Mutual Learning Programme

DG Employment, Social Affairs and Inclusion

Key messages from the Peer Review on "Measuring labour market tightness to improve employment policies and reduce skills mismatches"

15-16 October 2018, Paris (France)

Written by ICF

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EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion

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1 Introduction

1.1 Background and purpose of the Peer Review

The Peer Review discussed different approaches to define and measure labour market tightness to improve employment policies and reduce skills mismatches. The event was hosted by the French Statistical Office for Research and Statistics (DARES) and brought together government representatives and independent experts from the host country (France) and eight peer countries: Croatia, Denmark, Estonia, Greece, Ireland, Spain, the Netherlands, and Turkey. It was also attended by representatives of the European Commission.

The Peer Review gave participants the opportunity to share different national approaches to define, measure and use measurements of labour market tightness, and covered topics including data challenges, good practices and solutions to overcome data issues. The discussions also covered how the policy makers and other stakeholders make best use of the analytical results in the policy and decision-making process.

1.2 The EU policy context

Labour market tightness is a significant problem across Europe that **requires specific policy attention** from actors within the labour market, including governments, companies and workers. In the aftermath of the 2008 global financial crisis, most European countries faced an increasing unemployment rate, while at the same time the number of vacancies shrank significantly[1]. In recent years, unemployment has been decreasing in most EU countries. At the same time, the number of open vacancies has been increasing. Currently, despite the significant number of open job vacancies, the number of unemployed people remains high in some Member States. Hence, labour market tightness is a challenge for many European countries to address ensuring that the potential of the labour force is fully exploited. Persistent and structural mismatches of labour supply and demand have negative implications for the overall productivity, economic growth and competitiveness across Europe. In addition, there are further social and human capital costs due to the mismatches as they limit people's ability to realise their full potential.

According to a study commissioned by Cedefop[2], nearly 40 % of the **employers** across the EU report difficulties in finding employees with the right skills: approximately 50 % of European **employees** argue that their skills do not match their current jobs. Skills mismatches are among the factors which drag down potential economic growth. The European economy loses over 2 % of productivity per year due these mismatches according to a recent study carried out by the European Economic and Social Committee[3].

Therefore, addressing labour market tightness alongside skills mismatches are high on the agenda for many countries, as well as for the European Commission, and a range of concrete policy measures have been adopted both at the EU and national level. At EU level, two initiatives launched in 2016 highlighted the need to address these issues:

i. the New Skills Agenda for Europe – Working together to strengthen human capital, employability and competitiveness, of which the Upskilling Pathways - New Opportunities for Adults, is one of the ten concrete actions, and

ii. the European Pillar of Social Rights.

[1] https://voxeu.org/article/what-drives-eu-labour-market-mismatch
[2] http://www.cedefop.europa.eu/en/publications-and-resources/publications/3075
[3] https://www.eesc.europa.eu/en/our-work/publications-other-work/publications/skills-mismatches-impediment-competitiveness-eu-businesses

1.3 The Peer Review: headline messages and policy implications

The key learning messages from the Peer Review are summarised below:

The measurement and definition of labour market tightness

- There is a growing interest in measuring labour market tightness across the participating countries. **The term tightness *per se* is not necessarily used** in all countries **but addressing the mismatch between labour supply and demand is high on the policy agenda**. By doing so, government decisions on training policy funding, migration, guidance to young people, and support for employers are improved. Moreover, unemployed people can be better informed and assisted in finding the right job.
- It is acknowledged that labour market tightness should be measured given that it has a **negative impact on competitiveness, productivity and consequently on overall economic growth**. In addition, labour tightness has social costs in terms of preventing labour market entrants and unemployed people from reaching their full potential.
- There is no single definition of labour market tightness adopted by all participating countries. There are different terms and terminologies used and the discussions in this Peer Review revealed that **the classical definition of labour market tightness (ratio of vacancies/unemployed) no longer meets the information needs of policy makers and practitioners** in a number of countries. Hence, nowadays some countries use a specific definition of tightness, whilst other countries are developing different approaches by using a combination of various data sources and indicators.

Methods and data sources

- In terms of the methods used, countries presented a **range of approaches**: some countries analyse labour tightness on the basis of statistical results (e.g. France), whilst other countries use a combination of **both qualitative and quantitative analysis** (e.g. Ireland, Denmark, Spain).
- Countries typically have **similar types of data available on labour market tightness-related** indicators such as job vacancies (especially from the PES) and registered unemployed. **However, each country uses them in a different way**.
- Countries mainly rely on **three different data sources of labour market tightness measurement:** PES/administrative data, employer surveys (or surveys of recruitment companies) and online scraping of job vacancies. Each of these has its own strengths and weaknesses. Firstly, **PES and other administrative data** are readily available, but cover only a part of the labour market. Secondly, **employers' surveys** offer a rather comprehensive picture of business needs from the demand side, but the administrative burden, response rate-related issues and the cost are amongst their main disadvantages. Thirdly, experience shows that **online scraping of job vacancies** provides real time data and good data coverage, but this has to be balanced with challenges related to double counting, data protection and labour intensiveness (associated with the analysis of the data).
- Thus, one single source does not necessarily give answers to all the questions related to measuring labour market tightness, but combining different sources is useful to capitalise on their strengths and overcome their weaknesses and have better labour market intelligence.

Use of results and stakeholder involvement

- The appropriate use and dissemination of the information and the results of measuring labour market tightness is crucial. For this, it is essential to have a clearly defined purpose (or purposes) and intended audiences of the analytical results. **The format of this information should be adapted depending on the users**. Unemployed persons, PES, policy makers and employers should receive information in different formats as different products with varying levels of detail and depth of information should be developed.
- **User involvement in the design** of these information products can help to ensure that the deliverables from the analysis of labour market tightness meet information needs.
- **Visualisation of the analytical results** (e.g. tabular or traffic light visualisation for different types of occupations indicating the degree of tightness) is also helpful to communicate the messages and ensure a better use of the findings.
- From a technical perspective, the discussion brought to light the importance of the level of **disaggregation**. Analysis of labour market tightness at detailed local and regional level and detailed occupational level ensures its clarity and comprehensiveness and helps to drive the ensuing decisions in the most optimal way.
- Labour market tightness assessments are often a result of complex statistical and qualitative analysis. Hence, they **should be simplified so that non-technical users understand their content**. Support to the interpretation of information is also helpful to avoid biased conclusions.
- There is a choice regarding how to present the findings from the analysis. Some countries present **judgement-neutral findings** from the statistical analysis of labour market tightness **while other countries make policy recommendations** for decisions based on the available information.
- Finally, **active promotion of results and analyses** of labour market tightness is important. This could be reached by means of "gatekeepers" such as expert groups or further institutional structures (e.g. guidance counsellors), who use the information on labour market tightness and disseminate it further to other users.

2 Host country practice: work in progress in France on a more precise measurement of labour market tightness[4]

2.1 Introduction

France is currently developing an alternative way of measuring labour market tightness (in contrast to the classical ratio between the number of job vacancies and the number of unemployed). This section highlights the contextual developments which generated the need for new indicators, and the work undertaken so far in their development.

2.2 Policy developments

Until mid-2017 France published information on labour market tightness indices – ratio of the number of job vacancies published by the French PES (Pôle emploi)[5] per registered unemployed person. This indicator only took into account job vacancies available through the PES website, omitting vacancies available in the labour market through other stakeholders (e.g. job portals, social network platforms). It also did not cover all occupations, specific industries or levels of qualification. Furthermore, the job vacancies collected by the French PES were sensitive to other stakeholders' behaviour. The labour market picture drawn by this indicator was therefore incomplete, leading to suspension of its publication due to insufficient coverage of the job vacancies data. Subsequently, the Statistical Office for Research and Statistics (DARES) at the Ministry of Labour established a working group to:

1. Study the determinants of labour market tightness reflected in the academic literature and analyse international experiences in the measurement of labour market tightness (including through this Peer Review);
2. Review the available data sources to estimate labour market tightness in a wider perspective and identify potential indicators;
3. Analyse the correlation between various indicators; and
4. Present recommendations on how to improve the measurement of labour market tightness in France in forthcoming publications.

The working group included representatives of the French PES and some regional statistical agencies. The key objective of the working group was to develop a more robust measurement of labour market tightness and coordinate access to different data sources, i.e. administrative data and surveys.

Currently, different alternatives of labour market tightness measurement are being considered: for instance, to introduce one or several indicators, published on annual or quarterly basis, disaggregated by industry or occupation.

Business surveys revealed that employers encounter difficulties in hiring. These findings encouraged DARES to explore a larger spectrum of dimensions to be included in the labour market tightness measurement. Such indicators cover demand side (recruitment needs and difficulties), supply side (labour statistics), quality of jobs (starting salary, wage, working conditions), types of contracts (short-term versus long-term), and employers' perceptions of jobs where hiring is proving difficult.

Regarding data sources, many of them were not taken into account because of insufficient coverage or insufficient occupation classification breakdown; examples of these sources include data from DPAE (employer pre-hire declarations), Acemo (employer survey on vacant positions), and other business surveys. Potentially, in the future, job vacancies published online could be scraped and used in the analysis. DARES initiated exploratory work aimed at automatically retrieving job vacancies available online, notably to code the occupation from the titles and the vacancy descriptions.

[4] Based on: Host country discussion paper and Host country comments paper available at: http://ec.europa.eu/social/main.jsp?catId=1070&langId=en&newsId=9205&furtherNews=yes

[5] The French Public Employment Services (or French PES).

However, further methodological work is still needed before DARES can use this data in analyses.

Shortly it will be possible to extend the range of job vacancies included in the analysis as PES wants to de-centralise its vacancy collection process to include other stakeholders. Partnerships have been concluded between the French PES and around 140 job vacancy websites. These are re-published on the French PES website as "partner offers" to provide the jobseeker with a more complete picture of available vacancies. In the fourth quarter of 2017, 55 % of the vacancies published on the French PES website were "partner offers", thus not collected directly by the French PES.

The review of available sources allowed the DARES Working Group to shortlist key indicators. A Principal Component Analysis (PCA) was carried out to clarify the links between identified tightness indicators (see Table 1).

Table 1. The identified labour market tightness indicators

Source	Indicator
Data from PES labour market statistics (STMT - jobseekers registered at the French PES and vacancies collected by the French PES)	• Tightness indicator in flow: ratio between the flow of PES vacancies (over three months) and the number of entries to the unemployed registered at the French PES over the same period. • Tightness indicator in stock: same as previous tightness indicator but involving stocks instead of flows. • Annual exit rate of jobseekers: intensity of exits from unemployment. This measures labour market fluidity for jobseekers, and thus potential tightness from the point of view of jobseekers. • Share of sustainable job vacancies: proportion of permanent (CDI) and fixed-term contracts (CDD) of six months duration or more among the French PES job vacancies. This indicator assesses the quality/attractiveness of job vacancies. • Number of vacancies per employee: ratio of the number of French PES vacancies in a given occupation to the average employment in this occupation. • Jobseekers per employee: ratio between the number of jobseekers at the end of the quarter and the average employment by occupation. This indicator measures the importance of the available labour supply.
All-employee annual declaration of social data (DADS)	• Wage attractiveness: ratio of wages on average age, by occupation.
Survey of companies' labour needs (BMO - hiring intentions of firms)	• Potential future hires per employee: ratio of the number of potential future hires for a given year, compared to the average employment by occupation. • Non-seasonal potential future hires per employee: Previous indicator restricted to all non-seasonal recruitments anticipated by employers. • Potential future hires anticipated as difficult per employee. • Share of potential future hires anticipated as difficult in total hires anticipated.

2.3 Results and outcomes

The Principal Component Analysis (PCA) presented **two main results:**

- *A high rate of "wage attractiveness" is correlated with a strong labour supply*. One hypothesis is that firms tend to increase both wages of new entrants and of experienced workers in occupations with insufficient labour supply. These firms want to retain the experienced workers in employment and avoid looking for new workers. By contrast, in occupations with an excess labour supply, the need for firms to increase the wages of people already employed in these occupations is lower.
- *There is a link between tightness indicators and working conditions* – the variables related to the working conditions tend to support the two major determinants of labour market tightness: labour tightness due to insufficient labour supply; and labour tightness due to excess labour demand. In particular, the share of employees who think they would struggle to find similar wage conditions in another job is correlated with a lower labour demand (and therefore in particular the availability of job vacancies and potential future hires by firms). The variables also highlight more structural effects on the nature of occupations. Specifically, labour supply is an important issue in occupations with more physical constraints or repetitive tasks. Those are low-skilled occupations for which labour market tightness is low given the large pool of available labour supply.

Two **determinants of labour market tightness** related to two categories of indicators have been distinguished in the initial analysis:

- Firstly, some occupations may be considered tight *due to excess labour demand*. These occupations are generally low-skilled, for which firms are expecting to hire significantly in the future and for which the job vacancies collected by French PES are numerous (for example, the hotel/restaurant sector). Moreover, they are characterised by a higher share of short-term contracts, high turnover of staff, and seasonal work. Firms' hiring difficulties are not necessarily due to the lack of available labour supply and skills shortages, but rather relate to difficult working conditions and decreasing workers' willingness to work in those jobs. The high frequency of recruitment in these types of jobs also increases firms' perception of hiring difficulties.
- Secondly, some occupations are tight due to insufficient labour supply. The corresponding occupations are mostly high-skilled ones, where recruiters anticipate difficulties in recruitment despite the good working conditions offered (including permanent and long-term contracts). These occupations face chronic skills shortages and recruiters struggle to find adequate candidates. IT engineers and programmers, sales representatives, highly-skilled workers and technicians in the construction and automotive repair sectors are examples of occupations that suffer from insufficient labour supply.

Further suggestions for improving the measurement of labour market tightness included:

- A single publication could be helpful in order to improve the visibility of existing information on job vacancies and their contribution to the policy debate. This kind of publication could gather all the information available about job vacancies at country level, and by occupations. In the current situation, information on job vacancies is dispersed in several publications and on different websites of the Ministry of Labour and the French PES, which does not facilitate access for the public, and probably leads to an overestimation of the problem mainly focused on firms' declared recruitment difficulties.
- The initial analysis suggests two main policy orientations to deal with labour market tightness and recruitment difficulties. The first one is based on training (continuous

vocational training as well as initial education and training) to avoid labour shortages in specific skilled occupations; and the second one should be based on measures to improve job quality.

- A series of non-wage dimensions that matter for workers include the physical working conditions, work intensity, working hours and work-life balance, employment contracts and job security, access to training, etc. These dimensions can be improved at the firm-level through different HRM practices and firm-level collective bargaining but also at the branch level.
- On top of training and job quality policies, firms, especially SMEs, should receive more state support to improve their recruitment procedures. From this perspective, the role of public employment service in the collection and diffusion of job offers is also very important.

3 Key Peer Review discussion outcomes

The Peer Review provided participants with the opportunity to discuss approaches and share experiences related to labour market tightness measurement by focusing on:

- Definition of labour market tightness in the participating countries;
- Measurement of labour market tightness including data challenges, good practices and solutions to overcome data issues;
- Best use (publish/disseminate/communicate) of the labour market tightness analysis results;
- Policy responses used to address skills needs and ensure better employment policies.

In the following sections, the main discussion points are briefly summarised, and peer country-specific examples provided.

3.1 Definition and measurement of labour market tightness

Tackling labour market and skills mismatches are key priorities for the stakeholders involved in employment and active labour market policy and decision-making processes in many European countries. Discussions at the Peer Review demonstrated that different definitions are used to describe labour market tightness across the countries. In its classic definition, labour market tightness is a mismatch between labour demand and supply and thus, typically expressed as a ratio between the number of job vacancies and the number of unemployed. In many countries, the classical definition of labour job vacancy rate does not correspond to the information needs of policy makers and practitioners. Therefore, additional qualitative and quantitative indicators are used to measure labour market tightness.

The participating countries have not adapted a single definition for labour tightness and subsequently its measurement varies from country to country. The labour market tightness term is not used per se in every country, but mitigating labour and skill mismatches is an important issue for all countries. Labour market intelligence can support policy makers in shaping training, education and migration policies, providing guidance to young people, and improving assistance to unemployed or employed in progressing or changing career.

Labour market tightness comes from diverse and mutually reinforcing causes, namely:

1. Market defaults: geographical mismatch, and inadequate working conditions;
2. Structural developments: demography, technological progress, and the increase in short-term contracts;
3. Behaviours: difficulties of firms to define their recruitment and skills needs and to provide training for employees, and current inefficient recruitment practices.

In most of the countries participating in the Peer Review (Greece, Spain, Estonia, France and the Netherlands), **working conditions** were identified as one of key factors resulting in a higher number of unfilled job vacancies, especially in certain sectors (e.g. hotel and hospitality services). Individual preferences for **quality jobs**, **skills mismatches to the labour market needs** and the impact of **migration/mobility** are another set of interacting factors impacting imbalances between labour supply and demand at the national level. For example, in **Estonia**, young people tend to be preferred for high quality jobs, as the skills of highly educated older jobseekers tend to be out-of-date and no longer meeting key labour market needs.

In relation to the migration impact, Estonian workers returning from Western European countries put high pressure on wages – local employers have to compete with the Finnish labour market, which can offer higher salaries. Similarly, in Croatia, the impact of migration is such that there is also a shortage of highly qualified jobseekers as they tend to migrate to Germany and Austria attracted by high wages. To some extent, they

are replaced by jobseekers from Bosnia and Herzegovina, but the number of job permits for third country nationals does not fully satisfy labour market needs. Contrary to the situation in Estonia and Croatia, in **Turkey** low skilled jobseekers have to compete with the Syrian refugees. As mid-level skilled workers are dominant on the labour market, employers report difficulties in finding employees with relevant occupational skills and experience. Overall, in Turkey vocational training is seen as a remedy to resolve the problems of skills mismatches. In this respect, regional vocational training councils are leading the delivery of priority training programmes based on PES data.

Ireland puts significant effort on upskilling the low-skilled, providing second chance education and incentivising women to return to the labour market. Training is employer-needs based, especially as it concerns highly skilled employees. The Irish job permit system prioritises highly skilled professionals – IT specialists and doctors.

In Croatia and in Turkey, employers experience recruitment difficulties related to the type of contract (it is more difficult to recruit workers on non-permanent contracts). These difficulties arise from a lack of candidates with relevant experience or education level, lack of motivation or insufficient wages.

3.2 Key methods and data sources used to measure labour market tightness

All participating countries have data available to measure labour market tightness-related indicators. However, countries adopt different approaches to analyse labour market tightness: some involve exclusively quantitative data analysis and some combine quantitative and qualitative information.

In **France,** the approach so far has been to base labour market tightness analysis on statistical results. Administrative data from the French PES, other institutions, and BMO surveys[6], are used in linear and multivariate analysis on the various aspects of labour tightness. On the contrary, **Ireland** adopts a more qualitative-based approach, which uses multiple sources to understand labour market and skills needs. In most countries (e.g. the Netherlands, Denmark, Spain) a combination of both approaches is used in order to obtain a comprehensive picture of labour market tightness.

Furthermore, discussions during the Peer Review highlighted three different data sources to measure tightness, namely PES data, employers' surveys (alternatively surveys among recruitment agencies) and scrapping of online vacancies. Each of these sources have their strengths and weaknesses.

Firstly, PES data (and administrative data) are easily available but they do not cover all job vacancies. There are many job platforms were employers and recruiters can publish their job openings. Therefore, labour market analyses taking into account only PES/administrative data are incomplete. This was the main problem **in the French case**, where the indicator previously used to measure labour demand (number of job vacancies) included only job vacancies posted on the French PES website. A similar situation exists in Croatia were mainly PES data are being used in the analysis (see Box 1). The protection of personal data is another issue limiting the access and exchange of administrative data between the different national authorities.

Box 1: Sources used in Croatia

Croatia has no definition or methodology for the measurement of labour market tightness as in other countries but the number of unemployed people as well as the number of job vacancies are recorded by the Croatian Employment Service (CES). Other data sources are available such as the labour force survey (from the National

[6] Labour Needs Survey (Enquête "Besoins en Main-d'Œuvre").

Statistics Office), social welfare statistics (from the Croatian Pension Insurance Institute), and information on wages (from the Financial Agency). However, these different data sources have not yet been linked. To solve this problem, the Croatian government has made significant efforts to create a complex database by developing a legal foundation for the establishment of the Shared Service Centre. Even though Croatia is not monitoring its labour market tightness by using an indicator, it has many available data and databases from which the needed data could be extracted and used for the calculation of an indicator. However, due to the discrepancies in how the data is collected and coded in different databases, it might be a challenge to combine different data sources and obtain credible and reliable quantitative numbers.

Secondly, surveys conducted with employers (or recruitment companies) offer a clear and comprehensive picture of business needs since they can cover all sectors, occupations, and different regions. Moreover, questions on skills and education levels can provide insights on competencies and soft skills in demand by employers. **Turkey** is one of the participating countries in the Peer Review that uses surveys as its main data source for labour market tightness measurement (see Box 2).

Box 2: Sources used in Turkey

Within the Turkish context, there is no practice in publishing information about labour market tightness measured as the ratio of the number of job vacancies published by the PES per registered unemployed. The responsibility for the labour market intelligence in Turkey sits with the Turkish Statistical Institute (TUIK) and with İŞKUR (Turkish PES). The former provides information on labour supply and in particular on occupations that are among the preferences of the unemployed. The Turkish PES carries out surveys with employers that offer data on job vacancies at occupation level and the results are published by sector and occupation. Labour market surveys (İPA) provide valuable information on the demand side of the labour market and point to skills gaps in occupations. These surveys are conducted using face-to-face interviews conducted by PES employees on a sampling frame representative of Turkish employers. A high response rate is ensured by a system of incentives and penalties for participation. The information on skill requirements and vacancies are used by İŞKUR and Provincial Boards of Employment and Vocational Education (IIMEKs) in shaping decisions about the vocational courses offered at a local level.

In **Denmark**, failed recruitment is the most prevalent challenge linked to labour market tightness. In order to tackle this problem, the Danish Agency for Labour Market and Recruitment conducts surveys and publishes detailed statistics on the recruitment situation of firms focusing on the share of firms with failed recruitments.

The downside of employer surveys is their high cost, time lag between data collection, analysis and publication of results, the ability to disaggregate the results to lower digits of occupations and sectors, and the risk of a low response rate and thus nonresponse bias. As a cheaper and more reliable alternative to employer surveys, over the last decade, **Ireland** conducted surveys among recruitment agencies to identify difficult to fill occupations.

Finally, the scraping of job vacancies published online is a rich information source providing real time data. Nonetheless, retrieved data are difficult to code by occupation classification and with current technology is still a labour-intensive task. There are risks associated with potential double counting of published vacancies on different online channels. Moreover, the possibility to scrape online vacancies might require special agreements with job portals (as web crawling technologies might slow down the operation of a website) or legislative changes (due to the requirements of personal data

protection). Cedefop's project 'Big data analysis from online vacancies' explores the possibility of using online job vacancies to provide information on skills demand. At the beginning of 2019 Cedefop will publish the first results of a vacancy scraping system initially covering 7 Member States - with plans to publish a fully-fledged and validated dataset for all EU Member States[7] in 2020.

It is acknowledged that these three data sources are not perfect and have some weaknesses. However, the discussion came to the conclusion that combining them could be helpful so as to build on their strengths and overcome their shortcomings.

3.3 Dissemination of research findings and stakeholder involvement

During the Peer Review, participating countries shared approaches in disseminating and communicating labour market intelligence both in relation to its format and formulation of key messages.

The first big challenge is the **need for clarity over the purpose and target audience of the results**. Depending on these two factors the format of the information should be adapted. Not all users of the analytical results need the same depth of information; some details that are more crucial for policy makers might be useless or incomprehensible for individuals like young people, unemployed or employers. Therefore, various findings should be tailored to different audiences, as exemplified in the experience of Ireland (see Box 3).

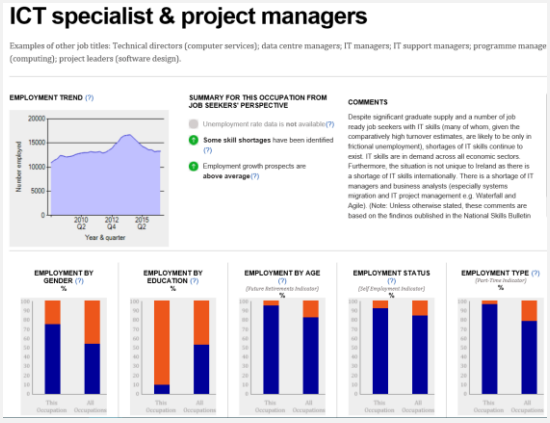
[7] http://www.cedefop.europa.eu/en/events-and-projects/projects/big-data-analysis-online-vacancies

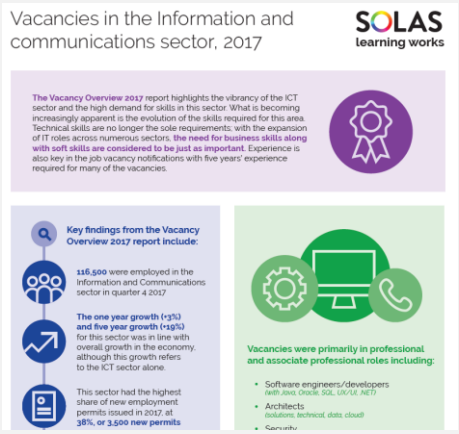
Box 3: Dissemination of labour market intelligence in Ireland

Ireland has a mature organisational landscape for research and policy on labour market and skills issues. The Skills and Labour Market Research Unit (SLMRU) is in charge of producing labour market intelligence. The approach to understanding labour market shortages is based on analysing a mixture of national statistics, routine surveys by the SLMRU, media monitoring of job vacancies, and collecting/analysing a range of intelligence to understand vacancies and how they are currently being filled. Three labour market dimensions are taken into account, such as employment trends/transitions, vacancies and hard-to-fill vacancies.

The SLMRU publishes annually a **Vacancy Overview** report that aims to provide information on the job titles and skills related to these jobs in which vacancies are occurring most frequently[8], thus informing policy makers on education, training and skills needs.

Gathered intelligence is presented in various ways catering to different types of users and different styles of processing information.





In order to ensure that the analytical results meet the information needs, users can be involved in the design of these deliverables. In **Denmark**, PES guidance councillors designed the presentation of labour market balances (see Box 4).

[8] http://www.solas.ie/SolasPdfLibrary/Vacancy%20Overview%202017.pdf

Box 4: Dissemination of labour market intelligence in Denmark

In Denmark, several assessments of tightness are taking place. Different institutions, among them the Danish PES Agency for Labour Market and Recruitment (STAR), the Ministry of Education and think tanks conduct studies of different depths of information, using a range of methods. The most prominent and used approach is the "Labour Market Balances" developed by the STAR. The agency produces the labour market balances for the eight regions by combining data from administrative registers about unemployment, employment and employee turnover from a survey among employers. The main output is published twice a year and classifies approximately 900 occupations into the five categories:

- less good job opportunities,
- good job opportunities,
- paradox-problems,
- shortages of labour, and
- severe shortages of labour.

The Danish approach is detailed, based on a stepwise bottom-up procedure and aims at providing practical information to local and regional authorities. This approach is evident also in the way of presenting information in a simple tabular form.

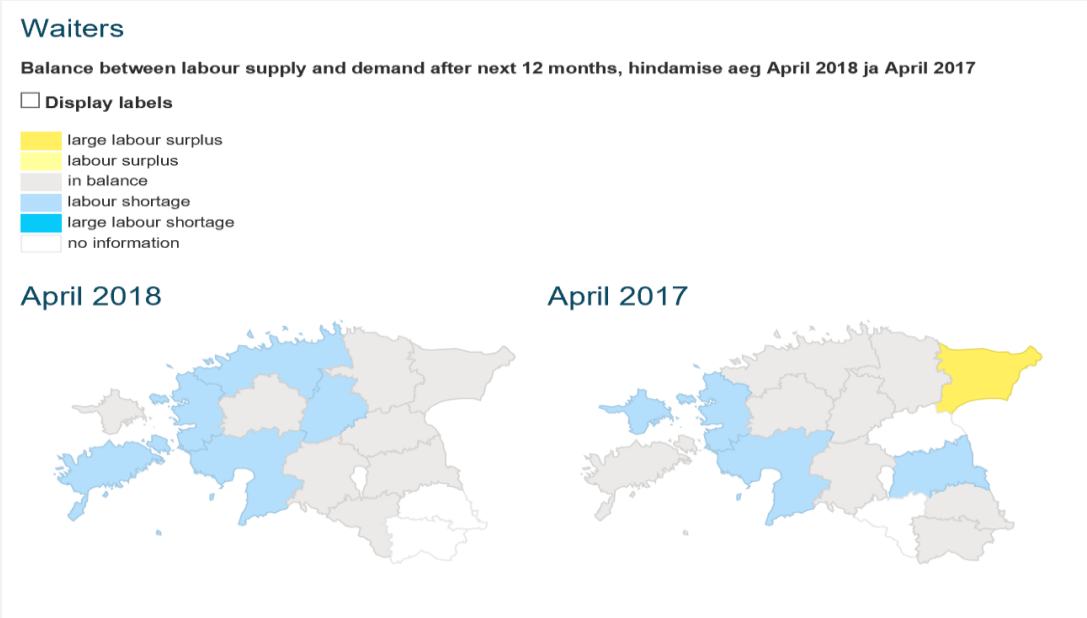
The second challenge is related to the level of disaggregation of information. It is crucial to have a detailed analysis of labour market tightness **at a local and regional level** since different regions and localities have different labour needs. In **Estonia**, an occupational barometer presents short-term qualitative forecasts of demand for the most sought after occupations in the region (see Box 5). In **Spain**, further information is provided on what skill set is needed for each occupation and where (in which region) this occupation is most frequently sought after (see Box 6).

Box 5: Development of labour market information in Estonia

Two institutions are mainly involved in the measurement of labour market tightness in Estonia: Estonian Unemployment Insurance Fund (EUIF) – the Estonian PES – and the Statistical Office. The EUIF collects and publishes the data of labour supply and demand, while the Statistical Office provides information on the overall labour force and total employment.

The Occupational barometer is published twice a year short-term qualitative forecast of labour demand in the regions by occupation (see Figure 1). The forecasts are prepared by the regional departments of the EUIF, and, where possible, external experts. The qualitative forecasts are prepared only for the most strategic for the region occupations – such as most frequent occupation of registered unemployed and vacancies frequently mediated by PES.

Figure 1. Occupational barometer: Balance between labour supply and demand after the next 12 months, (April 2017 and April 2018)



Box 6: Development of labour market information in Spain

In Spain, the State Public Employment Service (SEPE) plays a key role in the analysis of the labour market trends and specifically of the employers' demand for skills and the identification of related workers' training needs. The main objective of the analysis is to identify the occupations with better labour prospects so as to opt for the appropriate trainings. The information on labour demand (vacancies) is considered complete and for each job vacancy profile there is information on its general characteristics, related occupations and principal labour market indicators such as registered unemployed, registered contracts, general profile of the unemployed, main economic activities of the contracting companies, and geographical distribution of unemployed and contracted persons.

The visualisation of the findings is the third challenge identified during this Peer Review. Using methods such as tabular or traffic light visualisation for different types of occupations in terms of their tightness contributes to a better communication of the messages and a more appropriate use of the analytical results. The Labour Market Diagnosis System[9], launched in **Greece** in 2016 (Box 7), also seeks to provide

[9] Established in 2016 but is not yet fully operational.

intelligence on the dynamism of sectors and professions at national and regional level presenting the results in the form of interactive tables.

Box 7: The Labour Market Diagnosis System in Greece

In 2016, the Labour Market Diagnosis System was established in order to combine information from several sources (in particular, from ELSTAT, OAED, ERGANI and the General Commercial Registry) and produce analyses of the labour market situation that provide information such as sectors', industries' and occupations' dynamism, unemployment, classification of professions at regional and national level. To date, the system is not yet fully operational but at full capacity it will rely on detailed information input at the regional level and will be able to provide national stakeholders with ample information on labour market conditions.

With regard to **the dissemination of particular messages**, the participating countries highlighted three considerations. Firstly, the issue of biased conclusions and the importance of **results' simplification** is important. Findings on labour market tightness often include complex quantitative and qualitative analysis that requires certain technical knowledge. Hence, non-technical users cannot fully understand the content, and this could lead to misinterpretations and biased conclusions. It is therefore suggested that the results are simplified and offer support to the interpretation of information to avoid such risks.

Secondly, there are differences in the way countries formulate the conclusions and communicate them to the various stakeholders. On the one hand, some countries are in favour of a presentation of **neutral findings** from the statistical analysis while some others support the idea of **making recommendations** at policy and micro level on what decisions should be made based on the available information.

For example, in **Estonia**, information is used in policy making in various ways: vocational schools and universities cooperate with the Estonian Qualifications Authority to balance future labour market supply. The Occupation barometer alongside skills forecasts are taken into consideration in shortlisting topics of training for unemployed in order to balance the mismatches on the labour market. In **Spain,** the statistical results from the labour market analysis are used to make general recommendations on developing competencies. In **Ireland,** there is a regular supply of labour market intelligence which is one of the sources used to steer skills policies. Likewise, in **Turkey,** the decision-making process for planning and reshaping vocational training is using findings from the surveys conducted by the Turkish PES and other labour market tightness measures.

With respect to the use of labour market information in the decision and policy making process, the participating countries shared the opinion that data on labour market tightness should be taken into consideration when shaping employment, education, training and migration policies and providing guidance to young people. However, not all participating countries currently use the analytical results for the design of training policies. For example, **France**[10] has invested approximately EUR 15 billion in a new training plan aimed at decreasing hiring difficulties and the unemployment rate while **the Netherlands** has a different approach (see Box 8).

[10] Plan d'Investissement dans les Compétences, Competences Investment Plan, 2018-2022.

Box 8: The use of labour market intelligence in the Netherlands

Two institutions are in charge of collecting the main data on tightness of the Dutch labour market: Statistics Netherlands and the Dutch PES (UWV). The former regularly monitors the market with the Labour Market Dashboard that provides overall information such as the number of employed, wages, job vacancies etc., and the Labour Force Barometer, which allows a rapid overview of the labour market status of the potential labour force. The latter is using the ratio of job vacancies and unemployed as the main indicator of labour market tightness and publishes various products, including labour market forecasts and findings on vacancies and unemployed. Apart from the above tools, Statistics Netherlands publishes the results of a business cycle survey among the employers on a quarterly basis. The Netherlands emphasise the use of the labour market tension indicator (vacancies versus jobseekers) to measure tightness of the labour market.

Finally, a third challenge concerning the labour market tightness results is related to their communication and active promotion. In most of the countries, information is available to everybody through websites, accessible online publications and reports. It is essential to disseminate the information gathered to other users and stakeholders and this could be achieved by the means of "gatekeepers" such as expert groups or further institutional structures (e.g. career guidance counsellors), which take the findings on labour market tightness and advocate for the maximisation of their use.

4 Lessons learned and priorities for the future

Although there are considerable differences in the measurement of labour market tightness across the participating countries, approaches to combine different statistical and qualitative data are used in most countries. The participating countries are either refining the existing systems by improving the accuracy of data or developing more mature national systems by combining different sources of information. A comparative view and pragmatic perspective on who is using the data and for what purpose, is a key element as it should contribute to evidence-based policy making. Labour market tightness indicators can provide useful information in the planning of vocational training activities, helping to distinguish between cyclical and structural reasons behind imbalances in the labour market. Dissemination of labour market tightness information may help to reduce regional imbalances.

Measuring labour market tightness emerges from the need to inform policy decisions on how best to help the unemployed and low skilled. Career guidance systems, first career choices and job change choices can improve job prospects for PES clients, especially young jobseekers. It also contributes to improved partnership management by helping employers (especially SMEs) to make good recruitment decisions. Dialogue with employers on improving working conditions (i.e. working time flexibility, occupational health and safety, learning and development, addressing the challenges of an ageing workforce, equality and equal opportunities) has also been identified as a strong factor related to labour market tightness. Furthermore, it might affect migration policy decisions (job permits for third country nationals), training funding decisions (which types of training to fund) and contribute to effectiveness of public spending.

User-friendly presentation and visualisation of results play an important role in dissemination of labour market intelligence to final users. Different formats should be used to reach out to different audiences, potentially involving users in the design. There should be a clear purpose, intended audience and use of labour market intelligence (policy maker / PES / employer / unemployed / career guidance) identified before the dissemination of information. The communicated results should be easy to understand and used by intended audiences. A key success factor in the practical application of results is providing an explanation for what is driving specific shortages – rather than

simply quantifying hard-to-fill vacancies, bringing together various types of qualitative and quantitative evidence in an accessible way.

Future developments in the analysis of labour market tightness relate to further data mining of administrative data and matching different public registries. Scraping vacancies from online job portals is another source of information that could be used in the future to supplement the analysis of labour market and skills shortages.

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