

Mapping the landscape of online job vacancies

Background report: Portugal

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

| | |
|-------------------|--|
| ANACOM | National Authority for Communications (Autoridade Nacional de Comunicações) |
| APDC | Associação Portuguesa para o Desenvolvimento das Comunicações |
| Cedefop | European Centre for the Development of Vocational Training |
| CEO | Chief Executive Officer |
| CITE | National Commission for Employment Equality (Comissão para a Igualdade no Trabalho e no Emprego) |
| EURES | European Employment Services |
| HR | Human Resources |
| ICT | Information and Communication Technology |
| IEFP, I.P. | Institute of Employment and Vocational Training (Instituto do Emprego e Formação Profissional) |
| ISCTE-IUL | Instituto Universitário de Lisboa |
| INE | Statistics Portugal (Instituto Nacional de Estatística) |
| OJVs | Online Job Vacancies |
| PES | Public Employment Services |
| VET | Vocational Education and Training |

Introduction

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

This Country Report was compiled between April and October 2017 and constitutes a first overview of the online job-portal landscape in Portugal. It is based on desk research of available data sources in Portugal (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 Portuguese 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 Portugal 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 Portugal 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

To develop the Portuguese Country Report and to understand how the OJV market is structured, as well as to find out which business models exist in Portugal, we implemented a work plan that analysed the most relevant sources of information available on this subject and devised a strategy to obtain the most relevant information available.

1.1. Desk Research

The desk research took place between April and May 2017. The keywords used in the Google searches are: “job advert”, “job search”, “job-portals”, “online recruitment”. Therefore, we used the most suitable portuguese terms as: “anúncios de emprego”, “ofertas de emprego”, “procurar emprego”, “procurar trabalho”, “vagas de emprego” or “vagas de trabalho”.

We have conducted a search with each keyword and compared its results to define our final list of job-portals based on several criteria.

The following portals were used for the desk research:

- Google;
- Google Scholar – Google Académico;
- University databases (e.g. searching for Master theses) like Universidade de Coimbra or Instituto Universitário de Lisboa (ISCTE-IUL);
- Websites and statistical data from national authorities such as Institute of Employment and Vocational Training (IEFP, I.P.) and the Public Employment Service (PES) ⁽¹⁾, Statistics Portugal (INE) ⁽²⁾, National Commission for Employment Equality (CITE) ⁽³⁾ or National Authority for Communications (ANACOM) ⁽⁴⁾;
- Specialised magazines which publish opinion articles about the most relevant job-portals.

The following table shows the approximate number of results obtained in each search term on Google:

| Search term | Search term (English translation) | Approx. number of hits |
|--------------------|-----------------------------------|------------------------|
| Procurar trabalho | search for a job | 84,400,000 |
| Vagas trabalho | work vacancies | 29,000,000 |
| Ofertas trabalho | work offers | 22,400,000 |
| Vagas emprego | job vacancies | 18,200,000 |
| Procurar emprego | look for employment | 12,300,000 |
| Ofertas de emprego | job offers | 11,500,000 |
| Anúncios trabalho | work advert | 594,000 |
| Anúncios emprego | job advert | 508,000 |

Source: IEFP, I.P.

⁽¹⁾ In Portuguese “Instituto do Emprego e Formação Profissional” (IEFP, I.P.).

⁽²⁾ In Portuguese “Instituto Nacional de Estatística” (INE).

⁽³⁾ In Portuguese “Comissão para a Igualdade no Trabalho e no Emprego” (CITE).

⁽⁴⁾ In Portuguese “Autoridade Nacional de Comunicações” (ANACOM).

1.2. Data Sources

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

In Portugal, plenty of statistical data are available on vacancies, employment and unemployment. In most cases, it is generic data that is not specific to the online job-portal landscape. Nevertheless, it allowed us to understand the characteristics of the employment market in Portugal that constitute the framework for the online job-portal market. Specific information on the online job-portal landscape in Portugal is very limited. The Portuguese Statistical Office has not yet conducted any survey on this matter, but there are plans to begin such a survey in the future. The information from different sources allows us to draw some conclusions about the characteristics of the OJV market.

There are reports on gender equality in OJV contents, surveys about young people in the labour market and surveys about access to Internet services among the Portuguese population.

1.2.2. Expert Opinions

The most relevant source of information supporting the present report were the interviews with expert stakeholders, experts from some institutions related to this subject, namely public institutions responsible in the application of national legislation and data collection. To compensate for the limited information available on the Portuguese OJV market, we interviewed additional stakeholders beyond the individuals recommended in the project Guidance Note. In most interviews, there were some questions that the interviewees could not answer due to the scarcity of information available. Nevertheless, the information collected through the interviews was very rich and relevant to the project, and the content was not available anywhere else. This data allowed us to characterise the national OJV market and understand its structure.

We contacted all institutions that could provide any information related to this subject; general characterisation of the OJV market proved to be very important for the development of the present report.

We contacted the following individuals:

- Board member of the Public Employment Service (PES);
- Director of the PES portal;
- Technical manager of the PES portal;
- Board member of an Employers Association;
- CEO of a private online job-portal;
- HR Director of a major multinational in Portugal, expert in HR/recruitment processes;
- Statistical Office representative.

The interview with the Statistical Office representative was scheduled, but the expert cancelled upon realizing that he would not be able to answer most of the questions included in the interview guide.

There was also an informal survey to determine possible key players who might have more detailed information and greater knowledge of this subject. The survey was conducted with the support of our institutional partners, including representatives in our vocational centers boards.

Most of the interviewees provided information about all the included questions in the guide, although the government institution representatives did not have information about the private job-portals and their business models or expected future developments. All information provided in the interviews was based on personal experience and not on structured information available in any

research report or survey. The greatest difficulty arose from the fact that we could not obtain an interview with the Statistical Office representative, since according to him, such an interview would be irrelevant due to the inexistence of relevant statistical information on the subject.

Based on the assessment provided in the previous sections, we conclude that the OJV market in Portugal is not a subject that has been studied until now, and as a result, few reports or surveys are available on this matter. Although there are some academic studies related to the topic, none are relevant to this project.

Table 2: 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 | |
| Source 1: Public ta/academic search | Reports on gender equality in OJV contents (2015) | National Commission for Employment Equality (CITE) | | Yes | Yes | High |
| Source 3: Expert opinions | Expert Opinions 2017 | Board member of the Public Employment Service (PES) | | Yes | Yes | High |
| | | Director of the PES portal | | Yes | Yes | High |
| | | Technical manager of the PES portal | | Yes | Yes | High |
| | | Board member of an Employers' Association | Yes | Yes | Yes | High |
| | | CEO of online job-portal owner | Yes | Yes | Yes | High |
| | | HR Director of a multinational corporation | | Yes | Yes | High |

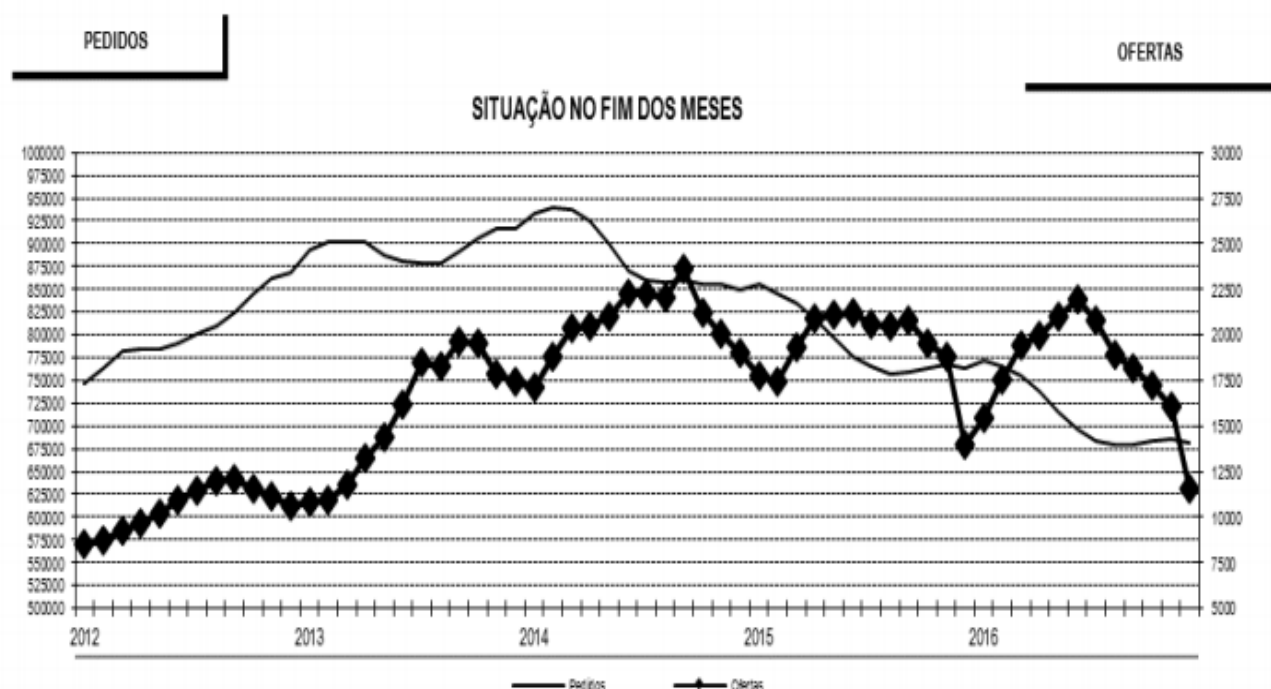
Source: IFEP, I.P. (2017).

⁽⁵⁾ Source 2 (research/surveys of interest groups) did not provide information on the share of existing vacancies on online job-portals, use of OJVs per sector/occupation/qualification level/region or skills requirements of OJVs.

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

The recent economic crisis has impacted the Portuguese labour market in the past years, affecting the demand for labour. Figure 1 shows the demand (“pedidos”) and the offers (“ofertas”) in Portugal in the past five years.

Figure 1: Labour demand at the end of the month in Portugal (2012-2016) ⁽⁶⁾



Source: INE, Labour force Survey (2016).

In the last four months of 2016, the vacancy rate was 0.7%, compared to the EU28 and the Euro Area 19, which had vacancy rates of 1.8% and 1.7%, respectively. This indicator reached the highest value in Administrative and Support Services (2.9%) and in the Lisbon Metropolitan Area (1.3%). In this period, 22,414 vacancies were recorded in Portugal, a growth of 14.9% compared to the same period in 2015. This positive variation was due to the year-on-year growth recorded mainly in administrative and support services activities (+10.9%), trade, lodging and catering (+10.5%), real estate, consulting, scientific and similar activities (+74.3%) and artistic, performance and sport events (+136.9%) (INE, Labour Force Survey (2016)).

⁽⁶⁾ “situação no fim do meses” = “at the end of the month”.

According to the EU Skills Panorama, in Portugal, the largest share in employment is in the industry sector, with manufacturing making up 16.91% (2015). Other sectors with a large share of employment are in the tertiary sector, in particular wholesale and retail trade, with 15.44%, human health and social work activities, with 8.89% and education, with 8.35%. The primary sector, including agriculture, forestry and fishing, comprises 7.53% of the country's employment.

It is expected that real estate, professional and related activities will increase by 23.9% between 2015 and 2025, while administrative & support activities will grow by 18.53%, accommodation & food service activities will grow by 16.94%, wholesale and retail trade will grow by 9.87% and information and communication activities will grow by 9.18%.

According to the EU Skills Panorama, the occupations with the largest share in employment in Portugal were: sales workers (7.32%), business & administration associated professionals (5.94%), teaching professionals (5.11%), cleaners and helpers (4.79%) and stationary plant & machine operators (4.36%) (2015).

This distribution may change in the short term, because the unemployment rate is decreasing very rapidly as a result of the end of the economic crisis (9.8% in March 2017, the lowest since February 2009 (9.7%).

Figure 2: Monthly employment and unemployment estimates (April 2017)

| Estimativas Mensais de Emprego e Desemprego | | | | | | | |
|--|---------------------|-----------------------------------|----------|----------|----------|----------|--------------|
| Principais indicadores | | | | | | | |
| | Unidade | Valores ajustados de sazonalidade | | | | | |
| | | Abr 2016 | Dez 2016 | Jan 2017 | Fev 2017 | Mar 2017 | Abr 2017 (p) |
| População empregada (15 a 74 anos) | Milhares de pessoas | 4 514,7 | 4 605,4 | 4 608,8 | 4 631,4 | 4 649,5 | 4 646,2 |
| População desempregada (15 a 74 anos) | | 592,4 | 520,1 | 518,2 | 508,3 | 503,6 | 503,7 |
| Taxa de emprego (15 a 74 anos) | | 57,8 | 59,1 | 59,1 | 59,4 | 59,6 | 59,6 |
| Taxa de desemprego (15 a 74 anos) | | 11,6 | 10,1 | 10,1 | 9,9 | 9,8 | 9,8 |
| Taxa de desemprego de jovens (15 a 24 anos) | % | 29,6 | 26,1 | 25,3 | 24,3 | 22,9 | 23,7 |
| Taxa de desemprego de adultos (25 a 74 anos) | | 10,2 | 8,9 | 8,9 | 8,8 | 8,8 | 8,7 |

Fonte: INE, Inquérito ao Emprego.

Nota: (p) - Estimativas provisórias.

Source: INE (April 2017).

The occupations expected to have the largest numbers of job-openings over the period between 2015 and 2025 in Portugal are subsistence agricultural workers (193,999 job-openings), skilled agricultural workers (158,137), cleaners and helpers (151,293), sales workers (130,470) and hospitality, retail & other services managers (114,729) (Skills Panorama 2015).

The main drivers of change affecting the online job-portal landscape over the past three years are:

- The declining unemployment rate;
- The growth of the tourism sector;
- The increased use of online platforms.

The increased use of online-platforms is directly associated with the growth of job-vacancies over the past few years, particularly for more skilled workers. However, according to stakeholders, this increase is not the only explanation for the growth of OJV use; other factors have an influence on

it, such as the increase of private Internet access, the reduction of resistance to this form of recruitment and the increase in qualification levels of the population.

The increase in OJV use varies according to occupation and qualification levels. In fact, use tends to rise with higher qualification level of the job-seekers and is also related to the levels of access to Internet services, with access higher among the higher qualified active population.

According to the national authority for the communication sector report (ANACOM 2015), the use of Internet is directly related to the level of education of the Portuguese population. The higher the level of qualification, the higher the level of Internet use. Among individuals with secondary education, 95.6% have access to Internet services, well above the EU28 average for the same population (83%). Among individuals with higher level education, 98.4% have Internet access, compared to 96% in the EU28.

Over the last decade, there was strong investment in adult education and training and increased recognition of skills in Portugal. Although the investment was affected by the recent crisis, it made a strong positive impact on the structure of qualification levels of the Portuguese working population. It also familiarised more adults with the Internet.

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

3.1. PES Online Job-portal(s)

3.1.1. Legal/Regulatory Framework

There is no legal framework specific to OJVs, but OJVs need to comply with other national laws. The legal framework for the placement of job-advertisements is as follows:

- Law no. 7/2009 - Portuguese labour law;
- Sectorial collective regulations;
- Law no. 93/2017 of august the 23th that stablishes the legal regime for the prevention, prohibition and combat of discrimination on the basis of racial and ethnic origin, colour, nationality, ancestry and territory of origin

The Portuguese Constitution also stipulates equal protection against discrimination based on ancestry, gender, race, age, disability, language, place of origin, religion, political or ideological convictions, education, economic situation, rank or sexual orientation. Furthermore, women cannot be subjected to oral or written interview questions about whether they think they will have children, whether they are pregnant or other aspects of their private or family life.

The PES portal also has internal and specific regulations that must be respected by the employers that use its services.

For example, in addition to the law and sectorial collective regulations, other internal rules of posting OJVs are as follows:

- The need to offer a subordinate work contract (in cases when informal work contracts are not allowed, a formal work contract between the employer and the employee – with all the obligations implied – is compulsory;
- The mandatory indication of the salary in the OJV form on the PES portal.

To avoid discrimination and comply with the law, job-advertisements must always explicitly address both genders. Moreover, the occupation must be designated in the masculine and in the feminine, since in the Portuguese language, the words for occupations are different depending on gender. In the few cases where the occupation designation covers both sexes, the abbreviation (m/f) must always be added.

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

The job-portal of the PES allows candidates to apply for employment at the employment service, to consult and apply for job-offers and to update information on their CV profiles. It allows employers to contact potential job candidates by researching their CV profiles, to publish offers and to apply for publically funded programmes. It also allows employers to keep track of the applications submitted for their job vacancies. All users must be registered on the portal; the PES services verify the accuracy of the information contained in applications and job advertisements proposed for publication must be completed in a form that contains mandatory fields. This form obligates employer compliance with the legal and other requirements adopted by the PES portal.

All OJVs placed on the PES are filtered and evaluated. The PES validates that the employer is a legal entity, and that it is up to date with Social Security and its finances. The OJV must contain some compulsory fields, such as the remuneration, which must be equal to or above the national minimum wage, indicate that the advertisement corresponds to an actual vacancy and demonstrate that it complies with all rules of non-discrimination, including gender, age and religion.

The PES portal is being restructured to become a virtual platform. Over the course of 2017 and 2018, it is expected to include more advanced services, such as online interviews, online attendance sessions and online counselling sessions, as well as more advanced tools for job-matching. This platform is connected to the vocational training platforms, which verify information on qualifications and collaborate when a vocational training offer is needed.

The PES portal does not collaborate directly with private portals, since they do not fulfil all of the same mandatory elements required to publish on the public portal. Occasionally, protocols are developed between the PES portal and portals promoted or owned by national newspapers. These protocols have the purpose of publishing OJVs collected by the PES on the newspaper portals. The PES portal never publishes OJVs collected by other portals.

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

The PES online job-portal does not have a specific target group, and it does not target a specific type of employer or job-seeker. All employers have equal access to the portal and may publish OJVs on the PES if they comply with the legal framework and other rules. The vacancy must correspond to a subordinate work contract, therefore advertisements that correspond to non-subordinate work, such as service provision by private contractors, are not allowed. Everyone who is legally able to enter the labour market can access the portal as a job-seeker, but due to the close connection of the portal to the national employment services, the focus group of the PES is the unemployed population.

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

According to the IEFP website, the PES portal provides free employment services and has a national coverage. It may be used for any formal subordinate employment contract. Vacancies posted to the PES are also disseminated to the IEFP's network of employment centres across the country. There are three main types of intermediation available to employers through IEFP. In the first type, the PES publishes the vacancy, identifies candidates, and supports the employer in making a selection. In the second type, the PES publishes the vacancy and helps identify the candidates, but the selection is left to the employer. In the third type, the PES publishes the vacancy but identification of candidates and selection are the responsibility of the employer.

IEFP bases its statistical information on the labour market on information provided by users registered with the Network of Employment Centres, Employment Services of the Employment and Vocational Training Centers and information from Employers who post to the online portal. The most current IEFP statistical report registered 15,030 job offers in Portugal in March 2018, which is an increase over the previous month by 38.2%. The areas with the most growth were real estate, administrative and support service activities; accommodation and catering; wholesale and retail; and construction (IEFP 2018). It is unclear how many of these jobs were posted online. However, on the date in which we checked the website (30 April 2018), there were 6,749 job offers, 3,613 internship offers and 1,279 training offers currently posted to the portal. It is important to note that a job offer can represent multiple vacancies.

3.1.5. Posting of PES Vacancies on EURES

An OJV may be directly published on the EURES platform with the employer's consent. All other OJVs posted to the PES portal are automatically transferred to the EURES portal once per day using web services.

Some interviewees said they do not find the EURES platform very appealing for high-skilled candidates and do not use it when recruiting.

3.2. Private Online Job-portals

3.2.1. Legal/Regulatory Framework

As described in Section 2.1.1, there is no specific legal framework for OJVs. The legal framework for the placement of OJVs is the Portuguese labour law and the sectorial collective regulation. The legal framework for OJVs on private portals is the same as for the PES. Its main concern is to ensure equal opportunities with regard to access to work and employment, regardless of ancestry, race, gender, age disability, language, place of origin, religion, political or ideological convictions, education, economic situation, rank of sexual orientation. Moreover, job-offers cannot indicate any preference based on gender and cannot formulate physical requirements unless they correlate with skills needed for the occupation. Furthermore, women cannot be subjected to oral or written interview questions about whether they think they will have children, whether they are pregnant or other aspects of their private or family life. Whenever possible, the trade unions participate in the recruitment and selection processes in order to ensure the principle of equality.

The Portuguese Labour Code (law no. 7/2009) clearly states that “the exclusion or restriction, based on gender, of the access of a candidate to a job (...) constitutes discrimination based on gender. A job-offer and other forms of advertising linked to pre-selection or recruitment shall not contain, directly or indirectly, any restriction, specification or preference based on gender”.

The National Committee on Equality in Work and Employment ⁽⁷⁾ has the task of monitoring job advertisements, including OJVs. The committee publishes an annual report on this matter. The 2015 report found that 85% of the OJVs (out of a sample of 5,173 OJVs), comply with the legal requirements regarding gender equality and non-discrimination, while 15% do not. Of this 15% (901 OJVs), the tourism and commerce sectors have the highest rate of non-compliance. The committee contacted all 901 employers to inform them about the legislation and to sensitise them to the need to comply with the law and to promote non-discrimination.

⁽⁷⁾ In Portuguese “Comissão para a Igualdade no Trabalho e no Emprego”.

3.2.2. Dominant Online Job-portals and Their Business Models

These are the dominant job-portals in Portugal, according to the different sources:

Table 3: Dominant job-portals in Portugal

| Name of online job-portal | Website address |
|---------------------------|---|
| Net Empregos | http://www.net-empregos.com/ |
| Indeed | https://www.indeed.pt/ |
| Centro de Emprego | http://www.ofertas-emprego.net/ |
| Jobrapido | http://pt.jobrapido.com/ |
| Sapo.Emprego | http://emprego.sapo.pt/ |
| NetEmprego | www.netemprego.gov.pt |
| OLX | https://www.olx.pt/emprego/ |
| Emprego CM | http://www.empregocm.pt/ |
| Empregos.pt | http://www.empregos.pt/ |
| Custo Justo | http://www.custojusto.pt/portugal/emprego-oferta |
| Expresso Emprego | http://expressoemprego.pt/ |
| Itjobs | https://www.itjobs.pt/ |
| JobFinder | http://www.jobfinder.pt/ |
| Alerta Emprego | www.alertaemprego.pt/ |
| JOBTIDE | http://emprego.jobtide.pt |
| Trabalhar.pt | http://www.trabalhar.pt/ |

Source: IFEP, I.P.

Some stakeholders indicated that job-portals do not dominate the online recruitment market in Portugal and that these portals compete with other forms of online job advertising. LinkedIn, a social media platform, dominates the qualified and technological online recruitment landscape with a share of around 70%. Large companies often use their own internal recruitment tools and post job-offers on their corporate web sites.

The 16 job-portals selected present the following business models:

- Two **portals are linked to newspapers** (Expresso Emprego and Emprego CM). The publication of OJVs in the second case is dependent on the registration of the respective media group's website;
- Three **portals including classified ads** (i.e. job-offers among advertisements selling all kinds of products) (SAPO, OLX and Custo Justo);
- Three **secondary online job-portals with international outreach** (Indeed, Job Finder, JobTide);
- One **PES online job-portal** (NET Emprego);
- **Other portals** such as NET Empregos, Empregos.pt, ITJobs, Alerta Emprego, Tralharar.pt.

3.2.3. Focus of the Private Online Job-portals

Most of the portals indicated in Table 3 are cross-sectorial and have a national scope. Eight of them are primary job-portals, three are secondary and five of them are a combination of primary job-portal and secondary functions. They are platforms that do not have a specific target group in terms of employers or job-seekers, although some specific characteristics may be found.

The companies that advertise most often on primary job-portals are generally looking for more qualified workers. Often these companies are recruiting for several positions of the same type. They are more likely to be companies connected to technological sectors or companies that have tried other recruitment sources first without success.

The employers searching for workers with low-level qualifications prefer portals associated with newspapers or that have a business model associated with the advertisement of jobs as well as products.

3.2.4. Outreach of the Private Online Job-portals

Sources that describe the general outreach of private portals do not seem to be available. Table 5 includes information about the OJV volume on the most important portals. Some of these portals contain additional information about the largest sectors. For example, the Centro de Emprego website had 19,480 vacancies as of 30 April 2018. These vacancies are broken down by occupation category or location. The largest categories are Business and Sales (1,823 vacancies), Design and Multimedia (1,315 vacancies), Hospitality and Catering (1,040 vacancies) and Computer Programming (974 vacancies). This site also has 28,038 posts about training opportunities, but not all are formal vocational training positions. Many are educational classes or workshops. SapoEmprego hosts 29,237 jobs in Portugal as well as a few thousand jobs in other European and Portuguese-speaking countries, however additional categories are not available. The portal trabalhar.pt indicates which regions and countries have posted jobs. The region with the most jobs posted is Lisbon (7,232 jobs), followed by Porto (2,430 jobs), while the next largest category is for work abroad opportunities (1,273 jobs).

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

As referred to in section 2.1.2., the public employment portal Net Emprego does not generally collaborate directly with private portals, since they do not fulfil all mandatory requirements of publishing on the public portal.

Occasionally, the PES portal collaborates with portals promoted by national newspapers, because this is a good way to disseminate information to some specific target groups. These protocols have the purpose of publishing OJVs collected by the PES to the newspaper portals. The PES portal never publishes an OJV collected by other portals.

There is not enough data to determine what share of OJVs are placed on the public online job-portal and what share are on the private online job-portals, other than the analysis of the amount of OJVs contained on each of the 16 portals.

3.4. Role of other Recruitment and Job-search Channels

The results of the National Statistical Office survey (Young people in the labour market: 2016 ad hoc module of the Employment Survey) shows that the main method by which employees found their current job was through their network of family, friends and acquaintances (42.1%). This method of job-search was used more by men (46.5%), young people aged between the ages of 20 and 24 years of age (48.3%), young people with education up to tertiary education (56.8%), people with secondary and post-secondary education (43.8%), agricultural workers, livestock, hunting, forestry and fishing (75.5%) and unskilled workers (59.8%). The second most mentioned method was direct contact with the employer, as indicated by 18.6% of employees, followed by the response to job advertisements (16.9%). Both of these methods are more prevalent among women (20.1% and 18.9%, respectively). It should be noted that responding to job advertisements was reported more by those with higher education (29.0%).

The report does not differentiate between traditional print advertisements and OJVs. However, since young people are more qualified and considering the findings in Section 2 regarding the use of Internet, we can conclude that a significant share of these advertisements are likely to be OJVs.

3.5. Expected Trends in the Online Job-portal Market

According to the consulted experts, the vacancy market advertisements in Portugal will increasingly be in the form of OJVs. Some consider that the ongoing digital transformation will lead to a growing sophistication of OJVs, while at the same time providing simplified, user-friendly access from anywhere and through any medium (i.e. computer, tablet, mobile phone). Experts also anticipate an increase in the possibility of immediate interaction with the candidate, including audio-visual means, such as testimonials from collaborators, real images of the workplace, etc., which can quickly give interested parties a richer and more immediate sense of the opportunity at hand. The immediate connection with various social networks will also become increasingly important, especially to engage younger candidates.

4. Use OJVs in Recruitment and Job Search

4.1. Use of OJVs in the Recruitment of Labour

OJVs are aimed at reaching a more qualified and specialized target audience. However, more and more vacancies are being posted online, regardless of the qualification or specialisation of the job, since all stakeholders have indicated increased use of this recruitment channel. This is influenced by several aspects such as:

- The capacity of the employer to analyse a large number of applications;
- The type of occupation;
- The target audience;
- The qualification level associated with the vacancies;
- The existence of HR personnel;
- The support given by the PES technicians.

Companies use OJVs to provide possible applicants information, such as the location of the job and the scope of work like full-time or part-time, and whether there is the option to work remotely.

When considering qualifications, the following applies:

- OJVs for less-skilled jobs are often found on portals where goods such as cars or other second-hand goods are also sold. Examples of these sites are Custo Justo and Sapo online, which are online reproductions of the traditional newspaper classified section;
- LinkedIn is the portal preferred by people with higher and more technical qualifications;
- Job advertisements or job search strategies in ICT-related professions have specific forms of communication regarding recruitment, dissemination of portfolios and use of audio-visual tools.

4.2. Use of OJVs in Job-search

For young people and people with higher education and qualifications, the preferred methods for recruitment and job-search are LinkedIn and other social media networks, such as Facebook. By contrast, for people with low levels of schooling and less qualifications, the preferred methods are 'word of mouth' and personal contacts. Less-qualified people increasingly search for jobs on sales and newspapers portals.

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

See Section 3.5.

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

The selection of the relevant job-portals in Portugal was guided by Google-searches. We have selected the job-portals according to following criteria:

- Range of users: job-portals used by job-seekers, employers and PES indicated in surveys and resulting from desk research;
- Ranking in the Google-search results: higher-ranked job-portals were the ones selected;
- Number of OJVs: the job-portals with more OJVs were selected;
- Geographical scope: nationwide job-portals;
- Sectorial scope: we have selected some sectorial job-portals. Information on these portals was collected through expert interviews about the general characteristics of the OJV market. The PES representative was an important source in considering this topic.

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

| | | |
|-----------------|--------------------------------------|----------------|
| Search 1 | Search term <i>procurar trabalho</i> | Work search |
| | 84.400.000 results | XXX |
| Search 2 | Search term <i>vagas trabalho</i> | Work vacancies |
| | 29.000.000 results | XXX |
| Search 3 | Search term <i>ofertas trabalho</i> | Work offers |
| | 22.400.000 results | XXX |
| Search 4 | Search term <i>vagas emprego</i> | Job vacancies |
| | 18.200.000 results | XXX |
| Search 5 | Search term <i>procurer emprego</i> | Job search |
| | 12.300.000 results | XXX |

Source: IFEP, I.P.

Table 5: Online job-portals based on Google-search

| Name of the job-portal | Type of job-portal | OJV volume (approximate number of OJV) | Geographical scope |
|--------------------------|---|--|--------------------|
| Net Empregos | Primary job-portal | 500 | National |
| Indeed | Combination of primary job-portal and secondary functions | | International |
| Centro de Emprego | Combination of primary job-portal and secondary functions | 9334 | National |
| Jobrapido | Secondary job-portal | | National |
| Sapo.Emprego | Primary job-portal | 32300 | International |
| NetEmprego | Primary job-portal (PES) | 7217 | National |
| OLX | Primary job-portal | 6144 | National |
| Emprego CM | Combination of primary job-portal and secondary functions | 836 | National |
| Empregos.pt | Primary job-portal | | National |
| Custo Justo | Primary job-portal | 653 | National |
| Expresso Emprego | Combination of primary job-portal and secondary functions | | International |
| Itjobs | Combination of primary job-portal and secondary functions | 3475 | National |
| JobFinder | Secondary job-portal | | National |
| Alerta Emprego | Primary job-portal | 1334 | National |
| JOBTIDE | Secondary job-portal | 11549 | International |
| Trabalhar.pt | Primary job-portal | 11000 | International |

Source: IFEP, I.P.

5.1.2. Identifying the Online Job-portals Through Expert Interviews

IEFP (PES) was an important source for identifying online job-portals. The PES gave us a list of online job-portals that is very similar to the list that we generated from the Google searches, with the addition of sites like OLX and Custo Justo. Other interviewed experts identified two more online job-portals as central for the crawling activities: ITjobs and Trabalhar.pt.

5.1.3. Validating the Selection of Online Job-portals

We have validated our choice of online job-portals for web-crawling by asking all of the experts for suggestions and by comparing them with the results of the Google-searches. The results proved to be consistent.

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

Step 1: Register the company:

- Mandatory fields:
 - Name of the entity/company;
 - Name of legal contact person;
 - Social security number;
 - Activity code;
 - Telephone contact;
 - Acceptance of the Code of Conduct and Data Protection.
- Optional fields:
 - Brief presentation of the entity/company.

Step 2: Create and publish the OJV. The company representative is informed about the following aspects:

- All job-offers communicated, via the Internet, as well as changes made to their content, are validated by the IEF, prior to being made available on the portal;
- IEF reserves the right not to publish or to withdraw any OJV if containing inaccurate or inappropriate information. The PES regularly removes all outdated information from its system;
- The candidates determine how they want to contact the employer about offers of employment. This means that any information about the candidate's contact or identity will only be made available if he/she gives explicit permission;
- None of the information transmitted to the PES will be provided to third parties. The services will always comply with the provisions of the Personal Data Protection Law (Law no. 67/98, of 26 October);
- The following rules should be followed by any potential employers who wish to use this system:
 - They may not charge the candidate to accept a particular job-offer. Individual users who are potential job-seekers have been asked to notify PES services of any breach of this rule;
 - The sale or advertising of the CVs registered in this SITE is not allowed; such a procedure violates individuals' ability to control how their CVs are presented;
 - Violation of any of these rules will result in the loss of access to the PES services;
 - The PES evaluates the effectiveness of the services rendered.

Step 3: The PES provides services to help companies manage their recruitment efforts by providing tools that facilitate potential candidates' access to job-offers and provide access to CVs of job-seekers that best fit the needs of the company.

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

In most of the cases, the following steps are necessary:

Step 1: Register the company.

Step 2: Create and publish the OJV.

Step 3: The new OJV is saved, but its online publication will depend on the manual validation of the data entered. This validation usually takes up to 24 hours.

Step 4: Services available. After the registration, it is common to have access to the following services:

- Job-offers announcements to publicise offers and receive applications;
- Mailbox to receive messages and resumes;
- Messaging system to send offers and written messages to the candidate;
- Statistics to see how often each of the OJV was viewed;
- Presentation page, to make the company better known to potential candidates.

5.3. Contacting the Online Job-portal Owners

We have contacted the job-portal owners by email, explaining the aim of the project and asking for permission to use their data within the scope of the planned scraping activities.

We have only received two answers:

- **Sapo Emprego:** They sent us a response indicating that we can access the data about their OJVs: <http://emprego.sapo.pt/xml/trovitFeed.xml>. (XML generated every day at 1:30 a.m. and the process lasts about 30 minutes);
- **IT Jobs:** They sent us a free API ⁽⁸⁾ and all the documentation can be found there ⁽⁹⁾: Also, they are willing to help us with any difficulties or questions.

⁽⁸⁾ <https://www.itjobs.pt/api>.

⁽⁹⁾ <https://www.itjobs.pt/api/docs>.

6. Format and Content of OJVs

6.1. Legal/Regulatory Framework

In Portugal, the legal framework for OJVs is the same as for paper advertisements. As discussed in Section 3.2.1., job-offers cannot indicate any preference based on gender and cannot formulate physical requirements unless these requirements are implicit to the fulfilment of the job.

The Portuguese Labour Code (Law no. 7/2009, Article no. 24) clearly states that, “any worker or jobseeker has the right to equal opportunities and treatment with regard to access to employment, training and promotion or professional career and working conditions, and cannot be privileged, benefited, disadvantaged, deprived of any right”. Equal opportunities refer to gender, sexual orientation, gender identity, marital status, family situation, economic situation, education, social origin or condition, genetic heritage, reduced working capacity, disability, illness, religion, political or ideological beliefs and trade union membership, and the State shall promote equal access to such rights.

“A job-offer and other forms of advertising linked to pre-selection or recruitment shall not contain, directly or indirectly, any restriction, specification or preference based on sex.”

Except for these legal requirements regarding equality in the access to a job, there are no pre-established requirements in Portugal regulating the design of OJVs or influencing the chosen format and content.

Nevertheless, due to its institutional nature, the PES online job-portal requires compulsory content. The requirements include information on academic qualifications, specific technical competencies and soft skills necessary for the performance of the function and professional experience.

6.2. Format of OJVs

There are several factors influencing the format of OJVs. One of the most relevant is the level of qualification required for the position.

The level of qualification has a strong influence on the size of the advertisement and the number of additional requirements listed. The higher the level of qualification, the larger and the more extensive the requirements for social and relational skills, ways of working, personality traits and foreign language fluency. OJVs for more qualified functions generally include the following: specific degrees, work experience in similar functions, fluency in foreign languages (in most cases English), driver’s license, knowledge of specific areas of expertise, social and relational skills, such as team spirit, good communication, dynamism, capacity to take initiative, results orientation, proactiveness and leadership.

The shorter and more concise OJVs often refer to less qualified professions, which do not require a higher degree. There are almost no requirements for soft skills or traits of personality on low-skilled OJVs. OJVs for less qualified professions generally have the following requirements: experience in similar functions (some with a minimum number of years of experience required), immediate availability, professional qualification certificate and/or compulsory schooling (only in some cases) or a driver’s licence.

Most of the OJVs are written in Portuguese. Some job-offers for more qualified jobs are written exclusively in English.

6.3. Content of OJVs

It is possible to find three types of content in online job-portals: those that reference career development in a leading company, those that only have a list of specific requirements and those that have neutral description of tasks.

The differences are explained in part by the degree of qualification associated with the job, but also by the type of employer and the size of the company. In Portugal, 96.2% of the companies are micro-enterprises, with less than 10 employees (INE 2015). In those small companies, there are few chances for career development.

As mentioned above, the level of qualification influences the references to “soft” competencies. In OJVs that require a high qualification, soft competencies are used to indicate the culture of the organisation and the type of candidate whom they believe will fit with the company culture. The main aim is to minimise the chance of “casting mistakes” resulting from people admitted solely based on their technical skills, without considering how they can fit or adapt to the culture of the organization or team.

Most advertisements that include references to personality traits are for highly qualified positions. However, “being responsible” is more common in advertisements for positions with lower qualifications.

In the industry sector, there are two major types of OJVs:

- OJVs centred on functional content, in which the requested competencies are vast and general;
- OJVs centred on academic qualifications, without reference to specific or soft skills.

In the more traditional sectors of the industry, the requirements are focused on academic qualifications and other specific competencies linked to the function, whereas in the most innovative sectors, requirements include cross-skills or soft skills.

We did not find OJVs with explicit references to requesting the legal or criminal history of the candidates or other issues that indicate discrimination of certain groups of people. Also, we were not able to identify “hidden code words” that represent desired skills or traits.

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

On the PES online job-portal, the requirements are pre-established. The requirements include information on academic qualifications, specific technical competencies, soft skills necessary for the performance of the function and professional experience. The content and format on private portals is dependent on the individual portal requirements.

6.5. Expected Trends in the Format and Content of OJVs

The interviewees expect an increase in portals that enable immediate contact between employers and job-seekers with the inclusion of audio-visual means, such as testimonials from collaborators, and real images of the workplace, which can quickly give interested parties a richer and more immediate view of the opportunity. These features will also help employers connect with younger job-seekers.

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Expert Interviews

| Name of organisation | Type of organisation | Expert's position | Interview date |
|---|-----------------------------|------------------------------------|-----------------------|
| Private online job-portal | Labour market intermediary | CEO of the Job-portal | 21 May 2017 |
| IEFP I.P. | PES | Board member | 8 June 2017 |
| IEFP I.P. | PES | Portal Director | 8 June 2017 |
| IEFP I.P. | PES | Portal Technical manager | 11 June 2017 |
| Multinational technology company | Employer | Human Resources & Quality Director | 10 June 2017 |
| AIP/CIP | Employers Association | Board Member | 1 June 2017 |
| INE (no full length interview – contacted to secure relevant data) | Statistical Office | Director | 19 June 2017 |