Mapping the landscape of online job vacancies

Background report: Republic of Ireland

Study: Real–time labour market information on skills requirements: Setting up the EU system for online vacancy analysis
Contract: AO/DSL/VKVET-GRUSSO/Real–time_LMI_2/009/16
prepared for Cedefop by Andrew Dean and Hilary Stevens
Date of release: 19 January 2018

While the original text has been thoroughly revised by Cedefop experts, it did not go through the official publication process (peer review, language editing and formatting)

Please cite this report as:

© Cedefop, 2018
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.
Index

Introduction ................................................................................................................................. 6
1. Methodology .......................................................................................................................... 7
   1.1. Search Paths ..................................................................................................................... 7
   1.2. Data Sources ................................................................................................................... 7
2. Labour Market Dynamics and Impact on the Online Job-portal Market ..................................... 9
   2.1. Recovery in economic performance ................................................................................ 9
   2.2. Types of jobs available .................................................................................................. 12
      2.2.1. Current structure of employment .............................................................................. 12
      2.2.2. Expansion demand ................................................................................................. 13
      2.2.3. Vacancies .................................................................................................................. 15
      2.2.4. Changing expectations of employees ...................................................................... 19
3. Context and Characteristics of the Online Job-portal Market .................................................. 20
   3.1. PES Online Job-portal(s) .............................................................................................. 20
      3.1.1. Legal/Regulatory Framework .................................................................................. 20
      3.1.2. Organisational Structure of the PES Online Job-portal(s) ......................................... 20
      3.1.3. Focus of the PES Online Job-portal(s) ................................................................... 21
      3.1.4. Outreach of the PES Online Job-portal(s) ............................................................... 22
      3.1.5. Posting of PES Vacancies on EURES ................................................................. 22
   3.2. Private Online Job-portals ............................................................................................. 23
      3.2.1. Legal/Regulatory Framework .................................................................................. 23
      3.2.2. Dominant Online Job-portals and Their Business Models ..................................... 23
      3.2.3. Focus of the Private Online Job-portals ................................................................. 25
      3.2.4. Outreach of the Private Online Job-portals ........................................................... 25
   3.3. Co-operation between Public and Private Online Job-portals .......................................... 25
   3.4. Role of other Recruitment and Job-search Channels ...................................................... 25
4. Use OJVs in Recruitment and Job Search ............................................................................... 27
   4.1. Use of OJVs in the Recruitment of Labour ...................................................................... 27
   4.2. Use of OJVs in Job-search .............................................................................................. 27
   4.3. Expected Trends in the Use of OJVs in Recruitment and Job-search .............................. 30
5. Identifying Online Job-portals for Web-crawling .................................................................... 31
   5.1. Documentation of the Job-portal Research Process ....................................................... 31
      5.1.1. Identifying the Online Job-portals Through Google Search .................................... 31
      5.1.2. Identifying the Online Job-portals Through Expert Interviews ............................... 36
5.1.3. Validating the Selection of Online Job-portals .......................................................... 36
5.2. Conditions for Drafting and Posting OJVs in the Selected Job-portals .................................. 36
  5.2.1. Drafting and Posting an OJV on the PES Online Job-portal ........................................... 36
  5.2.2. Drafting and Posting an OJV on a Private Online Job-portal ............................................ 39
5.3. Contacting the Online Job-portal Owners ........................................................................ 41
6. Format and Content of OJVs ................................................................................................. 42
  6.1. Legal/Regulatory Framework ............................................................................................. 42
  6.2. Format of OJVs ..................................................................................................................... 42
  6.3. Content of OJVs .................................................................................................................... 42
  6.4. Main Differences between the Public and Private Online Job-portals .................................... 46
  6.5. Expected Trends in the Format and Content of OJVs ............................................................ 46
References ........................................................................................................................................ 48

List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedefop</td>
<td>European Centre for the Development of Vocational Training</td>
</tr>
<tr>
<td>CIPD</td>
<td>The Chartered Institute of Personnel and Development</td>
</tr>
<tr>
<td>CRISP</td>
<td>Centro di ricerca interuniversitario per i servizi di pubblica utilità, University of Milano-Bicocca</td>
</tr>
<tr>
<td>CSO</td>
<td>Central Statistics Office</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>DSP</td>
<td>Department of Social Protection</td>
</tr>
<tr>
<td>ECB</td>
<td>European Central Bank</td>
</tr>
<tr>
<td>EHECS</td>
<td>Earnings, Hours and Employment Costs Survey</td>
</tr>
<tr>
<td>EURES</td>
<td>European Employment Services</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resources</td>
</tr>
<tr>
<td>ICEs</td>
<td>International Country Experts</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>ISCO</td>
<td>International Standard Classification of Occupations</td>
</tr>
<tr>
<td>OJVs</td>
<td>Online Job Vacancies</td>
</tr>
<tr>
<td>PES</td>
<td>Public Employment Services</td>
</tr>
<tr>
<td>SLMRU</td>
<td>Skills and Labour Market Research Unit</td>
</tr>
<tr>
<td>SOC</td>
<td>Standard Occupation Classification</td>
</tr>
<tr>
<td>SOLAS</td>
<td>The Further Education and Training Agency for Ireland (An tSeirbhís Oideachais Leanúnaigh agus Scileanna)</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Maths</td>
</tr>
</tbody>
</table>
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 the Republic of Ireland. It is based on desk research of available data sources in Ireland (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 Irish 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 Ireland 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 Ireland in terms of format and content. In particular, it explores to what extent OJVs contain information pertaining to hard and soft skills required for the job, how these skills are characterised and what they reveal about the nature of the job.
1. Methodology

1.1. Search Paths
This study of Online Job Vacancies (OJV) seeks to assess how relevant OJVs are in Ireland. It builds on the analysis of the main online job-portals operating across the country, which identified several high profile job-portals operating across Ireland, and the detailed analysis of OJV content on general portals such as the well-established Indeed.ie portal and the relative newcomer, Glassdoor; the PES run site, JobsIreland.ie; and a web-scraping portal, CareerJet.ie, in addition to smaller sectoral websites and databases.

The desk research was carried out in April, May and June 2017. It identified the following useful resources:

- 2016 Vacancy Overview published by the Skills and Labour Market Research Unit (SLMRU) in SOLAS\(^1\), the Further Education and Training Agency for Ireland;
- The HR Practices in Ireland survey (CIPD 2015) sponsored by The Chartered Institute of Personnel and Development (CIPD);

The online job-portals described in this report were identified through an iterative three-step process:

- We verified the continued existence of the 22 portals identified in the Cedefop funded project, “Real-time labour market information on skill requirements: feasibility study and working prototype”;
- We conducted a Google search for job-portals using the search terms identified in Section 5, Table 11;
- We interviewed expert stakeholders and asked them to identify the main job-portals operating in Ireland.

1.2. Data Sources
As no specific research covering the use of OJVs in Ireland could be found, we also relied on resources identifying recruitment trends in other countries, most specifically the UK. Furthermore, detailed interviews were conducted with the Central Statistical Office, JobsIreland.ie, CIPD and a recruiting company. The project team leader at JobsIreland – the PES for the Republic of Ireland – has considerable experience with the PES job-portal. We also spoke with the ESSNet contact for the Ireland, who has many years of experience in the national Statistical Office and is familiar with the ESSNet complementary work in this area. The representative of CIPD Ireland – a leading practitioner body for HR – has a deep knowledge of contemporary recruitment practices. Finally, we spoke with a representative of one of Ireland’s largest recruitment agencies who is also an expert in the field of recruitment practices. We struggled to gain access to specific private OJV portals despite numerous contacts, and the national statistical office was slow in responding, requiring three or four prompts. The one area lacking from this report is Ireland-specific OJV reflection. We made numerous attempts to contact experts in this area, but we were ultimately unsuccessful.

\(^1\) In Irish “An tSeirbhís Oideachais Leanúnaigh agus Scileanna”.

7
Table 1: Overview of the different sources used in the Landscaping Activity

<table>
<thead>
<tr>
<th>Type of source</th>
<th>Title/year</th>
<th>Provider</th>
<th>Information on</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source 1: Public data/academic research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source 2: Research/surveys of interest groups</td>
<td>SOLAS Expert Group on Future Skills Needs (2016): Vacancy Overview 2017</td>
<td>SOLAS</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Source 2: Research/surveys of interest groups</td>
<td>Jobs Report Q4, 2016</td>
<td>IrishJobs</td>
<td>Yes (detailed)</td>
<td>High (analysis of vacancies submitted online)</td>
</tr>
<tr>
<td>Source 2: Research/surveys of interest groups</td>
<td>Resourcing and Talent Planning</td>
<td>CIPD UK</td>
<td>Yes, recruitment method by type of occupation</td>
<td>Medium</td>
</tr>
<tr>
<td>Source 2: Research/surveys of interest groups</td>
<td>2016 Global Job Seeker Survey</td>
<td>JobBoard Doctor</td>
<td>No, but has % of employers using online recruitment</td>
<td>No responses from Ireland but info on UK still applicable</td>
</tr>
<tr>
<td>Source 2: Research/surveys of interest groups</td>
<td>GradIreland Website (2017)</td>
<td>GradIreland</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>Source 3: Expert opinions</td>
<td>Expert Opinions 2017</td>
<td>E1-4</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).
2. Labour Market Dynamics and Impact on the Online Job-portal Market

Three drivers of change have influenced the labour market:

- Recovery in economic performance following deep recession;
- Shift in the types of jobs available (growth in the biopharma and technology sectors as well as Foreign investment particularly by American multi-nationals);
- Change in peoples’ attitudes and preference for companies that emphasise work-life balance and which demonstrate CSR (Corporate Social Responsibility).

2.1. Recovery in economic performance

Ireland was one fastest growing economies in the EU between 1995 and 2007, prompting some to dub the country the “Celtic Tiger”. During this period, the Irish economy benefited from strong inward investment from foreign multinationals such as Microsoft, Google, Pfizer and Glaxo Smith Kline, who were attracted to Ireland because of its low corporate tax and large pool of skilled labour. The economic expansion encouraged a boom in the construction sector, financed by rapid growth in bank lending on the back of optimism over the continued growth of the Irish economy. By 2008, construction accounted for 25% of Irish GDP and 20% of Irish jobs.

The global credit crunch of 2007/2008 hit the Irish economy particularly bad, and by August 2011 major Irish banks had received a EUR 150 billion bailout from the Irish Government and the European Central Bank (ECB) to stave-off bankruptcy. The EU bailout was conditional on a package of austerity measures, which combined with the loss in confidence, contributed to a series of double-dip recessions between 2008 and 2012. These recessions created difficult conditions within the labour market, with demand for labour contracting sharply. Redundancies tripled from around 25,000 in 2006 to 77,000 in 2009 and the number of vacancies plummeted from around 18,000 in the first quarter of 2008 to around 5,000 in the final quarter of 2009. The unemployment rate tripled, and at its highest, in January 2012, it tipped 15%.

Encouragingly, Ireland’s macroeconomic conditions have improved somewhat since then, and while the evidence suggests that labour market outcomes have become more favourable; in most cases, they have yet to return to the levels seen before the recession:

- At 6.2% in April 2017 the unemployment rate was still 1.5 percentage points higher than that recorded in April 2007;
- Total employment, 2,048,100 in the final quarter of 2016, is 5% lower than its peak of 2,169,600 recorded in the third quarter of 2007.

Analysis also suggests that labour market outcomes for at-risk groups, such as the unemployed, those with low educational attainment and individuals outside the labour force, have not kept pace with the overall recovery (Central Bank of Ireland 2017). This suggests that some of those displaced by the recession, or who are entering the labour market with qualification levels below those demanded by employers, are struggling to regain or establish a footing in the labour market.
As might be expected, the volume of vacancies – including online job vacancies – has also increased. The Central Statistics Office (CSO) estimates, collected from the quarterly Earnings, Hours and Employment Costs Survey (EHECS) probably provides the best estimate of the overall number of vacancies in the Irish economy at any one point in time. This is thought to provide a robust time series of where vacancies are occurring at the sector level. The EHECS examines all companies with 50 or more employees as well as a sample of enterprises with 3 to 49 employees and, as such, does not capture all vacancies in the economy (²). Figure 1 shows that vacancies have risen steadily since the final quarter of 2009 and particularly so over the last two years. The latest figures suggest that numbers in the final quarter of 2016 were only marginally below the peak of 18,000 recorded in 2008.

Figure 1: CSO Vacancy Numbers, First Quarter 2008 to Fourth Quarter 2016

The surge in recruitment activity in Ireland is also reflected in the vacancy rate – the number of vacancies expressed as a proportion of total employment – and in the share of residents that have changed jobs in the last 12 months. Both indicators, presented in Figures 2 and 3 respectively, reveal an increase in recruitment activity over the last few years.

Vacancy rates ideally need to be interpreted alongside statistics for total employment, as high vacancy rates in the context of stagnant or contracting employment levels could be symptomatic of high “churn” within the labour market as people move between jobs and in and out of employment. Two points emerge from Figure 2. Firstly, job vacancy rates in Ireland are below the European average and secondly, in keeping with trends evident across the EU as a whole, vacancy rates are rising. The implication for this study is that, compared to the EU as a whole, the number of vacancies being advertised in Ireland is lower than average, given the size of its workforce. This is not necessarily a “bad” thing as it may reflect a more stable workforce.

(²) The survey does not appear to discuss hiring or recruitment channels or online use. It focuses on wages paid, hours worked by employees, employer pension contributions and social security contributions.
The improved economic situation has resulted in a greater volume of vacancies being advertised online. This is illustrated by the metrics presented in an analysis of all corporate vacancies posted on IrishJobs.ie in the IrishJobs.ie Jobs Report Q4 2016. The report shows that the number of job vacancies advertised between June and September 2016 was 11% higher than the same quarter in the previous year.
2.2. Types of jobs available

Changes in the types of jobs available have implications for the hiring practices of companies insofar as some occupations and industries tend to favour particular recruitment practices. For example, recruitment consultants and professional networking sites are more commonly used to fill executive roles, and corporate websites and the local newspaper are the most common method of recruiting manual workers. The following Section examines:

- Current structure of employment;
- Expansion demand over the last 2 years;
- Vacancies;
- Recruitment difficulties.

2.2.1. Current structure of employment

According to the Skills Panorama website the three main employment sectors are wholesale and retail (14%), human health and social work (13%) and manufacturing (11%). Together they constitute three fifths of Irish employment.

Table 2: Sectors with the largest share in employment in 2015 in Ireland (%)

<table>
<thead>
<tr>
<th>No.</th>
<th>NACE Rev. 2</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G Wholesale &amp; retail trade</td>
<td>13.95%</td>
</tr>
<tr>
<td>2</td>
<td>Q Human health &amp; social work activities</td>
<td>12.77%</td>
</tr>
<tr>
<td>3</td>
<td>C Manufacturing</td>
<td>11.23%</td>
</tr>
<tr>
<td>4</td>
<td>P Education</td>
<td>7.70%</td>
</tr>
<tr>
<td>5</td>
<td>I Accommodation &amp; food service activities</td>
<td>7.03%</td>
</tr>
</tbody>
</table>

Source: EU Skills Panorama (downloaded on 20 January 2017).

As might be expected, given its industrial structure, sales workers (7.9%) and personal care workers (5.5%) account for the largest number of jobs at the two-digit ISCO-08 classification. Other common occupations include business and administration associate professionals (5.2%), business and administration professionals (5.1%) and skilled agricultural workers (4.9%).

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

<table>
<thead>
<tr>
<th>No.</th>
<th>ISCO-08</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52 Sales workers</td>
<td>7.90%</td>
</tr>
<tr>
<td>2</td>
<td>53 Personal care workers</td>
<td>5.53%</td>
</tr>
<tr>
<td>3</td>
<td>33 Business &amp; administration assoc. prof.</td>
<td>5.22%</td>
</tr>
<tr>
<td>4</td>
<td>24 Business &amp; administration professionals</td>
<td>5.11%</td>
</tr>
<tr>
<td>5</td>
<td>61 Skilled agricultural workers</td>
<td>4.90%</td>
</tr>
</tbody>
</table>

Source: EU Skills Panorama (downloaded on 20 January 2017).
2.2.2. Expansion demand

Expansion demand measures the extent to which total employment across different industries or occupations has changed over time. Statistics gathered by the CSO show that the country’s three largest sectors accounted for 30% of Ireland’s job growth over the last three years. Wholesale and retail, the largest sector overall, grew by 8,300 jobs, while human health and social work activities grew by 11,900 jobs and industry grew by 26,800 jobs. However, these volumes are dwarfed by those generated in the sector generating the most jobs, construction, which increased its workforce by 40,200 over the period.

Table 4: Employment by industrial sector: persons aged 15 and over: Q4 2013 and Q4 2016 (in thousands)

<table>
<thead>
<tr>
<th>Sector</th>
<th>2014Q1</th>
<th>2017Q1</th>
<th>Change (000)</th>
<th>Change, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fishing (A)</td>
<td>118.4</td>
<td>112.1</td>
<td>-6.3</td>
<td>-5%</td>
</tr>
<tr>
<td>Industry (B to E)</td>
<td>237</td>
<td>263.8</td>
<td>26.8</td>
<td>11%</td>
</tr>
<tr>
<td>Construction (F)</td>
<td>102.3</td>
<td>142.5</td>
<td>40.2</td>
<td>39%</td>
</tr>
<tr>
<td>Wholesale and retail trade, repair of motor vehicles and motorcycles (G)</td>
<td>268.2</td>
<td>276.5</td>
<td>8.3</td>
<td>3%</td>
</tr>
<tr>
<td>Transportation and storage (H)</td>
<td>89.5</td>
<td>95.4</td>
<td>5.9</td>
<td>7%</td>
</tr>
<tr>
<td>Accommodation and food service activities (I)</td>
<td>133.8</td>
<td>152.2</td>
<td>18.4</td>
<td>14%</td>
</tr>
<tr>
<td>Information and communication (J)</td>
<td>80.7</td>
<td>92.7</td>
<td>12</td>
<td>15%</td>
</tr>
<tr>
<td>Financial, insurance and real estate activities (K,L)</td>
<td>97.8</td>
<td>100.4</td>
<td>2.6</td>
<td>3%</td>
</tr>
<tr>
<td>Professional, scientific and technical activities (M)</td>
<td>115.7</td>
<td>116.5</td>
<td>0.8</td>
<td>1%</td>
</tr>
<tr>
<td>Administrative and support service activities (N)</td>
<td>62.5</td>
<td>72.2</td>
<td>9.7</td>
<td>16%</td>
</tr>
<tr>
<td>Public administration and defence, compulsory social security (O)</td>
<td>96.4</td>
<td>100.7</td>
<td>4.3</td>
<td>4%</td>
</tr>
<tr>
<td>Education (P)</td>
<td>150.3</td>
<td>158.1</td>
<td>7.8</td>
<td>5%</td>
</tr>
<tr>
<td>Human health and social work activities (Q)</td>
<td>244.3</td>
<td>256.2</td>
<td>11.9</td>
<td>5%</td>
</tr>
<tr>
<td>Other NACE activities (R to U)</td>
<td>98.6</td>
<td>103.1</td>
<td>4.5</td>
<td>5%</td>
</tr>
<tr>
<td>All NACE economic sectors</td>
<td>1,888.20</td>
<td>2,045.1</td>
<td>156.9</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Ireland CSO extract from Table ESQ04: Persons aged 15 years and over in Employment (ILO) by Employment Status, NACE Rev 2 Economic Sector and Quarter (downloaded on 8 December 2017).

As shown in Table 4, construction increased its workforce by more than one third (34%) over the last three years. Agriculture, forestry and fishing was the only sector to record a decline in employment levels. Looking ahead, projections shown in Table 5 suggest that the construction workforce is expected to increase at least three times faster than any other sector between 2015 and 2025. Real estate, professional and related activities is expected to be the second fastest growing sector – in part, related to the growth in construction.
Table 5: Sectors expected to have the strongest employment change over the period 2015-2025 in Ireland (in %)

<table>
<thead>
<tr>
<th>No.</th>
<th>NACE Rev. 2</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>F Construction</td>
<td>111.68%</td>
</tr>
<tr>
<td>2</td>
<td>L+M Real estate, professional &amp; related activities</td>
<td>34.60%</td>
</tr>
<tr>
<td>3</td>
<td>J Information &amp; communication activities</td>
<td>28.39%</td>
</tr>
<tr>
<td>4</td>
<td>E Water supply, sewerage &amp; related activities</td>
<td>24.55%</td>
</tr>
<tr>
<td>5</td>
<td>O Public administration &amp; defence</td>
<td>17.84%</td>
</tr>
</tbody>
</table>

Source: EU Skills Panorama (downloaded on 20 January 2017).

In terms of occupations, growth in employment over the last three years has been recorded across all categories (see Table 6) but with skilled trades (30,500), and caring, leisure and other service occupations (28,400) generating the largest volumes.

Table 6: Employment by SOC 2010: Persons aged 15 and over; thousands

<table>
<thead>
<tr>
<th></th>
<th>2014Q1</th>
<th>2017Q1</th>
<th>Change, (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, directors and senior officials</td>
<td>154.8</td>
<td>172.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Professional occupations</td>
<td>351</td>
<td>370.5</td>
<td>19.5</td>
</tr>
<tr>
<td>Associate professional and technical occupations</td>
<td>220.7</td>
<td>238.4</td>
<td>17.7</td>
</tr>
<tr>
<td>Administrative and secretarial occupations</td>
<td>208.8</td>
<td>211.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Skilled trades occupations</td>
<td>296.2</td>
<td>326.7</td>
<td>30.5</td>
</tr>
<tr>
<td>Caring, leisure and other service occupations</td>
<td>142.9</td>
<td>171.3</td>
<td>28.4</td>
</tr>
<tr>
<td>Sales and customer service occupations</td>
<td>154.4</td>
<td>165.1</td>
<td>10.7</td>
</tr>
<tr>
<td>Process, plant and machine operatives</td>
<td>140.9</td>
<td>152.8</td>
<td>11.9</td>
</tr>
<tr>
<td>Elementary occupations</td>
<td>211.1</td>
<td>218</td>
<td>6.9</td>
</tr>
<tr>
<td>Other/not stated</td>
<td>7.5</td>
<td>18.4</td>
<td>10.9</td>
</tr>
<tr>
<td>All occupational groups</td>
<td>1,888.20</td>
<td>2,045.10</td>
<td>156.9</td>
</tr>
</tbody>
</table>

Source: Ireland CSO extract from Table ESQ03: Persons aged 15 years and over in Employment (ILO) by Detailed Occupational Group, NACE Rev 2 Economic Sector and Quarter (downloaded on 8 December 2017).

As might be expected, given the anticipated rapid growth in construction employment, building and related trades workers is expected to generate the most job openings over the next ten years (see Table 7). This is closely followed by business and administration professionals, drivers and mobile plant operators, administrative and commercial managers and, perhaps surprisingly given the structural decline in the agricultural workforce, skilled agricultural workers.
### Table 7: Occupations expected to have the largest numbers of job openings over the period 2015-2025 in Ireland (number of people)

<table>
<thead>
<tr>
<th>No.</th>
<th>ISCO-08</th>
<th>Additional number of people needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>71 Building &amp; related trades workers</td>
<td>67,909</td>
</tr>
<tr>
<td>2</td>
<td>24 Business &amp; administration professionals</td>
<td>61,268</td>
</tr>
<tr>
<td>3</td>
<td>83 Drivers &amp; mobile plant operators</td>
<td>60,817</td>
</tr>
<tr>
<td>4</td>
<td>12 Administrative &amp; commercial managers</td>
<td>56,701</td>
</tr>
<tr>
<td>5</td>
<td>61 Skilled agricultural workers</td>
<td>54,261</td>
</tr>
</tbody>
</table>

Source: EU Skills Panorama (downloaded on 20 January 2017).

### 2.2.3. Vacancies

The Skills and Labour Market Research Unit (SLMRU) in SOLAS produces an annual report examining job vacancies for the Expert Group on Future Skills Needs. The report draws upon a number of sources, which include examination of newly advertised vacancies through DSP Jobs Ireland (the Public Employment Services) and IrishJobs.ie (a private recruitment agency). The two portals tend to attract different kinds of vacancies. The private portal, IrishJobs.ie attracts vacancies mainly within the following occupations: professional, scientific and technical, information and communications and financial, insurance and real estate. The DSP Jobs Ireland mainly attract vacancies in health and social work, wholesale and retail, accommodation and food services, administrative and support services and, to a lesser extent, industry, construction and transportation and storage (Figure 4).

**Figure 4: Vacancies by occupational group, 2016**

Source: SOLAS (2016).

The changing nature of vacancies is illustrated in Figures 5 and 6 and elaborated in Table 8, showing a rapid expansion in vacancies for professional, scientific and technical occupations posted on
IrishJobs.ie since 2012 but also for those in ICT and finance, and administration and support, health and social work and wholesale and retail.

**Figure 5: IrishJobs.ie vacancies by occupation, 2012-2016**

Source: SOLAS (2016).

The nature of vacancies posted on Jobs Ireland has also changed slightly since 2012. Wholesale and retail, while still accounting for a significant share of vacancies, has been overtaken by health and social work as the most commonly posted occupational area.

**Figure 6: JobsIreland.ie vacancies by sector, 2012-2016**

Source: SOLAS (2016).³

---

³ Note: 2016 refers to January to June only; the spike in notifications in admin services in 2015 relates to the notification of positions for the 2016 census enumerators.
Table 8: The most commonly posted occupations on IrishJobs.ie and JobsIreland in 2016

<table>
<thead>
<tr>
<th>Administrative and support service</th>
<th>IrishJobs.ie Vacancies 2016</th>
<th>DSP Jobs Ireland Vacancies (Jan-June 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer/technical/ business support with languages.</td>
<td>Office administrators, receptionists, medical secretary</td>
<td>Security guards, cleaning Receptionists, administrators (Office, accounts, sales)</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>Sales representatives, field/inside/are sales agents, business development Sales assistants, retail managers, procurement</td>
<td>Field sales representatives, fundraisers, sales assistants Mechanics, boners/trimmers, stock-takers</td>
</tr>
<tr>
<td>Industry</td>
<td>Engineers (process, manufacturing, quality) Production/Manufacturing managers Technicians (quality, process, laboratory) Process operatives</td>
<td>Operatives (general, production, process, food) Forklift drivers Fitters, welders, fabricators Engineers (process, mechanical)</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>Chefs, sales and deli assistants, catering assistants</td>
<td>Chefs Kitchen &amp; catering assistants Waiters/waitresses</td>
</tr>
<tr>
<td>Construction</td>
<td>Quantity surveyors, project managers site/structural engineers, facilities engineers and health/safety officers</td>
<td>Electricians, carpenters, plumbers, steel fixer, painters Drivers (machine, dumper, excavator, teleporter) Scaffolders, groundworkers</td>
</tr>
<tr>
<td>Education</td>
<td>Lecturers, researchers, tech/student support</td>
<td>Childcare workers English language teachers</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>Drivers (artic, multi-drop, HGV) Logistics (Managers, planners, administrators)</td>
<td>Large goods drivers (artic, HGV, rigid, multi-drop) Warehouse operatives</td>
</tr>
<tr>
<td>Public administration &amp; defence</td>
<td>Researchers, lecturers, HR officers, lab technicians</td>
<td></td>
</tr>
<tr>
<td>Arts, entertainment, recreation &amp; other service</td>
<td>Graphic designers, sports instructors</td>
<td>Hairdressers/barbers Beauticians, spa therapists</td>
</tr>
<tr>
<td>Professional, scientific &amp; technical</td>
<td>Process/project engineers Financial accountants/analysts, data analysts Quality roles – QA/QC engineers/chemists, regulatory affairs, compliance, risk HR roles Marketing (brand management, business development) Technicians (lab, engineering, quality assurance) Accounts assistants/administrators</td>
<td>Accountants Sales &amp; marketing (brand ambassadors) Promotional staff Interpreters, recruitment consultants Civil engineers, quantity surveyors CAD technicians</td>
</tr>
<tr>
<td>Information &amp; communications</td>
<td>IT programmers (with java, Oracles/SQL, .net) Systems analysts, engineers (systems, security, network) Web developers, analysts (data, technical, business) Architect (technical, business intelligence) Technicians – tech support, administrators (database, systems support)</td>
<td>Tech support (with languages) Software developers</td>
</tr>
<tr>
<td>Financial, insurance &amp; real estate</td>
<td>Analysts (business, risk, financial, data, operations) Financial managers, compliance/regulatory reporting IT: software developers, data scientists, IT audit Financial administrators (fund accountants, pensions)</td>
<td></td>
</tr>
<tr>
<td>Health &amp; social work</td>
<td>Nurses (staff, clinical nurses, theatre) Doctors, pharmacists, radiographers, medical scientists Social workers, psychologists, occupational therapists, physiotherapists Radiation therapists, cardia physiologist, pharmacy/lab technician</td>
<td>Care workers, nurses</td>
</tr>
</tbody>
</table>

Source: SOLAS (2016).
Analysis of job vacancy rates by industrial sector reveals greater levels of recruitment activity – given the existing size of the workforce in Ireland – in information and communication, financial and insurance activities, professional, scientific and technical activities, administrative and support service activities, public administration and defence and arts, entertainment and recreation (see Figure 7).

**Figure 7: Job Vacancy Rate for different economic activities in Ireland (above average), 2015**


The previously held occupations of the unemployed can also be useful in understanding which types of jobs people leave without having secured another post and where the workforce is most likely to become redundant, for example, due to automation. Figure 8 shows that the majority of unemployed people in 2015 previously worked as service or sales workers, craft and trades workers or workers in elementary occupations.
2.2.4. Changing expectations of employees

The final driver of change within the labour market is related to the changing expectations of employees. One recruitment agency provided anecdotal evidence that, at least in some professional occupations, people’s attitudes have changed:

“[Candidates] want to work for companies that have what some might consider ‘soft values’ – such as respect for their employees in terms of not letting work spill over into their personal lives, for example, and we also have candidates that simply won't interview for companies without demonstrable CSR (corporate social responsibility) policies. People want jobs that add currency to their CV, but they also want to enjoy doing them. As a result, they prefer to work for companies that reward them not just financially (that’s almost taken for granted) but also offer interesting challenges, career progression, a good working environment and take a genuine interest in employees’ well-being and work-life balance.”

Companies that have survived the recession are leaner, with refined processes and products. New recruits need to be competent heads of function, but they also need to see the bigger picture and be commercially savvy about the bottom line for the business as a whole.

---

*Figure 8: Previous occupations of the unemployed in 2015 (in thousands)*


---

4 Micheal O’Leary, MD of recruitment company, HRM, reported in the Irish Times.
3. Context and Characteristics of the Online Job-portal Market

3.1. PES Online Job-portal(s)

3.1.1. Legal/Regulatory Framework
Irish employment law holds that advertisements are required to comply with legislation governing equality in employment, including access to employment. In addition, job advertisements should be carefully worded, as applicants will rely on that wording, and it may form part of a contract of employment (Fry 2013)

None of the stakeholders interviewed for this report identified regulations governing the structure and content of OJVs, although all highlighted European employment equality legislation that is designed to prevent discrimination on nine separate grounds. The legislation and associated case law influences the language that is used in job vacancies. For example, it is illegal to seek “young” candidates and wise to avoid adjectives that might suggest discrimination through their perceived association with a particular age group, for example, “dynamic” or “mature”.

One interviewer also volunteered that they do not request a specific number of years of post-qualification experience in their advertisements, as doing so could suggest that there is a particularly desired age demographic. This precaution was not based on any specific legislation. Because of efforts to avoid using potentially discriminatory language around years of experience, the expert noted that they have to be even more specific in terms of the skills they expect someone to have, as specific skills can indirectly show that a level of experience has been attained. An OJV might indicate that they are looking for someone with “significant” experience to work at an “executive”, “managerial” or “supervisory” level. In some sectors, for example in health, this was less of a problem (i.e. the need for Doctors with at least a specified number of years’ experience was permitted in the OJVs).

The PES representative indicated that regulations related to data protection legislation could have an impact on portals, as such legislation inhibits the ability of these sites to share job-seekers’ information with employers.

3.1.2. Organisational Structure of the PES Online Job-portal(s)
The PES OJVs tend to include the following elements:
- Job title;
- Location;
- Salary;
- Contract hours;
- Description of the role and responsibilities;
- Description of experience level, qualifications and skills sought.

Some OJVs contain links to webpages or podcasts with more information about what it is like to work in the organisation.
3.1.3. Focus of the PES Online Job-portal(s)

The PES and private portals differ in terms of the types of jobs advertised, the characteristics of the job-seeker and the business model underpinning it. Table 9 summarises the main differences between JobsIreland.ie (the PES portal) and IrishJobs.ie. Contrary to the content of the table, the IrishJobs.ie site does contain advertisements posted by agencies.

Most vacancies on JobsIreland.ie are for skilled trades, personal services, operatives and elementary occupations (see Table 9) with the majority of vacancies within the following sectors: health and social work, wholesale and retail, accommodation and food services, administrative & support services and to a lesser extent, industry, construction and transportation & storage. The aim is that all public sector appointments, including the Civil Service and local government, will be advertised on the site. The PES online job-portal is free for all job-seekers and employers.

As one stakeholder described, “JobsIreland (PES) is identified with those who are unemployed and mainly seeking lower skilled roles”. The expert also felt that as unemployment benefit claimants are obliged to apply for jobs as part of their eligibility for support, employers sometimes receive applications from people who were not interested in the job or had irrelevant experience. They also observed that “roles are picked up and promoted by other state agencies even after the job is filled”. One stakeholder felt that job adverts on private online job-portals tended to be better written – in terms of content and language – than those on the public portals. They felt that sites serving the public sector were “complacent” insofar as they were relying on the fact that candidates wanted to work for those employers and therefore did not make as much effort toward selling the opportunities to candidates – “they do not feel they need to be so competitive in the way they describe their jobs”.

Table 9: Differences between OJVs on JobsIreland (PES portal) and IrishJobs.ie

<table>
<thead>
<tr>
<th></th>
<th>IrishJobs.ie</th>
<th>DSP Jobs Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope</strong></td>
<td>Most vacancies relate to professional and associate professional positions.</td>
<td>Most vacancies are for skilled trades, personal services, operatives and elementary occupations.</td>
</tr>
<tr>
<td><strong>Employer/Agency</strong></td>
<td>Includes vacancies advertised by employers only</td>
<td>Includes vacancies by both employers and recruitment agencies</td>
</tr>
<tr>
<td><strong>Posts</strong></td>
<td>Reports vacancies without detailing the number of posts involved for each vacancy</td>
<td>Reports the number of posts for each vacancy advertised.</td>
</tr>
<tr>
<td><strong>Administration of vacancy websites</strong></td>
<td>Employers administer the vacancies advertised directly and as such can refresh a previously advertised vacancy to occur as a new vacancy in the same or following month, which may lead to an overestimation of the true number of vacancies.</td>
<td>The DSP administer the portal and are responsible for when vacancies are advertised and for how long; each vacancy only occurs once.</td>
</tr>
<tr>
<td><strong>Occupations</strong></td>
<td>Occupations coded to SOC2010 by SLMRU using CASCOT software based on the job title given.</td>
<td>The data is pre-coded with MANCO occupational coding by DSP staff, which is then matched to SOC2010 codes by SLMRU.</td>
</tr>
<tr>
<td><strong>NACE sector</strong></td>
<td>Data already assigned a sectoral classification which is linked by SLMRU to a NACE sectoral classification; therefore, it is possible for one occupation to appear in a number of NACE.</td>
<td>As the data did not include a sectoral classification, each SOC code was linked by SLMRU to a NACE sectoral code based on the sector where that occupation is most often associated with; therefore each occupation only appeared in one sector analysis.</td>
</tr>
<tr>
<td><strong>Level of experience</strong></td>
<td>Available for 53% of the vacancies in 2016 and broken down by the number of years experience required.</td>
<td>Information on experience available for 98% of the vacancies, but grouped into three categories: no experience; some experience and full experienced.</td>
</tr>
<tr>
<td><strong>Level of education</strong></td>
<td>Available for 53% of the vacancies in 2016 with detailed breakdown of the education level required.</td>
<td>Not provided.</td>
</tr>
</tbody>
</table>

Source: SOLAS (2016).

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

JobsIreland contained almost 6,700 vacancies on 23 May 2017. JobsIreland.ie was revamped in July 2016 with the ambition to become the number one online job-portal in Ireland in the future. By comparison, Indeed had vacancies for over 32,000 jobs on the same date.

The representative from the PES portal felt that IT companies were perhaps most familiar with online job-portals; the PES employs account managers to look after companies employing more than 500 staff so can be confident that they received vacancies from these largest companies. They recently launched awareness campaigns to promote the JobsIreland.ie portal to a wider number of employers. In terms of selection, employers tended to favour face-to-face and video interviews although some smaller employers used telephone interviews to screen candidates.

### 3.1.5. Posting of PES Vacancies on EURES

The EURES contains details of all the vacancies posted on JobsIreland.ie with the exception of the community employment vacancies, for which only Irish candidates are eligible. The interviewed

---

5 IrishJobs.ie vacancies are assigned an occupational code using Cascot software, which automatically assigns a code based on key words or word segments found in the job description; in some cases the match may be erroneous (e.g. anti-money laundering may be mistaken for laundering services), and as such this has the potential to reduce the accuracy of the data. The Skills and Labour Market Research Unit (SLMRU) uses the software to match occupations to the British standard occupation classification system, SOC 2010 (Standard Occupational Classification – level 4).

6 The DSP Jobs Ireland vacancies are assigned codes manually (using a MANCO occupational coding system) which are then mapped by the SLMRU to Standard Occupational Classification (SOC) codes; this re-coding process has the potential to diminish the accuracy of the data.
expert was very positive about the EURES platform and, in particular, noted its ability to match CVs to vacancies, a feature they were hoping to offer on their portal soon.

The PES representative recognised that the EURES platform does not yet have the reputation that it deserves among employers, but they were working to rectify this through promotional efforts. The employer stakeholder agreed that the EURES portal is not generally well known and thought that it might get used by graduate R&D programmes among the academic community.

3.2. Private Online Job-portals

3.2.1. Legal/Regulatory Framework
Like public online job-portals, private portals are not subject to regulations governing their structure and content. The Employment Equality Acts 1998-2015 cover general employment discrimination, including during recruitment. It states that one person cannot be treated less favourably than another based on gender, civil status, family status, sexual orientation, religion, age, disability, race or membership in the Traveller community. Regarding job advertisements, the legislation indicates in Employment Equality Act, 1998, Part II, Section 10 that, “A person shall not publish or display, or cause to be published or displayed, an advertisement which relates to employment and which indicates an intention to discriminate or might reasonably be understood as indicating such an intention.”

3.2.2. Dominant Online Job-portals and Their Business Models
The stakeholder interviews suggest that the online recruitment market is dominated by a small number of job-portals. IrishJobs.ie and Indeed were the most commonly mentioned but also the PES-run portal, JobsIreland, as well as LinkedIn and Monster. Market dominance is assumed to be based on the sheer number of vacancies advertised. Some specialist portals catering to specific audiences are more or less dominant in particular sectors. Some sectors that seem to have specialist portals are the public sector (publicjobs.ie), academia and international vacancies.

Socialtalent listed its Top 10 online job-portals in Ireland as well as where those portals rank among all websites. The top 10 job-portals in 2016 are shown in Table 10:

Table 10: Socialtalent’s 2016 ranking of online job-portals

<table>
<thead>
<tr>
<th>Job-portal Ranking</th>
<th>Website</th>
<th>Overall Website Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Indeed.ie</td>
<td>#60</td>
</tr>
<tr>
<td>2.</td>
<td>Jobs.ie</td>
<td>#90</td>
</tr>
<tr>
<td>3.</td>
<td>IrishJobs.ie</td>
<td>#97</td>
</tr>
<tr>
<td>4.</td>
<td>FAS.ie⁷</td>
<td>#181</td>
</tr>
<tr>
<td>5.</td>
<td>Monster.ie</td>
<td>#224</td>
</tr>
<tr>
<td>6.</td>
<td>Fiverr.com⁸</td>
<td>#262</td>
</tr>
<tr>
<td>7.</td>
<td>PublicJobs.ie</td>
<td>#346</td>
</tr>
</tbody>
</table>

⁷ This is a website providing information about apprenticeships. It is not a job-portal.
⁸ This is a website advertising freelancing opportunities.
They also provide comparisons between the rankings for 2016 compared to the previous year. In describing movements in the rankings over the last 12 months, they report:

"Not only has Indeed.ie held onto the number one spot, they’ve also moved a whopping 28 places to become Ireland’s 60th most popular website. This is the fourth year running that the world’s number one job site has climbed up the list. Jobs.ie, IrishJobs.ie, FAS.ie and Monster.ie maintain their position within the Top 5, while newcomer Fiverr.com came from nowhere to claim 6th place on the list. PublicJobs.ie jumped up the list from ninth to seventh, while another newcomer, Jobbio.com, shot into the list at number eight. Overall, we’re delighted to see that job board visitor numbers are up in Ireland – they had been steadily declining from 2013 to 2015 – in fact, there are now three job boards in the Top 100 Most Visited Websites in Ireland."

The Top 10 includes a couple of sites that are not traditional online job-portals FAS.ie and Fiverr.ie are targeted at people seeking apprenticeships and freelancing opportunities, respectively. While the significance of Indeed.ie, Irishjobs.ie and to a lesser extent jobs.ie and RecruitIreland.com in terms of the number of vacancies posted is confirmed by our analysis, there are a number of notable omissions from the list:

- Careerjet.ie: an international web-scraping portal that returns over 40,000 job vacancies in Ireland;
- JobsIreland.ie: the PES-managed portal;
- Glassdoor: a relative newcomer to the market containing 17,000 vacancies in Ireland (i.e. more than Reed, Irishjobs.ie, Jobs.ie and RecruitIreland.com).

Unfortunately, it is not possible to determine how many vacancies are advertised on Monster.ie, as the portal does not display a total count of the OJVs, and searches can only be completed by entering a keyword or location. In addition, when searches return large numbers of OJVs, the portal merely states that the search includes over 1000 jobs.

In summary, the dominant job-portals for online-recruiting and job search in Ireland are:

- Careerjet.ie: An international web-scraping site that references job listings originating from more than 33,000 online job-portals, recruitment agency websites and large specialist recruitment sites across the world. It contains 13.5 million job postings across Europe, of which almost 42,000 are in Ireland. The job offerings are not hosted by Careerjet; users are always redirected to the original job posting. Careerjet was first launched in 2002. Despite its coverage, careerjet.ie was not mentioned by any of our stakeholders, and it only appeared in the first three pages of one of our internet searches. This suggests that despite its coverage, it is not as well-known in Ireland as some of the other traditional online job-portals.
- Indeed.ie: Claims to be the #1 job site worldwide and is available in more than 60 countries and 28 languages. It describes itself as the “leading pay-for-performance advertising network”. Indeed.ie contained 33,200 listings on 23 May 2017.
IrishJobs.ie: A private recruitment company. According to its website, IrishJobs.ie is Ireland's most popular website, used by over 1,000 businesses and over 700,000 users each month. There were almost 10,400 job openings listed on the site on 23 May 2017.

DSP Jobs Ireland: The Public Employment Services recruitment site contained almost 6,700 vacancies on 23 May 2017. JobsIreland.ie was revamped in July 2016 with the ambition to be the Number 1 online job-portal in future.

Broadly, the portals can be divided into eight categories:
- Public sector job-portals (e.g. JobsIreland.ie);
- Specialist job-portals: general (e.g. Indeed.ie);
- Specialist job-portals: specific sectors or occupations (e.g. healthcarejobs.ie);
- Vacancy databases on professional institutes websites and other forums (e.g. activelink.ie);
- Recruitment agencies (e.g. cpl.ie);
- Newspaper, classifieds or “market place” (e.g. gumtree.ie);
- Vacancy scraping specialists (meta-search job-portals) (e.g. careerjet.ie);
- Employer web sites (e.g. Apple, Dell etc.).

3.2.3. Focus of the Private Online Job-portals
Private job-portals, when compared to the PES are more commercially focussed, emphasise the employer brand more, are more targeted in the types of roles they recruit for and have a database of candidates to draw from.

3.2.4. Outreach of the Private Online Job-portals
Stakeholders reported fairly widespread use of job-portals by employers: “It is, at the moment, probably, a part of every organisations’ recruitment plan, I would have thought”. One respondent qualified this with the belief that some employers might chose not to use private portals if they were under “severe time and resource pressure or very clear that they do not have the skills or capabilities to a screen candidates.” They continued that other, “companies should and would also use an online job-portal as the cheapest way of hiring,” and thought there were potential legal and reputation risks to not managing online applications correctly.

The EUROSTAT survey suggests that enterprises of all sizes in Ireland are more likely than the European Union average to use social media to recruit employees, with the propensity to use social media as a recruitment tool positively related to company size.

3.3. Co-operation between Public and Private Online Job-portals
Interviewed experts suggested that the PES is very much a stand-alone portal and that there is little cooperation with private portals.

3.4. Role of other Recruitment and Job-search Channels
Stakeholders described a range of recruitment practices used by employers and recognise that these practices vary by sector and occupation. These practices include the following:
• Targeting specific cohorts of potential recruits, most notably graduates, by cultivating relationships with higher education institutions;
• Word-of-mouth recommendations, especially within the more casual labour markets (for example accommodation and retail);
• “Entrenched” use of job-portals and the web, this tends to be most common among recruitment of professionals, IT-related occupations and for managerial roles;
• Growing use of referral schemes and networking (e.g. build social media networks and then using these networks to attract potential candidates);
• Predominance of face-to-face and occasionally video interviews.

Unfortunately, neither our desk research nor stakeholder interviews uncovered any published information about the use of OJVs by employers in Ireland.

3.5. Expected Trends in the Online Job-portal Market

The stakeholders predicted the following developments in job-portal development:
• More precise matching of job-seekers to vacancies (for example, matching keywords in job advertisements and CVs);
• More use of videos and podcasts and career-type videos to showcase the organisation, its work and employees;
• Growing interest in applying to jobs through LinkedIn profiles and more targeting of networked individuals, putting more emphasis on common values and shared ethics within organisations;
• Cross-pollination of job-portals and increased accessibility to let people apply using smartphone devices;
• More specialist recruitment sites for technical areas;
• Automation of assessment tools and integration of these into the recruitment process to speed up recruitment. While there is interest in podcast submissions, this has not proven popular with candidates to date. Increase in online interviews and live chat communications and FAQs. Job-portals will grow their internationalisation of roles and candidates, and those with databanks of international candidates are likely to fare better.
4. Use OJVs in Recruitment and Job Search

4.1. Use of OJVs in the Recruitment of Labour
There is no published information on how the hiring practices and the use of OJV in particular has changed over the last three years within Ireland. The preceding analysis suggests that the recruitment activity has improved since the recent recession(s) with the volume of online vacancies also increasing. The other key message suggests that OJVs on JobsIreland (the PES portal) and Irish-jobs.ie include many of the occupations that account for the largest share of employment today as well as the occupations that are predicted to generate the most jobs in the coming years. For example, JobsIreland tends to attract the lower skilled positions – sales workers and personal care workers are the two largest occupations– and IrishJobs.ie attracts the business and administration professional and technical occupations. It is clear that a scraping exercise that only used one of these portals would omit key industries. Given that the construction industry is expected to generate large numbers of jobs, it would seem sensible to include portals such as constructionjobs.ie that serve this specific audience.

The changing expectations of employees suggests that employers will need to craft job advertisements that “sell” the role and company to candidates, including information beyond the salary, such as career progression and opportunities for work-life balance.

4.2. Use of OJVs in Job-search
Our experts assume that most job-seekers are familiar with using the internet to search and apply for jobs, often using smart devices, and that they use online job-portals as part of their wider job search strategies. These wider strategies include contacting recruitment agencies, reaching out to their personal networks and updating their LinkedIn profile – a “patchwork quilt approach,” as one interview described it. Those looking for specific or “niche” jobs might access a specialist online job-portal, and some would contact the employer directly, through the employer website for an advertised role or perhaps contacting an employer following a recommendation for vacancies, as is common in the accommodation and retail sectors.

Few job-seekers buy local or national newspapers, especially if they are on a low income. Young people are natural “consumers” of online content, and although state services are increasingly being delivered online (for example, Mywelfare) older people and those living in areas with patchy broadband connectivity are less likely to access the internet for job search. To overcome this, the PES has held IT awareness and access events in local citizens’ advice centres and libraries, and the JobsIreland.ie portal is available through kiosks in PES offices. One interview partner thought people in senior management and executive roles are less likely to use an online job-portal. These individuals would more likely rely on their networks and are more likely to be headhunted.

Social media platforms are also being used. On some platforms potential candidates receive emails about relevant roles.

Internet users in Ireland were significantly less likely to use the internet for jobs search or sending an application than for many other purposes (see Figure 9), and they were slightly below the EU average for these activities as well.
The use of the internet for job search or making job applications increased steadily across the European Union from 2007 to 2015. Ireland followed this trend (see Figure 10) until 2011, but curiously, usage for this purpose fell between 2011 and 2015. It is not clear why.

Use of the internet for job search is positively correlated to education level, although even among individuals with a high formal education, fewer than one in five use the internet for job search. Only 5% of internet users with no or low formal education use the internet for job search. Use has generally increased since 2007, but since 2011, internet job search has dropped across all education levels (see Figure 11).
Figure 11: Internet use for job search or sending an application in Ireland by level of formal education


Unemployed people are most likely to use the internet for job search, probably because they are more likely to be looking for a job using any method. Use of the internet for job search among the unemployed has increased. While only about a quarter of unemployed individuals use the internet for job search in 2007, around 40% used it in 2015.

Figure 12: Internet use: job search or sending an application in Ireland by labour market groups (in %)


People living in densely populated areas are more likely than people living in less densely populated areas to use the internet for job search (see Figure 13). This may be because more densely populated areas have younger populations, who are more likely to change jobs frequently and who are more familiar with online recruitment.
4.3. Expected Trends in the Use of OJVs in Recruitment and Job-search

The changing expectations of employees suggests that employers will need to craft job advertisements which “sell” the role and the company to candidates by including information about benefits such as career progression and opportunities for work-life balance.

To appeal to the younger, more technologically confident generations employers will make more use of internet recruitment, and OJVs. Recruitment for executive roles will probably remain driven through agencies.

The business models that are growing at the moment elsewhere are also growing in Ireland, and they seem to be the ones that offer added-value and even gimmicks. As with other countries, there is a tendency among databases to develop standardised fields.

Adzuna and Indeed currently charge the employer/client based on the number of times job-seekers click on the OJV. In comparison, most online job-portals agree an up-front fixed sum per OJV. The trend is moving towards “cost per click” – so if an ad gets a lot of responses, it becomes more expensive.
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
To identify relevant job-portals, we searched Google using three search terms (see Table 11 and Section 1).

Table 11: Google search terms used for job-portals

<table>
<thead>
<tr>
<th>Search 1</th>
<th>“job vacancies Ireland”</th>
<th>About 1,010,000 results (0.73 seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search 2</td>
<td>“Job search Ireland”</td>
<td>About 123,000,000 results (0.60 seconds)</td>
</tr>
<tr>
<td>Search 3</td>
<td>“Job advert Ireland”</td>
<td>About 631,000 results (0.71 seconds)</td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

The details of job sites that were returned in the first three pages of each google search were noted and are presented in Tables 12 to 18 below. For the most part, these searches returned web links to sites that were also identified in the Socialtalent report (see Section 3.2.2., Table 10). These are highlighted in red. Broadly, the portals can be divided into eight categories:

- Public sector online job-portals;
- Specialist online job-portals – general (portals that focus broadly on high-skilled vacancies);
- Specialist online job-portals – specific sectors or occupations;
- Vacancy databases on professional institutes websites and other forums;
- Recruitment agencies;
- Newspaper, classifieds or “market place”;
- Vacancy scraping specialists (meta-search online job-portals);
- Employer websites.

Public sector online job-portals: The Irish Government funds JobsIreland.ie, the “whole economy” online job-portal of the Public Employment Service. But, there are other job-sites that aim to assist with the recruitment of individuals into public sector roles. These include the publicjobs.ie website, which deals with recruitment into the Civil Service but also other websites for local government and education (see Table 12).

Table 12: Public sector online job-portals

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
</table>

31
Specialist job-portals – general: By far the most common form of online job-portals is the commercial one. These vary in sophistication, but at the basic level they contain details of jobs that are posted by employers directly or indirectly through recruitment agencies. The more sophisticated websites, such as Irishjobs.ie and Glassdoor, incorporate career guidance and tools to support the job-seeker and attract more site visitors.

Table 13: Specialist online job-portals (general)

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irishjobs.ie</td>
<td>General</td>
<td>7,749</td>
<td><a href="http://www.irishjobs.ie%E2%81%B9">www.irishjobs.ie⁹</a></td>
</tr>
<tr>
<td>Reed</td>
<td>General</td>
<td>2,715</td>
<td><a href="http://www.reed.co.uk/jobs/ireland">www.reed.co.uk/jobs/ireland</a></td>
</tr>
<tr>
<td>Indeed.ie</td>
<td>General</td>
<td>32,596</td>
<td><a href="https://ie.indeed.com/">https://ie.indeed.com/</a></td>
</tr>
<tr>
<td>Jobs.ie</td>
<td>General</td>
<td>4,012</td>
<td><a href="http://www.jobs.ie">www.jobs.ie</a></td>
</tr>
<tr>
<td>Monster</td>
<td>General</td>
<td>+1,000</td>
<td><a href="https://www.monster.co.uk/">https://www.monster.co.uk/</a></td>
</tr>
<tr>
<td>Recruit Ireland</td>
<td>General</td>
<td>3,686</td>
<td><a href="https://www.recruitireland.com/">https://www.recruitireland.com/</a></td>
</tr>
<tr>
<td>Jobsearch.ie</td>
<td>General</td>
<td>C 600</td>
<td><a href="http://www.jobsearch.ie/">www.jobsearch.ie/</a></td>
</tr>
<tr>
<td>Total jobs</td>
<td>General</td>
<td>280</td>
<td><a href="https://www.totaljobs.com">https://www.totaljobs.com</a></td>
</tr>
<tr>
<td>JobsDonDeal</td>
<td>General</td>
<td>1,583</td>
<td><a href="http://www.jobsdonedeal.ie/">http://www.jobsdonedeal.ie/</a></td>
</tr>
<tr>
<td>Glassdoor</td>
<td>General</td>
<td>17,139</td>
<td><a href="https://www.glassdoor.ie">https://www.glassdoor.ie</a></td>
</tr>
<tr>
<td>Jobsboard</td>
<td>General</td>
<td>24</td>
<td><a href="http://www.jobsboard.ie/">http://www.jobsboard.ie/</a></td>
</tr>
<tr>
<td>Employee.ie</td>
<td>General</td>
<td>85</td>
<td><a href="https://www.employee.ie/">https://www.employee.ie/</a></td>
</tr>
<tr>
<td>Jobstoday</td>
<td>General</td>
<td>28</td>
<td><a href="http://www.jobstoday.co.uk/">http://www.jobstoday.co.uk/</a></td>
</tr>
<tr>
<td>CV Library</td>
<td>General</td>
<td>625</td>
<td><a href="https://www.cv-library.co.uk/">https://www.cv-library.co.uk/</a></td>
</tr>
<tr>
<td>Jobbio</td>
<td>General</td>
<td>Not given</td>
<td><a href="https://jobbio.com">https://jobbio.com</a></td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

Specialist job-portals – specific sectors or occupations: While many job-portals contain vacancies across all industries and occupations, some cater to specific audiences. Examples identified through the web search include those dedicated to higher education, health-related jobs, language-related jobs and computers & IT (see Table 14).

⁹ www.findajob.ie.
Table 14: Specialist online job-portals (specific sectors or occupations)

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs.ac.uk</td>
<td>Higher education</td>
<td>82</td>
<td><a href="http://www.jobs.ac.uk">www.jobs.ac.uk</a></td>
</tr>
<tr>
<td>AviationJobSearch</td>
<td>Aviation</td>
<td>14</td>
<td><a href="http://www.aviationjobsearch.com/ireland">http://www.aviationjobsearch.com/ireland</a></td>
</tr>
<tr>
<td>Salesjobs.ie</td>
<td>Sales</td>
<td>331</td>
<td><a href="https://www.salesjobs.ie/">https://www.salesjobs.ie/</a></td>
</tr>
<tr>
<td>Healthcarejobs</td>
<td>Health care</td>
<td>1,401</td>
<td><a href="http://www.healthcarejobs.ie/">http://www.healthcarejobs.ie/</a></td>
</tr>
<tr>
<td>Constructionjobs.ie</td>
<td>Construction</td>
<td>Not given</td>
<td><a href="http://www.constructionjobs.ie/IRELAND.html">http://www.constructionjobs.ie/IRELAND.html</a></td>
</tr>
<tr>
<td>ConstructionjobsIreland</td>
<td>Construction</td>
<td>16</td>
<td><a href="https://ireland-constructionjobs.com/">https://ireland-constructionjobs.com/</a></td>
</tr>
<tr>
<td>Greenjobs.ie</td>
<td>Environmental</td>
<td>3</td>
<td><a href="https://www.greenjobs.ie/">https://www.greenjobs.ie/</a></td>
</tr>
<tr>
<td>Top language jobs</td>
<td>Multilingual and Bilingual jobs</td>
<td>2,568</td>
<td><a href="http://www.toplanguagejobs.co.uk/search/locations-2-country/">http://www.toplanguagejobs.co.uk/search/locations-2-country/</a></td>
</tr>
<tr>
<td>Gradireland</td>
<td>Graduate</td>
<td>289</td>
<td><a href="https://gradireland.com/">https://gradireland.com/</a></td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

Vacancy databases on professional associations and other forums: Several professional associations have websites which incorporate a vacancy database. These are not “stand-alone” online job-portals, but they are nevertheless important sources of information for people seeking specialist roles.

Table 15: Vacancy databases

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineers Ireland</td>
<td>Engineering</td>
<td>36</td>
<td><a href="https://www.engineersireland.ie">https://www.engineersireland.ie</a></td>
</tr>
<tr>
<td>CPA Ireland</td>
<td>Accountancy</td>
<td>60</td>
<td><a href="http://www.cpaireland.ie/careers/jobsearch">http://www.cpaireland.ie/careers/jobsearch</a></td>
</tr>
<tr>
<td>Childcarefinder.ie</td>
<td>Childcare</td>
<td>28</td>
<td><a href="http://www.childcarefinder.ie/jobs/">http://www.childcarefinder.ie/jobs/</a></td>
</tr>
<tr>
<td>Beai.ie</td>
<td>Biomedical &amp; Clinical Engineering Association of Ireland</td>
<td>1</td>
<td><a href="http://www.beai.ie/jobs">http://www.beai.ie/jobs</a></td>
</tr>
<tr>
<td>Early Childhood Ireland</td>
<td>Early years</td>
<td>25</td>
<td><a href="https://www.earlychildhoodireland.ie/jobs/">https://www.earlychildhoodireland.ie/jobs/</a></td>
</tr>
<tr>
<td>Activelink.ie</td>
<td>Not-for-project sector</td>
<td>319</td>
<td><a href="http://www.activelink.ie/content/vacancies">www.activelink.ie/content/vacancies</a></td>
</tr>
<tr>
<td>Learn4good.com</td>
<td>Jobs open to non-Irish Citizens</td>
<td>683</td>
<td><a href="https://www.learn4good.com/jobs/">https://www.learn4good.com/jobs/</a></td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

Recruitment agencies: These tend to be smaller recruitment agencies posting vacancies that have been registered only with them. Most agencies charge employers a fee for finding candidates, however, Web Recruit Ireland charges employers a fixed fee for posting online (see Table 16).
Table 16: Recruitment agencies

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>cpl</td>
<td>General</td>
<td>2,312</td>
<td><a href="https://www.cpl.ie">https://www.cpl.ie</a></td>
</tr>
<tr>
<td>Web recruit Ireland</td>
<td>General</td>
<td>52</td>
<td><a href="http://www.webrecruitireland.com">http://www.webrecruitireland.com</a></td>
</tr>
<tr>
<td>Hays</td>
<td>General</td>
<td>674</td>
<td><a href="https://www.hays.ie">https://www.hays.ie</a></td>
</tr>
<tr>
<td>Manpower</td>
<td>General</td>
<td>168</td>
<td><a href="http://www.manpower.ie/">http://www.manpower.ie/</a></td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

Newspaper, classifieds or “market place”: A handful of “classified” oriented websites exist, providing a relatively low-cost way for employers to post details of their vacancies. These are effectively online versions of the classified sections that (still) appear in some newspapers. The websites also provide listings of community events and items for sale (e.g. cars, property) (see Table 17).

Table 17: Classified oriented websites

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irish Times</td>
<td>Executive</td>
<td>37</td>
<td><a href="http://execjobs.irishtimes.com/">http://execjobs.irishtimes.com/</a></td>
</tr>
<tr>
<td>Adverts.ie</td>
<td>General</td>
<td>1,226</td>
<td>Adverts.ie</td>
</tr>
<tr>
<td>Gumtree</td>
<td>General</td>
<td>9,874</td>
<td><a href="https://www.gumtree.ie/s-jobs/v1c8p1">https://www.gumtree.ie/s-jobs/v1c8p1</a></td>
</tr>
<tr>
<td>Advertiser.ie</td>
<td>General</td>
<td>318</td>
<td><a href="http://classifieds.advertiser.ie/jobs/">http://classifieds.advertiser.ie/jobs/</a></td>
</tr>
<tr>
<td>Locanto</td>
<td>General</td>
<td>2,153</td>
<td><a href="http://www.locanto.ie/">http://www.locanto.ie/</a></td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

Vacancy scraping specialists – meta-search online job-portals: These websites are job search engines that return listings posted on job banks, other job search engine sites and job directories (see Table 18). For example the “Getreskilled” online job-portal claims it aggregates pharmaceutical and medical device manufacturing jobs from over 180 sources into one place.

Table 18: Vacancy Scraping Specialists

<table>
<thead>
<tr>
<th>Website name</th>
<th>Coverage</th>
<th>No. of jobs</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dole</td>
<td>General</td>
<td>5,089</td>
<td><a href="http://www.dole.ie/">http://www.dole.ie/</a></td>
</tr>
<tr>
<td>Career jet</td>
<td>General</td>
<td>41,438</td>
<td><a href="http://www.careerjet.ie/">www.careerjet.ie/</a></td>
</tr>
<tr>
<td>Jobs market</td>
<td>General</td>
<td>Not given</td>
<td><a href="http://www.jobsmarket.ie/">www.jobsmarket.ie/</a></td>
</tr>
<tr>
<td>Trovit</td>
<td>General</td>
<td>Not given</td>
<td><a href="https://jobs.trovit.ie/">https://jobs.trovit.ie/</a></td>
</tr>
<tr>
<td>Getreskilled</td>
<td>Pharmaceutical</td>
<td>652</td>
<td><a href="http://www.getreskilled.com/pharmaceutical-jobs/">http://www.getreskilled.com/pharmaceutical-jobs/</a></td>
</tr>
</tbody>
</table>

Source: Dean and Stevens (2017).

Employer websites: The search also listed links to careers pages from some prominent employers:
- Paypal (33 job vacancies);
- Barnardos;
The search term also generated a link to a website called “Prospects” that provides students with information and advice about finding work in Ireland\textsuperscript{10}. The website lists large, well-known companies based in Ireland:

- Apple (75 job vacancies);
- Dell Ireland (98 job vacancies);
- Facebook (143 job vacancies);
- Genzyme (15 job vacancies);
- Google (107 job vacancies);
- GSK (10 job vacancies);
- IBM (12 job vacancies);
- Intel (41 job vacancies);
- Microsoft (72 job vacancies);
- Ryanair (41 job vacancies);
- Twitter (12 job vacancies).

There are several options for the selection of web portals for the scraping exercise. The best approach will depend on the amount of time that can be dedicated to the activity and the effectiveness of the approaches in identifying duplicate postings. Whilst there are other permutations, we have identified five relevant “options”:

**Option 1: Using existing web-scraping site (low resource intensity)**

There seems to be merit in exploring the scope of the Careerjet website as a source of vacancies in Ireland and potentially across Europe, or as a benchmarking tool with which to compare the results of the Cedefop scraping methodology. The site gathers vacancy information from more than 33,000 websites from around the world and aggregates almost 13.6 million job postings across Europe, of which almost 42,000 are in Ireland.

**Option 2: Choosing the largest job-portals (excluding web-scraping sites)**

The second option is choosing the largest online job-portals (for example, Indeed and Glassdoor) and adding as many others portals, in size order, as resources allow. Adding smaller, general, online job-portals will probably reap diminishing returns. This approach is likely to generate a large number of “duplicate” postings.

**Option 3: Choosing largest online job-portals (sectoral and company focus)**

This option is similar to option two, but it ensures that the sectoral online job-portals are included—even if they contain fewer vacancies. For example, we might want to consider including Active- link.ie, the website for the not-for-profit sector, even though it contains a relatively small number of job postings.

\textsuperscript{10} https://www.prospects.ac.uk/jobs-and-work-experience/working-abroad/work-in-ireland.
vacancies. We could also consider including the websites of major employers, especially if they do not advertise on online job-portals.

**Option 4: SOLAS approach**
SOLAS, the Further Education and Training Agency for Ireland, produces an annual review of job vacancies (SOLAS 2016), which draws upon, among other sources, an analysis of job vacancies posted on the PES job-portal Jobsireland.ie and the private job-portal, Irishjobs.ie. These two job-portals have complementary coverage of occupations and sectors, and therefore have good representation across the economy. If resources are tight, focussing on these two sources would have merit.

**Option 5: A “mixed economy” approach**
A final option is a combination of options three and four; that is taking the SOLAS approach of using the PES job-portal, JobsIreland.ie – which has many of the lower-skilled positions – and combining it with the biggest private-sector portals. This could include Irishjobs.ie as well as Indeed.ie and Glassdoor.ie and as many additional portals as are practical and productive to include. It would also be sensible, if resources permit, to include sector orientated portals such as computerjobs.ie, healthcarejobs.ie, constructionjobs.ie and toplanguagejobs.co.uk, to ensure good coverage.

5.1.2. Identifying the Online Job-portals Through Expert Interviews
Specialist interviews confirm the selection of online job-portals we identified, excluding Careerjet, which may still lack market penetration despite their very high return in OJV numbers.

5.1.3. Validating the Selection of Online Job-portals
These were validated with the interviewees.

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
The JobsIreland.ie job-portal allows employers and recruitment agencies to post job vacancies free of charge. The portal has three templates for the following types of roles:

- Paid positions;
- Self-employed;
- Community Employment Programme.

This section focuses on the information requirements for paid positions. The template for paid positions has three sections, all of which must be completed sequentially before the job advert can be uploaded into the system:

- Vacancy details;
- Candidate requirements;
- Preview and publish.

The vacancy details screen requires mostly mandatory information about the **job opportunity:**

- Job title (free text);
- Job description and key requirements (free text – max. 3,000 characters);
• Job category – (free text box but with drop down options appearing when characters are typed);
• Career level:
  – Not required;
  – Student;
  – Entry level;
  – Experienced (non-managerial);
  – Managerial;
  – Executive;
  – Senior Executive;
  – Professional.
• Primary job location (open box but with drop down options appearing when characters are typed);
• Contract type (permanent/temporary, per day, graduate placement, seasonal, and part-time);
• Job types (shift, variable, flexible, fixed, full time, part-time, per day);
• Hours per week (open);
• Number of positions for this job (open);
• Salary:
  – Not specified:
    ▪ To be confirmed;
    ▪ Negotiable;
    ▪ Competitive;
    ▪ Commission-based;
    ▪ Dependent on experience.
  – Salary specified:
    ▪ Salary:
      ✓ Hourly;
      ✓ Daily;
      ✓ Weekly;
      ✓ Monthly;
      ✓ Annual;
    – Salary amount (open);
    – Currency (option box).
• Advertise this job (dates from-to);
• Do you wish to keep your company details confidential? (tick box);
• Do you want the candidate to be able to apply for this Job via this JobsIreland Portal (tick box).

Voluntary options were:
• This is a nationwide job (tick box);
• Secondary job location;
• Third job location.

The second part of the vacancy posting requires information about candidate requirements. This has four mandatory elements and a number of voluntary elements. The mandatory elements are:
• Experience required;
• Minimum qualification required;
• Additional Skills Criteria & Specialising in Criteria;
• Ability Skills Criteria & Competency Skills Criteria.

It lists the following options for ability and competency skills:

<table>
<thead>
<tr>
<th>Ability Skills</th>
<th>Competency Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>Collaboration</td>
</tr>
<tr>
<td>Analytical</td>
<td>Decision Making</td>
</tr>
<tr>
<td>Catering</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Communications</td>
<td>Initiative</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>Labouring</td>
</tr>
<tr>
<td>Creativity</td>
<td>Leadership</td>
</tr>
<tr>
<td>Customer Service</td>
<td>Management</td>
</tr>
<tr>
<td>Engineering</td>
<td>Negotiation</td>
</tr>
<tr>
<td>Financial</td>
<td>Networking</td>
</tr>
<tr>
<td>Hospitality</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>Priority Planning</td>
</tr>
<tr>
<td>Manual</td>
<td>Teamwork</td>
</tr>
<tr>
<td>Personal/Social Care</td>
<td>Time Management</td>
</tr>
<tr>
<td>Sales/Marketing</td>
<td>Working on own Initiative</td>
</tr>
<tr>
<td>Skilled Trade(s)</td>
<td></td>
</tr>
<tr>
<td>Technical IT</td>
<td></td>
</tr>
</tbody>
</table>

Source: Screen shot of webpage sent to the author by John Amerlynck on 19 May 2017 in an email.

The voluntary elements are:
• Driving licence (full, provisional, novice, none, as well as the types of licenses held);
• Language criteria (listing different languages in a drop-down and options to indicate level of proficiency);
• Proximity to vacancy location (kilometres/miles).

The poster is then able to preview the vacancy before it is published.

The templates are accessed once the poster has registered their company with the site. This can be done from the home page by:
• Clicking on the Register icon; OR
• Clicking on “Advertise a Vacancy” in the “Employers” menu; OR
• Clicking on “Create your company profile” in the “Employers” menu.

The Registration page requires the following mandatory information about the business:
• Are you an existing JobsIreland registered employer? (yes/no);
• User ID (if JobsIreland registered employer);
• Password (if JobsIreland registered employer);
• Business type:
Limited company;
- Business;
- Charity;
- Sole trader;
- Public sector organisation;
- Community/voluntary.

- Is this business in Ireland? (yes/no);
- Business Registration Number (open);
- Business name (open);
- Company size;
  - Macro (0-10);
  - Small (11-50);
  - Medium (51-250);
  - Large (251+);
- Description of the business activity (open);
- Economic activity 1 (drop-down list – 3 levels).

Additional (voluntary) fields are:
- Company logo – facility to upload;
- Trading name;
- Economic activity 2;
- Economic activity 3.

The registration process also requires contact details. Mandatory fields are:
- First name;
- Last name;
- Business email;
- Building/house/street name;
- Street/town name;
- County;
- Country;
- Primary phone number;
- Is this business a Recruitment Agency? (yes/no).

Optional contact fields are:
- Town name;
- Eircode/Postal code/Zip Code;
- Fax;
- Additional phone number.

The portal is free to use, so there are no payment options or screens to navigate. Help options are easily accessible.

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

In this Section we describe the process of drafting and posting an OJV on a private online job-portal.

As is common practice among private portals, access to the job-portals is restricted to those who pay for the service. To advertise a vacancy recruiters need to click on “Advertise a job” on the home page. This takes them to a page where they can submit their contact details.
Once details are submitted, the system generates a message informing the recruiter that a member of the Irishjobs.ie team will be in contact soon. At this stage, no information is given about pricing structures. The page includes a phone number and email link for recruiters to contact the team with any queries. Although we are unable to access the template directly, we can infer the fields – but not necessarily the classifications used – by reviewing the content of a selection of job postings. The contain fields for:

- **Job category**;
- **Recruiter type**:
  - Employer;
  - Agency;
- **Locations**;
- **Salary**:
  - Negotiable;
  - See description;
  - Not disclosed;
  - Where provided these were a combination of €10,000 bandings. For example:
    - €15,000-25,000;
    - €20,000-30,000 (also 25,000-35,000);
    - €30,000-40,000;
    - €40,000-50,000;
    - €50,000-60,000;
    - €100,000 or more.
- **Hours and contract type**:
  - Permanent, full-time;
  - Permanent, part-time;
  - Temporary, full-time;
  - Temporary, part time.
- **Job description (Open – short)**;
- **Job narrative (Open – long)**: This often includes some of the following:
  - A brief description of the job role and company;
  - Name of department;
  - Position the role reports to;
  - Further details of contract (e.g. length of fixed term contract);
  - Key responsibilities/duties;
  - Knowledge and/or experience sought;
  - Core and job specific competencies;
  - Qualifications required;
  - Further information about the company and culture;
  - Salary details;
  - Contact information.
- **Job title**;
- **Start date**.

The process and content for jobs.ie – another private portal – followed a similar pattern to irishjobs.ie. Again, it is not possible to access the template unless a fee is paid, and details of the fee are not revealed until after contact details are supplied and the recruiter is contacted by an account manager from the portal.
Users can choose from a list of sectors to return vacancies. These OJVs contain the following elements:

- Job title;
- Brief description of the role (couple of sentences);
- Company;
- Location;
- These vacancies can be filtered by: employer/agency and full/part-time.

Specific job profiles suggest that mandatory fields are:

- Job title;
- Location;
- Terms (permanent/temporary/full time/part-time)
- Payment;
- Job description (open);
- Related sectors;
- Related locations.

The job description section is free text which includes information about the recruiters, the duties/responsibilities of the role, and the qualifications, skills and experience sought.

5.3. Contacting the Online Job-portal Owners

We followed the requested procedure and contacted the Portals. The challenge will be successfully getting a response as the contacts are largely through “faceless” contact buttons and forms that may well not reach the correct person. The ideal route would be through a well-networked contact within a private portal who could supply other individual contacts within other providers – essentially word-of-mouth.
6. Format and Content of OJVs

6.1. Legal/Regulatory Framework
See Section 3.1.1.

6.2. Format of OJVs
Among the factors influencing the format of OJVs we find that legal regulations are minimal and that the more significant factors are international trends in OJV design and the internationalisation of OJV portals where most fields across different countries are extremely similar. Clearly drop-down menus will change depending on the qualifications and certifications on offer in the country, but on the whole the fields in Irish OJVs do not differ much from those in the US or UK. The job-specific content is becoming quite standardised to help employers post on more than one portal swiftly and easily. Similarly, the potential for employers to advertise their company and to use OJVs as advertising tools is also increasing. The OJVs in Ireland are typically in English, but some are also in Gaelic, particularly on the PES.

6.3. Content of OJVs
We analysed the content of the OJVs against a number of criteria shown in Table 19.

Table 19: Content of OJVs

<table>
<thead>
<tr>
<th>Position in the Google rankings</th>
<th>Most of the links generated by the web search appeared within the first three pages of Google. Only one was a sponsored link.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of job-portal/type of operator</td>
<td>We identified eight types of job-portals (see previous Section). By far the largest group were generic online job-portals. These carry a mixture of direct employer advertisements as well as listing posted by recruitment agencies. There were also a small number of web-scrapping sites and specialist industry orientated sites – some were stand-alone online job-portals and some databases integrated within a broader web-site. Websites carrying “classifieds” contained a relatively large number of vacancies – for example, Gumtree – but some of these may not be “live” vacancies.</td>
</tr>
<tr>
<td>OJV volume</td>
<td>The number of posts vary considerably. The largest web scraping portal – Career Jet – generates almost 41,500 and Indeed.ie has 36,200. This compares to 6,700 on the PES online job-portal. The industry specific portals unsurprisingly carry far fewer numbers of vacancies.</td>
</tr>
<tr>
<td>Sectoral scope</td>
<td>While most of the job-portals ostensibly carry a broad range of vacancies (the distribution of vacancies within portals was not examined) it also generated several examples of sector specific portals: these included a web scraping portal for pharmaceutical vacancies, sector-specific online job-portal for sectors such as health, education, sales, computers and higher education and job databases within broader websites (among these perhaps the most populated was activelink.ie for the non-for-profit sector).</td>
</tr>
<tr>
<td>Publication date of OJVs</td>
<td>Not all web portals included the date the job was posted or a deadline for applications. Approaches can vary especially by industry. For example, some engineering posts may be listed until sufficient numbers of applications have been received. By contrast, public sector</td>
</tr>
</tbody>
</table>
jobs tend to have formal deadlines.

**Update frequency**
This was not clear but appear to be daily for the big job-portals.

**Standardised format**
There appears to be a good deal of consistency in terms of the core information contained within an advertisement. This tends to be:
- Job title;
- Location;
- Hours of work;
- Contract type;
- Description of the company, the work involved and the competencies sought;
- Wage levels often given.

Possibilities for searching the portal varied.
Most had free-text boxes for keywords (job title) and location (sometimes with the option to search within set distances from a particular location). This was often supplemented with an “advanced search” option that allowed more detailed interrogation. For example, using structured menus for hours of work, type of contract, occupation and wages.

In most cases occupations were conflated with industry sectors. For example, might include “sales” and/or “marketing” as well as “retail”.

**Language**
Mostly English, although the public sector sponsored sites also gave an option for Gaelic.

**Download limit**
Not recorded.

**Contact information**
This was often hard to find but usually there was a generic “contact us” email.

Source: Dean and Stevens (2017).

The factors responsible for the content of the OJVs are dominated by the traditions surrounding advertising in Ireland, trends in international OJVs and, to a degree, the areas of skills shortages within the economy. International and larger companies tend to use set formats. Cheaper portals tend to contain less information than recruitment agencies and more traditional online job-portals. Tasks and skills are normally described in a neutral fashion. Negative and positive discrimination do not occur often.

In most cases, occupations were conflated with industry sectors. In 2016, the Business Jobs website revealed the 25 Top skills that get Irish professionals employed\(^{11}\). Technology dominated the top skills along with statistical analysis, search engine optimisation, middleware, and network security. Speaking about the research, senior HR director for LinkedIn Europe, Middle East and Africa, Wendy Murphy, highlighted the importance of technology skills.

“Technology skills are highly valued by Irish employers, which may not come as a complete surprise given the growth in the sector in Ireland last year. It is a positive sign though for science, technology, engineering, and math (STEM) graduates that there is still huge demand for professionals with these skills,” Ms Murphy said.

LinkedIn generated a list by analysing all of the recruiting and hiring activity that occurred on the site. Ms Murphy continued, saying that the option of retraining into some of the most desirable skills is an option for Irish employees.

“For anyone looking to retrain, the Top 25 skills gives a good sense of what employers are looking for when considering going back to further education. We would en-
courage people to ensure that they include their skills on their profile to make it easier for potential employers to find them," Ms Murphy said.

The list is as follows:

- Cloud and Distributed Computing;
- Statistical Analysis and Data Mining;
- SEO/SEM Marketing;
- Middleware and Integration Software;
- Network and Information Security;
- Web Architecture and Development Frameworks;
- Data Engineering and Data Warehousing;
- Mobile Development;
- IBM Mainframes and Systems;
- Software Revision Control Systems;
- Software Modelling and Process Design;
- Data Presentation;
- Algorithm Design;
- Microsoft Application Development;
- SAP ERP Systems;
- Recruiting;
- Perl/Python/Ruby;
- User Interface Design;
- Mac, Linux and Unix Systems;
- Electronic and Electrical Engineering;
- Economics;
- HR Benefits and Compensation;
- Database Management and Software;
- Business Intelligence;
- Shell Scripting Languages.

By contrast Sigmar Recruitment\textsuperscript{12} reported the top ten skills in demand by Irish employers in 2017. They report that demand for talent grew by 26% across all sectors throughout 2016 despite the uncertainty around the UK Brexit referendum and US presidential election. Demand for talent peaked in November, the highest monthly demand Sigmar has seen in its 15 year history. This trend mirrors the fall in the unemployment rate, which fell to a post-crash low of 7.2% in December (Central Statistics Office), a 23% year-on year decline. Demand for 2017 is again very strong, particularly in STEM (Science, Technology, Engineering and Maths) related disciplines across financial services, technology and life sciences sectors in particular. Early indicators suggest demand could increase by as much as 16% in 2017. The Top 10 skills in demand are:

- Software development (Scala/Java);
- Software sales;
- Data analytics (all industries);
- DevOps engineering;
- Financial accounting;
- Engineering (mechanical/electrical/process/project);
- Funds administration (accounting/transfer agency/projects);

\textsuperscript{12} \url{http://www.sigmarrecruitment.com/top-10-skills-demand-irish-employers-2017/}.  

44
• Digital marketing;
• HR/recruitment;
• Financial and risk analytics.

Robert Mac Giolla Phádraig, CCO of Sigmar Recruitment, commented: "While demand for STEM talent has continued to grow in recent years, what’s particularly interesting about demand in 2017 is that many key skills being sought are operational drivers of growth. Demand for sales and marketing talent signals clear intent to acquire more customers, while demand for internal recruiters amplifies the continued demand for talent amongst mid-sized employers. Many of the financial accounting roles are in areas of commercial accounting, financial planning and analytics which are lead indicators of capacity planning and investment which in turn feed into the cycle of growth."

GradIreland has explored what recruiters are looking for and the kind of jargon they use and discovered employers have their own way of describing the skills they look for. Here are the examples they cite and what they mean:

• **Action planning**: Able to plan and implement an effective course of action. Organising time effectively and preparing contingency plans. Able to monitor and evaluate progress against specific objectives.
• **Communication**: The ability to convey information so that it is received and understood. The ability to get your point across. Good writing is part of this, but it’s also about being able to talk to people persuasively – and effective listening.
• **Connected**: Is a team player (e.g. has skills in management, meetings, networking, negotiation and presentation).
• **Coping with uncertainty**: Able to adapt goals in the light of changing circumstances and take on a myriad of tiny risks.
• **Development focus**: Committed to lifelong learning. Understands preferred method and style of learning. Reflects on learning from experiences, good and bad. Able to learn from the mistakes of others.
• **Exploring opportunities**: Able to identify, create, investigate and seize opportunities, help and support.
• **Generalist**: Has general business skills and knowledge (e.g. finance/basic accounting, problem solving).
• **Initiative**: The ability to think for yourself and to work independently.
• **Interpersonal skills**: Relating to people effectively (particularly in a business context) using social communication and interactions. Building effective working relationships, dealing with conflict assertively. Also known as “people skills” and closely linked to communication skills.
• **Leadership potential**: The ability to influence others to achieve business goals.
• **Negotiation**: Able to negotiate from a position of powerlessness and reach “win/win” agreements.
• **Networking**: Able to define, develop and maintain a support network for advice and information.
• **Matching and decision-making**: Understands personal priorities and constraints, which includes the need for a sustainable balance of work and home life. Able to match opportunities to core skills, knowledge, values, interests etc. Able to make an informed decision based on the available opportunities.
• **Political awareness**: Can locate and understand the hidden tensions and power struggles within organisations.
• **Problem-solving**: Analysing a problem, identifying various ways to deal with it, assessing and choosing the most appropriate solution. Effective decision-making.

• **Self-awareness**: Able to clearly identify skills, values, interests and core strengths. Actively willing to seek feedback from others. Able to identify areas for personal, academic and professional development.

• **Self-confidence**: Has an underlying confidence in abilities, based on past successes. Also has a personal sense of self-worth, irrespective of performance.

• **Self-promotion**: Can identify “customer needs” and can define and promote own strengths in a convincing way.

• **Self-reliant**: Can work alone as well as with others (e.g. confidence, self-awareness, action planning).

• **Specialist**: Expertise in a particular area (e.g. tax accounting, family law, aerospace engineering).

• **Team-working**: Working co-operatively in a group of people with different, complementary skills. Thinking about how your work affects others. Working towards a common aim.

• **Transfer skills**: Able to apply skills to new contexts – a higher-level skill in itself.

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

See Section 3.1.3

6.5. **Expected Trends in the Format and Content of OJVs**

Ireland appears generally well-served by different forms of job-portal and it would be interesting to compare the results of the Cedefop web scraping exercise with those generated by the web scraping website, Careejet.ie.

The factors that have the greatest potential to impede the scraping activity are thus:

• **Incomplete coverage**: not all jobs are advertised online and the coverage may be most vulnerable at the lowest and highest skills level. For example, some, particularly, unskilled or informal vacancies, are filled using networks, word of mouth or local newspapers. Similarly, some executive level posts are never formally advertised and filled using headhunters (although The Irish Times advertises executive positions). Incorporating the PES job site will however list some of the more unskilled vacancies.

• **Duplicates**: there is likely to be a fair amount of duplication across the generic job-portals and it may not be easy to spot these.

• **Integrity**: not all vacancies posted may be a “real” job. Some agencies or employers post place-holder advertisements that describe generic positions for which they are often looking for candidates. They use these place-holder OJVs to develop candidate pools that will be used when they have an available position.

• **The classification of vacancies by occupation and sector** may be problem since none of the online job-portals used standard classifications such as SOC or SIC. In some cases, the structured lists overlapped, for example, by listing “sales” as well as “retail”.

The relatively consistent format and language used for the vacancies should facilitate the web scraping exercise. Both the search facilities and the information returned (describing the job vacancies) are fairly consistent across the portals. This tended to be a combination of free text
searches for job title or skill, and location with the option in many cases, to also search these elements using a structured approach.

The main opportunity is to refine searches by occupation, job title of industry.
References

Statistics

Reports and Surveys
## Expert Interviews

<table>
<thead>
<tr>
<th>Name of organisation</th>
<th>Type of organisation</th>
<th>Expert’s position</th>
<th>Interview date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Social Protection</td>
<td>PES</td>
<td>JobsIreland Project Team Leader</td>
<td>24 May 2017</td>
</tr>
<tr>
<td>Central Statistical Office (ESS-net)</td>
<td>National Statistical Office</td>
<td>Earnings Analysis Manager</td>
<td>24 May 2017</td>
</tr>
<tr>
<td>CIPD Ireland</td>
<td>The professional body for HR and people development</td>
<td>Chartered FCIPD, Director</td>
<td>30 May 2017</td>
</tr>
<tr>
<td>Recruitment Agency</td>
<td>Labour Market Intermediary</td>
<td>Director</td>
<td>20 June 2015</td>
</tr>
</tbody>
</table>