

Mapping the landscape of online job vacancies

Background report: Croatia

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

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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

ALP	Active Labour Market Policies
CBS	Croatian Bureau of Statistics
Cedefop	European Centre for the Development of Vocational Training
CRISP	CRISP Centro di ricerca interuniversitario per i servizi di pubblica utilità, University of Milano-Bicocca
EIZ	Economic Institute of Zagreb (Ekonomski institut Zagreb)
ESSnet	European Statistical System
ETLA	Research Institute of the Finnish Economy
EURES	European Employment Services
HR	Human Resources
HZZ	Croatian Employment Service (Hrvatski zavod za zapošljavanje)
ICT	Information and Communication Technology
IWAK	Institute for Economics, Labour and Culture/Centre of Goethe University Frankfurt
OJVs	Online Job Vacancies
PES	Public Employment Services (Hrvatski zavod za zapošljavanje)

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 Croatia. It is based on desk research of available data sources in Croatia (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 Croatian 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 Croatia 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 Croatia 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. Desk Research

Internet research for literature on OJVs in Croatia was conducted in May 2017 using the Google search engine. We used keywords in both English and Croatian. The keywords “online job portals research Croatia” resulted in 1.8 million results on 30 May 2017 (See Table 2 in Section 5.1.1.). Most of the results on the first few pages related to EURAXESS, a web portal specialising in supporting free movement of researchers within the EU, as well as web pages and job-portals offering positions related to research activity. The search using the same words in Croatian (“internet poslovi portal istraživanje Hrvatska”) resulted in around 174,000 hits, mainly short newspaper articles that superficially commented on simple surveys that are not directly link to the subject of this report. However, the first two results were from two leading private job-portals in Croatia. Variants of these keywords provided similar results.

Further searches regarding the use of OJVs in Croatia made use of three sources of information. The first is academic research papers and public data. The second source is the research conducted by OJV portals, and the third source are the opinions of relevant experts.

In the interest of identifying academic articles, a Google Scholar search on 30 May 2017 with the keywords “online job vacancies Croatia” resulted in 19,000 hits. However, the resulting articles only included one or two of the keywords, not all four, and as a result, most of the articles related to the labour market and vacancies in general, rather than the role of online job-portals. The same words in Croatian produced similar results (6,500 hits), directing us to papers and studies related to general labour market functioning. Only two papers broadly dealt with the themes relevant to this report. A 2013 paper by Ibrahimović and Kolega assesses the frequency and effectiveness of different job-search strategies. The results are based on a small sample and point to the importance of personal contacts and recommendations in the job search process. Job ads are perceived as being of limited importance. Poor representativeness of the sample precludes us from drawing any stronger conclusions from that study. Hudoletnjak (2015) utilises a short survey on the practices of recruiting through social networks. However this survey lacked specific and concrete insights, which is to be expected, as it is a bachelor’s theses. Subsequent searches on Hrvatska znanstvena bibliografija¹, a national database of scientific articles and papers, on 25 October 2017 using the keywords “online job vacancies” did not result in any matches, while searches using the keywords “job vacancies” in English and Croatian (“traženje posla”) resulted in papers that analyse various aspects of labour market performance in Croatia, but they did not discuss online job vacancies.

Further insights into recruitment channels, including online job posts are found in surveys conducted by the PES and a job-portal owner. The Croatian Employment Service² has been conducting the Survey of Employers, a yearly publication that is available on its web page, and which provides information on job search channels. Nonetheless, the findings only provide basic figures for surveyed employers and should be accepted with a degree of scepticism. Another collaboration between a job-portal owner and a research institution resulted in the tracking of the number of online job vacancies with related analyses (Ekonomski institut Zagreb and Moj Posao, 2017; EIZ, 2017). The results are based on information from the largest private job-portal in Croatia. These two stud-

¹ https://bib.irb.hr/pretrazivanje_jednostavno.

² In Croatian “Hrvatski zavod za zapošljavanje” (HZZ).

ies are useful data sources, however their results are not necessarily representative of the entire OJV market in Croatia. Another useful survey was collected as part of an EU-wide experiment at ETLA, the Research Institute of the Finnish Economy, to use big data in predicting the unemployment rate; it includes results that are relevant for Croatia (ETLA 2017; EIZ 2016).

1.2. Expert Interviews

Due to the limited availability of data in the public domain, we had to rely on expert interviews to better understand recruitment channels and the use of OJVs in Croatia. These individuals provided us with the most up-to-date information. Four experts were interviewed: the head of the labour statistics department in the national statistical office, a job-portal owner, a representative of employers/HR profession and an expert from the public employment service.

The structured interviews with the four selected experts took place in May 2017. The selection of experts was based on their relevance for the subject and the need to cover different perspectives and collect information from key stakeholders. The job-portal owner representative is a highly-ranked manager of one of the leading portals in Croatia. For the employer/HR profession representative we spoke with an HR professional in a recruiting company, who is also a deputy head of professional coordination at the main employer's association. After consulting with various individuals at the PES, a representative from the PES was chosen, who had a good understanding of online job market functioning and the EURES platform. During conversations with the leaders of the Croatian Bureau of Statistics (CBS), it was determined we should speak with the individual in charge of general labour market statistics. The Croatian Bureau of Statistics is not part of the ESS-net and has no experts specialising in online labour market research.

There was no problem accessing the experts and they provided us with extremely valuable information on the most recent developments in the OJV market and the expected trends. What we were unable to find were data on total vacancies in the economy and publicly available data on the entire online labour market. The Croatian Bureau of Statistics is in the very early stages of considering the use of a big data approach in their statistical coverage of the labour market. Official data of total vacancies in the economy are taken from the public employment service (PES), but these data only refer to part of the market, as employers are not obligated to post vacancies on the PES job portal.³ Private job-portals collect information on the OJV market, but this information is often treated as confidential and is selectively presented.

The expert interviews provided thorough information for some parts of the labour market, but they were not able to provide comprehensive information for the entire market. For example, the experts were able to provide good information on recruitment practices of large companies in the capital and their search for experts and highly qualified personnel, but much less on practices of smaller employers, especially in smaller cities and remote areas. Also, insights into the use of OJVs by job-seekers were limited.

In spite of some information limitations, the four interviewed experts provided a good insight into the state of the OJV market in Croatia.

³ From 2010-2015, the CBS conducted the Vacancy Survey (in Croatian "Anketa o slobodnim radnim mjestima") among employers but has more recently decided to discontinue the survey due to a low response rate. They now use the vacancy data from the public employment service. According to this official data, the job vacancy rate in Croatia was 1.2% in the fourth quarter of 2016, which is below EU average of 1.9% and the tenth lowest in the EU (Eurostat 2017).

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

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 1: Public data/academic research	Zapošljavanje putem društvenih mreža" [Recruiting Through Social Networks] (2015)	Hudoletnjak, Matej; Bachelor's thesis at the Juraj Dobrila University,		Yes, but highly limited	Yes, but highly limited	Poor
	Učestalost i učinkovitost različitih strategija traženja posla [Frequency and Effectiveness of Different Job-search Strategies] (2013)	Ibrahimović, Jasmin and Maja Kolega in Praktični management journal		Yes, but highly limited	Yes, but highly limited	Poor
Source 2: Research/surveys of interest groups	Survey of employers (2015)	HZZ (Croatian PES)		Yes, partially		Good
	Radna mjesta: što gospodarstvu treba i kako mu pomoći?" [Jobs: What the Economy Look for and How to Find It] (2017)	EIZ and Moj Posao		Yes, partially	Yes, partially	Good
	OVI Index	EIZ		Yes, partially		
Source 3: Expert opinions	Expert Opinions 2017	E1-4	Yes	Yes	Yes	Good

Source: Nestić (2017).

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

The labour market in Croatia is recovering from a prolonged recession. The economy was weakest from the end of 2008 until the end of 2014. Many jobs were lost in the recession. In the recovery phase, the situation in the labour market is rapidly improving, but structural imbalances are apparent. Skills mismatch is a bigger problem than it has ever been before. There is simultaneously a high number of vacancies for certain occupations and a large pool of unemployed persons registered at the Croatian Employment Service. There is speculation that not all of the people registered as unemployed are actually looking for work; instead, it is believed that many are claiming certain benefits, but they are not willing work at the prevailing market conditions. Nevertheless, the skills mismatch is evident and repeatedly expressed by employers.

In the last couple of years, the Croatian labour market has been influenced by three main driving forces that then impact the use of OJVs in recruiting and job search: economic recovery, demographic changes and shifts in the economic structure. Increased use of the Internet in everyday life with new platforms and communication channels has been an additional and overarching factor that enabled rapid expansion of online job offers and job searches.

After six years of recession, the economic recovery has increased the demand for labour and helped reduce the unemployment rate. Yet, employers have to put much more effort into searching for workers with the requested skills and qualifications, and to do so, they often need to broaden the pool of potential employees. OJVs have become a necessary tool to reach more people. For example, in 2016, employment for the age group 15-64 years in Croatia increased by 0.5% (Eurostat 2017), and the total number of job vacancies at the Public Employment Service increased by 14.7% (HZZ 2017), while the total number of job vacancies at the dominant private job portal Moj Posao increased by 31% (as measured by the Online Vacancy Index⁴ by EIZ 2017).

Demographic change contributed to declining labour supply due to the long-term issue of an ageing society as well as the more recent phenomenon of significant economic emigration since Croatia joined the EU in July 2013. In spite of having one of the highest youth unemployment rates in the EU (31.8% in 2016, as reported by Eurostat 2017), youth unemployment has been declining at a notable pace since 2013. As economic recovery continues, the retirement pace of the baby boomers is still a growing issue. At the same time, the new cohorts of young workers are getting smaller. As a result, there is high replacement demand that is increasingly difficult to meet with the existing labour supply. Population projections (for example Eurostat's population projections) confirm a declining working-age population in Croatia in the years to come. OJVs are growing in popularity as a method to help with the matching process in a workforce experiencing labour shortages.

⁴ "The Online Vacancy Index (OVI) is the monthly online job vacancy index developed at the Institute of Economics, Zagreb in cooperation with the MojPosao portal. The purpose of the index is to provide timely information on the current state of demand for work. The OVI index is determined by counting the number of unique new ads whose deadlines will end in the month for which the index is calculated. Since ads are published through only one portal, the number of ads is expressed as an index (the base year is 2015). The index is interpreted so that the value of more than 100 represents a growth over the year 2015 and the value is less than 100 decrease compared to the base year. The index was seasoned by the X-12-ARIMA method" (<http://www.eizg.hr/indeksi-168/ovi-indeks/173>).

Structural changes have sped up during the recent economic recovery. Private companies are increasingly relying on OJVs in their hiring practices, especially in sectors such as retail, hospitality and gastronomy (i.e. tourism sectors), as well as IT, transport and construction (Ekonomski institut Zagreb and Moj Posao 2017). The top three occupations in demand are salesperson, waiter and chef/cook in both the PES job-portal and the main private job-portal. Because of the sizable skills mismatch, employers are pressing the government to increase the number of work permits for non-EU residents in spite of a significant unemployment rate in the country. The neighbouring non-EU countries are seen as reservoirs of labour, especially for unskilled or semi-skilled jobs.

It appears that structural changes are leading to polarisation of the labour demand. On the one hand there is increased demand for lower-skilled jobs, particularly in the tourism and construction industries, as well as in retail. On the other hand there is demand for specialized high-skilled jobs, such as IT experts. OJVs are increasingly involved in matching the supply and demand at both ends of the labour market.

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

3.1. PES Online Job-portal(s)

3.1.1. Legal/Regulatory Framework

The key regulation related to the job vacancy market is the Act on Job Mediation and Unemployment Rights. There is also anti-discrimination legislation as well as broader labour market legislation such as the Labour Act that constitute the legal framework for the OJV market.

A particularly important part of the legal framework is related to gender equality and anti-discrimination policy. The key acts and policy coordination instruments in this area are the Gender Equality Act, the Anti-Discrimination Act, the National Policy for Gender Equality for the period 2011-2015, and the Guidelines for the Development and Implementation of Active Labour Market Policy in the Republic of Croatia for the period 2015-2017.

One of the most obvious outcomes of gender equality efforts is that all job titles in job vacancies are now written so that it is clear that men and women can apply for each position under equal conditions. However, current legislation permits certain disadvantaged groups to be given advantage in employment. This is particularly evident in job vacancies posted by public sector entities on the PES job-portal. For certain job posts it is stated that certain groups of candidates will have an advantage in employment if all other job requirements are equally fulfilled (i.e. positive discrimination). This could be the case for war veterans and their families, disabled persons and ethnic minorities. Key statutes regulating such cases are the Act on Croatian Homeland War Veterans and their Family Members, the Law on Protection of Military and Civilian Persons Disabled in the War, the Law on Professional Rehabilitation and Employment of Persons with Disabilities, and the Constitutional Law on the Rights of Ethnic Minorities.

In addition to national legislation, there are internal regulations governing the Croatian PES (Rules on Procedure of the Reported Need for a Worker) that define the rules of posting job vacancies clarifying which parts of the published vacancy are mandatory and which are optional.

Accordingly, the employer posting the job vacancy first has to report the need for workers in the specific form (Rules on Procedure of the Reported Need for a Worker), which can be submitted by e-mail, telephone, or in person to the PES. The mandatory elements of the form are: job title, job description, education level, experience (years and type), type of employment (open-ended or fixed-term contract, other types of employment (apprentices, training, participant in a labour market programme), location of work, full/part time, accommodation and reimbursement of transport cost if any. Optional information include requirements regarding foreign language skills (which language and what level in understanding, writing and speaking), field of education, computer skills, professional licences and achievements, driver's licences, wage and distribution of working time (shift work, work at night/weekends). In the optional part, the employer can choose the type of advertising. If nothing is specified, the job vacancy will appear in the PES job-portal for a specified period of time. However, employers can also approve that the job post should be published in the Employment Service Bulletin, and/or exported to other web portals and/or exported to EURES. Without giving such approval in the optional part of the form, the job vacancy will not be exported to EURES.

There is no legal obligation of employers, even those from the public sector, to publish vacancies to the PES. Nevertheless, many public entities set such obligations in their own internal procedures, and as a result, practically all job vacancies from public sector entities are published via the PES job portal.

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

Burza rada⁵ is the job-portal owned by the PES. It functions as a separate web entity. However, the design and visual elements of the job-portal are the same as on the regular webpage of the Croatian Employment Service. Practically all vacancies reported by the employer to the PES in the form “The Reported Need for a Worker” appear on the online job-portal.

Burza rada contains the largest online database of employers in Croatia as well as the largest online database of the unemployed and job-seekers. On 15 February there were 10,512 job advertisements in the portal. Because one job advertisement may represent more than one employment opportunity, there were 27,229 available jobs represented. Burza rada has recently improved its functionality, especially in terms of the design and responsiveness.

The PES job-portal uses a standardised format, which makes browsing relatively easy. However, such harmonisation may make the portal less intriguing to larger employers. For example, employers cannot get a privileged position on the job-portal, nor can they use their company logo or make any type of visual distinction to help their OJV stand out.

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

The PES job-portal Burza rada contains job advertisements for all sectors and occupations and for permanent, seasonal and temporary jobs (the latter particularly in agriculture). Its aim is to help job-seekers of all skill levels. The PES has extensive regional coverage due to its 22 regional and 99 local offices throughout Croatia. This is one of its main advantages over private job-portals, which seem to be focused on the largest urban labour markets.

The PES job-portal publishes jobs from a large number of employers, including practically all public sector employers, but also employers from the private sector. Because OJVs are posted for free, it is often used by employers who are concerned with job search costs, generally small employers, and employers from more distant and less developed areas. Interviewed experts confirmed that additionally, vacancies that cannot be filled by other job-search channels are often found on the PES job-portal rather than in private portals; this is particularly the case for vacancies in less attractive low-wage occupations, often in remote areas. It would not be cost effective for employers to spend money to advertise the low-wage, remote jobs. Free ads paired with the intermediation services offered by the PES and the extensive regional network make the PES a more effective recruitment tool for this type of employer.

The PES job-portal also posts vacancies that are related to active labour market policies (ALMP). For example, the policy measure “On-the-job Training without a Work Contract”, allows employers to train people under certain conditions, and the Employment Service pays remuneration (at the minimum wage level) to the trainees for a limited period of time. Such an arrangement has all the characteristics of a fixed-term job. Job vacancies of that kind are posted together with other vacancies on the PES job-portal, but with a visible blue tag, and they can be filtered out. The PES job-portal is the main channel for posting such vacancies, although they may also appear in other portals.

⁵ <https://burzarada.hzz.hr>.

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

There is no firm data on the total number of vacancies in Croatia. The Survey of Employers in 2015, conducted by PES, reported that around one third of employers look for workers by posting vacancies online (HZZ 2015). Large employers (more than 250 employees) are more likely to use OJVs (55% of them). As more than two years have passed since the survey was conducted, the proportion of vacancies currently published as OJVs is estimated to be higher now. Our experts estimated that around 60-70% of job vacancies currently appear online. They also estimated that around half of all OJV's are published on the PES job-portal, while the other half are posted on private job portals.

3.1.5. Posting of PES Vacancies on EURES

There is an automatic connection between the Croatian PES web portal (Burza rada) and the EURES database. However, before posting a vacancy on the EURES portal, an employer has to fill in an application form for job posts and explicitly give approval for publishing the vacancy on the EURES portal. Without giving such approval, a job vacancy will not be exported to EURES. Currently, a very low number of employers give permission for their OJV to be transferred to EURES. On 30 May 2017 there were only 31 job offers from Croatia on the EURES portal, which is the lowest number among all EU Member States. It is obvious that the opportunities of EURES are not recognised by Croatian employers. But, this may change soon. In keeping with a new EU Regulation, as of 1 January 2018, all jobs posted to the Croatian PES portal will be automatically transferred to EURES.

3.2. Private Online Job-portals

3.2.1. Legal/Regulatory Framework

The key regulation for operating private online job-portals is the same as for the PES job-portal and includes the Act on Job Mediation and Unemployment Rights and anti-discrimination legislation. The experts confirmed that private job mediators are perceived as following the rules and standards. Also, the interviewed OJV experts from the private sector do not see the current regulatory framework as an obstacle to developing their business.

The leading private job-portals charge employers for publishing OJVs. The price depends on the type of OJV, the size, and the appearance of the job post as well as other business considerations. Current legislation does not allow job portals to charge job-seekers to use the portals.

3.2.2. Dominant Online Job-Portals and Their Business Models

We identified nine job-portals during our Internet research that are relevant for the OJV market in Croatia, and these portals were confirmed during the expert interviews. However, the market is highly concentrated, and there are three easily-identified leading job-portals in Croatia. These are: Moj posao⁶, Posao.hr⁷ and Burza rada. The first two portals are private, while the third is owned by the PES.

⁶ <https://www.moj-posao.net>.

⁷ <https://www.posao.hr>.

Job portal Moj posao is the most important private portal in Croatia. Although estimates of the market share in terms of the number of on-line job vacancies or profit share depends on the source of information, all interviewed experts agreed that this is the dominant job-portal. The expert whom we interviewed from Moj posao estimates that the portal covers around 30-40% of total online job advertisements (3,500+ each month) and earns 90% of all revenues in the OJV market.⁸ Moj Posao is focused on job search mediation and related services. It offers additional services to employers, such as application tracking, organisation of job fair events (in-person and virtual events) and conferences, and it conducts various surveys on subjects such as wages. It also establishes awards for the best employers in several categories. It establishes various levels of partnerships with employers (e.g. premium partners) which are reflected in the job ad presentation on the portal. The job-portal Moj Posao has close relationships with two partner companies, one is a temporary job agency and the other is a search & selection HR company. The company maintaining the job-portal Moj Posao is owned by Alma Career, a Finish company, which is a part of the group connected with Monster Worldwide, Inc.

Posao.hr is the second largest private job-portal but it is estimated to possess a significantly lower market and revenue share. It follows a similar business model as Moj Posao and offers similar services, but the revenues and profits are much lower. In addition to primary job advertisements, this portal also re-posts adverts from other sources, for example many OJVs from the PES job-portal are used to augment the number of job adverts on Posao.hr (3,200+). Posao.hr is connected with two web portals for classified ads (Oglasnik and Njuškalo) that publish small ads, and where jobs (mainly low-skilled jobs in the service sector posted by small employers) are just one segment of the business model; they also earn money from ads and banners on their webpage.

3.2.3. Focus of the Private Online Job-portals

The leading private online job-portals are general portals, meaning that they contain OJVs for all types of employers and job-seekers. However, because the two largest private job-portals (Moj Posao and Posao.hr) charge employers for publishing job vacancies, that influences the types of employer who post on these portals.

Larger companies, especially those located in the capital city (Zagreb) and the surrounding area are less sensitive to the costs of publishing OJVs, and therefore, they are more likely to post OJVs on private job-portals. Private portals enable higher visibility for the company and their job advertisements than the job-portal of the PES. Also, for most job-seekers, private job-portals are the first place to look when looking for a job, due to the perceived higher probability of being hired. Foreign-owned companies are also far more likely to place OJVs on private portals than on the PES job-portal.

Private job-portals are the main channel for posting vacancies for highly skilled jobs in the private sector. Sometimes, high-skilled jobs are posted, and then the search for suitable employees is combined with the use of recruitment agencies, which are often directly connected with the private job-portal owners.

3.2.4. Outreach of the Private Online Job-portals

Our experts estimated that around half of all OJV's are published on private online job-portals. A more precise estimate was precluded by the fact that private job-portals re-post job vacancies, either from the PES job-portal or from other private portals. It could be that the share of OJVs on pri-

⁸ Due to the re-posting of job vacancies by various job-portals, the number of unique job offers is not public information. Job-portals have their own estimates, but they are not ready to share detailed information with us.

vate portals is slightly higher than half due to the publishing of OJVs on general buy & sell private online portals by small private employers from the service sector. The procedure for publishing these OJVs is simple and often free, thereby appealing to some employers. However, the size of this part of the OJV market is estimated to be relatively small.

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

The PES job-portal publishes the largest number of primary job posts and it does not take posts from other portals. It publishes only those vacancies directly posted by the employers in line with PES procedures. However, the PES job-portal has partners among private job-portals that are allowed to re-post vacancies from the PES portal, such as Posao.hr, Jooble, Oglasnik. Even the major private job-portal, Moj Posao, re-posts some of vacancies originally posted on the PES website.

3.4. Role of other Recruitment and Job-search Channels

In a regular annual Survey of Employers⁹, the public employment service asks about recruitment channels. The 2015 survey, the last survey for which the results are available, shows that most employers use the mediation services of the Public Employment Service (around 75% of employers). Posting vacancies on the Internet is done by around one third of employers, while the same proportion uses personal contacts (HZZ 2015: 21f.). More than a quarter of companies use their own databases of CVs or searches among former employees of the company. Media services (newspaper, TV, radio) are still used by 15% of employers. Around 4% of employers claim that they contact schools and universities during their search activities. Contrary to information presented in the expert interviews, the survey shows that large employers (250+ employees) from the private sector are using the services of the PES more often than small employers, but most of them are using their own databases of CVs (87% of large employers). The main difference between the results of this survey and the assessment of experts from private job-portals and corporate HR is the very high proportion and importance of PES found in the survey, and also the lower importance of internet searches in the survey. It might be that the response rate for the survey is biased, i.e. that survey respondents to the PES-organized survey are more often companies that already developed good and successful relationships with the PES and use their services extensively. One of our experts estimated in an interview that around 90% of job vacancies in the public domain are posted online, and the remaining 10% is published in newspapers, TV, radio and other channels. This proportion does not take into account recruitment via personal contacts and “word of mouth”.

3.5. Expected Trends in the Online Job-portal Market

Job-portal experts anticipate expansion of the OJV market, with the possibility of significant changes in the medium-term. It could be that major global players like Google and Facebook will take on key roles in the job vacancy market. In that case, local job-portals will likely lose their importance. Experts also predict an increased role of LinkedIn and similar social media platforms, which are currently concentrated in relatively small market segments, according to the experts, but which

⁹ In Croatian “Anketa poslodavaca”.

have a huge potential for expansion. There are also challenges from new forms of employment, including work over the Internet and increasing flexible work practices that could result in changes in job-search channels. In the near term, local private job-portals are likely to become more international in their operations and more connected with leading global companies.

4. Use OJVs in Recruitment and Job Search

4.1. Use of OJVs in the Recruitment of Labour

The decision to post job vacancies on various online job-portals largely depends on characteristics of employers. Based on expert interviews, the following pattern emerges in Croatia:

- Larger companies are more likely to post OJVs on private job-portals. Many also post the same vacancies on their own web pages and announce job openings in daily newspapers, but this multi-use of recruitment channels is a part of their advertising strategy showing that the company is strong and expanding; large companies will more often use the services of temporary work agencies as well as the services of recruitment agencies. In general, agency work is underdeveloped in Croatia; it is estimated that only 0.5% of workers are recruited through agencies.
- Smaller companies, skilled crafts and trades and the self-employed are looking for employees through more dispersed online channels, often general classified ad portals that are free of charge and social networks. Costs are important for such employers, and they combine OJVs with traditional channels such as “word of mouth” and buy & sell newspapers.
- Vacancies for elementary jobs and jobs that require less skills and experience are likely to be posted on various platforms, including public and private job portals, general trade portals and traditional channels.
- For highly skilled jobs, job-portals are the main channel for posting vacancies, but companies are also using specialised recruitment agencies and platforms, like LinkedIn. Because of the relatively small labour market, highly-skilled job offers are also announced by “word of mouth” in professional circles.
- Public sector employers use the PES portal as the dominant job-portal, but they are also still using daily newspapers to post job vacancies. However, state-owned companies and public sector entities that are sincerely interested in attracting the best available labour in the market are using private job-portals, according to the job-portal owner with whom we spoke.
- Foreign-owned companies almost exclusively use private job portals.
- Employers from rural areas and small cities that are relatively distant from the main centres of economic activities are somewhat less oriented towards nation-wide job-portals due to very low labour mobility in Croatia, and they use more varied recruiting channels. Sometimes they develop successful direct cooperation with local branches of the PES, and more often they also use personal contacts and “word of mouth”;
- Employers in the seasonal tourism industry are using all kinds of web platforms, from the PES portal and private job-portals to general trade (buy & sell) platforms and social networks. It appears that demand is currently far larger than supply. The representative from the leading private job-portal said that around 20% of job posts on their portal are now (as of May 2017) related to the tourism industry. Also, as seen on the PES job-portal in late June, almost 1,500 job offers out of 6,500 were for “Hospitality, restaurant and catering jobs”.

The development of the OJV market is influenced by certain labour market characteristics as well as business culture. For example, there is rather low labour mobility in Croatia, meaning that employers from outside of the main cities have to develop specific hiring practices oriented more towards personal contacts, schools, and local employment offices. Also, the informal economy in

some sectors and regions (e.g. construction, tourism) may be the reason why some of the unemployed people registered at the PES are not actually available for work.

However, as suggested in expert interviews, employers can do certain things to increase the attractiveness of their OJVs, such as improving their HR practices and working on employer branding. Business culture in the online environment is also important. For example, the expert from a job-portal mentioned the results of their internal survey, which showed that only 10% of all job applicants receive responses from the employer, which is the practice that reportedly annoyed the most job-seekers. Also, important information about the job is often missing from advertisements. For example, the job-portal expert estimates that less than 8% of all online job vacancy posts contain information on remuneration/wages.

4.2. Use of OJVs in Job-search

There was very limited evidence on job search strategies of the job-seekers in Croatia. Ibrahimović and Kolega (2013) found, in a small sample of workers, that slightly less than 30% found their present job through job ads. But, there is rather high proportion of individuals who got their job on the basis of personal recommendations or by direct contact with the employer (accounting for half of all interviewed employees together). Around 12% of workers found their job through mediation from the PES. It is interesting that in the case of a change of employment, surveyed workers expect to rely even more on personal recommendations and personal relationships (around 50%) and only 30% of respondents expected to rely on job ads, while use of PES and other mediators is only marginally expected. If this does not change, such low confidence in job ads among the public domain may limit the potential of the OJV market to develop.

It seems that younger and better educated people use internet job search more often than older or unskilled workers, who are sometimes waiting for PES placement officers to connect them with employers.

As reported by the experts, the perception of the unemployed is that it would be hard to get a job using the PES job-portal. This perception could be the result of the relatively large number of public sector jobs posted on the PES job-portal, which attract many job applicants and lower the overall chances of being selected. Also, it could be that vacancies from the public sector are posted as standard practice to the PES by some companies, even if positions have already been filled by pre-selected candidates, and new applicants will not be recruited. Whatever the reason, this perception explains in part why the two leading private portals are generally consulted first when searching for a job online.

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

In the very short-term perspective and in light of the recent changes on the labour market, jobseekers will likely expect employers to provide more detailed job descriptions, requirements and offers. Employers will have to work more on their reputations and ensure fair treatment of potential employees, such as responding to each job applicant. More and more employers might start using platforms like LinkedIn, as such platforms enable quick applications from registered users without the need to send CVs or fill out online forms on the employer's website. Job-seekers are expected

to increase their use of various online platforms for finding and applying for jobs instead of using traditional channels.

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

We determined the most relevant job portals in Croatia based on expert interviews and Internet search. As for Internet search, we conducted a Google search in May 2017 using several keywords and their combinations in the Croatian language (see Table 2). The first two pages of Google results had the most job-portals.

Table 2: Grid for documenting the Google search for job-portals

	Search term in Croatian and English	Number of results per search term
Search 1	'oglası za posao' (Job adverts)	646,000
Search 2	'ponuda za posao' (Job offer)	622,000
Search 3	'tražim posao' (Job search (more precisely, "I am searching for job"))	517,000
Search 4	'poslovi Hrvatska' (Jobs Croatia)	447,000
Search 5	'slobodna radna mjesta' (Job vacancies)	241,000
Search 6	'oglası za posao' (job listings)	646,000

Source: Nestić (2017).

The Google searches returned results with generally the same job-portals, regardless of the combination of keywords. On the basis of that we have selected nine job-portals that appear most often in the search results. In the search with words "oglası za posao" (job adverts, Search 1 in Table 2), the first six results are job portals selected by us. Other results in the first five pages of the Google search are mostly job adverts posted by particular companies and sometimes newspaper articles and a few paid advertisements by minor job agencies. The search with "ponuda za posao", (Search 2, from Table 2) resulted in the eight job-portals and that are included in our selection of nine job portals. The search with "tražim posao" and "poslovi Hrvatska" (Search 3 and 4 from Table 2) resulted in seven job-portals from our selection.

Three job portals appear in all search results; these are Moj posao, Posao.hr and the PES job-portal Burza rada. Other job portals include two of general trade (buy & sell) web portals: Njuškalo¹⁰ and Oglasnik¹¹. These portals are of particular interest when posting or searching for short-term jobs. Bika¹² is a specialized job-portal developed by Njuskalo; it is trying to expand its importance, but it is still relatively small. Jooble¹³ is a secondary job portal. Burza¹⁴ and ZaposliSe¹⁵ are rather small job portals appearing on the second or third page of Google search. Due to the relatively small labour market, all nine selected job-portals cover the entire area of the country and all sectors and occupations.

5.1.2. Identifying the Online Job-portals Through Expert Interviews

The findings from the web search were discussed in the interviews to determine a final selection. Based on the web search and expert interviews we propose that the three most influential job portals in Croatia should be considered for the scraping activity: Moj posao, Posao.hr, and Burza rada.

The job portal **Moj posao** is the leading portal in the market. Although estimates of the market share in terms of the number of online job vacancies and profit share depends on the source of information, all interviewed experts agreed that this is the dominant job portal. **Posao.hr** is the second largest job portal, but it is estimated to possess significantly lower market and revenue share than the dominant job portal, but still important. It reposts selected job adverts that originally appeared on the PES job portal, and uses cross-posting with sister portals that share ownership and management (Oglasnik). Most job seekers search both of these two main private portals (Moj posao and Posao.hr).

Burza rada is the job-portal owned by the PES, and it contains the largest number of job vacancies. Compared to private online job-portals, Burza rada publishes more job vacancies for the public sector. Also, it appears that more vacancies are open for longer periods of time, suggesting that some of the OJVs on this portal may be of lower interest to job-seekers (i.e. unattractive low-wage occupations, jobs in remote areas).

Other job-portals are assessed to have far lower importance for the market and online job search trends.

5.1.3. Validating the Selection of Online Job-portals

The list of nine representative job portals for Croatia, as well importance of the three most influential portals for the scraping activity, were validated by the representative of the Croatian employer's association, who is engaged in the coordination of private employment agencies. Because the Croatian Bureau of Statistics is not a member of the ESSnet Big Data project and currently has no experts for the OJV market that could validate our selection, we contacted another stakeholder from the employer side, who is not directly involved in the job-portal business.

In email correspondence, this additional expert confirmed our selection of three key job-portals. Although he mentioned that he has no exact figures on market coverage, the experiences of his colleagues who deal with job search and candidate selection suggests that these three portals cover the most relevant online job vacancies in Croatia. Other portals in our list are seen as com-

¹⁰ <http://www.njuskalo.hr>.

¹¹ <http://www.oglasnik.hr>.

¹² <http://www.bika.net>.

¹³ <https://hr.jooble.org>.

¹⁴ <https://burza.com.hr>.

¹⁵ <https://zaposlise.hr/posao>.

plementing the market, but often with re-posted vacancies and poor response from job-seekers. He suggested that we include one more job portal in our list of representative portals. Gastroposao¹⁶ specialises in restaurant and catering jobs. We have considered the suggestion but have not expanded our list for now, because we only found around 100 vacancies on the portal.

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

Employers that want to post a job vacancy to the PES web page Burza rada have two options.

The first option is to use the web page of the Employment Services, download a job vacancy form called, “the Report on the Need for a Worker¹⁷” in Word format, which contains all the fields that will appear in the OJV. Employers fill in the form and submit it to the local branch of the Employment Service by e-mail, regular mail, fax, telephone or in person. Then a job counsellor from the Employment Service, who specialises in relations with employers, will check the format of the proposed advertisement, contact the employer, solve the issues if any, and inform the employer about the date on which the vacancy will be posted to the web page. In regular situations, the counsellor contacts the employer on the same day when the form is received, and the OJV is ready for posting on web page in one or two working days.

“The Report on the Need for a Worker” form has six parts, which include mandatory and optional fields, tick boxes and free texts without character limits:

- **Part 1** contains basic contact information for the employer (mandatory) and the sector of activity in which the employer works (optional).
- **Part 2** is about the job. Mandatory fields include the job title (text), job description (text), education level (text) and work experience (numbers and tick boxes). Voluntary fields are about foreign language (structured), IT skills (text), professional license (text), driving license (structured), and other skills (text).
- **Part 3** is about the type of employment, containing structured fields on the type of work contract (mandatory).
- **Part 4** is related to work conditions. Mandatory fields include the geographic location of the workplace (text), type of accommodation, if offered (tick boxes), refund of transportation costs (tick boxes), and working time (tick boxes and numbers). Voluntary fields include expected wage (number) and distribution of working time (tick boxes).
- **Part 5** is about job vacancy conditions. Mandatory fields include the dates of validity of the post, number of workers and ways the job-seekers should contact the employer (tick boxes).
- **Part 6** allows the employer to note which services of the Employment Service will be needed for this particular job vacancy. The employer must indicate if it requires assistance with the selection of candidates (tick boxes). Voluntary fields relate to options for posting the vacancy (tick boxes), permission to re-post the vacancy by other portals and permission to transfer the vacancy to EURES portal.

¹⁶ <https://gastroposao.eu>.

¹⁷ The form is called “Obrazac PR: Prijava potrebe za radnikom” in Croatian and can be accessed at <http://www.hzz.hr/default.aspx?id=10326>.

Although some fields are filled in as texts, they appear more structured once the OJV is published to the portal. The reason is that counsellors/ operators at PES re-categorise some text fields before posting them on the web portal. This is the case for the occupational group in two levels. Educational level has six options, location of work is structured by county (region) and municipality/city, and the employer is placed in a certain sector on the basis of its dominant activity. It appears that experience of counsellors/operators in communication with employers helps to reduce unintended errors.

The second option is to register with the PES job-portal Burza rada. After registration, the employer can initiate the process of posting a job vacancy, but the employer can also use some other benefits, such as searching the database of CVs and contacting the employer's counsellors at the Employment Service. The employer may include a description of the company and company values, as well as a logo of the company, although we could not find the use of any logos in the PES job portal, as all the job adverts are posted without a logo and in the same visual format.

In the process of posting the job vacancy, the employer has to fill in the online form, which is a slightly modified format of "the Report on the Need for a Worker" form. It has the same mandatory and optional fields as the downloaded form, but some fields offer structured (pre-defined) responses instead of a free text format (e.g. education level, location of workplace, IT skills). After filling in the online form, the counsellor/operator at the Employment Service checks the job vacancy and contacts the employer to inform the employer about the posting date.

According to our communication with a counsellor from the Employment Service, half of employers post their job vacancies in the first way (downloading the form, filling it in and sending it to the Employment Service) and the other half use the second way (using the job portal for entire process).

All job-seekers can see all job vacancies on the PES job-portal, searching them by keywords, occupational group, region, type of work contract, as well as several other parameters. However, only registered job-seekers can post their CV and attach other documents. Job-seekers who are also registered at the Employment Service as unemployed can use additional functionalities, such as online candidacy and communication with a job counsellor. To register as users of the PES job-portal, the job-seeker should already be registered with a government service called e-citizen.

As can be seen, job vacancies posted on the PES job-portal are rather strict in format. OJVs on the PES generally contains more formal requirements (education level and field of education, formal skills, in-job experience) and much less of information on soft skills. OJVs on the PES job portal have to be in the Croatian language.

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

To post a job vacancy at the job-portal Posao.hr, the employer has to register with the portal. The portal does not post job vacancies from private individuals, only from legal entities. After registering, posting a job is relatively straightforward, using an online form that has four parts.

The **first part** is about the posted job vacancy. Mandatory fields are the job title (text), job category/occupational group (tick-boxes), job description (text), type of the job/work contract (tick-boxes), final date for application, municipality/city of work (text), county/region (tick-boxes), required skills (text), and contact details of employers. Optional fields are wage (amount), work-related benefits (text), required education level (pre-defined menu), experience (menu), IT skills (menu), foreign languages (tick-boxes), and driving license category (tick-boxes). This part asks for permission to re-post the job vacancy without additional charges in other media (web-page and online newspaper).

The **second part** is on the type of job advertisement, which then correlates to the price of posting the OJV. There are three types offered: basic, premium, and video, with differences in the number of different jobs and presentation options, such as video. Each type enables the company to include a logo, a link on the company's web page and unlimited access to CVs during the posting period. Depending on the model, the logo can be placed on the top of the search for the occupational group/region, among the top hits in searches or without any particular placement. Also, there are three options for the length of the posting period (seven days, 15 days, and 30 days) with different prices associated with each. The portal also offers personalised packages for companies that post multiple OJVs each year or that have annual employment plans, however additional information about these packages cannot be accessed without registering on the portal.

In the **third part**, the job-portal offers additional services, such as designing the job advertisement, managing the job applications, a web package (parallel use of social media, news portals and LinkedIn networks to increase visibility) and a branding banner.

The **fourth part** is reserved for communication with operators and their support.

5.3. Contacting the Online Job-portal Owners

All of the job-portals identified through Google and the experts were contacted regarding the possibility to access their data for the Cedefop project. Job portals were contacted by sending emails to addresses found on their contact pages. The text of the message was prepared by project team leaders (CRISP) and was the same for all portals. We have sent the message, translated into Croatian and signed by us, with the original message in English at the end of the email. In the attachment there was a letter signed by Cedefop explaining the background of the project in more detail. The message was sent to nine portals on 29 June 2017.

We have received three answers so far. One affirmed that the portal is ready to allow crawling (Posao.hr), one indicated that they would not permit crawling (Bika) and one requested information regarding the timing and availability of data collected by the project for portals that give access to their data. After communication with project team leaders, we responded to the third portal stating that data might be available by the end of the 4th year of the project, but the final decision about data availability will be made by Cedefop. No further responses have been gathered so far.

6. Format and Content of OJVs

6.1. Legal/Regulatory Framework

The key legal framework related to the format and content of OJVs is on gender equality and anti-discrimination legislation, as discussed in Section 3.1.1. One outcome of gender equality efforts is that all job titles in the job vacancies are specified in the way to make clear that males and females can apply for the job under equal conditions.

Job vacancies posted on the PES job-portal are somewhat more formal and unified, because they follow the “Rules on Procedure of the Reported Need for a Worker” of the Croatian PES. Private job-portals are more flexible regarding the format and content of OJVs.

6.2. Format of OJVs

The format of OJVs depends on the type of job and the employer, but there are also differences depending on whether an OJV is posted on the PES portal or private job-portals.

On the PES job-portal there is a unified format and unified headings, but the length and the level of details in particular fields vary. Unification of the format probably reduces the interest of larger employers to post their vacancies there. For example, no employer can get a privileged position on job portal. As for now, on the PES’s job portal there is no logo of the company and no visual distinction of the particular company or job post. The PES’ job portal also posts vacancies that are related to active labour market policies (ALMP).

Vacancies for elementary occupations and jobs that require less skills and experience are posted on both public and private job-portals, as well as trade (buy&sell) portals. Usually they contain only the job title, a short job description, a short list of requirements regarding education and skills, if any, the type of employment/contract and the location of the workplace.

For highly skilled jobs, there is wide variety of formats and content of OJVs. For these roles formal requirements regarding education level, field of education, experience, specific knowledge and licences are important parts of job adverts. That is especially the case when OJVs are posted on the PES job-portal by employers from the public sector or state-owned companies. Private companies that post job vacancies on private job-portals seem to give much more consideration to expectations of candidates in terms of various skill and non-skills characteristics.

Larger companies prefer high visibility of their job vacancies. They often choose “premium” positions on the main pages of private job-portals, opting for well-positioned logos of their companies, while a significant part of the advertisement is a description of the company’s business orientation. Also, a significant part of the OJV is about what the company offers, for example, possibility of advancements, education, dynamic and creative atmosphere.

Two leading private job portals, Moj Posao and Posao.hr, charge employers to post vacancies, but they are legally not allowed to charge job-seekers. Basically, they have three formats of OJVs; i) premium; b) standard; and c) budget. Differences are in the size of the job advertisement, the design, the position on the web page and options to add video or interactive content. The budget op-

tion often has restrictions regarding the number of characters in the job ads and the number of CVs that can be viewed.

The majority of OJVs are posted in Croatian. The PES has to post OJVs in Croatian. However, the main private job-portals also post vacancies in foreign languages, predominantly English. This is often the case for foreign-owned companies, for highly qualified jobs or jobs with specific skills, and jobs that are expected to have an international dimension. This is the case even when the location of the workplace is Croatia, indicating that the location is not crucial in determining the language of publication, but is rather used to demonstrate the international orientation of the company and the job. However, they are looking for employees that are expected to work abroad, posting in a foreign language is standard for all but the simplest occupations. OJVs are sometimes in German if the company is from a German-speaking country, while other foreign languages besides English and German are rare.

6.3. Content of OJVs

Although the content of OJVs varies, most contain four parts:

- Job title and job description;
- Skills requirements;
- Expectations of the worker (non-skill characteristics);
- Contractual and other benefits.

Job titles and job descriptions generally use free text. However, as a part of job description, location of the workplace can be structured to identify the city and county from a menu. As a part of the job title, it is not unusual to see an indication that the position is for both men and women (M/Ž in Croatian). The free text nature of the job title could potentially pose a challenge to the scraping activity. The sector of activity is most often provided as a part of the job description in a structured way. However, the classification of sectors is not standardised, and in spite of many similarities, it differs from portal to portal. In the PES job-portal, jobs are also classified by structured occupational categories, which enables easier job search for job-seekers.

Skills requirements most often refer to education level, which is structured information in the PES portal, but free text in some of the private portals. This part of job adverts can contain further information on the field of education, experience in the field, proficiency in foreign language(s), and knowledge of specific programs/operations and related licences/proofs.

Expectations are framed within short notes explaining some personal and professional characteristics that are expected from the candidate.

In occupations with a rising shortage of labour, employers are increasingly hoping to find candidates that are simply “willing to work”. In the words of one of interviewed experts, they are looking for those who have “a positive attitude towards the work”. Interviewed experts mentioned the changing work culture particularly among the millennial generation. The Millennials are described, by the expert from the employers’ side, in a largely negative context as a generation with a high interest in personal advancement, often selfish, talking about their own rights related to the workplace and not thinking about how they can contribute to the company and sometimes not very interested in the job itself, hence the name, the “Me Me Me Generation”. In reaction to changing profiles of potential workers, employers are increasingly looking for workers that are genuinely willing to work and learn, as well as individuals who possess strong work ethics. That can easily be seen in the expectations part of the job advertisements. Also, organizational and communication skills are regularly stated as expectations. Accordingly, the list of the most common non-skill terms found

in OJVs includes the following: interest in the subject, reliability, professionalism, correctness, loyalty, work ethic, honesty, persistence, precision, independence, initiative, eloquence, teamwork ability, fast learning ability, neatness, systematics, good organization, communication skills.

The last part of the OJV is about what the employer offers to its workers. This part contains formal information on the type of employment/contract and information related to the position, such as relationships to certain labour market programmes, distribution of the working time, etc. This part also contains elements that should make the job more attractive to the candidate, such as possibilities of career advancement, employee benefits, possibility of further education and training, stimulating work surroundings, flexibility, international experience, and stimulating wage scheme. It may be interesting to note that the wage level is usually not made explicit. The expert from the private job-portal estimated that less than 8% of OJVs contain wage information.

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

Private job-portals are much more flexible in terms of format, mostly because they are dealing with private sector employers that are also more flexible and less bounded by internal and external rules. However, the same key elements of OJVs from the PES job-portal are also found on private portals, although with different levels of detail, depending on the occupation and company characteristics.

The flow of posting job vacancies was explored on two portals: the PES website (Burza rada) and a private commercial portal (Posao.hr). The process is very similar, and the main differences, as seen from the employer's side, are in options for visibility of the OJV on the portal and the price. The PES web page treats all job vacancies equally, and they are posted for free, while in the private job-portal there are options to increase visibility depending on price. As for the structure of the OJV, the PES requires slightly more structured posts, but the private portal is also well structured to enable better searches.

It is obvious that the private job-portal is very focused on enabling the highest degree of visibility for the company and their job advertisement, which is their main advantage over the PES web page. However, that visibility comes at a cost.

6.5. Expected Trends in the Format and Content of OJVs

Because of increasing labour shortages in various occupations and sectors, employers will be forced to provide more detailed job descriptions and to highlight various wage and non-wage benefits for employees, in order to make the job more attractive for good candidates. Employers will have to work more on fair treatment of potential employers in the job search process. Although rarely used so far, international searches for workers are likely to intensify, especially in the EU market. Although the wage level in Croatia is not as attractive as in Western Europe, it could be of interest for many workers from Eastern Europe. In parallel to that, jobs with workplaces outside Croatia are expected to be offered more frequently to Croatian workers through domestic job-portals, as the remaining barriers to employment in the EU are expected to be lifted soon. There is also a challenge related to new forms of employment, including remote and flexible work, and this could also cause changes in job search channels.

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Expert Interviews

Name of organisation	Type of organisation	Expert's position	Interview date
Državni zavod za statistiku	State Statistical Office	Head of Office	17 May 2017
Private online job-portal owner	Labour market intermediary	CEO	18 May 2017
Recruitment agency and Employers' Association (co-ordination of private employment agencies)	Corporate HR	Director/ Deputy Head of the Coordination	23 May 2017
Hrvatski zavod za zapošljavanje	PES	Head of EURES coordination	26 May 2017