the EU 27 average in each and every year since the year 2000, with the lead of CENTROPE amounting to 2.2 percentage points in the average of the last decade. Also most of the regions of CENTROPE are privileged in terms of unemployment rates relative to their respective countries. This applies in particular to the Hungarian and Slovak CENTROPE but also to the Austrian provinces of Lower Austria and Burgenland. Furthermore only Trnava region and Vas had an unemployment rate exceeding the EU 27 average in 2010.

Similar evidence also applies to employment growth and employment rates: Since 2005 employment (i.e. the year after EU-accession of Hungary, Slovakia and the Czech Republic) grew more rapidly (declined by less) than the EU-average in CENTROPE in all years except for 2006 and the cumulative employment growth advantage of CENTROPE over the EU 27 amounted to 1.2 percentage points since 2004. In addition also employment rates are by 4.3 percentage points higher in the CENTROPE aggregate than in the EU-average.

The labour market of CENTROPE also experienced substantial institutional change in the last decade. In particular on May 1st 2011 the derogation periods on freedom of movement of labour, that were in force until then, were abolished and since this time workers from the other CENTROPE countries do not need to apply for a work permit when they find a workplace in Austria. Thus since 1st of May of 2011 CENTROPE disposes (at least formally) of an integrated labour market and in Austria it was expected that this liberalisation would lead to an increase in the labour supply of foreigners from the EU 10-countries by around 25,000 persons.

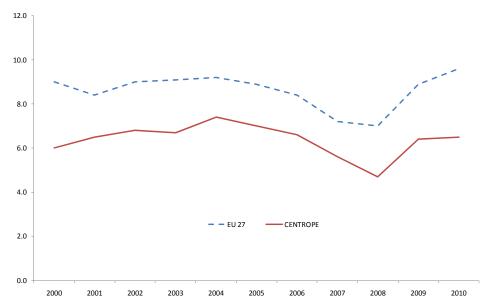


Figure 1: Development of unemployment rates in CENTROPE 2000-2010 (in %)

Source: EUROSTAT.

1.2 This report presents stylized facts, recent trends, common problems and potential areas of co-operation in labour market policy in CENTROPE

Given the good labour market situation in CENTROPE and the substantial institutional changes last year the focus and stock taking report on human capital, education and labour markets aims to determine stylized facts, recent trends, common problems and potential areas of co-operation in the field of labour market policy among the CENTROPE regions. In a first analysis we used comparable data on the labour market situation in CENTROPE provided by EUROSTAT. Here we used both NUTS 3 level data as well as NUTS 2 level data, although we are well aware that the latter are only a proxy measure for CENTROPE.

In a second step of the analysis we then went into some more detail and analyzed two comparable data sets on the cross-border labour market and the cross-border education system in CENTROPE. The first of these contains data on unemployment and vacancies for 10 occupational groups in the CENTROPE and allows us to determine what proportion of unemployment in these occupations could be avoided if the unemployed were perfectly mobile across regions. The second of these contain data of a questionnaire on student mobility conducted by the project team in CENTROPE. Finally also a set of country studies

that focus on more recent data and on the institutional aspects of labour market and education system governance in the individual regions of CENTROPE augment results.

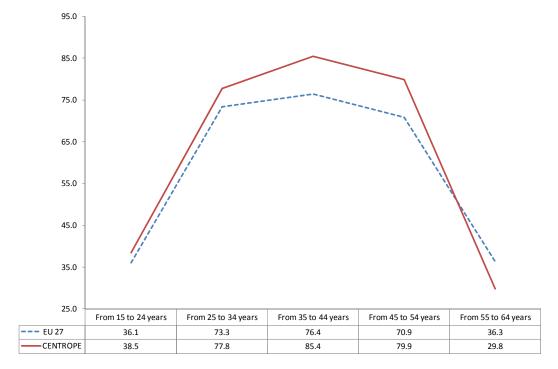


Figure 2: Employment rates by age groups in CENTROPE (2010, in %)

Source: EUROSTAT.

2. Main Results for the Labour Markets of CENTROPE

2.1 Two common labour markets problems are the low employment rates of the older and high unemployment rates of the less skilled

The results of this analysis suggest that despite the overall rather favourable development some common challenges in labour market policy remain. This applies in particular to the low employment rates of the older and the high unemployment rates of the low skilled.

One common problem shared by almost all regions of CENTROPE is the low employment rates of the elder (i.e. persons in the age of 55 to 64 years). While employment rates are higher (by between 2 to 9 percentage points) in the CENTROPE average than in the EU 27 average for all age and gender groups, they are consistently lower (by 6.5 percentage points in average) for the elder (55 to 64 year olds). Furthermore this stylized fact applies to all regions of CENTROPE and both genders (although it is more pronounced with females). From a policy perspective this implies that joint cross-border

initiatives in the area of active labour market policy and training to increase the employment chances of the elder may be an area for co-operation in cross-border labour market policy

A second shared problem is the high unemployment rate of the low skilled in particular in the EU 10-parts of CENTROPE. Despite low unemployment rates in aggregate, the unemployment rates of the low skilled in CENTROPE reach to over 15% in some regions and in particular in the EU 10-parts of CENTROPE skill gradients in unemployment rates (the difference between the unemployment rate of the high skilled and low skilled) are substantially higher than in the EU 27 average. This implies that unemployment problems are disproportionately strongly concentrated among low skilled in CENTROPE. Policies directed at retraining and qualifying the low skilled are therefore of high importance, when it comes to combating unemployment in the region.

Table 1: Unemployment rates by education groups CENTROPE and EU 27 (2010, in %)

	EU 27	CENTROPE Total
Pre-primary, primary and lower secondary education	15.8	15.3
Upper secondary and post-secondary non-tertiary education	9.0	8.0
First and second stage of tertiary education	5.4	3.4

Source: EUROSTAT.

Furthermore, a common stylised fact applying to all regions of CENTROPE except for the capital city regions Vienna and Bratislava region is the strong orientation on medium skilled human capital segments which is also reflected in CENTROPE's strong industrial base. Almost 70% of the economically active in the region (as opposed to 48.6% in the EU-average) have an intermediary (ISCED 3 or 4) education. Although this difference to the EU diminishes somewhat when considering employment by occupations – which reflects positively on CENTROPE's education system, since it implies that it provides its students with skills that can also be used in higher occupations – the general picture does not change.

From a policy perspective this therefore implies that guaranteeing and improving the employability of this intermediary educated workforce will be an important condition for continued labour market success in the region, and that therefore aside from cross-border programs focusing on the high skilled, similar programs for intermediary education levels are and will be of particular relevance for CENTROPE for some time.

2.2 A high share of mismatch unemployment is another important shared problem

Evidence also suggests that both skill and regional mismatch contribute substantially to unemployment in the region. In particular the regional mismatch component to unemployment is a sign of lacking (cross-border) mobility, which could be combated by programs to increase cross-border mobility. In our analysis using the labour market monitoring tool in CENTROPE we were able to quantify the spatial mismatch component of unemployment for 10 selected occupational groups.

22 0% 20% 19.0% 14 5% 15% 13.8% 12.6% 11 2% 10% 6.3% 4.9% 5% 0% Cook Waiter Butcher Social CNC Welder Bricklayer IT Specialist Driver Logistic Worker/Care Operator Worker

Figure 3: Share of unemployment in selected occupations due to regional mismatch of unemployed and vacancies (in %)

Source: CENTROPE Office Czech Republic, Labour market monitoring tool. Note table reports averages over quarters for 2010 and 2011.

This analysis showed that there is a relatively high heterogeneity regarding distribution of labour supply and labour demand across CENTROPE and that in the average of the years 2010 and 2011 – depending on the occupation considered – between 5.5% (for IT specialists) and 24.6% (CNC operators) of the unemployment in CENTROPE could be mediated away if workers were perfectly mobile in the region. Although such perfect mobility is clearly an unrealistic assumption, this high and persistent regional mismatch unemployment in CENTROPE even within closely defined occupations provides some indication of the costs of barriers mobility and the potential gains that could arise if internal migration and commuting (and thus labour mobility) could be increased in CENTROPE.

Furthermore, the average mismatch rates over the years 2010 and 2011 suggest that this regional mismatch unemployment accounts for more than 20% of unemployment for butchers and social workers and for between 10% to 20% of all unemployment for cooks, welders, bricklayers, drivers and logistics workers. This therefore underlines the importance of increasing cross-border mobility not only for highly skilled workers, but also for persons with intermediate apprentice level qualifications

2.3 Introduction of Freedom of movement of labour led to an increase in immigration to Austria, signs of negative labour market effects are rare

Low cross-border and internal mobility in CENTROPE at all qualification levels is therefore one important reason contributing to persistent unemployment. With the 1st of May 2011, however, the institutional regime affecting cross-border labour mobility within CENTROPE changed dramatically, as the derogation periods for the freedom of movement of labour in Austria ended: Thus from this time on citizens of the 10 EU-countries that joined the EU on 1st May 2004, who previously needed a work permit to legally work in Austria, could assume work without any further legal requirements.

Table 2: Estimates of increase in stock of foreign employees from the EU 10-countries to Austria in time period from May 2011 to December 2011/ January 2012

	December 2011		Janua	ary 2012
	Absolute	In % of employees	Absolute	In % of employees
Total Change in Austria	21,736	0.6	23,787	0.7
Of this				
Male	13,518	0.8	15,115	0.9
Female	8,219	0.5	8,673	0.5
Migrant	12,385	0.4	12,816	0.4
Commuter	9,352	0.3	10,365	0.3
to Burgenland	1,816	2.0	1,558	1.7
to Lower Austria	4,445	0.8	4,755	0.9
to Vienna	6,362	0.8	7,236	0.9
from Czech Republic	1,439	0.0	1,481	0.0
from Slovakia	4,219	0.1	4,545	0.1
form Hungary	9,906	0.3	10,561	0.3

Source: AMS-Erwerbskarrierenmonitoring, WIFO-calculations.

While clearly it is still too early to fully analyze the extent and the structure of additional cross-border mobility induced by this liberalization, first results available from a labour market monitoring system of the PES and BMASK suggests that the stock of foreign employees from the countries affected working in Austria increased by around 24.000

employees (or around 0.7% of total employees) relative to 1st of May 2012 by January 2012 and by 31.500 or 0.9% of all employees relative to January 2011. Thus by and large migration developed as expected in the pre-liberalization period.

Of these new employees approximately 10.500 were commuters and more than half of all commuters and migrants (13.500) settled in the Austrian CENTROPE, with in particular the Burgenland experiencing a large inflow of 1.7% of its employees in this time period. In addition also a large part of the new foreign workers from the neighbouring countries in Austria (around 10.500) were of Hungarian nationality.

An analysis of the changes in unemployment vacancy ratios for the 10 selected occupations since the second quarter of 2010, however, suggests no general and easily visible impact of the increased migration both in sending and receiving countries. In Lower Austria the unemployment vacancy ratio increased noticeably relative to the same quarter of 2010 for bricklayers (by around 10 unemployed per vacancy) after accession (i.e. in quarters 2, 3 and 4 of 2011), in Burgenland similar trends can be seen for cooks (by 1.6 unemployed per vacancy), waiters (by 2.0 unemployed per vacancy) and drivers (by 0.5 unemployed per vacancy), while in Vienna few effects are visible. Furthermore in the important sending regions of the Hungarian CENTROPE only few reductions in unemployment-vacancy ratios are visible. This leads us to conclude that the labour market effects of the immigration to Austria since 1st May 2011 most likely remained focused on individual occupations (such as in construction and gastronomy) and individual regions (in particular Burgenland).

3. Main Results for the Education of CENTROPE

3.1 A strong university system is a backbone of CENTROPE's education system.

An appraisal of the education system in CENTROPE based on the available EUROSTAT data and the evidence provided in the country studies of the report suggests that the university system is definitely one of the most important advantages of CENTROPE relative to other EU regions. There are more university level students per inhabitant in this region than in the EU-average (almost 5% of the CENTROPE population as opposed to 4% of the EU's population studies at universities), student numbers have also increased more rapidly in CENTROPE (by 30%) than in the EU 27 (by 7%) average in the last decade and the region has increasingly assumed over-regional importance as a centre of university education. Furthermore also the share of doctoral students in the population is higher than in the EU 27-average (0.3% in CENTROPE as opposed to 0.1% in the EU 27-

average) and aside from a specialization in teacher training, humanities and languages, there is also a weaker specialization in sciences, mathematics and engineering.

Trends in the number of students in the school system, by contrast, are influenced by a number of countervailing influences such as demographic developments, trends towards attaining higher levels of education and a changed perception of the role of early childhood education in the society in general, so that here neither strengths nor weaknesses can be determined.

3.2 Low rates of participation in life-long learning are a common challenge in CENTROPE

Other parts of the education system in CENTROPE, however, show a clear disadvantage relative to the EU 27. This applies in particular to life-long learning, where participation is still very low in the EU 10-parts of CENTROPE and some way from the most advanced countries in Austria. In CENTROPE in 2010 only 8.3% of the population older than 25 and younger than 65 years took part in some form of formal training, while in the EU 27 the percentage was 9.1% and in some of the most advanced European economies (e.g. Finland and Sweden) more than 20% of the population were involved in such activities.

This below average share of life-long learning activities in CENTROPE is primarily due to a low participation in the EU 10-parts of CENTROPE. In Austria between 9.9% (in Burgenland) and 17.4% (in Vienna) of the population took part in life-long learning activities, in the EU 10-parts of the region this share reached only 6.0% in the Czech CENTROPE and Bratislava and was below the 3% both in the rest of the Slovak and in the Hungarian parts. This therefore suggests substantial room for improvement in terms of implementation of lifelong learning strategies in CENTROPE. Joint initiatives to increase participation in life-long learning could therefore present another area of co-operation in CENTROPE.

3.3 Student mobility is low in CENTROPE and mostly directed to other countries

Taken together the results for the university system therefore suggest that while the CENTROPE's university system is still at some distance from top locations in terms of research output, in terms of teaching the system has been performing rather well. Increased co-operation amongst universities with the aim of improving the joint standing of the CENTROPE's university system and increased student exchange could therefore be initiatives that could further strengthen this system and help to boost comparative advantage of the region of the whole.

To gauge the potentials of student mobility in the region we conducted a questionnaire on mobility behaviour among students. The results showed that most of students participating in the survey had not studies abroad yet. In total only 7% of the interviewed stated that they had stayed abroad before, with Austrian and Hungarian students having studied abroad more often than Czech and Slovak students (Figure 4).

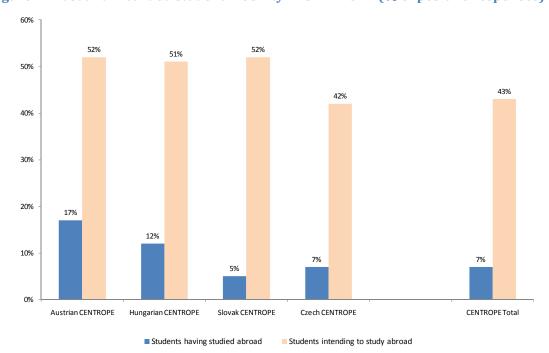


Figure 4: Past and intended student mobility in CENTROPE (% of positive responses)

Source: MENDELU Student Survey, 2011.

On the other hand side, almost half of the respondents (43%) stated that they had serious plans to study abroad in the future, with only Czech students being noticeably less willing to study abroad. This implies a high potential of mobility of the CENTROPE students. The most preferred countries for such a stay abroad, however, are the UK, Germany, Finland, France and the US. Among CENTROPE students other CENTROPE countries are less attractive. Only 16.6% of the interviewed students in the Austrian CENTROPE, 15.8% of the students in the Slovak CENTROPE and 10.5% of the students in the Czech CENTROPE could imagine studying in another CENTROPE country. The only region where students are more prone to study in other CENTROPE countries is the Hungarian CENTROPE where 38.1% of the interviewed can imagine studying in Austria, 11.9% in Slovakia, and 7.1% in the Czech Republic.

3.4 Low prestige of universities and higher attractiveness of more distant, English speaking locations are main reasons for avoiding CENTROPE

Furthermore while increasing expertise, improving language skills and the possibility to make new international contacts were the most frequently stated reasons for studying abroad, the respondents also often stated that the CENTROPE was unattractive for them because they preferred to study in an English speaking country (between 32% and 49% of the students) because the students expected a low prestige or bad quality of the university (between 29% and 44% of the students) or because they preferred destinations further away (between 12% and 40%). Only few students (between 2% and 7%) had problems with lacking exchange programs or bilateral agreements on student exchange in CENTROPE

Table 3: Reason for not choosing CENTROPE as a place of study (positive responses in %, multiple answers possible)

	Austrian	Slovak	Czech	Hungarian
	CENTROPE			
I prefer studying in English-speaking countries	31.6	47.4	48.5	42.9
I do not consider the regions' universities to be well known and prestigious enough	22.8	19.3	18.2	14.3
I do not consider the regions' universities to be of high enough quality	21.0	19.3	18.1	14.3
Non-existence of bilateral agreement between chosen university	7.0	1.8	5.0	4.8
I prefer studying in a location further away from home	14.0	33.3	40.0	11.9

Source: MENDELU Student Survey, 2011.

Summarising therefore the questionnaire results suggest that choosing the CENTROPE region as a target destination for study stays abroad crucially depends on prestige of CENTROPE universities and the possibility to study in English there. Cross-border policy therefore should focus on increasing the prestige and providing more English language training if higher mobility of students within the region is sought for. In this respect the cases of Finland or the Netherland which are also small countries with little spoken languages but are more attractive for CENTROPE students that want to study abroad than the individual CENTROPE countries suggest that such a policy can indeed be successful.

4. Policy conclusions

In sum therefore probably the most important and also very consistent result of the current study is that - irrespective of which part of the population is analysed - the national borders in CENTROPE are still a strong barrier to mobility. This applies to both student mobility,

where the attractiveness of CENTROPE relative to other regions seems to be a problem, as well as labour mobility, where evidence suggests that lacking regional mobility increases aggregate unemployment in CENTROPE. Therefore measures are needed to reduce barriers to cross-border mobility at all levels of education.

4.1 Improving cross-border placement activities could help to avoid mismatch employment and increase cross-border labour mobility

In particular with respect to labour mobility our results suggests that – although the liberalization of cross-border commuting and migration flows on May 1st, 2011 has given rise to increased cross-border labour mobility in CENTROPE – regional mismatch unemployment is still a problem. Improving cross-border placement activities is therefore a natural starting point for a policy that aims to reduce unemployment in the region.

While the logical actor to be involved in such cross-border co-operation should be the public employment services (PES) rather than regional authorities (since in all of the CENTROPE countries the PES systems are also responsible for providing placement services and thus have the highest competencies for such activities), anecdotal evidence and a number of interviews that we have conducted in the course of the current project with regional PES organisations suggest that such cross-border placement activities are currently hampered by a long list of practical problems: Very often methods of data exchange and administrative procedures still have to be devised before such a more intensive co-operation in placement activities can be achieved. In addition also some problems arise on account of subtle differences in education systems, which lead to some uncertainty, as to whether a particular person is qualified for a position in another country. This applies in particular to vocational education, where it is not always clear whether persons with the same formal education also have received similar contents of training.

As a consequence a number of projects are currently attempting to improve the preconditions for cross-border placement and are also involved in increasing knowledge on different vocational curricula in different countries. Our results indicate that such activities could potentially yield high rewards by reducing unemployment in CENTROPE in aggregate. Therefore existing attempts to improve cross-border placement activities should be continued and enlarged in future.

4.2 Exchange of best practices and co-ordination of active labour market policies could improve situation for individual target groups

Aside from placement activities a large potential for co-operation also exists in active labour market policies. Here in addition to the PES also some of the regional labour market actors (in particular territorial employment pacts or regional organisations) could be

partners in co-operation. Previous experience in these activities, however, suggests that such co-operation should be focused to particular target groups and should also incorporate elements of exchange of experience among organisations, since this is usually very positively evaluated by participants in existing co-operations.

Existing efforts to design measures for specific target groups where cross-border activities can be expected to be particularly useful (e.g. with respect to minority groups of other countries living in countries of CENTROPE) and in areas where common labour market problems exist in the region (e.g. the integration of older workers and of less skilled workers) should therefore be supported and also expanded. Furthermore, also increased co-ordination of the use of existing infrastructure (e.g. training centres) as well as the exchange of best practice measures with respect to certain target groups provides fruitful areas in which co-operation can be strengthened.

4.3 Co-operation of education institutions could improve participation in life-long learning

In addition, the low rates of participation in life-long learning in many of the regions of CENTROPE suggest that also co-operation of providers of training (such as schools and adult training institutions, that are often organised in the form of non-profit organisations or are supported by public funds in the region), could be a focus in cross-border labour market policy. Here the experiences made by the set of learning region strategies developed and implemented in the framework of the Austrian program for rural development could be used to design similar, more local activities in a cross-border context.

The results of this program in general suggest that a better co-ordination of the providers of education in a region (schools, adult education institutions), in fields such as the co-ordination of opening and training times, joint awareness building measures, provide low cost possibilities to increase the uptake of training measures by the population.

4.4 Improved co-ordination needs tools to monitor-cross border labour markets

Irrespective of the concrete forms of co-operation, increased co-ordination will also require common tools for monitoring regional labour market policy. In this respect data are mostly available in sufficient quality and quantity to allow operative decisions for labour market governance on a national level. In a cross-border context, however, differences in definitions and incomparability of data very often render national sources useless for the day to day business of decision makers. Designing data sources that are both recent and comparable enough to be useful for operative decisions therefore remains to be a major challenge in CENTROPE. Initiatives that are currently attempting to design such data

(such as for instance the labour market monitoring tool used in this study) should therefore be continued and expanded.

4.5 Efforts have to be made to make CENTROPE universities more attractive for international students

Furthermore also student mobility (at all levels of education) remains to be an issue in CENTROPE. In this respect the results of our study highlight a number of potential interventions. For instance results of our survey among university students together with the analysis of recent trends in human capital and education in CENTROPE suggest a number of ways how student and pupil mobility can be increased.

In particular considering the tertiary education level the survey shows a high potential of student mobility in CENTROPE. However, most students prefer English language programs to others and the quality and reputation of study programs in CENTROPE is a crucial factor limiting the attractiveness of CENTROPE universities. English study programmes at the universities in CENTROPE should therefore be increased. Also university managements should put more effort in building awareness for their universities. Regional authorities could support such policies through education trade and job fairs, joint workshop series and conferences, organising student competitions and could also use existing partnerships between the cities and regions to support student as well as teacher exchange programmes among the CENTROPE universities and schools. In addition also direct support of student mobility through scholarships and research fellowships for student mobility in CENTROPE could be made available

4.6 Student mobility at all levels of secondary education should be supported

In addition also the mobility of secondary level students needs to be supported. While here similar instruments as those for the tertiary level can be used, requirements may differ in particular when vocational and apprentice schools are considered. Focusing on students or pupils who do not want to continue studying at universities education of other languages than English – particularly of neighbouring countries – should not be neglected. Apart from this support for cross-border excursions and educational trips, cross-border scholarships financially supported by regional and municipality authorities can be used to make such mobility more attractive.

Appendix 1: Factsheet on the Labour Market in CENTROPE

	CENTROPE	EU 27
NUTS 3 level data		
Unemployment rate 2008	4.7%	7.0%
Unemployment rate 2009	6.4%	8.9%
Unemployment rate 2010	6.5%	9.6%
Employment Growth 2008	1.5%	1.2%
Employment Growth 2009	-0.9%	-1.7%
Employment Growth 2010 NUTS 2 level data	0.0%	-0.6%
Employment Rates (2010)		
Employment rate total	64.7%	60.4%
Employment rate men	71.5%	68.6%
Employment rate women	58.3%	58.3%
Employment rate by age group (2010)		
From 15 to 24 years	38.5%	36.1%
From 25 to 34 years	77.8%	73.3%
From 35 to 44 years	85.4%	76.4%
From 45 to 54 years	79.9%	70.9%
From 55 to 64 years	29.8%	36.3%
Part time employment share in total employment (2010) Total	12.8%	19.2%
Male	5.8%	8.7%
Female	21.1%	31.9%
Education structure of economically active (2010)		
Pre-primary, primary and lower secondary education	10.2%	23.7%
Upper secondary and post-secondary non-tertiary education	69.5%	48.6%
First and second stage of tertiary education	20.4%	27.7%
Occupation Structure of Employed (2009)		
High skilled occupations	38.1%	38.8%
Legislators, Senior officials & managersProfessionals	6.5%	8.4% 13.9%
Professionals Technicians	20.3%	16.5%
Mediums skilled occupations	53.6%	51.3%
Clerks	10.6%	10.7%
Service & Sales Workers	13.3%	13.9%
Skilled Agricultural Workers	2.7%	4.3%
Craft and Related Trade workers	15.5%	14.0%
Plant and Machine Operators	11.5%	8.5%
Low skilled occupations	8.3%	9.8%
Elementary Occupations	8.3%	9.8%
Unemployment rates by skill group (2010) Pre-primary, primary and lower secondary education	15.3%	15.8%
Upper secondary and post-secondary non-tertiary education	8.0%	9.0%
First and second stage of tertiary education	3.4%	5.4%
Commuters in % of population(2010)	3,	2,0
Cross border	1.8%	0.7%
within country	10.3%	6.6%

Appendix 2: Factsheet on the Labour Market in CENTROPE (continued)

	CENTROPE	EU 27
Education System Data		
University students in % of population	4.8%	3.8%
Increase in university students 2003-2008	30.0%	7.0%
Share of Second stage of tertiary education students in population	0.3%	0.1%
Fields of Study of tertiary Students (share in total 2009)		
Teacher Training	10.8%	7.6%
Humanities languages Arts	11.6%	10.8%
Foreign Languages	4.8%	3.8%
Social Sciences	38.7%	40.6%
Science Mathematics	2.2%	2.6%
Life Sciences	3.5%	3.7%
Physical Science	2.2%	3.2%
Computer Science and use	5.3%	5.6%
Engineering Manufacturing and Construction	3.6%	1.9%
Agriculture and Veterinary	10.8%	13.7%
Health and Welfare	5.3%	4.4%
Participation rate in life-long learning (2010)	8.3%	9.1%