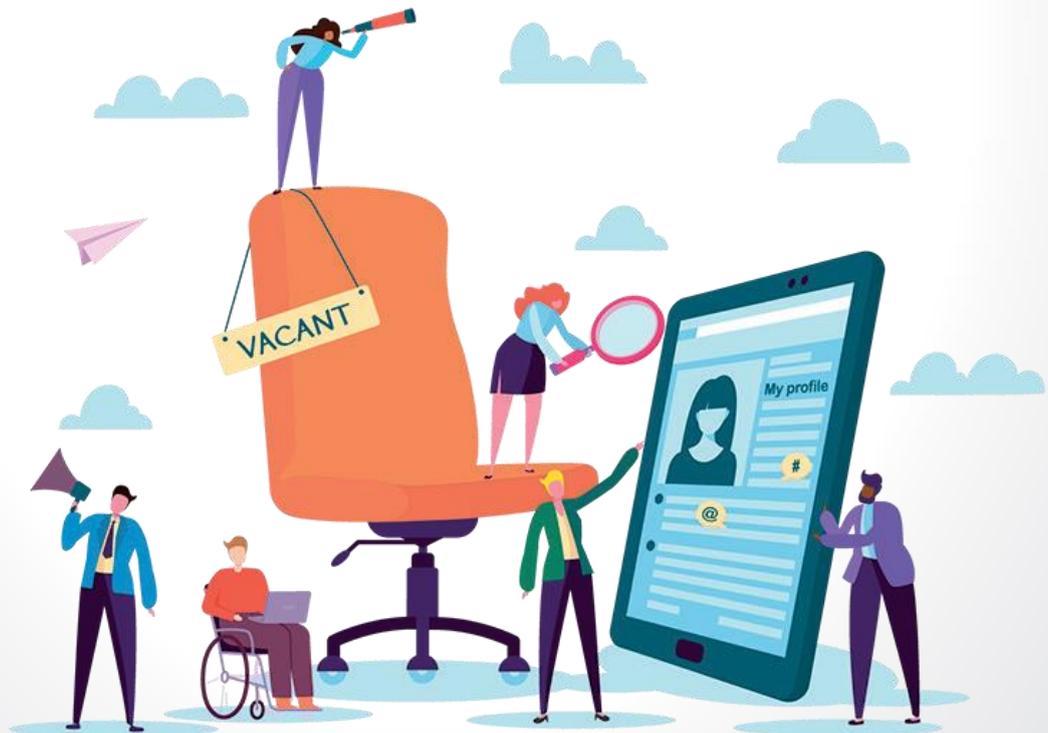


PES Network
Stakeholder Conference 2022
**Jointly addressing labour and skills
shortages, preparing for Europe's
Future Labour Market**
7-8 April 2022



EUROPEAN COMMISSION

Directorate - General for Employment, Social Affairs and
Inclusion Directorate E - Labour Mobility and International
Affairs

Unit E.1 - Labour Mobility, Public Employment Services, ELA
Contact

E-mail: EMPL-PES-SECRETARIAT@ec.europa.eu

European Commission
B-1049 Brussels

EUROPEAN NETWORK OF PUBLIC EMPLOYMENT SERVICES

Stakeholder Conference

**"Jointly addressing labour and skills shortages,
preparing for Europe's Future Labour Market" 7-8 April
2022**

Synthesis paper

Written by Fondazione Giacomo Brodolini S.r.l. SB
Eamonn Davern, John McGrath
2022

The European Network of Public Employment Services was created following a Decision of the European Parliament and Council in June 2014, amended in 2020. Its objective is to reinforce PES capacity, effectiveness and efficiency. This activity has been developed within the work programme of the European PES Network. For further information: <http://ec.europa.eu/social/PESNet-work>.

This activity has received financial support from the European Union Programme for Employment and Social Innovation "EaSI" (2014-2020). For further information please consult: <http://ec.europa.eu/social/easi>.

LEGAL NOTICE

The information and views set out in this document are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein. More information on the European Union is available on the Internet (<http://www.europa.eu>).

EN PDF

ISBN: 978-92-76-54690-0

doi: 10.2767/591555

Catalogue number:
KE-07-22-700-EN-N

The European Commission is not liable for any consequence stemming from the reuse of this publication.

Luxembourg: Publications Office of the European Union, 2022.

© European Union, 2022



The reuse policy of European Commission documents is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders.

Table of Contents

Conference Key Messages	6
1. Background and rationale	8
2. Implications of labour and skill shortages for Europe	12
3. Strategies and approaches to address shortages	14
4. Building resilience	16
5. Meeting future labour market needs	18
6. Improving the attractiveness of jobs in shortage sectors	19
7. Untapping potential	21
8. Conclusions and recommendations	22
References	24

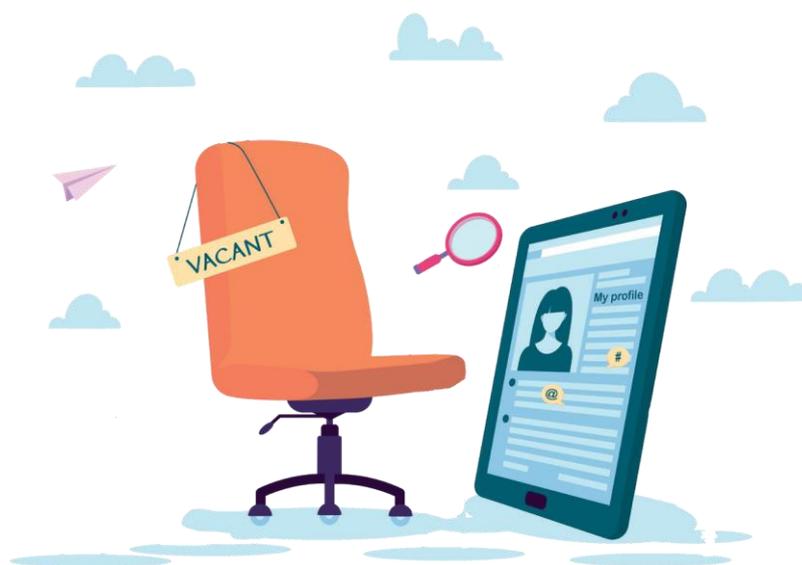


Figure 1 above provides an insight on the issues which most preoccupied the conference participants. The concept of inclusion dominated discussions followed closely by skills and data, while partnerships and collaboration were the preferred means of implementing policies around the strategic goals of enhancing the attractiveness of employment; the integration of vulnerable groups and improving the effectiveness of active labour market measures.

A wide range of issues are of concern to participants. For example, some participants expressed the view that qualifications will deliver jobs but only if they are qualifications which are required by a rapidly changing labour market and that in this context digital literacy is a necessity for everyone. The weakening of the link between educational attainment and employability was also mentioned during the discussions. Others highlighted the need for learning to be flexible and capable of been delivered on a modular basis. Some participants were concerned about what they perceived as a decline in the quality of jobs in certain occupations and sectors.

Participants argued that enhanced communication refined through consideration of customer feedback can enable PES and their partners to reduce shortages in certain sectors through challenging inaccurate perceptions held by jobseekers which present a real barrier to recruitment in unpopular sectors. PES and partners can also play a key role through their information and guidance work with jobseekers in breaking down stereotypes, especially gender-related perceptions attached to certain occupations, and supporting the development of career pathways. At the same time, employers in these sectors have to reflect on working conditions as a deterrent to staff acquisition and develop solutions in partnership with relevant private stakeholders.

Labour and skill shortages require coordinated implementation of employment and related policy areas. The future focus and added value from employment services is in working with partners to utilise the social capital of Europe's citizens. This will involve activities to remove labour market discrimination, prioritising measures to address structural unemployment, and fostering growth whilst ensuring social and labour market inclusion. The twin transitions and demographic change will radically transform labour and skills demand in Europe. They also represent a unique opportunity to utilise technology and generate skilled, quality jobs in sectors ranging from the green and digital economy to the care sector.

1. Background and rationale

1.1 Conference objectives and thematic focus

The European PES Network Stakeholder Conference "Jointly addressing labour and skills shortages, Preparing for Europe's Future Labour Market" took place on 7-8 April 2022. The conference had 406 participants from the public, civil and private sectors. 184 participants came from PES, with 222 non-PES participants.

The conference was held during the ongoing recovery from Covid-19, and in the policy context of the key EU agenda to deliver the green and digital transitions through the European Green Deal and the EU digital strategy. These provide the overarching policy background for innovative labour market interventions.

The conference aimed to enhance the understanding of evolving labour and skills shortages and labour market imbalances, particularly in the context of increased automation, digitalization, and an ageing population. It aimed to increase understanding of the positions, concerns and strategies of key labour market actors with regard to labour and skills shortages – contributing to an increasingly shared vision of the challenges and opportunities that will emerge in the forthcoming years.

Four key themes were selected to frame the agenda, each of these was further broken down into two clusters for further workshop discussion.



These key themes were discussed through three high-level panels and twelve breakout rooms. This provided an insight from the strategic and policymaker level to more granular examples of PES already delivering projects under these thematic areas. Ultimately, this enabled participants to acquire knowledge, inspiration, and develop partnerships to assist them in developing tools to improve their service delivery to combat skills shortages in Europe's future labour market.

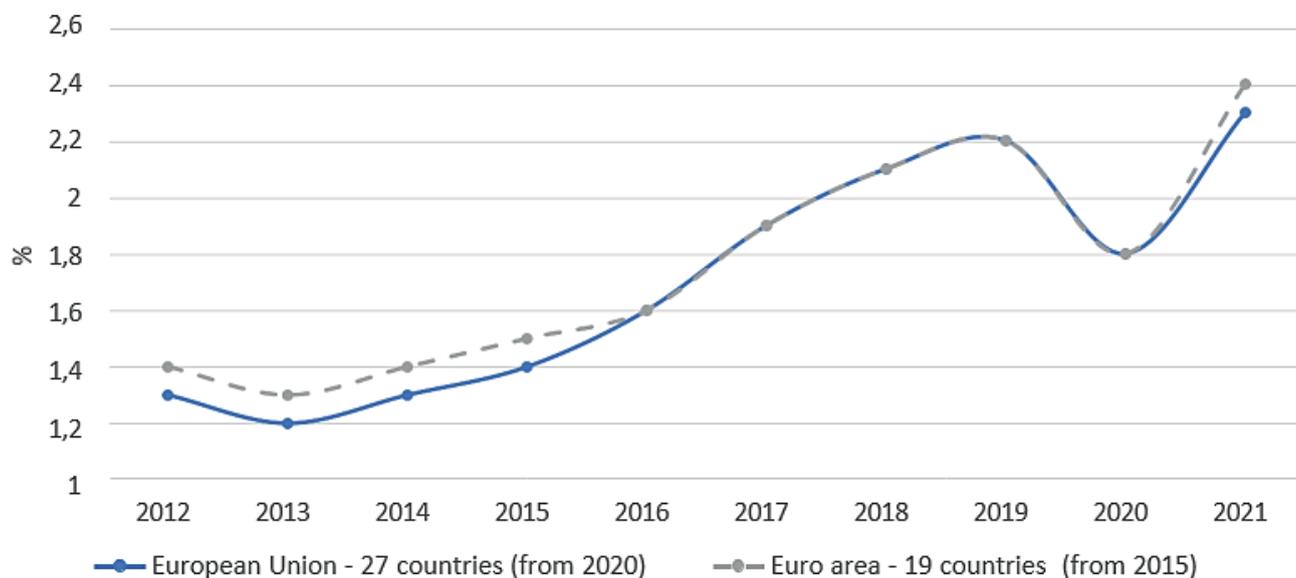
This conference synthesis paper brings together insights and the messages from the conference. Chapter 2 presents the implications of labour and skills shortages for Europe and responses from Member States. Chapter 3 presents the various strategies from European PES and partners in a delivery ecosystem to address shortages. Chapter 4 focuses on the lessons learned during the conference to build resilience. Chapters 5 and 6 consider how to meet future labour market needs and improve attractiveness in shortage sectors.

Chapter 7 presents the important consideration of untapped potential and removing barriers to greater participation in the labour market for women, persons with disabilities, and younger and older people. Finally, Chapter 8 concludes the conference findings with recommendations and key messages.

1.2 Conference objectives and thematic focus

The European labour market is recovering from a spike in unemployment during the pandemic, which particularly affected the entertainment and hospitality sectors, whilst placing a large strain on health and social care. Some indicators signal improvement from the pandemic, for example, the unemployment rate in the EU was 6.2% in February 2022, down from 7.5% in February 2021. Likewise, unemployment in the Eurozone fell from 8.3% to 6.8% over the same one-year period¹. However, the recovery has coincided with a marked increase in the job vacancy rate (JVR). In the EU, the JVR was 2.3% in 2021, up from 1.8% in the previous year 2020².

Figure 2: Vacancy rates in the European Union and Eurozone 2012 - 2021



Source: Conference Background Paper

- 1 Eurostat data, (accessed May 2022), available here: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics
- 2 Eurostat data, (accessed May 2022), available here: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Job_vacancy_statistics

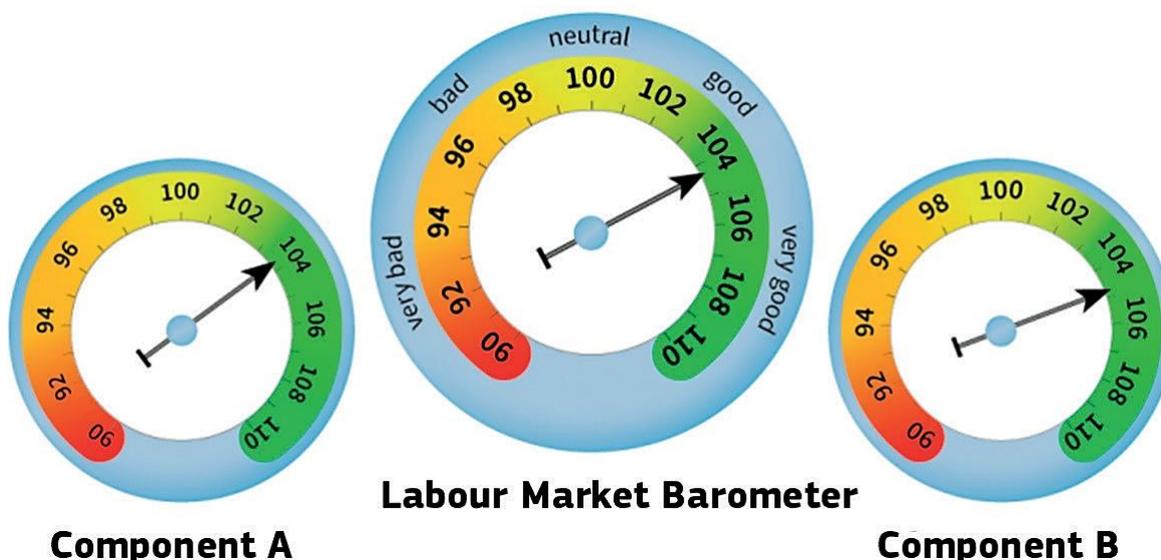
Europe's ageing population is set to place a massive strain on the labour market as many workers retire and require significant support from health and care services. The **conference keynote speech** from Prof. Dr Weber described how, based on current birth rates, annual net migration of 400,000 people into the German labour market would be needed for it to maintain its current size over the next 3 decades. An ageing population poses a huge challenge for Member States if they are to maintain the current size of their labour markets.

A major driver for change is the twin digital and green transition, reflected in two strategic policy priorities set by the European Commission for 2019-2024: a Europe fit for the digital age³ and the many policies for a climate-neutral Europe implemented under the European

Green Deal⁴. Both initiatives imply significant changes in European labour markets: job creation in innovative areas, changing job profiles and skills requirements as well as job losses due to automation and the reduction of production based on fossil fuels. Probable responses will involve a fundamental reorientation of key areas of economic activity. This will lead to both the reallocation of workers and major adjustments in job design.

The keynote speech also highlighted that the European Labour Market Barometer⁵ points towards a robust recovery, with PES reporting a positive labour market outlook over the next three months. However, labour and skills shortages continue to represent a major constraint on labour market recovery.

Figure 3: The European Labour Market Barometer indicates a positive outlook on the labour market



Source: PES Network Labour Market Barometer

3 For more information see: https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/shaping-europe-digital-future_en

4 For more information see: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

5 The European Labour Market Barometer is a monthly leading indicator based on a survey of the local or regional employment agencies in 17 participating public employment services.

1.3 European employment policy context

Skills play a key role in ensuring that the EU's economic and social ambitions become reality, supporting jobseekers, workers and companies as well as the functioning of European labour markets and social inclusion in general. The overall frameworks for this are the EU's Employment Strategy and the European Pillar of Social Rights. Concrete and focused action is foreseen by the EU Skills Agenda. However, measures taken to deal with the recovery from the impact of the pandemic, youth, and the green economy also provide support to furthering skills.

Within the EU, employment guidelines (Article 148 TFEU) provide strategic objectives for national employment policies and policy priorities in the fields of employment, education and social inclusion.

The 2021 European Pillar of Social Rights action plan sets out three new EU headline targets to be achieved by the end of the decade in the areas of employment, skills, and social protection⁶.

In response to the COVID-19 crisis, the Commission put forward a recommendation on effective active support to Employment in 2021 (EASE)⁷. This presents a strategic approach to enable the transition from emergency job saving measures during the pandemic to the next stage of job creation and job-to-job transitions. The EASE strategy consists of three policy recommendations: hiring incentives and entrepreneurial support, upskilling, and reskilling opportunities and enhanced support by employment services.

In addition, NextGenerationEU will create a Recovery and Resilience Facility with EUR 723 billion available for reform and investments directed by Member States until 2026⁸. This large stimulus aims to combat the economic and social impact of the Covid-19 pandemic and accelerate the green and digital transitions. The resources available represent a unique opportunity for Member States to invest in upskilling, reskilling, and labour market inclusion policies.

2022 is the EU Year of Youth which emphasises the key role of European youth in building a greener, more inclusive, and digital future. This is consistent with a long-established EU direction on youth support measures

dating back to the establishment of the Youth Guarantee in 2013⁹. In 2020, the Commission reinforced youth employment support by launching the Youth Employment Support package with four strands: a reinforced Youth Guarantee, vocational education and training, the renewed impetus for apprenticeships and additional measures supporting youth employment.

Finally, the European Green Deal outlines a set of proposals to ensure that the EU's climate, energy, transport and taxation policies reduce net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels¹⁰. The Just Transition Mechanism which has been established to facilitate this ambitious goal includes the Just Transition Fund (JTF¹¹) which earmarks EUR 17.5 billion to alleviate the social and economic costs of labour market transitions. This will include extensive reskilling and upskilling opportunities.

6 For more information see: <https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/en/>

7 For more information see: https://ec.europa.eu/info/publications/commission-recommendation-effective-active-support-employment-ease_en

8 For more information see: https://ec.europa.eu/info/strategy/recovery-plan-europe_en

9 For more information see: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:120:0001:0006:EN:PDF>

10 For more information see: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

11 For more information see: https://ec.europa.eu/info/funding-tenders/find-funding/eu-funding-programmes/just-transition-fund_en

2. Implications of labour and skill shortages for Europe

2.1 Shortages and changing employment patterns

Whilst there is not a universally agreed-upon definition of labour and skills shortages, the conference took **labour shortages** to mean an insufficient **number** of people available for jobs, and **skills shortages** to refer to a lack of available skills in the workforce (ELA, 2021). One of the key ways shortages and changing employment patterns can be measured over time is through the job vacancy rate¹².

The vacancy rate is a measure of unmet demand for labour in the economy. Its decade-long increase could be viewed as surprising given that 13.27 million persons are unemployed in the EU as of February 2022. Although factors such as pay and employment conditions also influence recruitment patterns, a high vacancy rate and persistent unemployment also suggest that jobseekers do not have the requisite skills to fill vacancies on offer.

As highlighted in the **conference's keynote speech**, the demand for occupations with middle-skills profiles are expected to see the steepest decline, with the largest increase in demand expected in higher-skilled roles. This is predicted to emerge from technological developments which will overwhelmingly affect lower-middle skilled occupations. Meanwhile, the same phenomenon will create more demand for highly skilled workers in the field of technology.

The green transition will increase demand in certain sectors to meet net-zero goals, i.e. greenhouse gases going into the atmosphere balanced by removal from the atmosphere. Housing, from eco-retrofitting and construction, is expected to produce the largest potential increase in jobs, followed by renewable energy, gas heating system replacements, organic farming and electric cars.

Importantly, these economic transformations are not anticipated to reduce the overall demand for labour, but rather to transfer it to other sectors. This will imply a change in skills requirements - in many cases upskilling and reskilling. These transitions will also occur within the challenging context of an ageing population reducing the labour supply and increasing demand in certain existing shortage sectors especially health and social care.

2.2 The evolving role of employment services

The first day of the 2022 PES Network conference highlighted structural responses by Member States and the evolving role of employment services. The first high-level panel included representatives from the **European Commission, French PES, Eurofound, ETUC and BusinessEurope** and identified **labour shortages as endemic and universal**, having continued for more than three decades and spanning high, middle and low-income countries. The second high-level panel involving the **ILO, Belgian-Wallonia PES, WEC-Europe and SME United** identified that this requires systemic responses based on joint strategies and innovative approaches. PES will be required to evolve their services to fully reflect the impacts of digitalisation, the green transition, and an ageing population on the demand and supply of skills. In recent decades PES already made great strides forward in this respect, in part through their cooperation within the European PES Network and the joint strategies agreed upon therein.

As highlighted in the **second high-level panel by the ILO**, fast changing labour markets require employees and jobseekers to constantly adjust their skills throughout their working life, in an environment characterised by increasingly frequent transitions. This requires PES to design measures that have not traditionally fallen within their mandate, namely reand up-skilling programmes for in-work groups who are at risk of losing their jobs. Labour market analysis and skills anticipation are crucial to the effective management of labour market transitions. When preparing for the recovery, PES consider it particularly important to address digitalisation of services, integration of young people into the labour market, and a personal, individualised approach to clients (counselling, initial skills profiling and skills assessment, coaching and guidance for jobseekers). Other issues to be addressed according to PES are furthering digital skills amongst jobseekers, face-to-face counselling for groups for whom face-to-face contact is essential and supporting unemployed persons that have severe and/or multiple employment barriers.

12 $JVR = \text{number of job vacancies} / (\text{number of occupied posts} + \text{number of job vacancies}) * 100$

2.3 Generating quality jobs in the future labour market

The importance of quality work can be seen in the concept of the 'great resignation' - the idea that many workers were forced to resign from jobs during the pandemic they were dissatisfied with, which resulted in these workers changing their career direction (Parker & Horowitz, 2022). This idea was introduced during the first workshop of the conference, "Building sectoral resilience", and referred to the record number of job vacancies in the United States following the pandemic. However, it was agreed that there is less of a consensus that Europe is experiencing the same phenomenon. Part of this trend is explained by the fact that many workers lost their jobs at the start of Covid-19, and these positions are now available once again. Regardless of the extent of the phenomenon, PES have a role in ensuring that jobseekers are directed towards the most suitable available employment.

The conference noted that while technological change was unlikely to reduce the number of jobs, it will affect the quality of work. Increasing employment is predicted in the leisure and gig economy where conditions can be precarious with low pay and poor conditions. As highlighted by the **European Trade Union Confederation** (ETUC) during the conference, the quality of future jobs is by no means secured. This is perhaps most prominently visible in new forms of work, such as the gig economy. Finally increasing time and place flexibility combined with high levels of expected output is increasing work intensity in many professional sectors. The decrease in trade union presence in many sectors may have contributed to the deterioration in wages and working conditions that creates a lack of attractiveness to potential workers.

During the conference, the **European Road Haulers Association** (UETR) highlighted how technological developments are rapidly changing the nature of sectors such as logistics, illustrated by occupations such as truck driving experiencing extensive change whilst facing constant labour and skills shortages. The sector has seen the introduction of extensive electronic monitoring software which whilst increasing productivity (amount of output produced per worker), has also decreased the quality of work. These shortages exist even though pay in the sector remains above the median across the EU, suggesting that the quality of the work is more important than pay alone.

Eurofound's (2021a) working conditions and sustainable work report found improvements in working time, skill levels and autonomy, career prospects, physical environments, and the proportion of workers in gender-mixed occupations. However, challenges remain in gender occupational segregation, gender pay gaps, psychosocial risks linked to the increasing emotional demands of balancing work and care, career advancement and age, freelance work and lack of training. The latter was highlighted in the conference session on "Realising potential".

3. Strategies and approaches to address shortages

3.1 Strategic vision for PES/stakeholder cooperation

The PES Network's vision is to be the vehicle for enhanced European PES cooperation, enabling PES to deliver their role as labour market conductors, contributing to European employment strategies, improving labour market function and integration, and creating better-balanced labour markets¹³. PES maintain their position as the central labour market service provider but within a wider ecosystem for the delivery of services.

The ecosystem concept recognises that PES cannot operate alone to meet the challenges of the modern labour market. The interests and resources of a variety of stakeholders need to be incorporated, including employees, employers, training providers, educational institutions, technological institutes, NGOs, and private employment agencies. The strategic vision for PES/stakeholder cooperation must be the creation of new employment partnerships, and skills development systems involving groups of stakeholders.

During the conference, **Le Forem (the Wallonian PES in Belgium)**, presented its strategic vision in this area. It has signed agreements with six key sectors in the labour market which are heavily impacted by labour shortages. In Belgium, 126 occupations are considered to have critical shortages. The construction sector faces particular challenges. To combat this, the PES organises Job days for enterprises in this sector, preparing jobseekers to participate. The PES also designs tailor-made training pathways for schools and colleges to encourage employment in these sectors. In the context of major environmental events, the approach taken seeks to ensure future construction is of high quality and conforms to standards sought by the green transition. This is a systemic approach which brings together all key stakeholders and partners, including enterprises and schools to deliver change.

3.2 Dealing with digital connectivity and the changing employment service ecosystem

Technological change is reshaping not just the types of jobs available, but also the recruitment methods of employers and the search methods of jobseekers. This, in turn, impacts on the one hand the role and position of PES amongst other labour market actors, and on the other

hand the way PES offer their services.

PES are increasingly digitalising their service offering whilst ensuring inclusive delivery for clients. Job counselling has traditionally been a face-to-face activity but is increasingly shifting to digital alternatives. For example, the **Greek PES** presented at the conference their substantial efforts to digitalise their service offer in an inclusive manner. myOAEDlive provides an online counselling offer as well as a new website for the PES which meets the highest (WCAG 2.1 AAA) international web accessibility standard. The COVID-19 pandemic containment measures have generated further digitalisation of services. This has been an opportunity to modernise services, increase efficiency through rationalising processes, and improve outreach to jobseekers many of whom prefer using digital channels.

It is however essential for PES to be aware of the need for face-to-face counselling for those groups with poor digital skills, for certain transactions, and to assist some clients for whom face-to-face contact is essential.

The further development of the digital skills and soft skills of staff may become increasingly necessary. However, in order to deliver quality services meeting the needs of a heterogeneous customer base PES may need to invest in a variety of skills of staff, irrespective of whether the services are provided face-to-face or remotely.

The **French PES** presented at the conference how they make use of digital technologies to increase the transparency of job offers and to improve matching efficiency. Intelligence Emploi is Pôle Emploi's programme to implement a long-term strategy for artificial intelligence. It seeks to develop and roll out the use of artificial intelligence as a support to increase matching efficiency and support counselling. With this programme, Pôle Emploi aims at exploring solutions to help employers anticipate the attractiveness of their offers and detect illegal ones, as well as solutions to help jobseekers by offering them more tailored services. Furthermore, on the internal level, this programme looks at ways to support counsellors by saving them some time via assistance in the treatment of the information they receive. One of the challenges consists of understanding how staff expertise and artificial intelligence can be best combined. The project works in an innovative way to find the right balance and define counsellors' roles.

13 PES Network Strategy to 2020 and beyond. <https://op.europa.eu/webpub/empl/pes-network-strategy/en/>

3.3 Understanding skills – pooling information for enhanced forecasting

Analytics will play a key role for PES to make use of techniques to support jobseekers to enter the labour market. To take advantage of these opportunities PES are increasingly required to collaborate with partners.

An impressive example of this can be found in **Finland**, which has developed extensive skills in forecasting in the face of a shrinking labour market, recession and an ageing population. The ultimate aim of this is to steer the education system to better match skills demands. A key player in this is the Skills Anticipation Forum which has identified eight sectoral groups with severe shortages. This analysis is derived from both large PES datasets and a bottom-up approach from stakeholders who provide qualitative feedback on shortages. Anticipation research involves all major stakeholders including trade unions, employers, regional councils and education representatives.

Using this data, foresight and modelling can be used to project the likelihood of shortages in the future. This can work as an early warning system for the ministry of education to develop education and training strategies. In this way, the PES works with partners within the ecosystem to plan for future and present needs and to build resilience.

The Covid-19 pandemic has been an extreme test for the resilience of labour markets. In **Norway, the PES** has utilised rapid statistical updates to help inform policy-making. While stakeholders are not involved in the preparation of these data, the PES reaches out to them with information relevant to their needs and is presented in an accessible manner. The data cover weekly unemployment figures, unemployment benefit claims, sick leave, temporary and permanent layoffs and recipients of specific Covid-19 financial support packages. The infographics created by the PES have become prominent in the media and have uncovered important trends, such as the second Covid-19 wave having a much smaller impact on levels of unemployment. Over time the PES used data to forecast potential trends under different labour market scenarios. Using primary data to create important infographics and forecasts helps increase transparency on labour and skills shortages and builds overall government resilience and boosts employer confidence.

4. Building resilience

The first conference theme, "Building resilience", addressed measures PES can take to contribute to increasing labour market resilience in general and for specific sectors in particular. The two workshops discussing these subjects yielded similar, mutually reinforcing insights. For this reason, their outcomes have been summarised in an integrated manner below.

4.1 Innovating services

Research estimates that just under one in three workers in the EU in 2020 were employed in occupations identified as experiencing labour shortages or had labour demand which exceeded supply¹⁴. The highest skills shortages continue to be found in information technology, healthcare, and STEM associated sectors (ELA, 2021).

Contrary to perceived wisdom, labour and skill shortages are not restricted to high-skilled occupations, but also many entry or low-skill occupations such as healthcare assistants, hospitality workers, farm workers and construction labourers.

It is important to emphasize the need to fill essential lowskilled, but often non-digital and non-green jobs when addressing shortages. Actions taken by PES to anticipate future employer needs therefore address the full spectrum of jobs and jobseekers.

The conference made it clear that creative thinking is needed to develop and offer solutions to deal with labour market shortages. One example of this is the **PES in the Netherlands**, which has formulated 27 **solutions for staff shortages** in order to build labour market resilience. This was done in response to the very tight labour market developing in the Netherlands. Employer surveys conducted by the PES identified a high share of employers experiencing difficulties in filling vacancies. The 27 solutions are broken down into three action areas: exploring new talents (e.g., training new and current employees); organising work differently (e.g., extending hours, utilising technology); and binding (e.g., improving working conditions and culture). PES can build on this overview to advise employers and support them.

Figure 4: PES advice on staff shortages in the Netherlands

27 solutions for staff shortages



Exploring new talents

- Training current employees
- Recruiting and training job seekers
- Hiring people from other sectors (job-to-job transition)
- Looking in a broader sense rather than a traditional CV



Organise the work differently

- Looking at tasks and functions in a different manner
- Addressing administrative burden
- Making it possible to work more hours
- Looking beyond full-time contracts



Bind and fix

- Development and challenge
- Training opportunities
- Vitality
- Reducing physical strain
- Reduce workload

- Interest young people
- Deploying people with an occupational disability
- Deploying retirees
- Deploying residence permit holders
- Recruiting in other regions
- Recruiting abroad

- New style master-apprentice
- Collaboration between enterprises
- Deployment of technology

- Working conditions
- Working hours and schedules
- Facilities
- Atmosphere and culture
- Employer branding



Source: UWV, PES Netherlands presentation at the conference

14 Excess to market demand means that there are more jobseekers than vacancies for the occupation in question.

An example of an innovative approach to preparing new talents for work was presented by the **Danish PES**. The **health and social care sector** in this country like elsewhere is set to face unprecedented demand due to an ageing population. This will cause severe labour shortages unless enough workers are trained for the sector. Close sectoral cooperation between PES and affected sectors can help alleviate this challenge. In Denmark, there is already an acute shortage of qualified health and social care workers.

The Danish PES has trialled a solution to this problem by **implementing a jobs rotations scheme and introducing recognition of prior learning**. These twin actions aim to supply the market with a readily available workforce whilst speeding up the qualification of those who have already worked in the sector without qualifications or those new to the sector. This type of short-term upskilling for a shortage sector can provide a pathway for other similar sectors.

Figure 5: Danish future-proofing the social care sector pathway



Source: Danish Conference Presentation

When reaching out to new talent for shortage sectors, employers are likely to be hampered by existing stereotypes. The construction sector faces shortages associated with negative perceptions of work in the sector. Digital innovation has radically altered the nature of work in many sectors including construction and greatly enhanced the attractiveness of many jobs in these sectors. PES and partners need to act to **dispel negative stereotypes** and provide a more accurate picture of work in this and other shortage sectors. Campaigns to tackle stereotypes and support digital skills development are therefore crucial to addressing shortages and building resilience in sectors such as construction (see also section 6.2 below).

4.2 Innovating delivery

Innovation in the delivery of services are prerequisites for future-proofing services to employers. The aforementioned **Greek PES digital counselling service**, myOAEDlive, regarding improved service access for jobseekers, can also be used for employer meetings. Through regular meetings with employers, the PES can monitor, feedback and trace labour market shortages. It can then share this information through their employers' network to enhance matching services and within the PES to better direct jobseekers to available work opportunities. The flexibility of such systems enable PES to provide immediate, up-to-date, tailored responses, which makes them a vital partner for employers in building labour market resilience and improving matching services.

Likewise, such systems will help PES to offer guidance to employers (notably SMEs) to identify skills needs and establish training plans for their employees. Reskilling and upskilling for jobseekers and workers who need it to change sectors, tasks or occupations will continue to increase in importance. Developing e-learning courses and hybrid learning formats are seen as means for PES to reduce individual training costs and allow a wider group of learners to access programmes.

Finally, huge challenges have emerged in designing labour market policies for unemployed persons with multiple employment barriers. In this respect, previous efforts toward developing intensive guidance and engaging in local partnerships on the ground will need to be continued. PES will also need to continue their efforts to provide their services for jobseekers in non-standard forms of employment. The legislative framework may need to be adapted in some countries expanding the PES mandate to include a wider group of workers and developing new strategies for service delivery (e.g. platform workers, self-employed workers, workers threatened by dismissals, employed in SMEs, etc.). In the short term, there is also a need to especially focus on integrating young people into the labour market, as they are likely to be particularly affected by the pandemic.

5. Meeting future labour market needs

The second, most forward-looking of the four key conference themes, "Meeting the needs of the future labour market" dealt with approaches to improving the quality of analysis concerning labour market trends, filling existing skills gaps and how this can be communicated more effectively.

5.1 Designing responsive training strategies

Once the trends in the future labour market and skills needs have been established, a key step for PES is responding to them through the design of innovative and effective training measures. Skills development must cover a wide range of issues from literacy and job search skills to training for digital and green jobs.

Some national PES have already developed **comprehensive training programmes and strategies** to address future skill needs. One of the examples of this presented at the conference was **Portugal**, which is implementing an ambitious **Digital Transition Action Plan** which includes many training initiatives to support the digital skills of the Portuguese population and workforce. The Digital Transition Action Plan sets out the Portuguese strategy and integrates the 2018 National Initiative on Digital Skills¹⁵. The objective of this initiative is to increase digital skills at all levels and to position Portugal in the top group of European countries regarding digital skills by 2030. It addresses the concept of digital competences broadly, from digital literacy to higher levels of digital proficiency such as the use of artificial intelligence, and the development and programming of cyber-physical systems. Competences can be developed to various levels of depth and proficiency in each of these areas, depending on the level of qualification and goals set. Under the Economic and Social Stabilisation Programme, the **Portuguese PES (IEFP)** also integrates the Digital-Digital Guarantee, which aims to ensure that, by 2023, all unemployed people are offered training programmes in the digital area. In this context, IEFP has been promoting several measures in the digital area, one of them being the Programa Jovem + Digital - More Digital Youth Programme. The Jovem + Digital programme is a training programme targeted at providing young people and young adults aged 18 up to 35 years with secondary education or higher digital skills demanded in the labour market.

Non-PES labour market actors are also working on designing **responsive training strategies**, which can address skill needs and help overcome present and future skill shortages. One of the initiatives presented during

the conference is the **European Software Skills Alliance** project, dealing with skills shortages and training in the domain of software occupations. The ESSA (European Software Skills Alliance) is an Erasmus+ project to skill, upskill, and reskill individuals into high-demand professional software roles.

To this end, the partnership develops VET curricula, training programmes, and material for education and training providers and organisations looking for skilled software professionals. The project is led by DIGITALEUROPE and is supported by a consortium of 26 partners and experts in the software industry and digital policy from all around Europe. The European e-Competence Framework (e-CF), a standard for IT Professionals, is used as a common reference point to identify the most relevant skills for software professionals and the most needed software role profiles. So far, ESSA produced a blueprint Software Skills Strategy that directly addresses the skills misalignments between the training offering and the market requirements - building on the in-depth analysis of the sector.

The role of **partnerships** was further illustrated during the conference by the example of the **European Federation of Food, Agriculture, and Tourism Trade Unions** - EFFAT's position on the role of education and training in addressing shortages in the hospitality and tourism sector. The organisation argues that re- and upskilling initiatives have to build on and be integrated into existing Vocational Education and Training structures. The example of Germany was cited. At the beginning of 2022, this country renewed their curricula for several occupations in the hospitality sector, such as cooks, waiters and HORECA staff, by introducing modules on sustainability and climate change, as well as new technologies. These new curricula were jointly elaborated by the Ministry of Education, employers and trade unions.

The workshops on this topic underlined that a comprehensive training and skills strategy requires a shared appreciation by both the PES and national education authorities of the long-term benefits of developing customised and integrated up-skilling opportunities. It was also stressed that these should not only be for the unemployed but also available to those in work at risk of losing their jobs to make labour market transitions smoother.

15 For more information see: <https://www.incode2030.gov.pt/en/incode2030>

6. Improving the attractiveness of jobs in shortage sectors

The shortage of workers and the lack of relevant skills are not the only factors affecting recruitment and labour shortages. Recruitment difficulties also occur where labour and employment conditions are not, or are perceived as not, sufficiently attractive. This results in many jobseekers not applying for vacancies or existing workers moving to other employers or sectors.

A recent report by Eurofound (2021b) explores the causes of skills mismatch in the European labour market and identifies three strategies for addressing them. The first type of strategy deals with attractiveness issues and is therefore centred on enhancing the attractiveness of certain regions, sectors and occupations to jobseekers.

The conference discussed the possibility to change perceptions of poor employment and working conditions, how to correct stereotypes and incorrect negative perceptions, and what can be done to overcome specific barriers such as those related to mobility. PES have a key role to play in countering negative stereotypes in shortage sectors through counselling and information campaigns. The latter can be performed in partnership with private and civil organisations experiencing shortages due to this factor.

6.1 PES counselling

One of the sectors featured in the conference was transport, represented in one of the cluster panel discussions by the **European Road Haulers Association (UETR)**. This industry is caught in a paradox where the demand is high, but it is unable to attract enough workers. UETR argued that this is due to a variety of factors that shape the perception of the sector: primarily that drivers have a challenging task, involving lengthy spells away from home and family. Secondly, linked issues are long hours and the status of the occupation. On top of this, there are economic barriers to obtaining necessary driving licences, these are often very expensive and thus unaffordable for young people or the unemployed. Moreover, there is a lack of adequate, safe and secure adapted infrastructures, such as parking areas. In conclusion, the general shortage of drivers Europe is facing is a complex and multifaceted issue, and a holistic approach must be deployed to address all factors contributing to the shortage.

A second sectoral perspective was provided for the conference by the **European Federation of Food, Agriculture, and Tourism Trade Unions (EFFAT)**. During the pandemic, many businesses were forced to close or work at a very reduced capacity for extended periods of time. During this period, many workers left the sector, for two main reasons: firstly the road to recovery for the

sector was uncertain; secondly, wages were low and income support schemes offered during lockdowns did not adequately support workers' livelihoods. Workers that changed sectors realised that improved working conditions were obtainable elsewhere, particularly more regular or sociable working hours. This contributed to emphasising the unattractiveness of jobs in the hospitality sector.

One approach here is to provide counselling. **Counselling** activities allow the PES to connect with employers and other stakeholders to design together a tailored plan to address longer term recruitment issues. The following example describes how a general programme for counselling companies on HR issues can be designed, to address recruitment issues that might stem from non-optimal HR practices and procedures.

Organisational impulse-consulting on-demand (IBB on-demand) is a three-year consulting programme of the **Austrian PES**. It is designed to support Austrian companies of all sizes and industries in tackling labour market issues and HR challenges and thereby fostering employment and employability of the Austrian workforce. The consulting services offered to companies and their employees are focusing on: Retention and recruiting, knowledge and competency management, flexibility management, productive ageing, gender equality and diversity management. During the COVID-19 pandemic, the programme supports consulted businesses to respond and recover quickly and flexibly whilst avoiding hasty layoffs, through HR consulting e.g., working time management, capacity management, crisis management as well as promoting other funding and services offered by the Austrian PES, aligning HR core processes accordingly, and thereby strengthening the working relationship of companies and the Austrian PES. The project is carried out on behalf of the Austrian PES by a consortium of private consulting companies.

The issue of enhancing sectoral attractiveness is complex, requiring concerted efforts at various levels impacting several sectoral and occupational issues. To be successful, initiatives have to be designed and implemented through close and continuous engagement between sectoral stakeholders, education and training providers. This is necessary to effectively address the general public perception of certain sectors and occupations, and to also encourage the education and training system to be more responsive to sectoral needs. Counselling services for employers are important to develop a comprehensive understanding of the problem and prioritise the actions that can be taken.

6.2 Challenging negative perceptions

Anecdotal evidence suggests that attitudes to some forms of employment are not necessarily based on a correct understanding of the work. In this case, working to improve the quality of information aimed at the general public and particularly young people can help enhance the attractiveness of certain sectors or professions.

Negative perceptions play a role in generating labour shortages, by deterring potential recruits from certain sectors or occupations. Representatives of the transport and hospitality sectors echoed these concerns at the conference, and during the discussion suggested some actions to help improve the attractiveness of jobs in these sectors.

For instance, UETR mentioned how some Member States are developing longer-term strategies to provide drivers with the infrastructure they need, improve working conditions and therefore fight the general perception of drivers as an unsafe occupation. Similarly, UETR reported some countries taking action in the short-term to provide incentives to reduce the costs of obtaining a driving licence.

EFFAT reports that investment in the hospitality sector to create quality jobs and decent working conditions is the key to addressing negative perceptions of hospitality jobs. The sector needs to change and work towards offering more full-time, permanent employment, decent working conditions, fair wages, and adequate social protection. Working hours should be predictable, and recorded, with overtime and limited unsociable hours. EFAT argued that outsourcing and subcontracting activities should be limited, as they found these often contribute to poor and less transparent working conditions and lower quality more precarious employment.

EFFAT advocates that social partners are the best-placed organisations to carry out a reform process for the hospitality sector to provide tailor-made solutions. Trade unions need to ensure workplace representation, in addition to securing workers' rights to information, consultation, and participation, at the national and European levels. According to EFFAT, working on improving working conditions is a prerequisite not only to improve the perception of the sector and therefore attract workers but also for retaining them in their occupations for as long as possible.

Recruitment shortages can be due to negative perceptions around the recruitment process. In this case, improving the quality of job offers and advertising, making them more transparent and attractive for potential jobseekers, and improving the security of the job seeking process for users by eliminating illegal or suspect advertisements can help combat recruitment problems.

PES have a role to play here, in monitoring job vacancies posted and helping employers to increase their contact with a potential candidate, releasing untapped potential for the labour market of the future.

6.3 Role of geographical mobility

Intra-EU mobility has significantly increased in recent decades, with a sharp halt in 2020 due to the pandemic (European Commission, 2021). However, there is still a lack of information concerning the required skills levels of workers moving between different Member States. PES can address this by making use of EU mobility schemes introduced by the European Commission such as the EURES¹⁶ Targeted Mobility Scheme, helping companies in recruiting young workers from other EU countries to address shortages. Building on the positive results of the Your First EURES Job - YFEJ programme, a targeted mobility scheme "Reactivate," to help EU citizens aged at least 35 was launched. EURES TMS is an instrument to address labour market imbalances by promoting a fair allocation of categories of vacancies in a transnational dimension, in particular by targeting bottleneck vacancies and labour surpluses in a wide range of sectors. At present, Arbetsförmedlingen is the coordinator of a EURES TMS project granted in 2019.

Intra-EU mobility is set to be boosted through Talent Partnerships; a key initiative launched in 2021 to address skills shortages in the European Union set up by the Commission. Partnerships will provide support to partner (third) country nationals to move to Europe for study, work or training with the close cooperation of authorities, employment agencies, social and economic partners, and education and training providers. Capacity building in the areas of the labour market or skills intelligence and VET will also be provided. All skills levels will be targeted, and shortage sectors prioritised (e.g., health, IT and science).

16 For more information see: <https://ec.europa.eu/social/main.jsp?catId=1400&langId=en>

7. Untapping potential

"Untapped potential" refers to the high number of persons who could be available for work in the labour market but who are currently excluded (Eurofound 2021b). This is a broad category of people with varying degrees of distance from the labour market for differing reasons, it includes the long-term unemployed, ethnic minorities, persons with disabilities, young people, older people, and women.

Increasing the labour force participation of the inactive population and removing obstacles to underemployment could help address labour and skills shortages.

For all groups training and education is a key measure to prepare them for entering the labour market (again). However, VET institutions must ensure that their offer is compatible with future skills needs to ensure that placements will be sustainable. Groups with a larger distance to the labour market require services that provide a bridge from their current situation to trajectories that more directly target participation in the open labour market.

PES can also directly contribute to these efforts through their recruitment strategy. The **German PES** actively pursues the recruitment of persons with disabilities. It developed an action plan for inclusion for their own PES. Currently, 11% of their staff has one or more disabilities compared to only 4.6 in the wider economy.

7.1 Modernising VET to untap potential

For VET to play a role in unlocking the potential labour reserve it needs to become more attractive, as well as respond to actual and future skills needs. The former applies in particular to groups returning to or entering the labour market, notably women and older workers. Given the latter vocational training needs to include technological equipment and gear training towards the demands placed by digital, environmental, demographic and industry transformations.

An example presented during the conference concerns the Wood and Furniture Industry. **Woodwize**, the Belgian sectorial and organisation of employers and trade unions for vocational education and training in this sector presented the Bolster Up 2 project. The Bolster Up 2 project was initiated by the EU Social partners for furniture and coordinated by Woodwize. It involved 9 countries: Bulgaria, Croatia, Italy, the Netherlands, Portugal, Romania, Spain, Sweden, and Belgium. The project aimed to prepare the sector for the challenges ahead, guaranteeing minimum training standards, facilitating mobility in the labour market, and enhancing lifelong learning programs. The project targeted the recognition of qualifications for

the professions of a joiner, cabinet maker and upholsterer. It produced a report with the 3 core profiles, a description of required knowledge, skills and competences (KSC), learning outcomes and EQF levels.

Training centres need to be ready to provide opportunities also for inactive people and their geographical spread should be such that they are close to the people and companies that need them.

The **Portuguese PES**, for example, has a network of 31 training centres they directly manage and another 24 training centres that they manage in partnership with social partners. At the conference, the PES presented their investment plan which has a provisional allocation of 566 M€, to create, modernize or upgrade 42,000 training workshops between 2021 and 2031.

7.2 Preparing for the open labour market

Another challenge in this respect concerns the employability of more vulnerable groups with a greater distance to the labour market. The COVID-19 pandemic has impacted disproportionately upon these citizens. PES have a key role to play in ensuring that these groups are not left behind during the recovery.

Although the inactive population is not a traditional target group for PES, they are now rapidly catching up and a recently conducted Thematic Review Workshop demonstrated that many European PES are developing novel approaches for the integration of vulnerable groups in the labour market (Csillag, 2021).

One such approach implemented in **Ireland**, 'social farming', was presented during the conference. It is defined as an outcome-focused, support placement for people who have challenges in their lives to work on an ordinary working family farm. Participants of the programme are placed on a farm and engage in ordinary activities at various levels. The farm itself is and remains a typical working farm where people take part in day-to-day farm activities in a non-clinical environment. Each participant has an Individual Support Plan (ISP), which describes their goals for their placement and they draw up the plan. The individual goals vary but many are focused on entering further training education and employment. Farmers go through a rigorous process of vetting, training, etc. and they are paid for the support they provide. Placements are usually two days per week for a defined period to achieve the goals that have been agreed upon with the participants.

8. Conclusions and recommendations

A combination of immediate disruption in the aftermath of the Covid pandemic and the increasing long-term impact of automation, digitalization and an ageing population are having an unprecedented impact on the European labour market. Member States are having to cope with both labour and skill shortages, particularly in high-skill sectors and occupations which attract negative perceptions from many potential employees. The European Union's strategic priorities for twin, green and digital transitions can spearhead a sustainable labour market recovery; however, achieving this will require large-scale reallocation and job redesign.

Interventions with jobseekers need to include both tailored sectoral pathways, and basic employability training. This is to ensure that people have the required digital skills for job search and accessing available vacancies in a labour market where the need for IT skills is becoming ubiquitous. Investment in forecasting systems is essential to identify labour market trends. This is needed to provide the best possible advice for employment service clients to assist their career planning, and supply information for VET providers to design programmes which can optimise the employment prospects of participants.

Building labour market resilience will require actions to address shortages, including filling vacancies and encouraging applications to low-skilled jobs in essential sectors. Employers will need support in identifying and developing talent through investing in training both recruits and existing employees. Job redesign through automating processes, reviewing qualification requirements, identifying transferable skills and job carving can all assist in increasing productivity, whilst introducing more flexible conditions of employment can make occupations more attractive. Developing career pathways with increased prospects for progression and development can increase the attractiveness of shortage occupations.

Geographical and occupational mobility can both play an important part in redressing labour and skill shortages. Targeted mobility schemes can be particularly helpful in ensuring that individuals can make well-informed migration decisions leading to successful integration: in this regard, a significant increase in the volume and quality of data on the skills of migrants can improve the design of such initiatives. Improved communication disseminating the outputs from improved labour market trend forecasting tools can further encourage sustainable employment outcomes and reduce the number of migrants falling into precarious and exploitative employment.

Measures to combat labour market discrimination include actions to challenge and remove gender stereotypes and structural factors which deter women from pursuing careers in certain sectors.

Communication is key to dealing with labour and skill shortages. Effective communication campaigns and systems for obtaining feedback from jobseekers, employment services, and employees can enable incorrect perceptions about specific occupations and sectors to be challenged and provide an evidence base for employers to consider steps to ameliorate issues deterring recruitment.

It is important to note that solving the complex and often interrelated causes of labour and skill shortages frequently requires sector-wide collaboration amongst a wide variety of stakeholders. This can necessitate broader policy interventions beyond the urgent need for greater cohesion in the formulation and delivery of employment, education, skills, and training policy. The lack or on occasion absence of essential transport infrastructure is an example which is having an increasing influence on recruitment into the logistics sector, whilst continuing to constrain efforts to reduce the gender disparity in reemployment in this area. Failure to address the root causes of labour market discrimination means that Europe is failing to tap the full social potential of citizens with detrimental macro-economic consequences and adverse implications for social cohesion because of the exclusion of groups vulnerable in the labour market including women, younger people, persons with disabilities, and ethnic minorities and migrants.

Better educational outcomes and more informed choices of career paths, through increasingly focussed information to assist school students' curriculum choices, can foster improved school-to-work transitions, as part of the suite of policy measures needed to increase suitably skilled labour supply.

Discussion and analysis of labour and skill shortages during the conference suggest several recommended areas for further action:

- Policies to incentivise the upskilling of staff through training and development can assist in dealing with recruitment shortages. Stakeholders including employment services, VET providers, and employers should collaborate to design and implement recruitment pathways.
- Employers should be assisted by PES in their reevaluation of recruitment practices. These should include programmes targeting persons from groups subject to labour market discrimination and incorporate recruitment aftercare components where needed to support sustainable employment. Employment services and VET providers should support programmes which can equip jobseekers with skills matching employability requirements.

- Where appropriate, competency-based recruitment should be encouraged and used in conjunction with systems to identify transferable skills.
- Stakeholders should combine to intervene in schemes to maintain labour market attachment, both to support retention, and where necessary labour reallocation to smooth transitions. Active stakeholder management of redeployment can reduce the prospects of workers becoming redundant and falling into unemployment and inactivity.
- PES should collaborate with employers to deliver campaigns to promote recruitment in shortage sectors, including messages to dispel negative perceptions.
- Stakeholders, especially employers, employment services, and education providers should coordinate efforts to encourage smoother school-to-work transitions.
- Member States should invest in the establishment and development of systems to analyse labour and skills trends and share outputs with jobseekers and labour market stakeholders.

Cutting edge practices for PES to develop in the short term could be:

- Increasing investment in the digitalization of employment services, particularly vacancy handling, can both speed up the recruitment process and create more capacity to assist those furthest from the labour market to access opportunities in shortage sectors.
- PES can provide a vital source of real-time data for employers on the job search behaviour of jobseekers and intelligence on aspects of employment conditions likely to attract or deter interest in vacancies. Partners involved in vacancy filling should therefore co-operate to establish tools for the exchange of information to enable employers to consider changing employment conditions to reflect the dynamics of labour supply and demand.

References

- CEDEFOP, (2019). The Online Job Vacancy Market in the EU https://pmb.cereq.fr/doc_num.php?explnum_id=5838
- Csillag, M. (2021) European Network of Public Employment Services. Support to vulnerable groups. Thematic paper, November.
- ELA, (2021). Report on Labour Shortages and surpluses <https://www.ela.europa.eu/sites/default/files/2021-12/2021%20Labour%20shortages%20%20surpluses%20report.pdf>
- Eurofound (2021a). Working conditions and sustainable work: An analysis using the job quality framework. <https://www.eurofound.europa.eu/publications/flagship-report/2021/working-conditions-and-sustainable-work-an-analysis-using-the-job-quality-frame-work#tab-04>
- Eurofound (2021b). 'Tackling Skill shortages in EU Member States'. Eurofound, July.
- European Commission, (2020). Intra-EU Labour Mobility at a glance, main findings of the 2019 Annual Report on intra-EU Labour Mobility. <https://ec.europa.eu/social/BlobServlet?docId=22289&langId=en>
- European Commission, (2020). Report on the Impact of Demographic Change in Europe.
- European Commission, (2021). Directorate-General for Employment, Social Affairs and Inclusion, Peters, M., Assessment report on PES capacity: 2021, 2022, <https://data.europa.eu/doi/10.2767/629732>
- European Commission, (2021). Intra-EU Labour Mobility at a glance Main findings of the Annual Report on Intra-EU Labour Mobility 2021.
- IAB, (2016). Economy 4.0 and its labour market and economic impacts.
- Nunn, A. (2015). Trends and developments in PES partnership-working Background paper. January 2015. PES to PES Dialogue. The European Commission Mutual Learning Programme for Public Employment Services <http://ec.europa.eu/social/BlobServlet?docId=14113&langId=en>
- Parker, K., Horowitz, J.M. (2022). Majority of workers who quit a job in 2021 cite low pay, no opportunities for advancement, feeling disrespected, <https://www.pewresearch.org/fact-tank/2022/03/09/majority-of-workers-who-quit-a-job-in-2021-cite-low-pay-no-opportunities-for-advancement-feeling-disrespected/>
- PES Network, (2018). The Future of Work, Implications and responses by the PES Network, PES Network Working Paper, PES Network and ICF.
- PES Network, (2020), European Network of Public Employment Services. Activation of the Inactive: PES initiative to support the activation of inactive groups. Thematic Paper. Written by Institute for Employment Research (IAB) Regina Konle-Seidl, 2020.
- PES Network, (2022). Jointly addressing labour and skills shortages, Preparing for Europe's Future Labour Market. Conference Paper.
- Piasna, A., Burchell, B., Sehnbruch, K., (2018). Job quality in the European employment policy: one step forward, two steps back? http://eprints.lse.ac.uk/102888/1/2018_11_30_Transfer_Job_quality_in_the_European_employment_policy.pdf
- Weber, E., (2019), Digital Social Security: Outline of a concept for the 21st century, Working Paper Forschungsförderung, No. 138, Hans-Böckler-Stiftung <https://d-nb.info/1197749349/34>

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications at: <https://publications.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused

