

Mapping the landscape of online job vacancies

Background report: Hungary

Study: Real-time labour market information on skills requirements: Setting up the EU system for online vacancy analysis

Contract: AO/DSL/VKVET-GRUSSO/Real-time_LMI_2/009/16

prepared for Cedefop by Márton Csillag and Anna Orosz

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Preface

Over the last decades, online job portals have become important features of the job market. The Internet offers a rich source of live and real-time labour market information for almost all of occupations. It can provide insight on job-specific skills required in particular occupations in different regions, combined with information on the characteristics of the job offered – i.e. much more than is available using conventional sources. However, consistent and comparative information on the use of the internet and online job market by job-seekers and employers in Europe is rather scarce.

To tap the potential of online labour market information, Cedefop started to investigate the possibility to develop a system for gathering and analysing data from online job portals in the EU to complement the centre's toolkit of skills intelligence instruments. While this is feasible, drawing meaningful conclusions from these data requires a good understanding of the features of national online job markets. Therefore, Cedefop has mapped the landscape of the online job market in all EU Member States. This publication presents one of the background country reports developed in the project - 'Real-time labour market information on skills requirements: Setting up the EU system for online vacancy analysis' (AO/DSL/VKVET-GRUSSO/Real-time LMI 2/009/16). Its findings will inform the cross country comparison published in the upcoming synthesis report.

The work was undertaken by a consortium of external contractors: CRISP (Milano/IT), Tabulaex (Milano/IT) and IWAK (Frankfurt/DE) and their network of country experts (see annex 1 for detailed list) and closely supervised by Cedefop. It presents authors' analysis of the landscape of the online job portal market in the country using a methodology developed for the purpose of the project.

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List of Abbreviations

ALMP	Active Palbour Market Policies
Cedefop	European Centre for the Development of Vocational Training
CSO	Central Statistical Office
CRISP	Centro di ricerca interuniversitario per i servizi di pubblica utilità, University of Milano-Bicocca
EURES	European Employment Services
HR	Human Resources
ICT	Information and Communication Technology
ISCO	International Standard Classification of Occupations
NACE	Nomenclature statistique des activités économiques dans la Communauté européenne
OJVs	Online Job Vacancies
PES	Public Employment Services
PW	Public Works Schemes
RA	Recruitment Agency
SME	Small and Middle-sized Companies
VET	Vocational Education and Training

Introduction

With the project “Real-time Labour Market Information on Skill Requirements: Setting up the EU System for Online Vacancy Analysis”, Cedefop explores online job-vacancies (OJVs) as a new source of real-time Labour Market Information. By crawling the most important online job-portals of the 28 EU Member States, Cedefop will further its understanding of the changing skills demand in different sectors and occupations. A systematic overview of the online job-portal landscape in each of the 28 EU Member States will identify the most relevant online job-portals and provide context for the data scraped from them. With the Landscaping Activity, Cedefop seeks to acquire insights into the structure of online job-portal markets and the extent to which online job-portals are used in recruitment and job-search. Furthermore, it aims to better understand which factors cause variation in the formats and content of OJVs in different countries.

This Country Report was compiled between April and October 2017 and constitutes a first overview of the online job-portal landscape in Hungary. It is based on desk research of available data sources in Hungary (e.g. public data, academic research and publications of interest groups) and expert opinions. Chapter 1 describes the methodology used for compiling the report in terms of the relevant search paths and data sources. Chapter 2 gives an overview of the main drivers for the use of online job-portals in recruitment and job-search, while Chapter 3 concentrates on the characteristics of the online job-portal market and lists the most important players. Moreover, it seeks to understand to what extent OJVs published on the online job-portals provide adequate information on the developments in the Hungarian labour market in terms of the number of vacancies and representation of sectors/occupations. Furthermore, it elaborates on the legal and regulatory framework guiding the activities of the job-portal owners and employers, highlights the differences between the public versus private online job-portals and delineates their relationships with one another. Chapter 4 covers the use of online job-portals in recruitment and job-search. It focuses on the differences in the behaviour of employers and job-seekers across sectors, occupations, qualification levels and regions. Chapter 5 presents the most important online job-portals in Hungary for web-crawling and describes a step by step process of the OJV drafting and posting on select private and public online job portals. Chapter 6 concludes the Country Report by describing the main features of OJVs in Hungary in terms of format and content. In particular, it explores to what extent OJVs contain information pertaining to hard and soft skills required for the job, how these skills are characterised and what they reveal about the nature of the job.

1. Methodology

1.1. Search Paths

Desk research took place between April 25 and May 29, 2017. We used the following key words in Hungarian (see English translations) in our search:

Search term	Search term in Hungarian	Number of hits
Online job vacancies	Állás, állásajánlatok	7,000,000
OJV market	Álláshirdetési piac	45,000
Recruitment channels	Álláskeresés módjai	33,000
Employer branding	Employer/munkaadó branding	29,000
Competence/skills requirements	Kompetenciák, készségek, elvárások	121,000
Labour shortage reasons	Munkaerőhiány okai	33,000
Skills-biased technological change	The same English expression, complemented with any Hungarian word related to the topic, as there is no expression for this term in Hungarian yet	400

Although the table shows the number of results for each search term in a Google search, we also did similar searches using Google Scholar, Central Statistical Office, Eurostat, online HR portals, and online job-portals.

1.2. Data Sources

The results of our research process are rather limited. With respect to academic research and public data, the only thorough albeit outdated sources came from the Public Employment Services (PES) and the Central Statistical Office (CSO). Because the results were so limited, we did not filter out any research results. In addition to the available research material and statistical data, we relied on a number of expert interviews conducted during the research period.

Since the number of available research papers on the topic of OJVs is rather limited, in our analysis we mostly rely on information gathered from expert interviews. Most of our interviewees were able to answer our questions and highlight important aspects of the topic. Although we contacted the Employment Statistics Department and the Methodology Department of the Central Statistical Office three times via email and once per phone, we were not able to arrange a meeting with them. In order to give a more thorough picture of the OJV market, it would be necessary to have more up-to-date research and data about the online and offline job markets.

Table 1: Overview of the different sources used in the Landscaping Activity¹

Type of source	Title/year	Provider	Information on			Quality
			Share of existing vacancies on online job-portals (PES/private)	Use of OJVs per sector/occupation/qualification level/ region	Skills requirements in OJVs	
Source 2: Research/surveys of interest groups	Hermann, Z. (2013): A foglalkozások kompetencia-követelményei [The Competence Requirements of Occupations]	Budapest: Institute of Economics, Hungarian Academy of Sciences			Yes	Very good
Source 3: Expert opinions	Former PES representatives (2017)			Yes	Yes	Good
	Researcher (and the author of the only available study on OJV markets) 2012		Yes	Yes	Yes	Good
	Two HR representatives of private companies (2017)			Yes	Yes	Average
	Employee of an online job-portal			Yes	Yes	Average

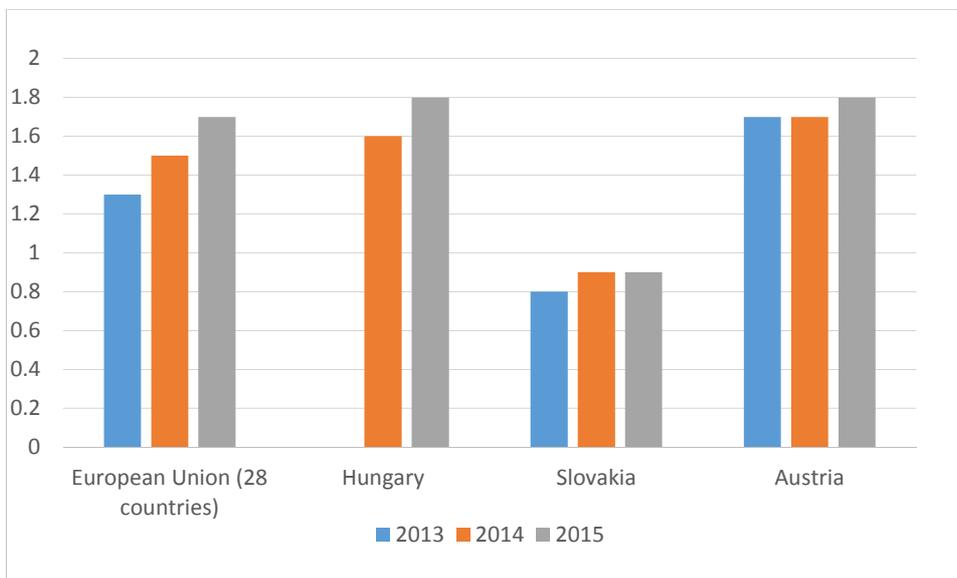
Source: Csillag and Orosz (2017).

¹ Source 1 (public data/academic research) did not provide information on the share of existing vacancies on online job-portals, use of OJVs per sector/occupation/qualification level/region or skills requirements of OJVs

2. Labour Market Dynamics and Impact on the Online Job-portal Market

In recent years, the number of job vacancies increased significantly in the Hungarian labour market. The total number of unfilled vacancies rose from a low of 21,130 in the third quarter of 2009 to 73,713 in the third quarter of 2017 (Trading Economics 2018).

Figure 1: Job Vacancy Rates for year and country, 2013-2015 (%)



Source: CRISP (2016): Preliminary Study on the 28 involved European countries (unpublished Annex of a Cedefop report).

The job vacancy rate measuring the percentage of vacant posts compared with the total number of occupied and unoccupied posts exceeded the EU average and increased significantly from 2013 to 2014 (see Figure 1), from about 1.6% to 1.8%. Table 2 also demonstrates that the job vacancy rate increased from 1.2% to 2.1% between 2011 and 2016. The following industries experienced the most significant increase in job vacancy rate: administrative and support service activities; professional, scientific and technical activities; accommodation and food service activities; information and communication industries (Central Statistical Office of Hungary). Though we cannot rely on private OJV market data, the Public Employment Services' database show trends that are in line with the Central Statistical Office's data. Since most sectors and occupations experienced an increase in the number of OJVs and there aren't many specialised job portals, this trend has not had a particular effect on job portals.

Table 2: Job vacancy rate by aggregated main occupational groups HSCO'08

Code	Industries, branches	Job vacancies, total					
		2011	2012	2013	2014	2015	2016
Job vacancy rate (%)							
A	Agriculture, forestry and fishing	0.3	0.5	0.3	0.7	0.3	0.6
B	Mining and quarrying	0.3	0.8	0.5	0.5	0.1	0.6
C	Manufacturing	1.2	1.1	1.3	1.5	1.9	2.3
D	Electricity, gas, steam and air conditioning supply	0.7	0.5	0.5	0.5	0.9	0.8
B+C+D	Industry (excluding water and waste management)	1.1	1.0	1.3	1.5	1.8	2.2
E	Water supply; sewerage, waste management and remediation activities	0.5	0.5	0.5	0.8	0.8	1.1
B+C+D+E	Manufacturing, mining and other industry	1.1	1.0	1.3	1.4	1.8	2.2
F	Construction	0.5	0.9	0.9	0.9	1.1	1.9
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	0.4	0.4	0.4	0.7	0.9	1.2
H	Transportation and storage	0.5	0.6	0.7	1.0	0.9	1.4
I	Accommodation and food service activities	0.6	0.5	0.8	1.1	1.2	1.8
J	Information and communication	1.8	1.9	1.9	2.7	2.9	3.4
K	Financial and insurance activities	1.0	0.9	1.1	1.5	1.7	1.9
L	Real estate activities	0.4	0.3	0.9	1.1	0.5	1.0
M	Professional, scientific and technical activities	1.1	0.8	1.7	1.5	1.6	2.3
N	Administrative and support service activities	1.2	0.6	1.2	1.5	2.3	2.9
O	Public administration and defence; compulsory social security	3.0	2.7	2.8	2.5	2.9	2.7
P	Education	1.4	1.3	2.1	1.9	1.7	1.5
Q	Human health and social work activities	2.4	2.8	2.7	2.7	2.9	3.4
R	Arts, entertainment and recreation	1.2	1.0	1.1	1.0	1.0	1.1
S	Other service activities	0.7	1.0	1.4	1.2	1.2	2.3
A-S	National economy total	1.2	1.2	1.4	1.6	1.8	2.1

Source: Central Statistical Office of Hungary.

Occupations with the largest share in employment in 2015 include sales workers, business administration associated professions and drivers and mobile plant operators (see Table 3 and 4 Table 4: Occupations with the largest share in employment (top 10) in Hungary in 2016, ISCO3 level

ISCO3	Label	%
522	Shop salespersons	5,84
833	Heavy Truck and Bus Drivers	3,30
821	Assemblers	3,23

541	Protective Services Workers	2,68
331	Financial and Mathematical Associate Professionals	2,56
234	Primary School and Early Childhood Teachers	2,48
911	Domestic, Hotel and Office Cleaners and Helpers	2,38
722	Blacksmiths, Toolmakers and Related Trades Workers	2,33
921	Agricultural, forestry and fishery labourers	2,00
432	Material recording and transport clerks	1,98

Source: EU Labour Force Survey, 2016 annual file for Hungary.

)Table . Predictions regarding the number of job openings for the period of 2015-2025 show that the high-skilled labour force is expected to be in high demand over the next ten years and the share of blue collar positions is forecasted to decline. Business & administration association professions, teaching professionals, science & engineering professionals, legal, social & cultural professionals are forecasted to have the largest number of vacancies over this period, while the number of machine operators and similar vacancies is much lower (EU Skills panorama).

Table 3: Occupations with the largest share in employment in 2015 in Hungary (%)

No.	ISCO-08		Share
1	52	Sales workers	7.30 %
2	33	Business & administration assoc. prof.	7.23 %
3	83	Drivers & mobile plant operators	5.32 %
4	72	Metal, machinery & related trades workers	5.23 %
5	81	Stationary plant & machine operators	5.01 %

Source: EU Skills Panorama.

Table 4: Occupations with the largest share in employment (top 10) in Hungary in 2016, ISCO3 level

ISCO3	Label	%
522	Shop salespersons	5,84
833	Heavy Truck and Bus Drivers	3,30
821	Assemblers	3,23
541	Protective Services Workers	2,68
331	Financial and Mathematical Associate Professionals	2,56
234	Primary School and Early Childhood Teachers	2,48
911	Domestic, Hotel and Office Cleaners and Helpers	2,38
722	Blacksmiths, Toolmakers and Related Trades Workers	2,33
921	Agricultural, forestry and fishery labourers	2,00
432	Material recording and transport clerks	1,98

Source: EU Labour Force Survey, 2016 annual file for Hungary.

Table 5: Occupations expected to have the largest numbers of job openings over the period 2015-2025 in Hungary (number of people)

No.	ISCO-08		Additional number of people needed
1	33	Business & administration assoc. prof.	186,150
2	23	Teaching professionals	85,907
3	21	Science & engineering professionals	85,069
4	26	Legal, social & cultural professionals	79,794
5	81	Stationary plant & machine operators	66,497

Source: EU Skills Panorama.

The most important factors influencing the labour market dynamics are the technological change, the large outflow of skilled-labour force due to population ageing (replacement demand), and the lack of effective policies to activate the unemployed and inactive population.

2.1. Technological Change

Based on the literature available on “skills-biased technological change in Hungary” (Tóth 2017), approximately 12% of the available positions (510,000) could be replaced by automation. Automation affects the regions with high employment rates the most, because these regions also tend to be more developed and wealthier and so technological changes are implemented here first. These more developed regions also have more expensive labour, and therefore stronger cost incentives to replace workers through automation. By contrast, the regions most exposed to the future threats of automation are the ones with the highest unemployment rate, however in these regions, the labour force’s adaptability to technological change is relatively low.

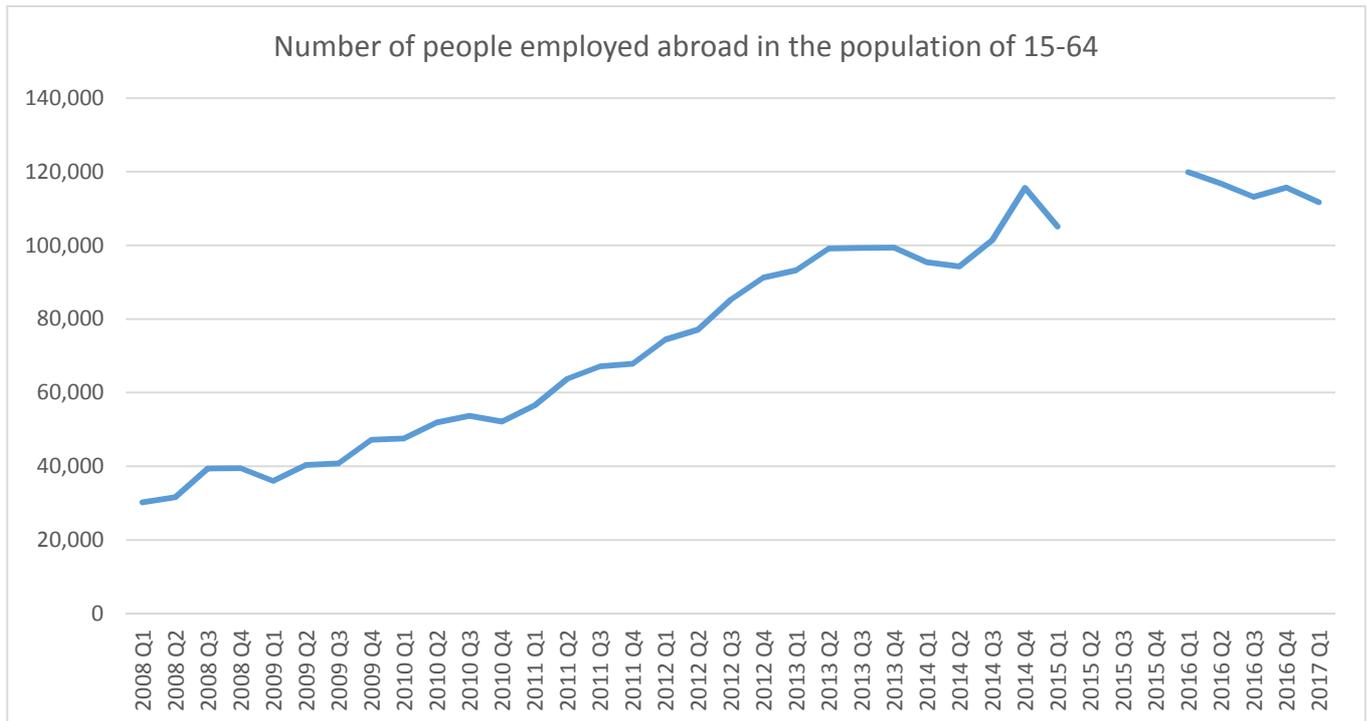
We have little information about how skills have evolved in the workplace in recent years and how this is related to skills-biased technological change. A survey conducted in 2012 (Hermann 2013) analysed companies’ competence requirements, which were categorised into four groups: basic competences, competences relating to communication and social skills, competences related to technical skills, and competences associated with management and complex technical skills. The author’s results show that competence requirements are closely associated with primary occupational groups, with the competence levels being higher for higher ranked occupational groups. There are two exceptions:

- Technical competences are more important for craft occupations than in higher (white-collar) occupations;
- Basic and communications related skills are as important in service occupations as in white-collar occupations.

It is also worth noting that, while there are variations across employers in skills requirements, these variations are related to the sector and the region of the employer rather than with employer size or the ownership type (i.e. family business, corporation, internationally versus nationally-owned companies) (Hermann 2013)

2.2. Emigration

Emigration from Hungary increased significantly over the period of 2010-2015, which is one of the factors contributing to the labour shortage in both the skilled and the unskilled sectors. Like Slovakia and Poland, Hungary experienced a large share of outward migration in the years following the EU accession when a large share of the population aged 15-64 left Hungary to work abroad. The numbers seemed to have reached a peak in 2015 (see Figure 2). The increase in outward migration can be attributed to the worsening labour market conditions. In addition to the economic reasons, Hárs (2016) points out that changes in the institutional background, social security, migration culture and the general ‘atmosphere’ are also likely to have influenced migration flows from Hungary. Because such a large number of working-age people left Hungary, employers have had to seek wide-reaching methods to find employees, thereby incentivising the use of online job-portals.

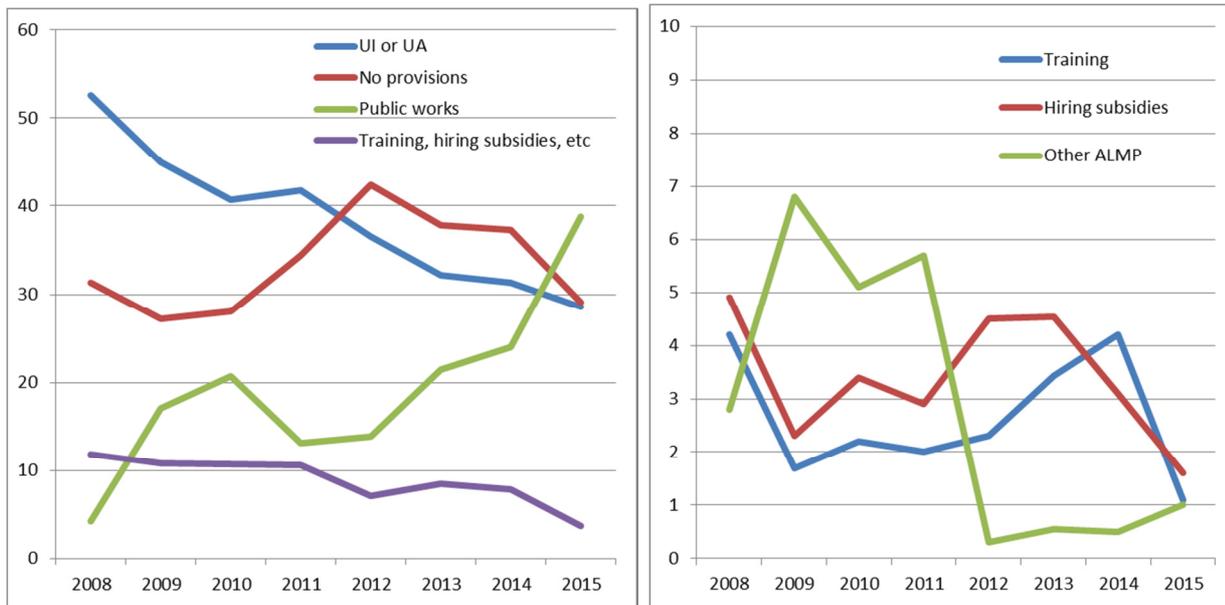
Figure 2: Migration from Hungary

Source: OECD Data.

2.3. The Lack of Well-designed Active Labour Market Policies

Increasing job vacancy rates and labour shortages in certain sectors could in theory be compensated for by well-designed active labour market policies (ALMPs), in particular through vocational training and skills development trainings. The budget and participation directed toward Public Works Schemes (PW) have vastly outnumbered the participation in other ALMP types (see Figure 3). The public works schemes attract 200,000-300,000 participants, a certain fraction of whom could potentially find work with the support of some well-designed activation measures.² Activation measures could be used to grow the workforce, thereby alleviating the problem of labour shortages.

² Instead of the official 62.4%, the employment rate would be – 59.7% in the absence of the PW programme. Instead of the official 7.8 %, the unemployment rate would be 12%, if we added the participants in PW to the unemployed statistics (Scharle 2016).

Figure 3: Registered unemployed and ALMP participants by type of provision, in %

* In proportion to the stock of registered unemployed, ALMP and public works participants. The “other ALMP” in the right panel includes start-up incentives, mobility support and the job retention scheme, which was introduced in the aftermath of the recent economic crisis.

Source: IE HAS (2015: 217).

Another ALMP programme, the Job Protection Act³, which provides payroll tax reductions for employers who hire workers belonging to the most vulnerable target groups such as unskilled workers, long-term unemployed, workers with health impairments, workers below 25 or above 55, young mothers or researchers or operate in disadvantaged regions, continues to be the most significant employment subsidy measure. This programme may affect the job vacancy rate by supporting the creation of positions in some sectors but not in others. No statistical analysis of its effects exists to date.

³ In Hungarian “Munkahelyvédelmi Akcióterv”.

3.Context and Characteristics of the Online Job-portal Market

3.1. PES Online Job-portal(s)

3.1.1. Legal/Regulatory Framework

There is no specific regulatory framework on the vacancy market. Government decree 30/2000⁴ prescribes that employers posting a vacancy on a private job-portal have to register the same job at the PES as well – and it also defines several elements that the employer shall submit at the PES as part of the job ad, including name and contact information of the employer, tax number, occupation, position title, expected earnings, qualifications, whether the employer would like mediation from the PES, whether the position is externally advertised, start and end dates of recruitment, working hours, contract type, as well as the knowledge, experience and skills required to fill the position. The PES does not have the capacity to enforce these rules, hence PES representatives estimate that, at most, one-third of all vacancies are reported.

3.1.2. Organisational Structure of the PES Online Job-portal(s)

Virtual Labour Market⁵ is the job portal of the National Labour Office (PES). The creation of the portal was part of a project co-financed by the European Social Fund to develop the employment service as part of an integrated labour and social system. Services for Employers are only available after registration/login. The registration process needs to be initiated in person at one of the PES offices. Due to this registration protocol, as well as the fact that the reporting of job vacancies is deemed too complicated, the majority of employers prefer reporting vacancies via telephone. Jobseekers (including the employed looking for another job) can access the OJVs without registering, but some functions, such as the name of the employer, are only accessible after logging in.

3.1.3. Focus of the PES Online Job-portal(s)

Please note that the database used for this analysis (provided to us by PES representatives) includes all vacancies registered by employers at the PES. There might be cases where the employers registered the vacancy at the PES via phone or in person without using the digital interface of the PES OJV website. We have no empirical evidence on the differences between private and PES online job portals, but based on our interview with the PES representative, it is likely that the blue-collar vacancies and jobs with lower skills requirements are overrepresented in the PES database.⁶

With respect to the size of companies offering OJVs online, the largest share is comprised of companies with less than nine employees (table 6), which make up about 95% of all companies (table 7). The second largest share is made up of OJVs by small (ten-49 employees) companies. Medium-sized companies of up to 500 employees made up around 10% of all OJVs. Companies with more than 501 employees posted approximately 20% of the OJVs in the PES database. The share

⁴ Decree of the Minister of Economy No. 30/2000 (IX. 15) on labour market services and support available for the unemployed. https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a0000030.gm.

⁵ In Hungarian “Virtuális Munkaerőpiac Portál.”

⁶ Please note that we are awaiting basic statistical data for one large online job-portal operator.

of OJVs by micro-sized companies has declined from 44% to 39%, while large companies with more than 500 employees tend to use the PES OJV website more often than in previous years.

Table 6: Size of companies and share of OJVs in the PES database (flow data)

Number of employees	2013	2014	2015	2016	2017
0-9	44%	41%	38%	35%	39%
10-49	20%	17%	19%	20%	20%
50-99	9%	9%	9%	8%	7%
100-199	0%	0%	0%	0%	0%
200-499	9%	10%	8%	9%	11%
500-499	18%	19%	17%	18%	18%
500-999	4%	6%	7%	7%	7%
1000 -1999	7%	7%	5%	6%	5%
2000 -4999	3%	5%	7%	9%	6%
5000 -	3%	4%	6%	6%	4%
N/A	1%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%

Source: Special analysis by the Hungarian PES.

With respect to the distribution of companies using the PES website by industry/sector, job postings in manufacturing, administrative and support services, and hotels and restaurants have increased over the past five years.

Table 7: Number of companies by size class (Number of employees).

Size class	Number of firms	
	2015	2016
0-9	619 866	634 685
10-19	17 549	18 916
20-49	9 180	9 698
50-249	4 560	4 661
250+	902	898
Total	652 057	668 858

Source: Hungarian Statistical Office.

The vast majority of the jobs reported at the PES are blue-collar positions (91%). White-collar and managerial positions make up 8 and 1% of the total positions, respectively.

Table 8: Type of job postings and their share of OJVs in the PES database (2017)

blue-collar workers	unskilled	2391	8.9%
	semiskilled	12838	48.0%
	skilled	9135	34.2%
	blue collar total	24364	91.1%
white-collar workers	professionals	576	2.2%
	administrator	1505	5.6%
	white-collar total	2081	7.8%
executive positions	lower management	208	0.8%
	middle management	89	0.3%
	upper management	1	0.0%
	managerial total	298	1.1%
Total		26743	100.0%

Source: Analysis by the Hungarian PES

Table 9: Job vacancies by industry and sector in the PES database (flow data)

	2013	2014	2015	2016	2017
Agriculture, hunting and forestry	2%	2%	2%	2%	2%
Mining and quarrying	0%	0%	0%	0%	0%
Manufacturing	23%	24%	27%	27%	26%
Electricity, gas and water supply	1%	1%	1%	1%	1%
Construction	8%	8%	7%	8%	9%
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	14%	11%	13%	13%	13%
Transport, storage and communication	7%	7%	4%	5%	6%
Hotels and restaurants	4%	5%	5%	5%	6%
Information & communications	2%	1%	2%	1%	1%
Financial intermediation	5%	3%	2%	1%	2%
Real estate, renting and business activities	2%	2%	2%	2%	2%
Professional, scientific and technology-related activities	8%	6%	5%	4%	4%
Administrative and other supporting activities	17%	23%	23%	24%	19%
Public administration and defence; compulsory social security	2%	3%	2%	2%	3%
Education	2%	1%	1%	1%	1%
Health and social work	2%	2%	2%	3%	3%
Arts, entertainment	0%	0%	0%	1%	1%
Other community, social and personal service activities	2%	2%	2%	2%	2%
Extra-territorial organizations and bodies	0%	0%	0%	0%	0%

Source: Analysis by the Hungarian PES.

The key difference between the PES website and private job portals lies in the design and user-friendliness. While PES website users have to personally register at a PES office before they can start using the online vacancy database, users of private portals can register online in seconds. Another important factor that makes the PES database less popular is the common perception that

the PES website is only visited by low-skilled workers and mainly includes low-skilled job vacancies. Job-searchers are at the same time not aware of the fact that the PES screens the validity of the job posting, which is an additional feature that private online job portals usually do not offer. Based on our interviews, very few employers and HR representatives think of the PES job portal as a suitable alternative to private website, and there do not seem to be co-operation agreements between the PES and private online portals. These factors explain why the average job posting on the PES is perceived as targeting less qualified, blue collar workers, containing less information, and designed less innovatively than private job postings.

3.1.4. Outreach of the PES Online Job-portal(s)

The most recent version of the Hungarian PES job portal was developed in 2013. Today it contains approximately 25,000 job vacancies, however it remains unclear how up-to-date the database is, as a certain share of the applicants' CVs might already be outdated). According to the Central Statistics Office, in 2016 there were about 52,000 job vacancies in Hungary.

3.1.5. Posting of PES Vacancies on EURES

Based on our interview with the PES representative, employers are increasingly interested in recruiting labour from abroad due to the labour shortages they have faced in recent years. Should an employer wish to recruit people from abroad or foreigners living in Hungary, the PES can directly feed the job postings into the EURES system.

Based on our interviews with private job portal owners and employers, employers do not use EURES. Instead, they post job descriptions in English on the online job-portals or, in the case of international corporations, on the corporate careers page.

3.2. Private Online Job-portals

3.2.1. Legal/Regulatory Framework

There is no specific regulatory framework on the vacancy market. Government decree 30/2000⁷ prescribes that employers posting a vacancy on a private job portal have to register the same job at the PES as well. As described in section 3.1 Act CXXV of 2003 on equal treatment and the promotion of equal opportunities⁸ non-discriminatory practices are requested from employers. The most prevalent and direct types of labour market discrimination are effectively prevented by this regulation. However, there are still some hidden codes or words used by employers to discourage some types of applicants (e.g. women or older applicants).

One piece of legislation that describes the specific preconditions for the operation of Recruitment Agencies (RAs) in detail is the Government Decree No. 118/2001 (VI.30.). According to the Decree, the mission of RAs is to provide services that aim at ensuring a more efficient matching process between the supply and demand in the labour market. The Decree prescribes the prerequisites for the establishment of RAs. According to this decree, the RA must have a policy of non-discrimination based on gender, age, marital status or disability, nationality, race, origins, religion, political convictions, etc.

⁷ Decree of the Minister of Economy No. 30/2000 (IX. 15) on labour market services and support available for the unemployed. https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a0000030.gm.

⁸ https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0300125.TV.

3.2.2. Dominant Online Job-Portals and Their Business Models

Research on the Hungarian OJV market is limited, therefore, we relied on information from the stakeholder interviews and on research on the OJV market conducted in 2012 (eNet 2013). The latter research relies on quantitative data and was prepared by reliable researchers. However, the authors primarily used descriptive statistical methods.

Market share, focus, scope: The competition on the OJV market is fierce. According to our interviews with job portal managers, an additional one or two competitors appear on the market each year. Expert interviews and the eNet 2013 research indicated that the five most important job portals for online recruiting and job search are: profession.hu (67% market share), CV online (14%), monster (9%), jobline (5%), and workania.hu (5%). Profession.hu and CV online are the products of Hungarian companies, workania.hu is owned by a Slovak company and monster.hu is the product of a large international corporation, while jobline.hu is owned by a Hungarian weekly magazine, hvg.hu. Based on our interviews, the broad sectoral focus of these portals and the emphasis on higher-skilled roles is relatively similar. Workania was the only online job-portal cited by several interviewees as a portal mostly specialising in blue-collar positions. These five websites each have on average 1,000 to 10,000 OJV postings. The job postings are primarily in Hungarian, but they all publish English-language job postings as well, and some of them even have an English-language interface, too. Job postings are in English in those cases when the employer's language of operation is English and when the employer expects applicants to speak good English. Except for workania.hu, which has an international focus, all job portals have a national focus.

Based on eNet (2013), the size of the OJV market is around HUF 3 billion (~ EUR 1 million), out of which HUF 2.46 billion is attributed to job portals, 250 million to so called aggregators and 50 million to social media platforms. Based on this study, the market was oversaturated with five main job portals, three main aggregators and a negligible social media branch. Sixty-five percent of the revenue from job portals come from listings.

Business model and services offered by online job-portals: Private job-portals offer different services to the employers at different prices. Some offer subscription based on the length of time that an employer wants to use the service. Most of the portals offer the following three services:

- Option to publish job vacancies (EUR 100-200 depending on the chosen extra options);
- Access to a CV-database (EUR 200-600);
- Pre-selection services (EUR 200-700).

Based on our stakeholder interviews and desk research, profession.hu is the most frequently used, but also the most expensive online job-portal.

We have limited information about the assumption that OJVs are sometimes used to build a candidate pool. We do know that employers have the option to access a CV database of CVs and applicant profiles for an additional fee. We have no information about discounts offered to employers, but it seems that the wider the range of services employers buy, the more advantageous the offer is (in relative terms).

3.2.3. Focus of the Private Online Job-portals

Distinguishing features of the different portals include the following:

- **Profession.hu** offers personal client management;
- **CV online** offers local presence with specialised portals focusing on the larger Hungarian cities and on the most important occupations;
- **Monster.hu** mostly offers services to corporate clients;
- **Jobline** is the thematic site of the HVG group focusing on white-collar workers;

- **Workania** offers low-cost OJV-posting options, and many of the advertisers are private individuals; job-seekers on this portal are generally less experienced (eNet 2013).

Factors that influence employers' choice of job portals include their recruitment budget, their sector or industry, as well the urgency of the recruiting. Employers with a greater urgency to make a hire are likely to use multiple portals simultaneously. Portal brand recognition also plays an important role in whether an employer will choose to post there.

3.2.4. Outreach of the Private Online Job-portals

According to the Central Statistical Office, 52,000 vacancies were reported in Hungary in 2016. In 2013, the number of reported vacancies was approximately 32,000. According to the eNET study, 20,000 vacancies were published to the five largest online job-portals in 2013. Although there might be overlaps, we can estimate that roughly 66% of the total job postings appear on an online job-portal.

3.3. Co-operation between Public and Private Online Job-portals

Based on our interview with the PES representatives, there is very limited cooperation between private job portals and the PES. Although employers are obliged by law to post their vacancy at the PES too, this happens only in a very limited number of cases due to 1) the large administrative burden associated with posting a vacancy on the PES website and 2) the PES' limited ability to reach the highly educated workforce. PES Services for Employers are only available after registration/login and the registration process needs to be initiated in person at one of the PES offices. Jobseekers (including the employed) can access the OJVs without registering, but some functions, such as the name of the employer, are only accessible after logging in.

3.4. Role of other Recruitment and Job-search Channels

According to the interviewed experts, word of mouth and personal contact are important methods for recruiting for highly qualified positions, particularly managerial roles. One reason employers tend to rely on these unofficial channels for high level positions is to avoid revealing to their competitors that they are hiring in key positions. Large and international companies tend to post their vacancies on their own websites and rely less and less on private job portals.

Social networks (e.g.: LinkedIn, Facebook) do play an increasing role in hiring, however these channels are mostly used in niche markets, such as 'artist jobs in Budapest' and similarly specialised sectors of the job market. Employers also tend to use their own Facebook pages to advertise their job postings.

3.5. Expected Trends in the Online Job-portal Market

OJVs posted to private portals are the dominant recruitment channel, especially for white-collar positions. Nonetheless, word-of-mouth, social media and in some special cases even offline channels play important roles (see Section 3.4.). Based on research conducted in 2012, LinkedIn played an insignificant role in the online job-search service market.

4. Use OJVs in Recruitment and Job Search

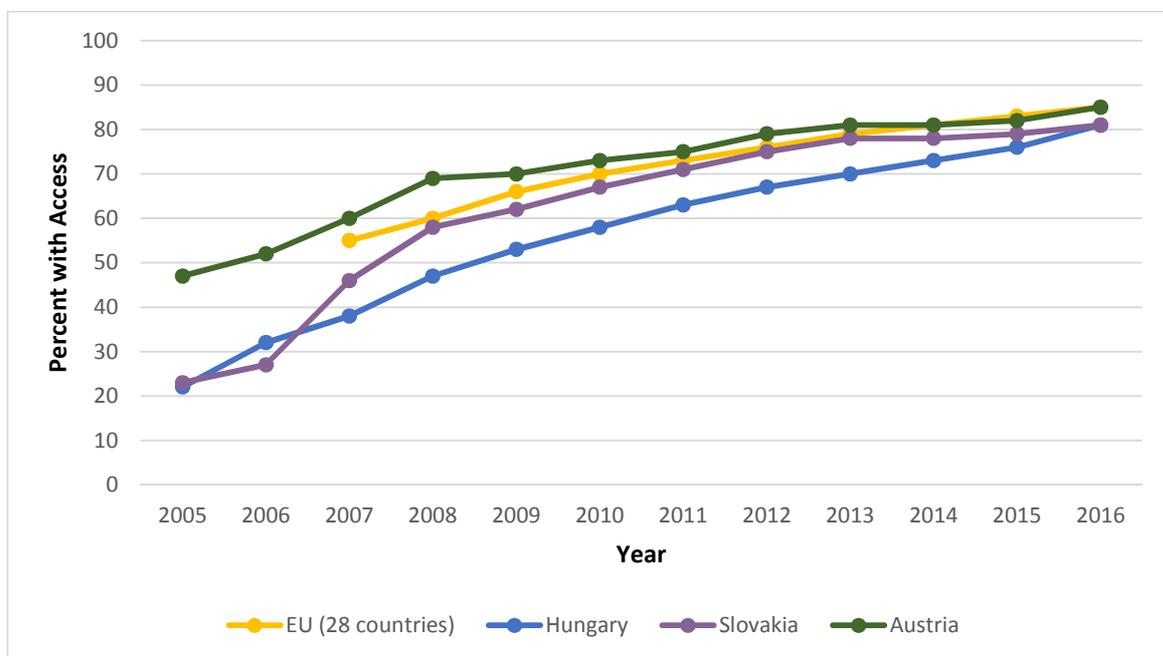
4.1. Use of OJVs in the Recruitment of Labour

Unfortunately we were not able to gather data from private portals on how they are used in recruitment. Therefore we relied on the data on PES OJVs and the information provided to us by expert interviews. For further details, see section 3.1.3. We do not have empirical evidence on the differences between private and PES online job portals, but based on our interview with the PES and the private portal representatives, it is clear that blue-collar vacancies and jobs with lower skills requirements are overrepresented in the PES database, and therefore, the users of the PES and private portals are also likely to differ; private job portals are probably used more by white-collar workers, while the PES portal is more commonly used by blue-collar workers.

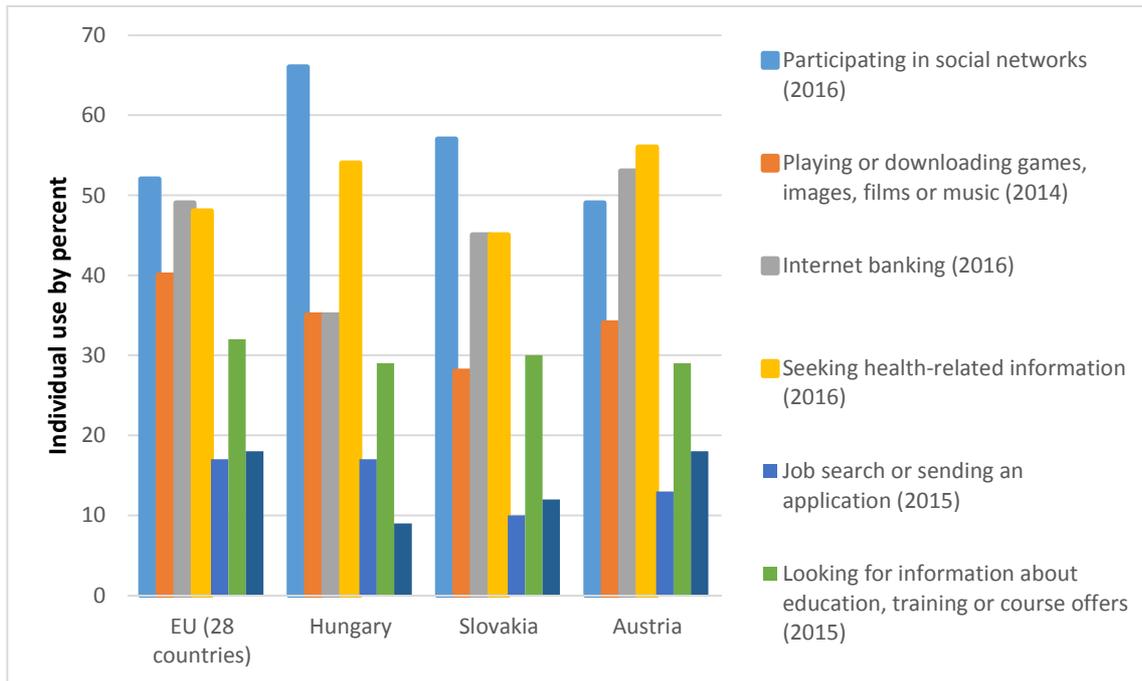
4.2. Use of OJVs in Job-search

Internet penetration in Hungary: Household internet usage is relatively high in Hungary. Internet access exceeds 80%, which is only slightly below the EU average. People tend to use the internet for job search more frequently than the EU average. The use of technology in general is similar to the level of other developed countries, it is unlikely to pose a barrier to any advancements on the OJV market.

Figure 4: Internet access by households (%)



Source: EUROSTAT ICT Survey of Households and Individuals [tin00134] (downloaded on 19 January 2017).

Figure 5: Individual internet use by purpose

Source: EUROSTAT ICT Survey of Households and Individuals [isoc_bde15cua; tin00102; tin00101; tin00099; tin00032; tin00127] (downloaded on 19 January 2017).

The behaviour of the companies and job-seekers online and offline: The job vacancy market is shifting towards online advertisements. However, employers still use offline channels to recruit workforce, mostly through billboards and in local newspapers. Another offline channel that employers tend to use is career fairs where they can brand their company. Career fairs are mostly used to recruit higher-skilled workers.

4.3. Expected Trends in the Use of OJVs in Recruitment and Job-search

Based on the interviews we have conducted, we predict the following trends. With the increasing labour shortage, employer-branding is becoming popular particularly for large international corporations, in the hopes of standing out to and attracting applicants. Parallel to this trend, the options for communication solutions and transmitted content is also increasingly diversified, (e.g. video messages instead of text-based job posting, elaboration of the company's core values through more detailed job postings or disclosure of more information about the position itself. The eNet 2013 study forecasts a clear shift towards more comprehensive online HR service centres and predicts greater need for assessment-based models in contrast to the traditional listing-models. These trends apply mostly to white-collar jobs. Blue-collar postings are usually still less detailed and offer less information on the contract conditions.

Large corporations tend to use automated job posting mechanisms and usually use their own recruitment portals to advertise job openings. However, as a job portal manager explained, many of the processes used by corporate recruitment websites make applications unnecessarily lengthy and complicated. A further problem is that some of the job portals are still not optimised for mobile devices.

5. Identifying Online Job-portals for Web-crawling

5.1. Documentation of the Job-portal Research Process

5.1.1. Identifying the Online Job-portals Through Google Search

Table 10: Grid for Documenting the Google Search for Job-portals

Search 1	Search term: Álláshirdetések	Job adverts
	Number of results per search term	roughly 350,000
Search 2	Search term: Állásajánlatok	Job offers
	Number of results per search term	roughly 1,460,00
Search 3	Search term: Álláskeresés	Job search
	Number of results per search term	roughly 572,000
Search 4	Search term: Álláskereső	Job finder/search
	Number of results per search term	roughly 367,000

Source: Csillag and Orosz (May 2017).

Based on our online search and expert interviews, we suggested the following five online job-portals for the scraping activity. The reason for selecting these five portals is that they make up the largest coverage on the OJV market:

- **Profession.hu** offers personal client management and is a combination of primary and secondary functions with OJVs across sectors;
- **CV online** offers local presence with specialised portals focusing on the larger Hungarian cities and on the most important occupations. It has primary functions and posts OJVs across sectors;
- **Monster** mostly offers services to corporate clients. It has primary functions and posts OJVs across sectors;
- **Jobline** is the thematic site of the HVG group and focuses on white-collar workers. It has primary functions and posts OJVs across sectors;
- **Workania** operates with low prices and most of the advertisers are from private individuals, and job-seekers usually belong to the less-experienced category. It is a combination of primary and secondary functions and posts OJVs across sectors.
- In addition, it might also be sensible to include the PES website in the scraping activity. It does not belong to the most popular websites but covers a specific range of the job postings; therefore it might contain relevant information on some segments of the labour market.

5.1.2. Identifying the Online Job-portals Through Expert Interviews

All expert interviews supported the view that the five most important online job-portals are profession.hu (67% market share), CV online (14%), monster (9%), jobline (5%), and workania.hu (5%).

5.1.3. Validating the Selection of Online Job-portals

Our list of online job-portals was validated by the PES representative, who only added one additional website to our collection of job portals.

5.2. Conditions for Drafting and Posting OJVs in the Selected Job-portals

5.2.1. Drafting and Posting an OJV on the PES Online Job-portal

Virtual Labour Market: The first step in the process of reporting a vacancy on the online job-portal of the National Labour Office is accepting the declaration on the use of personal data. After accepting the declaration, the employer can proceed completing an OJV template. The first page requires the employer to fill in mostly mandatory basic data about the vacancy. Information about the employer is automatically populated using data entered during the registration process. The template contains both text boxes and drop-down menus. The following fields are mandatory: job title, occupation (to be chosen from the uniform classification system for occupations – FEOR – equivalent to the ISCO classification), years of experience, monthly gross wage offered (minimum and maximum), position type (e.g. unskilled worker, trained worker, administrative staff, management), legal relationship (e.g. according to the Labour Code, public servant, outworking), request for mediation (yes/no), whether the vacancy can be openly advertised on the portal (yes/no) or whether it should be privately shared exclusively with individuals registered with the PES, place of work (address, single/multiple workplaces), expected level of education (pre-defined options). If the job offer is supported by grant funding, this should be recorded in one of the voluntary fields. The employer can also insert up to 1,500 characters in both an open and a closed note as a position description, however, only the open note is made visible for all of the users, while the closed note is only accessible to the system administrators.

The next page concerns further specifications of the vacancy and information related to the mediation process. The mandatory fields are: validity period of the OJV (up to 60 days), duration of employment, full-time/part-time job, working time (hour:minutes), work schedule (e.g. 2, 3 shifts, flexible), the possibility to filter jobseekers willing to resettle/relocate inside the country (yes/no answer), location for the job interview, contact details of person responsible for the job offer. The voluntary fields include the dates when the employer can be contacted by jobseekers, the number of people to be hired, whether there will be a probation period, posting or renting of workers (tick boxes), recommendation for EU citizens (yes/no), time for job interview (date, time). There are also optional text boxes with a maximum of 255 characters dedicated to special requirements, special conditions for the job and job-related benefits.

The next five pages concern the skills of the applicant, these pages are voluntary. The first page contains information on the required qualifications of the applicant. Each of the required qualifications needs to be added separately through a pop-up window in which the employer can choose the occupation (based on FEOR), the required years of experience and specify the type of experience. A similar procedure is used to indicate the desired language skills, driving

skills/licence, IT and other skills. On the final page, the status of the vacancy is shown together with the date and job description.

As the process of filling in the form properly can be lengthy, it is possible to temporarily save the OJV before posting it. Any questions or remarks related to the functioning of the website, or filling in the OJV can be sent through a contact form.

Figure 6: Virtual Labour Market: basic data for OJVs

The screenshot shows the 'Virtuális Munkaerőpiac Portál' (Virtual Labour Market Portal) registration form. The header includes the logo of the National Labour Market Institute (NFSZ) and the text 'Nemzeti Munkaügyi Hivatal'. The main title is 'Virtuális Munkaerőpiac Portál'. The user is logged in as 'Budapest Szakpolitikai Elemző Intézet Kft.' with a login time of '2017.06.23 09:27:30'. The form is divided into sections: 'Főoldal', 'Állások kezelése', and 'Munkaerő-kereső'. The 'Munkaerő-kereső' section contains the following fields:

- Állás megnevezése * (Job title): Text input field.
- Munkakör (FEOR) * (FEOR code): Text input field.
- Gyakorlati idő * (Practical time): Dropdown menu with 'Kérjük válasszon...'.
- Munkakör kiegészítése (FEOR supplement): Text input field.
- Kapcsolódó nyertes pályázat (Related tender): Includes 'Támogatás formája:' (dropdown) and 'Pályázat száma:' (text input).
- Felajánlott havi bruttó kereset (Ft) * (Monthly gross wage): Two text input fields separated by a dash.
- Állománycsoport * (Job category): Dropdown menu with 'Kérjük válasszon...'.
- Foglalkoztatási jogviszony * (Employment status): Dropdown menu with 'Kérjük válasszon...'.
- Kér közvetítést? * (Mediation request): Dropdown menu with 'Kérjük válasszon...'.
- Hirdethető? * (Advertisement status): Dropdown menu with 'Kérjük válasszon...'.
- Irányítószám: * Helység: (Postal code and location): Includes a text input for the postal code and a button 'írja be az irányítószámot'.
- Munkavégzés helye * (Workplace location): Includes 'közterület neve:' (text input), 'közterület jellege:' (dropdown with 'Kérjük válasszon...'), and 'házszám:' (text input).
- Elvárt iskolai végzettség * (Required education level): Text input field.

Source: Virtual Labour Market (May 2017).

5.2.2. Drafting and Posting an OJV on a Private Online Job-portal

profession.hu: The online job-portal with the largest market share in Hungary was established by a Hungarian company. According to the information on the website, there are 11 new job vacancies registered on the portal every hour.

The first step for unregistered employers interested in posting an OJV, is to fill in one mandatory field: title of the job to be advertised and several voluntary fields: the place of work (city or region), name of the company and an e-mail address. The next step is the selection of the OJV package that the employer can choose between Classic, Optimum and Pro. They differ in terms of price, number of automatic updates, possibility of visual highlighting and preferential positioning in the list of vacancies and newsletters, targeting relevant jobseekers via e-mail, customer care, and the number of ad views (see Table 9). Additionally, the employers are able to choose from the list of

efficiency-enhancing products, such as highlighting. After choosing the products, the OJV form becomes available.

Table 11: Products of profession.hu

	Classic	Optimum	Pro
Price	76,900 HUF (€248)	94,900 HUF (€307)	139,900 HUF (€452)
Number of automatic updates	1	3	3
Visual highlight	no	yes	yes
Preferential position	no	yes	yes
Targeted email for the 500 most relevant registered job-seekers	no	no	yes
Key account management	no	no	yes
The number of ad views compared to Classic		+20%	+30%

Source: www.profession.hu (May 2017).

The OJV form is divided into two parts: the text of the OJV and the data of the OJV. The mandatory text fields are:

- Job title (automatically populated);
- Text boxes for the description of the main tasks;
- Job requirements;
- A list of the documents required from the applicant;
- Categories under which the OJV is to be posted (e.g. marketing, office work, which are automatically populated based on the job title, but they can be modified);
- How applications should be received (e.g. via email, phone, post);
- Option to include an e-mail address and automatic reply messages.

Besides the mandatory fields there are also three optional text fields available:

- Company information;
- “What we offer” section about the attractive elements of the company and role;
- Skills and traits desired of the applicant.

The mandatory data fields are:

- Name of the company;
- Type of workplace (flexible/in one location);
- Region;
- Minimum required years of experience (e.g. 1-3 years, 3-5 years, does not require previous experience);
- Level of education (five possible options);
- Work time (full-time/part-time);
- Required language skills (possible to add as many languages as necessary and to choose a level).

The only optional field is a benefits section where the employer can tick boxes such as whether the job provides a mobile phone, support for language courses, annual bonus etc. After completing the OJV template, a pre-view of the OJV is shown as it will be posted on the portal. Only then it is necessary to register or log in. The last two steps concern the payment and entering data for the invoice. In case of any problems or questions there is a live chat available.

Figure 7: Front page of the website profession.hu

PROFESSION Hirdetés feladása

A sikeres toborzás már csak egy lépésre van Öntől.

Meghirdetendő munkakör

Munkavégzés helye (település vagy megye)

Cég neve

E-mail cím

Hirdetés feladása

Már ügyfelünk? Belépéshez kattintson ide!

VISA VISA MasterCard Maestro

MasterCard Verified by VISA

Source: www.profession.hu (May 2017).

5.3. Contacting the Online Job-portal Owners

We received few responses from private portal owners and operators, however responses we did receive were positive and supportive of this project. We contacted roughly 20 job portal owners and operators, but we only got positive responses from Workania, Jobline and the PES (whom we know through previous professional contact).

6. Format and Content of OJVs

6.1. Legal/Regulatory Framework

There is no specific guideline that regulates the content or design of OJVs. The 2003 Act CXXV on equal treatment and the promotion of equal opportunities regulates the principle of equal treatment in the fields of employment, social security, health care, housing, education and training, sale of goods and use of services. The Act regulates discrimination on the grounds of sex, racial origin, colour, nationality, national or ethnic origin, mother tongue, disability, state of health, religious or ideological conviction, political or other opinion, family status, motherhood (pregnancy) or fatherhood, sexual orientation, sexual identity, age, social origin, financial status, the part-time nature or definite term of the employment relationship or other relationship related to employment, the membership of an organisation representing employees' interests, other statuses, attributes or characteristics (hereinafter collectively: characteristics). "The Act also gives standing to interest representation groups and for the Equal Treatment Authority to act as a representative authorized by the victims in procedures initiated because of a violation of the principle of equal treatment, and introduces the action popularis⁹. The provisions concerning the burden of proof are also elements of the Act because before this Act, the Labour Code was the only Act in Hungary containing the principle of shifting the burden of proof¹⁰." (Hajdú 2011: 61)

6.2. Format of OJVs

The most important factors influencing OJV format and content are the labour shortage, the size of the company, and the sector in which the business operates.

Labour shortage has intensified employer competition in most sectors and occupations. With respect to the format, employer branding, although still in its early stage, is becoming more and more popular. This applies to the SME sector as well as large corporations. Employers are increasingly aware of the fact that they need to make their businesses and offered positions attractive to potential candidates in as many ways as possible. Employer videos embedded in online job vacancies or OJVs with professional graphic design are becoming more common (clearly in vacancies aiming at professionals and managers). Another important change is that while a few years ago, as many as 10% of OJVs were anonymous, meaning the name of the employer was not included on the ad. Today only 1-1.5% of OJVs have anonymous employers. This change reduces the information asymmetry between employers and applicants (source: interview with an employee of one of the market-leader OJV companies in Hungary). These trends are particularly relevant for white-collar jobs, but since labour shortage predominantly impacts blue-collar positions, the above phenomena are also finding their way into OJVs in the blue-collar sector.

Company size matters as well. Larger, typically international companies tend to use more standardized OJV formats than SMEs, who in turn are usually disclosing less information on what they

⁹ A public prosecutor, the Equal Treatment Authority or the social and interest representation organizations can initiate lawsuits under civil or labour law for the violation of the principle of equal treatment before the court.

¹⁰ It is the employer who bears the burden of proof.

can offer to their potential employees. Larger, multinational companies often provide more details about the benefits they can offer.

Sectors can also be a decisive factor in determining where OJVs are posted. The manufacturing and the automotive industry, assembly plants, and the agricultural sector still sometimes use offline job advertisement channels. These sectors are typically more dominant in the countryside. Overall, the share of offline advertisements, primarily regional weekly newspapers, fliers and billboards, is diminishing at an ever-increasing pace. The platforms for offline job vacancies include regional weekly newspapers, fliers or sometimes even billboards.

The type of position also determines where an OJV is posted. High level positions are less frequently advertised on the company's website or online job-portal. Rather, potential candidates are 'headhunted' directly by the company's HR management or simple word-of-mouth methods are used to find candidates. Sometimes these positions are advertised in weekly print-only magazines, such as HVG, which specialises on economics and business topics.

6.3. Content of OJVs

Labour shortages have also affected the content of OJVs. Employers are publishing more information about what they can offer potential candidates. While a few years ago employers considered it sufficient to use words like "stable working conditions" or "competitive wage" in OJVs, today there is a much wider array of information available for the potential candidates including working conditions (e.g.: chances for career development, free or subsidised training, flexible working time or workplace: working from home, dog-friendly workplace, free coffee, beer Friday, leisure options, etc.) or other benefits, such as fruit-day, and reduced fees for gyms or health care facilities. These benefits are mostly available in sectors with a demand for high-skilled workers or with significant labour shortages. Such additional sections also help employers find candidates that are the most likely to fit into their businesses.

There are also similarities in the language used in OJVs. Almost all OJVs include a reference to "team player" or "good communication skills". Although references to the desired personality traits are still rare in the Hungarian OJVs, employers, regardless of company size, have started to focus more and more on how well the potential candidate fits into the work environment, business culture, team, etc. These questions are usually tested during personal interviews, but some employers also include descriptions of the desired personality traits in the job advertisements (e.g.: "we are looking for a passionate and creative candidate" or "perseverance and tolerance for monotony are highly appreciated"),

Using English as the language of the OJV or manipulating the wording itself (e.g.: using specific expressions) can also be a way of filtering for the type of candidate that the employer is hoping to recruit. Even if the position does not require command of English, by using English in the job description may be intended to increase the probability that highly qualified, educated applicants will respond to the job opening. According to our interviews, approximately 3-4% of the total job openings are posted in English. These are in most of the cases unique vacancies, not English mutations.

Although discrimination based on sex, age, family status, social background, etc. is prohibited by law, employers manipulate wording to attract candidates that meet their expectations. In order to

attract younger, more flexible employees, businesses can use the informal second person to address the candidate (“te”/“tegezés”), which sounds unfamiliar to older candidates who tend to be used to the formal second person. Another way to attract the attention of younger applicants is to include phrases in the job description such as “young and dynamic team”, or resilience and persistence. As described above, selecting specific company benefits (e.g.: free beers on Friday evenings) can also serve as a means to draw the attention of younger candidates. Based on our interviews, older, more experienced candidates may not get an invitation for an interview, showing that discrimination based on age is a significant problem in the labour market.

More experienced candidates can be attracted by using the more formal second person in the job description text or by including terms such as “stable working conditions” or “success-oriented colleague”. A typical way of attracting the attention of male candidates in blue collar positions is to include the term “demanding, physical work” in the job description. Young mothers are often discouraged from applying by hinting at the fact that the work may require irregular work hours and demand flexibility. Based on our interviews, other forms of discrimination such as related to skin colour or social origin are almost non-existent in the OJVs, especially because the regulations are very strict in this regard. However, it is highly likely that Roma are often discriminated against during personal interviews or they are not even invited to the interview, if it is possible to judge that someone is of Roma origin based on the name or CV photo. Based on our interviews, labour shortage is probably leading to less extensive discrimination in general and against the Roma population in particular.

Based on our interview with the PES representatives, employers might in some cases influence the selection process by informally signalling to the PES workers that they would rather avoid certain type of candidates.

Table 12: Non-skill phrases used to encourage the application of specific target groups

Target group to encourage to apply	Phrases / wording used
Younger, more flexible employees	<ul style="list-style-type: none"> • Use of the informal second person to address the candidate (“te”/“tegezés” equivalent to the German “du”, • Mentioning chances for career development, free or subsidised trainings, flexible working time or workplace - home office options, dog-friendly workplace, free coffee, beer Friday, leisure options, etc. or other perks, such as fruit-day, reduced rate usage of gym or health care facilities and similar • Use of phrases in the job description such as young, and dynamic team, or resilience and persistence, ability to deal with monotony in the section on the desired skills.
Candidates with limited need for creative tasks	<ul style="list-style-type: none"> • Use of terms such as perseverance and tolerance for monotony
Older candidates	<ul style="list-style-type: none"> • Use of the more formal “ön” in the job description text • including terms such as “stable working conditions” or “success-oriented colleague
Male blue-collar candidates	<ul style="list-style-type: none"> • Use of the term “demanding, physical work” in the job description
Discouraging young mothers	<ul style="list-style-type: none"> • Indication that the work may require irregular work hours and demand flexibility from the potential candidate

Source: Csillag and Orosz (2017).

6.4. Main Differences between the Public and Private Online Job-portals

The main difference between the PES and the private commercial job portal is that the latter tends to be more user-friendly, especially for employers. The live chat feature on profession.hu enables both the employers and the job-seekers to find the answer to their questions much faster than through the contact form on the PES portal. The PES uses many mandatory fields to create an OJV. While this results in a very detailed, informative OJV, the process of posting an OJV to the PES is very time consuming. Generally, private commercial job portals allow the employers to simply enter the text of the OJV without much pre-defined structure. This makes it easier for the employers to enter their job advertisement, but it results in less standardized OJVs, which may be more difficult for job-seekers to review.

6.5. Expected Trends in the Format and Content of OJVs

The interviewed experts expect an increase in the importance of employer branding, social media and multimedia formats (e.g. videos). More and more businesses use LinkedIn or Facebook for headhunting. All of our interviewees agreed that modern IT solutions are expected to be a key factor in the development of the OJV market. One of the experts also mentioned the fact that more and more businesses refer to a salary range in their OJVs, which is a relatively new phenomenon.

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Expert Interviews

Name of organisation	Type of organisation	Expert's position	Interview date
One of Hungary's leading private online job-portal	Labour market intermediary	Manager-assistant	2 June 2017
eNET Internet Consulting and Research Ltd.	Private organisation	Partner	25 April 2017
Ministry of National Economy	Public institution	Colleague at the Department for labour market policies	3 May 2017
One of Hungary's leading online job portals	Labour market intermediary	Owner	15 May 2017
HR representative of private company (a)	Employer	HR representative	May 2017
HR representative of private company (b)	Employer	HR representative	May 2017