Mapping the landscape of online job vacancies

Background report: Slovakia

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

Cedefop	
HR	Human Resources
ISCO	International Standard Classification of Occupations
ISTP	Slovakian Public Employment Service
LFS	Labour Force Survey
OJP	Online Job Portal
OJV	Online Job Vacancy
PES	Public Employment Service
PIAAC	Programme for the International Assessment of Adult Competencies
UPSVAR	Central Office of Labour, Social Affairs and Family

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 Slovakia. It is based on desk research of available data sources in Slovakia (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 Slovak 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 Slovakia 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 Slovakia 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 was performed between 17 April and 17 May 2017. We searched Google using the following keywords (in Slovakian):

- job vacancy analysis;
- recruitment of employees;
- job searching survey;
- job-portals use;
- online labour market;
- job advertising analysis.

We also searched using the following institutions: Institute for Education Policy, Institute for Labour and Family Research, Central Office of Labour, Social Affairs and Family. We checked the Proquest and EBSCO Information Services databases for possible academic sources. The desk research aimed to find statistical data on labour market development, vacancies and job search/recruitment methods. We also looked for analysis of online job-vacancies (OJVs).

1.2.   Data Sources

1.2.1. Public Data/Academic Research and Research/Surveys of Interest Groups

Statistics produced by the national statistical office presented on the Eurostat website play a large role in assessing the relative importance of job searching methods in Slovakia. A study by the Slovak Centre of Scientific and Technical Information ([1]) (2015) interviewed 2,400 employers and dealt with all methods of job advertising, not just online portals. Within the survey sample, the composition of subjects is as follows: 80% private sector and 18% public sector; 82% in companies with up to 50 employees, 14% in companies with 51-250 employees and 4% in companies with more than 250 employees ([2]). Some informative data emerged from an online survey of job search methods (Platy.sk 2015), although the surveys were restricted to online respondents and therefore have to be interpreted cautiously. Among reliable scholarly sources, we found an analysis of job advertisement content by Štefánik (2012) and a detailed analysis of labour market development by Lubyová et al. (2016). High-quality sources on skill mismatch have also been used (Cedefop 2016, Institute of Education Policy 2016). Besides a few media news releases dealing with the topics of job searching and proposals for advertisement regulations (mandatory inclusion of wage information) are also included.

Information on OJV contents, such as analytical reports, are rather rare, although some exist. Štefánik (2012, 2011) analysed OJVs from Profesia.sk, focusing on the high-skilled sector. The low-and-medium-skilled sector was also analysed by Kureková et al. (2012)

([1]) In Slovak "Centrum vedecko-technických informácií".
([2]) According to a methodological note received by request of the author.

1.2.2. Expert Opinions

We initially searched for experts at four types of institutions: employers, the public employment service (PES), the Slovak Statistical Office and owners of job-portal companies. The process of obtaining the interviews can be summarised as follows:

- Among **employers**, we contacted the leading HR association, HR Alliance. The vice-president provided an interview with contributions from a colleague that specialises in the recruitment of employees via job-portals.
- **The Public Employment Service of Slovakia** advertises vacancies on a portal managed by the company Trexima. We contacted Trexima, as we presumed that they would be the best informed on the subject of OJVs and the portal. We spoke with the project manager of the PES portal. On a subsequent request by IWAK, we also tried to contact a representative who works directly for the PES. The public relations officer of the PES (Central Office of Labour, Social Affairs and Family), who was recommended by the interviewee from Trexima, did not respond, and because of timing, we were not able to arrange an interview with someone else from PES ([3]).
- **The Slovak Statistical Office** does not take part in the ESSNet Big Data Project. Moreover, we did not find signs of Statistical Office activities related to OJVs in our desk research. Nevertheless, two department heads were contacted by email:
    - Director of the section of enterprise statistics;
    - Director of the section of European affairs and international cooperation.
  Neither of the directors replied to any emails ([4]).
- **Institute of the Slovak Academy of Sciences:** IWAK recommended that we speak with a researcher from the Economic Institute of the Slovak Academy of Sciences, who has experience with OJV contents analysis as a substitute. An interview with him was carried out.
- **Representatives of job-portals** were primarily sought from within the two largest portals in Slovakia, Profesia.sk and Kariera.sk. For Profesia.sk, we first tried to make contact with the known public representatives of the portal. However, even after a phone call, an interview could not be arranged. Later, another representative of Profesia.sk recommended by a National Training Fund employee was emailed, but we did not receive a reply. Kariera.sk representatives initially declined an interview, however, later a different representative of Kariera.sk was recommended by a National Training Fund employee, and this contact agreed to an interview.

The information gained from the sources is fairly reliable and consistent regarding the following topics:
- Main trends in OJV use;
- Rough differences in OJVs use by qualification level of professions and by company size;
- Characteristics of the OJV market;
- Main features of OJV content.

Nevertheless, no information exists on the total number of vacancies, which is why it is not possible to state or estimate the precise share of OJVs among all vacancies.

([3]) The fact that no representative from the PES could be interviewed has not been an obstacle to finding the relevant information for this report.
([4]) The fact that no representative from the statistical office could be interviewed has not been an obstacle to finding the relevant information for this report.

Table 1: Overview of the different sources used in the Landscaping Activity ([5])

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	Other	
Source 1: **Public data/academic research**	Qualifications or soft skills? Studying job advertisements for demand for low-skilled staff in Slovakia (2012)	Kureková, L. et al.		Yes	Yes		Good
	Focused information on skills demand using internet job search data (with results for Slovak university graduates) / Internet job search data as a possible source of information on skills demand (2011/2012)	Štefánik, M.		Yes	Yes		Good
	E-skills a trh práce na Slovensku [E-skills and the labour market in Slovakia] (2016)	Velšic, M. and Janotík, T.			Yes, limited to e-skills		Good
	Záujem zamestnávateľov o absolventov VŠ [Demand by Employers for University Graduates] (2009)	ARRA and Profesia		Yes, limited to graduates	Yes, limited to graduates		Good
	Prieskum zamestnávateľov [A Survey of Employers] (2015)	Centrum vedecko-technických		Yes			Good

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([5]) Only sources that directly deal with job advertising are listed here.

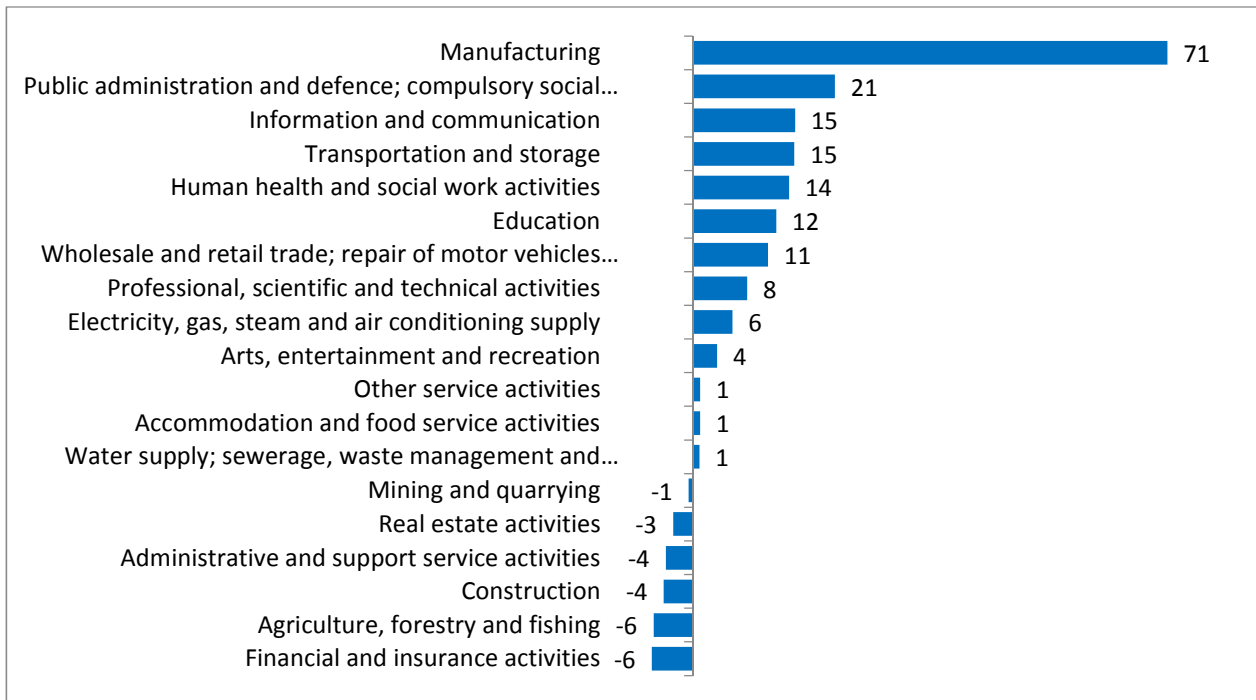|							
		informácií					
Source 2: **Research/surveys of interest groups**	Takmer polovica Slovákov a Čechov tvrdí, že si našla prácu do jedného mesiaca. [Nearly Half of Slovaks and Czechs Say They Found a Job Within One Month] (2015)	Platy.sk				Job searching	Limited
Source 3: **Expert opinions**	E1	HR-Alliance	Rough estimate	Yes	Yes		Good
	E2	TREXIMA Bratislava, spol. s r.o.	Rough estimate	Yes	Yes		Good
	E3	Institute of Economy, Slovak Academy of Science		Yes	Yes		Good
	E4	Private online job-portal	Rough estimate	Yes	Yes		Good

Source: Janíčko (2017).

2. Labour Market Dynamics and Impact on the OJV Market

The dynamics of the labour market in Slovakia over the past few years have followed similar patterns as in other EU countries. The economic crisis resulted in increased unemployment starting in 2009, with the first peak of 14.5% unemployment in 2010 (Eurostat) and the second peak reaching 14.2% in 2013. Employment rates began to rebound in 2014, and this trend continued up to the last available data from 2016. By then, unemployment had dropped to 9.7%, nearly the same as the pre-crisis rate. Unemployment in Slovakia is nonetheless above the EU level and also above the level of the surrounding Central European countries (Czech Republic, Poland, Hungary and Austria).

The recent positive development has brought about more favourable conditions for most job–seekers, regardless of their qualification level, while difficulties in recruitment are arising for employers in some sectors (E2; HNOnline.sk 2016), especially the booming auto industry, which tends to have low pay and for which jobs are mostly located in the western part of the country, where unemployment is lower (Buckley et al. 2017). There are very large disparities on the Slovak labour market. Eastern Slovakia is disproportionately affected by unemployment compared to the western part of the country. The ratio of the weakest to the strongest regions in the country is currently at 3.75 (ÚPSVAR 2017). At 36% in 2015, the unemployment rate among low-skilled labour in Slovakia has been persistently the highest in the EU. A related issue is the marginalisation of the Roma ethnic group (Lubyová et al. 2016: 21, 32). Bearing this in mind, it comes as no surprise that long-term unemployment in Slovakia affects 60% of all unemployed persons, which is the second worst long-term unemployment figure in the EU. Despite their growing numbers, job vacancies remain unavailable to many segments of citizens. In spite of this, Slovak employers report serious trouble finding suitable employees, citing poor skills among the unemployed. Some employers are lobbying for deregulation of hiring of foreigners from third countries, especially Ukraine (HNOnline.sk 2016, Trend.sk 2016). A plausible consequence for the lack of workforce is dropping skill requirements for some jobs.

When looking at sectoral composition, between 2013 and 2016, one observes that manufacturing accounted for nearly half of the overall employment increase (see Figure 1). A particularly dynamic component has been noted in motor vehicles manufacturing, which grew by 31,000 jobs (Eurostat, lfsa_egan22d). Manufacturing is therefore a key driver of the current employment growth. Moreover, manufacturing was also the key driver of the employment decline during the crisis, which is typical for highly industrial countries like Slovakia. Most other sectors have been hiring as well. Only a few, including financial and insurance activities, agriculture and construction, have experienced employment decline. The dominance of manufacturing indicates a strong demand for technical skills and possibly also for IT skills.

Figure 1: Change in employment by sector, 2013–2016 (in thousands of persons)

Sector	Change
Manufacturing	71
Public administration and defence; compulsory social…	21
Information and communication	15
Transportation and storage	15
Human health and social work activities	14
Education	12
Wholesale and retail trade; repair of motor vehicles…	11
Professional, scientific and technical activities	8
Electricity, gas, steam and air conditioning supply	6
Arts, entertainment and recreation	4
Other service activities	1
Accommodation and food service activities	1
Water supply; sewerage, waste management and…	1
Mining and quarrying	-1
Real estate activities	-3
Administrative and support service activities	-4
Construction	-4
Agriculture, forestry and fishing	-6
Financial and insurance activities	-6

Source: Eurostat (lfsa_egan2).

The prominence of technical skills, such as those required for the heavy industry/manufacturing sectors and the ICT sector, as well as ICT-related competencies, which are becoming more necessary in general across the high-skilled labour market in the current demand for labour, can also be observed based on the growth of certain occupations; plant and machine operators have increased the most (see Figure 2). They are followed in growth by the least qualified elementary occupations and only then by professionals, showing the polarisation of the labour market. This trend, whereby growth is observed on both ends of the qualification (and wage) continuum, with stagnation of mid-level jobs, has been observed in Slovakia since the 1990s (Eurofound 2014: 36). Projections by Cedefop (2015) anticipate a similar polarising pattern in the coming years. Employment polarisation has been observed in a large number of advanced and emerging economies. Researchers usually find automation and, to a lesser extent relocation, of middle-skilled labour as main drivers of this process. An analysis by Reijnders and de Vries (2017: 37) identified these two factors as polarising also in case of Slovakia while in many other Central and Eastern European countries relocation actually prevent or slow down polarisation.

Figure 2: Change in employment by occupation group, 2013–2016 (in thousands of persons)

Occupation group	Value
Plant and machine operators and assemblers	48
Elementary occupations	36
Professionals	28
Clerical support workers	22
Managers	17
Service and sales workers	8
Craft and related trades workers	4
Skilled agricultural, forestry and fishery workers	0
Technicians and associate professionals	0
Armed forces occupations	-1

Source: Eurostat (lfsa_egan22d).

A skills mismatch analysis by Cedefop (2016) concludes that the occupations with the most severe shortages are also those occupations that have experienced significant growth in employment. Healthcare professionals, automotive industrial workers, IT specialists and teachers are listed as the groups that are missing from the market and in great demand. An excess of labour force supply is reported among social workers, environmental protections specialists, lower qualified agricultural workers and people with a humanities and social sciences qualification. While a report by the Slovak Institute of Education Policy comes to similar conclusions based on PIAAC data, it also concludes that people educated in social sciences and agriculture have a high transferability of skills. Therefore, they can find a job in other fields relatively easy and do not feel unchallenged with the tasks they perform (Institute of Education Policy 2016: 2, 4).

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

3.1. Legal/Regulatory Framework

According to the interviewed respondents, there are no specific legal regulations related to job advertisements. Some more general regulations have an impact on job advertisements. For example, Article 1 of the Labour Code protects employees from discrimination by employers on the basis of "sex, marital status and family status, sexual orientation, race, colour of skin, language, age, unfavourable health state or health disability, genetic traits, belief and religion, political or other conviction, trade union activity, national or social origin, national or ethnic group affiliation, property, lineage or other status, with the exception of a case where different treatment is justified by the nature of the activities to be performed in employment, or by the circumstances under which these activities are to be performed…" There are also regulations related to hiring foreigners. Namely, employers have the duty to report their vacancies to the labour office if they intend to offer the job to a third country citizen (E2, ÚPSVAR n.d.). The job must be posted for 30 days before employers can hire a foreigner, and during that time, the job must be offered to Slovak and EU citizens registered at the PES, via ISTP, the PES portal. By implication, a foreigner cannot be hired if the vacancy was not previously advertised on ISTP.

3.2. General and employment-related use of Internet

Internet penetration among the working-age population is high; the share of individuals who have never used the Internet was 13% in 2013 (see Figure 3). However, the percentage of people who have never used the Internet or who have limited use of the Internet is much higher in specific groups. Among individuals between 55 and 64 years of age, two thirds have either never used the Internet or have reported experience with only one or two out of six activities listed in Eurostat's questionnaire ([6]). When accounting for education level, very little Internet experience is most common among the low qualified; 60% of low-skilled people have not used the Internet at all an additional 23% have only used the Internet for one or two activities, which suggests that moderate or more advanced Internet use is uncommon among the low-skilled. The limited use of the Internet by low-skilled people and by the older generation undoubtedly influences their ability to effectively search for a job through job-portals. The problem also has a strong regional dimension. Many locations in East and Central Slovakia suffer from very high long-term unemployment. These regions tend to have limited Internet coverage (E1, E4). These regions tend to have worse Internet coverage (E1, E4), which is caused both by geographical reasons and by larger shares of older and low educated population.

([6]) The activities are: used a search engine to find information, sent an email with attached files, posted messages to chat rooms, newsgroups or an online discussion forum, used the internet to make phone calls, used peer-to-peer file sharing for exchanging movies, music, created a Web page.

Figure 3: Internet use (in %)
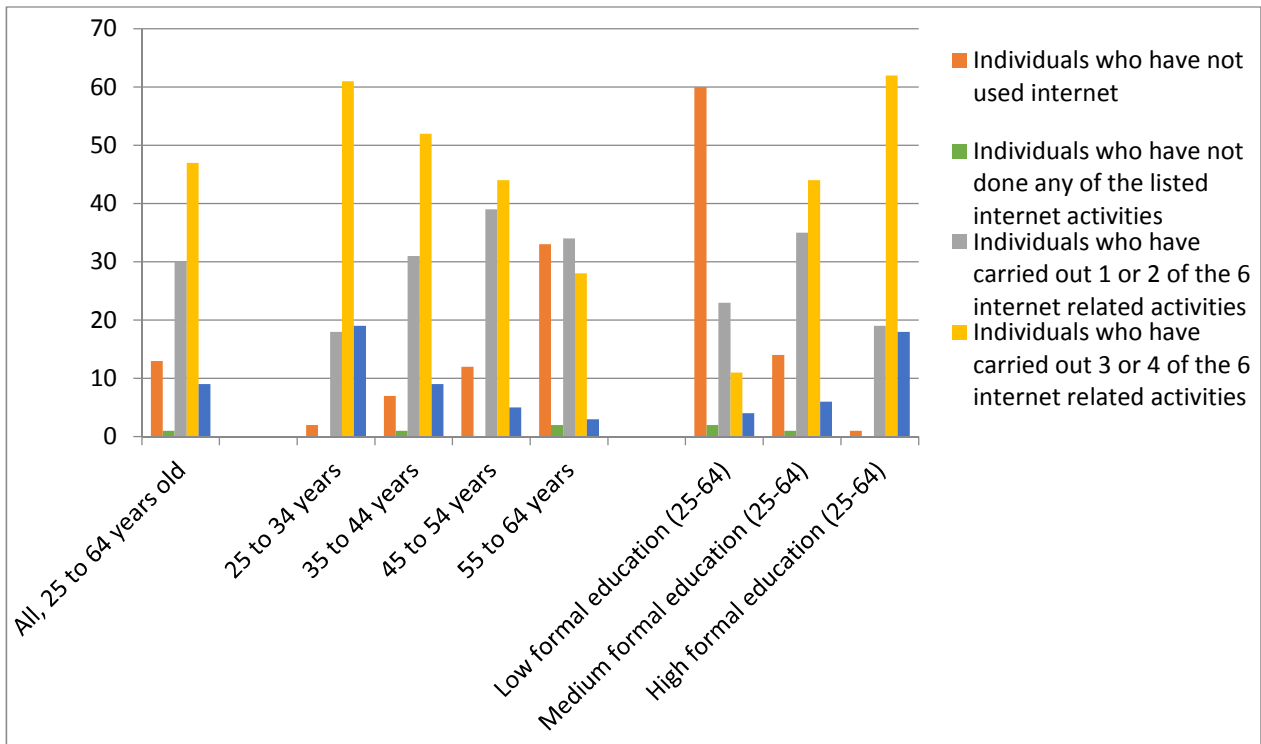
Source: Eurostat (isoc_sk_iskl_i). Downloaded on 18 May 2017.

Eurostat also has an indicator containing more specific internet activities, and this includes "job searching or sending an application" (isoc_ci_ac_i). The indicator indicates the share of individuals that uses the Internet for this purpose. According to the Eurostat database, 33% of Slovak unemployed persons used the Internet for job searching or sending an application in 2017, which is less than in the EU-28 and significantly less than what is indicated by LFS and by the opinions of our interviewees (see Section 4.1). Overall use of the Internet for job searching is a little above the EU average (19% compared to 17%). This indicator confirms a significant difference between young and older people; 26% of people between 25 and 34 years of age job search online compared to 4% of 55 to 64 year olds, regardless of employment status. There is a smaller difference between primary and tertiary educated people. However, these data have to be approached with caution, as they consider the entire population, including individuals who are not searching for a job through any channel. We therefore cannot conclude whether the low prevalence of Internet use for job searching among the working population is caused by a preference for other channels or by lack of interest in job search.

3.3.　　Characteristics of the online job-portal market

According to our interviewed experts, the top Slovakian job-portal is *Profesia.sk,* a portal which has been very successful since its launch in 1997. Other than *Profesia.sk,* there are two important job-portals: Kariera.sk, a private portal and the PES vacancy portal, ISTP. Besides these three portals, job-seekers and employers also use smaller portals, however the importance of these is rather low. The HR experts (E1) named Jooble, Careerjet.sk, Ponukaprace.com, Avizo.sk and the specialised IT job-portal ITjobs.sk as other significant portals. The market structure is also well illustrated by

statistics of portal visits. In April 2017, the dominating job-portal, Profesia.sk, had roughly six times as many visits as ISTP ([7]) and Kariera.sk. Other portals have significantly less visits.

The structure of the market can also be measured by the numbers of OJVs available on the websites. The highest number of OJVs is offered on the international job search engine, Careerjet.sk, which exclusively redirects visitors to other portals. The second highest number of OJVs are available on Praca.SME.sk, which is part of one of the largest Slovak news sites and had 300,000 users in April 2017. It is important to mention that SME cooperates with the largest job-portal, Profesia.sk, which means that advertisements inserted on Profesia.sk should, according to our experts, also appear on the SME portal. This is an agreement between the mentioned portals, whereby. SME re-publishes ads of Profesia. Looking at the two portals, the numbers of OJVs and their contents is the same. The PES portal, ISTP, has a similar agreement, whereby advertisements from ISTP can be found on portals of the Slovak newspapers "Hospodárske noviny" and "Pravda". Profesia.sk is the third largest and ISTP the fourth largest in terms of numbers of vacancies. An important source of OJVs is the third most visited portal, Kariera.sk, with 10,000 advertisements.

Table 2: Total Number of visits and of OJVs on Slovak job-portals in April 2017

Name of job-portal	Total visits (April 2017)	Number of OJVs (April 2017)
profesia.sk	3,100,000	14,000
istp.sk	548,800	14,000
kariera.zoznam.sk	473,000	10,000
praca.sme.sk	190,000	19,000
careerjet.sk	140,000	46,000
pracovne-ponuky.eu	80,000	3,000
ponuky.sk	65,000	2,400
pozripracu.sk	65,000	800
pracujme.sk	50,000	6,800
sk.jooble.org	234,500	not available
ponukaprace.com	less than 5,000	70

Source: Similarweb.com (April 2017).

3.4.   Business Models of Online Job-portals

The primary business models of job-portals in Slovakia can be described as follows:
- **Dominant private job-portals**: cover all sectors and the whole country; they also include OJVs from abroad. Employers have to pay for published ads, extra service is personalised, and there is the option to include graphics. Job-seekers can reply to OJVs and create a personal account free of charge.
- **PES portal (ISTP)**: services and registration for employers and job-seekers is free of charge, strong online guidance tools section.

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[7] Statistics for the entire website. Only one of its sections concerns vacancies.

- **Small portals**: advertisements for employers is free, the portal profits from advertisements on their website. These portals are looking to post as many OJVs as possible. They often republish OJVs from other portals, such as ISTP.

One of the main differences between private portals and the ISTP portal is the business model. Whereas the services on ISTP are free of charge, services on private portals are paid by employers. The PES portal presents itself as a recruitment and job-seeker guidance resource and as part of a network with the rest of the public employment service, which includes cooperation with labour offices on employee search and selection and access to job-seeker databases. Another difference is the way in which different market sectors make use of the portals, which will be discussed in more detail below.

3.5.   PES Online Job-portal(s)

The PES portal (ISTP) is integrated into the Slovak public employment services and managed by the private company TREXIMA through a contract with the Central Office of Labour, Social Affairs and Family (ÚPSVAR) ([8]). It is presented as "an internet guide to the world of work", and in addition to the job-portal, it includes a number of online consulting tools, such as ISTP TV, which offers short videos about various labour market topics, a section called employment cards, which provide detailed profiles of specific occupations, including useful links, requirements and tips to finding employment in that field, online guidance for pupils and students choosing their profession, and further education opportunities. At the time of this report, ISTP contained about 63,000 vacancies represented by approximately 14,000 advertisements. It has 25,000 registered employers, 58,000 job-seeker profiles and about 333,000 active users (of which 242,000 are job-seekers registered with the employment office) ([9]). In April 2017, the number of total visits to the website was 549,000, which is the second highest number among job-portals in Slovakia. However, there is no distinction between how many of those visits were by job-seekers consulting OJVs versus visitors making use of the other functions of the site.

ISTP, as a part of public employment services, is focused on helping unemployed people. This, along with free OJV posting, leads to prevalence of use by the middle and lower labour market sectors. Positions with mid-level education requirements (i.e. high school, apprenticeship) dominate (E2) and the jobs posted often represent, "the lowest positions corresponding to the structure of Labour Office clients" (E4). The most-advertised positions on the PES portal are waiters, chefs, drivers, cleaners and shop-assistants, followed by warehouse workers, sales representatives, kitchen assistants, administrative staff and operators in mechanical engineering. The dominant sectors are gastronomy, engineering, commerce, marketing, advertising, manual and technical work and construction.

Most OJVs on the PES portal are posted in Slovak, although some jobs are also advertised in foreign languages, mainly English. Even when the textual description of an OJV is posted in English, the title and mandatory information fields still appear in Slovak. Employers can choose the language of the description of the job, and therefore there is no rule that the same OJV must appear in both the foreign language and the Slovak language. The decision to publish multiple versions of the same vacancy in different languages depends on the interests of the employer.

([8]) This Office manages, controls, coordinates and methodically guides the performance of state administration in the field of social affairs and employment services. Performance (not clear) is provided by the Labour, Social Affairs and Family Offices (www.upsvar.sk).
([9]) According to main page of the portal www.istp.sk, www.trexima.sk/referencie/ and E2.

With regard to the EURES portal, users can choose between two options; they can either visit www.eures.sk, or www.eures.europa.eu. Eures.sk is managed by EURES consultants at Labour Offices, and the employer has to ask the consultant to insert an advertisement on this site. The position then appears automatically on ISTP as well. An employer's advertisement automatically transfers to www.eures.europa.eu when the user marks "EURES" when posting an OJV on ISTP. At the moment, about 6,000 out of 13,000 ISTP advertisements are also visible on EURES.

Despite this number, according to our interviews with HR Alliance representatives (E1), the EURES portal is not important for employers, possibly because of the lack of cheap labour available from countries using EURES and because of the tendency of many employers to avoid cooperation with authorities. They also mentioned dissatisfaction with EURES consultants. EURES is more interesting for job-seekers who are considering working abroad. EURES advisers confirmed that the portal is infrequently used by Slovakian employers. One reason suggested was that Slovakian employers prefer to hire Ukrainian workers, and because of the 30-day waiting period to hire non-EU citizens, they prefer to keep jobs off the EURES portal, where Slovakian wages would not be seen as competitive.

Hypothetically speaking, EURES might gain importance if the service were to be extended to include Ukraine. This is one of the most discussed topics in connection with the Slovak labour market (e.g. Trend.sk 2016).

3.6.   Private Online Job-portals

Profesia.sk is the number one and best-known job-portal in Slovakia. It was created in 1997, and it has remained the most important portal ever since. It gets three million visits per month and contains about 14,000 OJVs. The number of ads posted per year between 2011 and 2015 has risen from 132,000 to 201,000, in concert with general improvement of the labour market. Conversely, the average number of responses to an OJV dropped from 30.6 in 2011 to 21.4 in 2015 (see

Table 3). The decline in the number of responses to advertisements in the current market situation affects all job-portals (E4).

Table 3: Number of OJVs posted on Profesia.sk and average number of responses

Year	OJVs per year	Responses to OJVs
2011	131 812	30,6
2012	130 789	31,8
2013	127 658	40,6
2014	155 439	31,9
2015	201 468	21,4

Source: Velšic and Janotík 2016: 19.

Advertisements from all types of employers, economic sectors and regions are found on Profesia.sk. Even so, according to the interviewees (E1, E2, E3), Profesia is primarily focused on higher-skilled occupations and jobs that are hard to fill. In terms of actual employment, IT, administration and pharmaceutical positions are overrepresented on Profesia (E3). Probably for financial reasons, there are more jobs posted by large international companies and fewer jobs from the public sector and SMEs. This is, however, difficult to verify empirically, because the job-portals do not allow analysis of employers' information (E2, E3).

The Slovak language remains dominant, although English and German are sometimes used in OJVs, especially for large international companies, such as Accenture and Henkel, where employees need to be able to use foreign languages in their daily work (E1). There are also some OJVs written in Hungarian, as a large Hungarian ethnic minority lives in southern Slovakia.

Kariera.sk: the second most important private job-portal in the Slovak Republic. Measured by OJVs, Kariera.sk occupies the third position with 10,000 offers. It occupies the third position as well when considering the number of visits (473,000 in April 2017). In spite of this, our experts indicated Kariera.sk should be considered the second most important private portal. This portal started as part of the large Slovak search engine, Zoznam.sk, which helped direct a large amount of traffic to the portal. Zoznam.sk belongs to Slovak Telecom. Kariera.sk focuses on mid-and-low-skilled-jobs. The main sectors are retail and manufacturing (E4). While the dominant language is Slovak, some positions are advertised entirely in English or German and others indicate that foreign language skills are required (E4).

3.7.   Role of other Recruitment and Job-search Channels

Use of print media as a recruitment and job-search channel is on the decline, although it still retains some importance, particularly in the manufacturing sector (E1, E2). When it is used, vacancies are mostly advertised in regional newspapers (E1). According to all interviewees, there is an increase in advertising jobs through social networks. This corresponds to Eurostat findings that 11% of enterprises used social media for recruitment in 2015, compared to 6% in 2013 (Eurostat: isoc_cismp). While this method is clearly used more frequently by young people, it appears to be equally widespread across qualification categories (E1). An online survey of job-search methods used by jobseekers supports this hypothesis, as it reports that the wage level does not correlate with finding a job via social media (Platy.sk 2015). Social media as a recruitment method, is more frequently used by large companies (Eurostat: isoc_cismp), and there is a growing use of short videos showing benefits of working with the employer (E1).

Personal networks remain one of the most important methods of job-search. According to LFS data, the number of people trying to find a job through personal contracts has actually been growing, from 58% in 2007 to 85% in 2016 (Eurostat: lfsq_ugmsw), which makes it the most common method for job search. Personal contacts are likely to be more important in the lower paid segments of employment. An online survey carried out in 2015 found that 38% of Slovak respondents earning a monthly salary of up to €600 reported finding their job through personal contacts, while 23% of survey respondents who earned between €1500 and €1800 a month found their jobs through personal contacts (Platy.sk 2015). This may indicate that lower wage, and presumably lower-skilled work, is more likely than higher skilled work to be recruited through personal networks The interviewee from HR Alliance (E1) believes that asking family members or friends is the most effective method of finding a job and expects personal recommendations will become digitised in the form of paid recommendations of possible candidates through platforms.

3.8.   Expected Trends in the Online Job-portal Market

No significant changes are expected by the experts in the near future regarding the overall structure of the job-portal market. The interviewees expect that Profesia will remain dominant in the near future. They made the following remarks on some new developments with possible implications for the market in the future:

- Portals will increasingly use social networks to support their advertising (E1, E2).
- LinkedIn has implemented matching users to individual job offers. This might become an important trend in advertising, though will not necessarily change the situation on the market (E1).
- Interviewee for a private job portal (E4) mentioned a new platform InHiro (https://inhiro.com/) that directly links companies and candidates, presumably in specialist jobs. Companies themselves design their advertisements.
- Other developments may be caused by the fact that in the time of low unemployment, the   portals face low response rates from job seekers. Portals don't yet know how to deal with this (E4).

4. Use OJVs in Recruitment and Job Search

4.1. Use of OJVs in the Recruitment of Labour and in Job-search

According to the interviewees, advertising on job-portals is the most important recruitment channel in Slovakia. The HR Alliance representative (E1) believes that 80% of employers use job-portals as the first choice in recruitment, and the respondent from a job-portal (E4) estimates that 60–70% of vacancies are advertised online. Advertising also plays a major role for job-seekers. In 2016, 78% of Slovak LFS unemployed respondents declared reading advertisements ([10]) as one of the activities carried out in order to find a job (Eurostat: lfsq_ugmsw). Despite recent steep growth, from 45% in 2007, this is still only the second most common method after asking friends and relatives (89%). An interviewee from ISTP cited PES internal information showing that job-portals are the most frequent channel by which unemployed people claim to have re-entered the labour market (E2).

Advertising on job-portals in Slovakia varies from the actual demands on the labour market in a number of respects. Generally, hard-to-fill vacancies are more likely to be advertised (E3). Consequently, the OJVs market as a whole is biased towards more qualified positions, for which the pool of potential candidates is usually smaller (E3). A 2015 online survey confirms this hypothesis with the conclusion that finding a job through portals is more common in higher paid segments, whereas personal contacts are more important for getting a job with a lower wage (Platy.sk 2015). The interviewee from HR Alliance (E1) believes that for white collar jobs, advertising can be carried out online, while this not always the case for blue collar jobs. The reason for this may also be the lack of ICT skills of employers in the low-skilled segments (E2).

Employers from the public sector use online advertising less frequently than private companies, according to the Academy of Science researchers (E3). A survey on how employers search for graduates, conducted in 2013/2014, concluded that there is in fact a large difference between advertising in the public versus the private sector (Centrum vedecko-technických informácií SR 2015: 15). The survey shows that the public employers more frequently recruited candidates more frequently without advertising the job on portals, and were more likely to be contacted by job-seekers (Ibid.). Large employers with over 250 employees tend to advertise more often (68% of the time) than companies with up to 50 employees (24% of the time) (Ibid.: 16), largely because of the financial barriers affecting SMEs. In addition to their larger budgets, larger companies can also negotiate favourable contracts with portals (E3).

When examining the sectoral bias of job advertising, the aforementioned survey of employers shows that OJVs are least used in the public sector, namely public administration (27%), health care (37%) and education (43%) (Centrum vedecko-technických informácií SR 2015: 15). By contrast, advertisements are most widespread in retail and wholesale trade (71%) and banking (67%) followed by services, agriculture and manufacturing, though it can be assumed that a significant share of advertisements from the two latter sectors are published offline. Very few public or sales and services (especially professionals) OJVs were found in an earlier analysis of high-qualified vacancies on the largest Slovak portal, Profesia.sk (Štefánik 2012: 251f.).

([10]) Online and printed advertising is not distinguished, but according to interviewees, online has become prevalent in recent years.

Differences in the use of portals by job-seekers stem from their level of digital competency. Older and less qualified people mobilise their personal networks for job–searching, and while they also use job-portals, they are limited by generally lower Internet savvy. According to the job-portal representative (E4), they often call the portal instead of sending a CV as required in the advertisement. Even though high-skilled jobs are usually advertised online, most of potential candidates nowadays are employed; therefore they lack time and motivation to browse portals and have to be contacted by employers through LinkedIn or other targeted channels (E4).

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

In the near future, the interviewees expect growing importance of recruitment via social networks (E2, E4). The private job-portal representative (E4) believes that more companies will train their future employees through dual education, which is why portals will decline. In the opinion of the PES website representative (E2), however, portals will continue to be more preferred recruitment channels than social networks.

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 4: Grid for documenting the Google search for job-portals

Search 1	Pracovný inzerát	Job advert
	Number of results per search term	639,000
Search 2	Hľadanie zamestnania	Job search
	Number of results per search term	352,000
Search 3	Voľné pracovné miesta	Job vacancies
	Number of results per search term	3,050,000
Search 4	Pracovný portál	Job-portal
	Number of results per search term	457,000
Search 5	Ponuka práce	Job offer
	Number of results per search term	6,040,000

Source: Janíčko (2017).

The terms included in Table 4 were selected based on average rankings in Google searches.

5.1.2. Identifying the Online Job-portals Through Expert Interviews
The experts identified Profesia.sk, Kariera.sk and the PES portal ISTP as the most relevant portals for the crawling activity, as they are seen as the most-used portals in Slovakia.

5.1.3. Validating the Selection of Online Job-portals
The selection was validated by the expert interviewed on behalf of employers.

## 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 (ISTP)

Workflow of drafting an OJV: OJVs are drafted in a standard form, which includes all mandatory fields in a pre-defined structure. No graphical options are available.

The characteristics of the standard OJV template:
- **Job description:**
    Mandatory:
    - Name of the position (text field, up to 60 characters);
    - Profession according to SK ISCO-08 (selection of one from drop-down list);
    - Economic sector (selection of one or more possibilities from drop-down list;
    - Number of vacancies for the advertised position (number, up to 3 characters);
    - Starting date of work (selection from calendar + tick box "immediately");
    - Place of work (selection of one or more places from drop-down list – regions, districts, cities);
    - Place of work (selection from drop-down list with prepared addresses of the employer; address can re-entered in the form including: street, district – drop-down list, city – drop-down list, street – text field up to 8000 characters, house number – text field up to 8000 characters, post code – numbers up to 5 characters).
    Optional Elements:
    - Description of the job responsibilities (text field, up to 8000 characters).
- **Working conditions:**
    Mandatory:
    - Working relationship (selection from 7 possibilities, e.g. working contract fixed-term/indefinite, temporary work, etc.).
    Optional:
    - Working time (from–to, fields for numbers);
    - Shift work (selection from 7 possibilities);
    - Night work (yes–no tick box);
    - Seasonal work (yes–no tick box);
    - Work place suitable also for graduates, youth, disabled (tick boxes);
    - Wage (from-to number field or possibility to tick the box "per agreement");
    - Benefits (text field up to 8000 characters).
- Requirements for employees:
    Mandatory:
    - Level of education (selection from drop-down list).
    Optional:
    - Length of work experience (selection from drop-down list);
    - Certificates (selection from menu, possibility to use more options at once);
    - Foreign languages (selection from menu of languages, selection from drop-down list of levels: basic, advanced and high);
    - Digital skills (selection from menu with programs, selection from drop-down list of levels: basic, advanced and high);
    - Driving license (selection from drop-down list of types of driver's licenses);
    - General capabilities (selection from drop-down list);
    - Personality traits (selection from drop-down list);
    - Further requirements (text field up to 8000 characters).

- **Facilitation of filling the vacancy:**
  - In cooperation with the Labour Office: tick box. After ticking the box, the following appears:
    - Selection procedure with the employer's participation:
      - ✓ Date of selection procedure (calendar);
      - ✓ Information for Labour Office to employee selection;
      - ✓ Publish the advertisement online and in print (if the employer chooses yes, the advertisement will appear also on praca.hnonline.sk, volnemiesta.pravda.sk, avizo.sk/jobs/zamestnanie, kariera.zoznam.sk, volnyflek.com, careerjet.sk, pozripracu.sk);
      - ✓ Date of publishing the advertisement (calendar);
      - ✓ Publish on *ec.europa.eu/eures* (yes/no tick box);
      - ✓ In connection with the vacancy recorded, it is assumed that the employer is interested in recruiting a third-country national (yes/no tick box);
      - ✓ The workplace will be created with a financial contribution from the Labour Office (yes/no tick box);
      - ✓ The vacant post meets Blue Card conditions: a highly qualified job in accordance with § 21a of Act no. 5/2004 on employment services (yes/no tick box).
- **Contact person:**
  - Selection from menu of previously inserted contact persons;
  - Possibility to insert new contact person (title, name, surname, position, e-mail, phone number, fax number;
- **Employer information:** name, legal form, company ID, number of employers, internet address, phone number;
- **Employer characteristics:**
  - Short description of the employer (text field);
  - Employer's prevailing activity (according to SK NACE, menu selection).
- **Address of employer:** street, number, postal code, city, country.

Workflow of posting an OJV: After drafting OJVs in a prepared standard form, all advertisements have to be authorised by ISTP. The following options are available for employers to access support: phone number, e-mail, question through dialogue window, FAQ, link to manual for work with istp.sk, online chat.

5.2.2. Drafting and Posting an OJV on a Private Online Job-portal (Profesia.sk)

The main distinction between commercial and PES job-portals lies in their business models. Clients of Profesia.sk pay for publishing their advertisements, with the option to use service packages or negotiate individual contracts and discounts, a possibility mainly relevant for large companies. An OJV can be also be featured, for a fee, in the section "HOT offer" or "weekly job offer". It can also be published in portals that belong to the same media company that owns profesia.sk, Alma media group, such as Profesia.cz and Workania.hu. Employers have to pay when using their company's logo in their OJVs.

Workflow of drafting an OJV: OJVs are drafted in a standard form, which includes all needed fields in a predefined structure. A video presentation of the company can be added to the advertisement for a fee.

The characteristics of the standard OJV template:

- **OJV language:** select Slovak, Czech, English, German or Hungarian language (optional field);
- **Job description:**
  Mandatory:
    - Name of the position (text field, up to 150 characters);
    - Position (selection of one or more positions from drop-down list),;
    - Type of employment: full-time; part-time; short-term contract (temporary work or "brigade" in Slovak); self-employment; internship;
    - Description of the job responsibilities (text field);
    - Place of work (selection of one or more places from menu: regions/districts/cities).
  Optional:
    - Benefits (text field);
    - Address (text field, up to 100 characters);
    - Start date of the work (selection from calendar);
    - Wage (text field, up to 255 characters).
- **Knowledge and requirements:**
  Mandatory:
    - Level of education (tick field – multiple options can be chosen for one position).
  Optional
    - Field of education (text field, up to 255 characters);
    - Languages: selection from menu of languages and from menu of skill levels (Common European Framework of Reference for Languages A1, A2, B1, B2, C1, C2);
    - Administration and economic skills: menu of 9 skills, menu of 3 levels: basic, advanced, expert; more skills could be chosen simultaneously;
    - Digital skills: selection from drop-down list, menu of 3 levels: basic, advanced, expert; multiple skills can be selected;
    - Other requirements: driver's license (tick box of types), experience (field entry of the number of years of experience), position suitable for graduates (tick box), personality traits and skills (text box).
- **Information on the selection procedure:**
    - Date of end of selection process (selection from calendar);
    - Information for applicants (text field).
- **Employer Contact:**
  Optional:
    - Contact person, phone number (text field, up to 50 characters), e-mail (text field, up to 60 characters), company (text field, up to 200 characters), street (text field, up to 100 characters), postal code (text field, up to 10 characters), city (text field, up to 40 characters), field of economic activity (selection from menu).
  Mandatory:
    - Short company description (appears later in all posted OJVs).

Workflow of posting an OJV: After drafting the OJV, it can be immediately published. The only condition is that the company is registered and verified after registration by Profesia.sk. After publishing, all advertisements undergo verification and, in case of problems, Profesia.sk contacts the advertiser. An online operator is available through online chat or by email as support during the drafting process.

5.3. Contacting the Online Job-portal Owners

All portals were contacted with the exception of Ponuky.sk and Pracujme.sk, which do not provide any contact option on their websites. None of the portals replied.

6. Format and Content of OJVs

6.1.   Legal/Regulatory Framework

There are legal qualification standards for some professional groups, such as teachers, electricians, lawyers, security agencies and detective services, as well medical professions. Moreover, a welding license or food certificate are commonly requested qualifications, especially on ISTP (E2). These certificates refer to regulated professions and the required education that is tied to them. A complete list of such professions and qualification requirements is provided by the Ministry of the Interior (2017) ([11]). ISTP offers the possibility to choose professional licences or certificates from a list, which is divided into 13 sections according to economic sector (e.g. transport, safety and health and property protection, services, healthcare).

The content of job advertisements has to be compliant with the Act Against Discrimination (Act No. 365/2004). Based on the principles shared across the EU, the law bans discrimination based on age, gender, health condition, ethnicity and other characteristics. Discrimination is explicitly prohibited in work-related matters including access to jobs, with some exceptions (§ 6–8) ([12]). According to interviewees (E1, E2), phrases like "job more suitable for men" commonly appear in advertisements without being considered discriminatory by authorities.

The most common discrimination in OJV preparation and publishing is gender. Many employers use "work for woman/work for man" in their OJV formulation, although this is against the law. According to the interviewees, formulations such as "suitable for man, suitable for woman" are considered acceptable when they can be legitimized by the nature of the job, and often appear (E1, E2, E4). Searching for these specific formulations on job portals reveals that this practice is fairly common.

The largest private portals and the public employment services job-portal check all published advertisements for unacceptable content (E1, E4). OJVs from active labour market policy programmes, generally on ISTP, may contain positive discriminating requirements aimed at unemployed, long-term unemployed and groups at greater risk of unemployment, such as school-leavers and older people (E2). Special conditions are set for the employment of foreigners, as positions offered to foreigners must be published for 30 days on the ISTP portal before they can be offered to someone from outside of Slovakia (E2). This could be seen as a positive form of discrimination in favour of Slovak citizens.

Nevertheless, there is pressure from entrepreneurs to simplify the procedure for hiring foreigners, for both low-skilled and highly specialised positions (HNOnline.sk 2016). Making such changes would likely lead to the abolition or weakening of the preference for Slovak citizens. Regarding the professional structure of foreigners working in Slovakia based on UPSVAR ([13]) statistics since the beginning of 2016, the largest professional group of foreigners working in Slovakia are executive

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([11]) http://www.minv.sk/?regulovane-povolania-v-sr
([12]) Exceptions include discrimination that is justified by the nature of occupational activities. Registered religious organisations, whose activities are based on religion or belief, shall not constitute discrimination if religion or belief is a justified requirement of occupation. Age discrimination is not deemed discrimination if consists of setting minimum or maximum ages as a recruitment criterion or for access to employment and vocational training. Health and disability can be taken into consideration where the nature of employment is dependent on certain physical capabilities.
[13] Central Office of Labour, Social Affairs and Family (PES).

technical professions (more than 6,500 operators and installers of machinery and equipment), predominantly working in the automotive, mechanical and electrical industries, followed by almost 4,000 auxiliary and unskilled workers, as well as about 3,000 specialists and about 3,000 skilled workers and craftsmen (Juriga and Kremský 2016).

6.2.   Format and Content of OJVs

The interviewed experts agree that the overall structure of OJVs has remained the same for several years and across sectors, and it is not likely to change in the next five years. This structure is based on "supply logic", which means the employers need to provide potential employees with the basic information necessary to mediate the position. Thus, advertisements only change in terms of content. Because of the market situation, employers are looking for ways to be seen as attractive by potential employees and tend to avoid strict formats. There are no significant differences between the structure of OJVs on private versus public job-portals.

Categories used in OJVs: the main categories used in OJVs are:
- **Most common information:** name of position, job description, economic sector, place of work, required level of education, type of employment relationship, employer contact information
- **Used when it suits the offered position:** field of education, specific requirements for the profession (mainly if it is a legal requirement), shift work, languages, digital skills
- **Sometimes not included:** some firms avoid the benefit details and place in the organisational structure – this occurs when the employer considers this information confidential and wants to protect it (E4)
- **Usually not included:** wage, working time (working time from-to is usually not included; shift and night work would be mainly included)

Wage: among the categories mentioned above, wage is the most discussed topic in Slovak society. It is not obligatory to publish the salary in OJVs, and employers usually do not reveal it. On the public employment services job-portal ISTP, out of 13,000 OJVs, only 3,220 complete the wage field. In 61% of OJVs, the employer indicates "by agreement" and nothing else regarding the wage is mentioned. The job-seekers are complaining about this information deficiency (E4). This year, there was a discussion about the possibility of making the wage a mandatory element of job advertisements (ISTP.sk 2017). The employers' union did not agree (E1), saying that the concrete wage often depends on individual factors, which have to be assessed during the recruitment process. However, they may also be afraid of pressure to raise wages (E2, E3). Supporters of the proposal expected that it would increase wages and leave less room for discrimination to occur (E1). However, in mid-May 2017, Parliament rejected the proposal to amend the Labour Code (HNOnline.sk 2017).

Competencies and personality traits: soft skills and personality traits are used relatively often in Slovak OJVs. Our interviewees from the HR sector and from job-portals consider them essential requirements for employees. Words that are commonly used are flexibility, assertiveness, responsibility and teamwork skills (E1, E2, E4). These concepts do not conceal hidden meanings, but must be interpreted in relation to the described position. In each sector, level and position these keywords may take on a different meaning, for example the word "flexibility" in lower-skilled work implies willingness to change shifts, while for a banker it suggests willingness and ability to perform other tasks beyond the specific role for which the person is hired. The interviewees had no knowledge about "hidden code words".

Soft skills are frequently the main component of employee requirements, while the concrete hard skills requirements are often only a minor part (E3). This is partly caused by shifting recruitment strategies as a consequence of the workforce shortages. HR specialists are more likely to consider someone a suitable candidate even without specialised know-how, as this can be acquired during employment with employer's support (E3, E4). On ISTP, 45% of employers tick at least one general competence or personal trait in an OJV (E2).

The public employment portal ISTP developed its own classification of general competencies and personal traits. The list of general competences includes 22 categories; the most frequently requested are autonomy, communication skills, dealing with people, manual skills and teamwork. The list of personal traits includes 20 categories; the most commonly mentioned are reliability, communicativeness, practical thinking and accuracy. The classifications are based on the analysis of advertisements. Employers and job-seekers can choose from a list of categories or/and type in other characteristics and then use these competencies to search in a database of job-seeker profiles (E2). On private portals, the employers have to define skills and traits in their own words.

In their analysis of the demand of skills and qualifications in the segment of low- and medium-skilled occupations based on Profesia.sk advertisement data, Kureková et al. (2012) developed their own categorisation of skills:
- Cognitive skills and cognitively-based abilities (e.g. specific skills, such as ICT skills, languages; or generic skills, such as analytical skills, ability to learn quickly);
- Non-cognitive skills (e.g. social skills, such as communication skills, team-working skills, and personal skills, such as reliability, flexibility).

Their analysis showed that out of the three analysed occupational fields (i.e. service occupations, industry occupations and new occupations), service occupations are the most demanding in terms of required skills; they have a higher share of job advertisements mentioning non-cognitive skills, as well as social skills and personal characteristics. The most frequently mentioned requirements were previous experience (52%; in a study these were considered as a separate "skill", representing in fact other skills), followed by language skills (38%), responsibility (29%), communication skills (28%) and flexibility (24%).

Other factors influencing format and contents of Slovak online job advertisements: the different formats and contents can be categorised by considering the following factors (E1, E2, E4):
- **Production and non-production spheres:** For blue collar positions, a specific wage is often published, while wages for white collar jobs are usually not included, as this factor is discussed during the recruitment process.
- **Age:** HR specialists see the young generation as a group with high expectations. This is why the ads targeted towards potential young employees often contain special conditions, such as respect for work-life balance, no dress code, teleworking possibilities, friendly firm culture.
- **International and national companies:** International companies frequently publish their OJVs in a foreign language, mainly in English or German, because their employees need the language to be able to communicate across the company. International companies also tend to be larger and therefore follow the trends associated with larger companies.
- **Firm size:** Large companies often pay more attention to their online advertisements and are willing to pay more to post OJVs. They often fill in the advertisement form more carefully, provide more data and give a more detailed company descriptions. According to the representative of ISTP, large firms more frequently publish offers for higher positions, while

smaller firms tend to publish offers for lower positions. Smaller firms also frequently only fill in mandatory elements of advertisements.

- **Private and public sector:** Štefánik (2012) found that the private sector is overrepresented on Profesia.sk, while the public sector is strongly underrepresented. This means that the public sector, which employs over 50% of high-skilled workers, does not rely heavily on portals. Jobs in the public sector are filled in other ways, such as through internal processes, while the private sector tends to advertise more on the open market (Kureková et al. 2012). It is generally believed that public institutions must "communicate very transparently" and "adhere to their internal strict guidelines" (E4).
- **Business models of job-portals:** As previously noted, private portals offer paid graphical presentation options and better opportunities to link the OJV to the company website.

6.3.   Expected Trends in the Format and Content of OJVs

Our experts do not expect significant changes in the format and content of OJVs. At the moment, there are certain technical developments, such as more and easier methods by which to share advertisements from job-portals using social media and towards better visual presentation by employers, with the help of videos uploaded directly onto the job-portal from the employer and/or job-seeker side.

Further developments in the labour market may also change the representation of professions and levels of education in job-portals. The survey conducted in 2010 by Štefánik (2012) showed that on the portals, qualified professions such as IT, administration, pharmaceutical positions are overrepresented. Whereas in the interviews, respondents spoke of the retreat of the high-skilled professions from the portals and the shift to other recruitment channels, above all to social media and personal recommendations (E4). Therefore developments in these hard-to-fill positions and overall labour market developments need to be monitored closely for the purpose of the Real Time LMI project.

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Expert Interviews

No.	Name of organisation	Type of organisation	Expert's position	Interview date
E1	HR-Alliance	HR association	Vice-president	10 May 2017
E2	TREXIMA Bratislava, spol. s r.o.	Private company licensed for managing the PES portal	Project Manager of the PES job-portal	12 May 2017
E3	Institute of Economy, Slovak Academy of Science	Scientific organisation	Researcher	3 May 2017
E4	Private online job-portal	Labour market intermediary	Product Specialist	31 May 2017