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Public Employment Services' Responses to the Pandemic: Examples from Portugal, Bulgaria, and Lithuania

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Abstract

The Covid-19 pandemic provoked critical changes to welfare in Europe, requiring the dematerialisation of programmes and services while relying mainly on remote support. This study aims to present insights into how European public employment services have coped and adapted to the pandemic challenges, particularly regarding the digitalisation and delivery of services to young people in rural areas. It focuses on three case studies from distinct European regions: Portugal, Bulgaria, and Lithuania. It is based on an exploratory survey of public employment services national offices and qualitative data collected from public employment services offices in rural settings. It highlights the advantages and dangers of the adoption of digitalisation processes, namely considering literacy and accessibility in diverse contexts. It concludes that despite cultural and regional differences, all three countries evidenced an acceleration in service provision due to digitalisation and were capable of adjusting their practices to remote delivery. However, rural areas faced delays due to poor infrastructure, and after the pandemic, public employment privileged on-site delivery, since it is considered more effective in the training and counselling of young people.

Keywords

Bulgaria; Covid-19; digitalisation; Lithuania; Portugal; public employment services

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1. Introduction

The pandemic caused upheavals in all sectors and affected the life prospects of many people. The consequences of Covid-19 reflected painfully on young people as well, confronting them with new challenges, including the increased risk of dropping out of school, long-term unemployment, marginalisation, and social exclusion (Dunajeva et al., 2021; International Labour Organization, 2020b). Many young people ceased to be engaged in education, employment, and training and fell into the category of not in employment, education, and training (NEETs), with the proportion of NEETs within the 15–29-year-old age group rising to 13.9% in 2020 in the EU, although the rise of this indicator was followed by a decrease to 11.7 percentual points in 2022 (Eurostat, 2023).

During the pandemic, digitalisation was often the only solution to secure the delivery of basic social services, such as education, employment, or health support (International Labour Organization, 2020b). This brought a sudden acceleration of remotisation and automation of services that caught the relevant offices and their clients unprepared. Particularly for education, differences in infrastructure, literacy, and access to a good network often dictated the success or failure in following online courses (Flores et al., 2022). Recent research highlighted that regional factors negatively impact the quality of life and opportunities of young people (Brazienė, 2021; Mujčinović et al., 2021; Simões et al., 2020). Digitalisation can be seen as an opportunity for young people in rural areas, as it enhances their remote employment and education prospects (Neagu et al., 2021; Raileanu Szeles & Simionescu, 2022). Considering this, the need to improve policies that promote inclusive employment and education for NEET youth has increased (Paabort et al., 2023). The dematerialisation of public employment services (PES) has been proposed as a process to modernise social welfare services (OECD, 2022), particularly for young people, with applications for Youth Guarantee schemes being made solely online (Walsh, 2020). However, if such a transition is to be successful, one must pay attention to socio-economic differences that shape the rural/urban divide (Kerras et al., 2022), in order to ensure none of the population is excluded.

This study aims to offer insight into how PES have coped and adapted to the pandemic challenges, particularly examining the delivery of services and support to youth located in rural areas. It focuses on three national case studies from distinct European regions: Portugal, Bulgaria, and Lithuania. It is based on an exploratory survey of national PES offices and qualitative data collected from public employment offices in rural settings. Finally, it highlights the advantages and dangers in the adoption of digitalisation processes, namely considering literacy and accessibility in diverse contexts.

2. The Pandemic and the Accelerated Digitalisation of Labour Markets

In the aftermath of the Covid-19 pandemic, PES made considerable modifications to its services and operations. Many of these modifications involved investments in IT infrastructure to allow PES to cope with rising customer numbers and ensure service continuity in the face of constraints on in-person service provision (Peters, 2022). Changes in training and job-search support and counselling delivery modalities were notably frequent across nations during this period. As of 2022, most PES used digital processes, such as online registration via applications, interfaces, or platforms, phone support for customers who could not use online channels, distance counselling services, or online training via platforms. Such changes increased efficiency and effectiveness and freed up human resources (Directorate General for Employment, Social

Affairs and Inclusion, 2023). Furthermore, PES in 69 countries across all regions can now provide basic services online, such as information on available openings and customer registration for job matching. One-third of these nations' PES are now providing AI-powered solutions for job searchers and employers (International Labour Organization, 2022). Hence, digital technology has been a strong instrument for extending employment service coverage, especially in low- and middle-income nations, helping to improve the internal operations of employment services.

However, some authors highlight the exclusion caused by the digital divide, due to deficient infrastructure, lack of access to equipment, poor literacy, or even mistrust (International Telecommunication Union, 2022; Pirhonen et al., 2020; Rückert et al., 2020). In his amplification theory, Toyama (2015) suggested that technology is not "transformative" or disruptive, but rather a magnifier of existing institutional forces, including current social, economic and political dynamics. This highlights the necessity of ensuring no one is excluded when advancing these changes. The delivery of services through technology-based channels has remained low for women as single parents, migrants, refugees, displaced workers, minorities, and indigenous people in half of the assessed PES (International Labour Organization, 2020a). In the case of NEET youth, not all have equal access to digital services and technologies. NEETs from low-income or marginalised communities may face barriers to accessing technology due to affordability or limited digital literacy.

Digitalisation can be understood as the dematerialisation of services but goes well beyond that. A recent literature review concerning digitalisation and the delivery of active labour market policies (ALMPs; Scarano & Colfer, 2022) distinguished between two technological domains: remotisation and automation. The authors clarify that remotisation refers to the process or practice of conducting work or business activities remotely, implementing internet-based service elements at a geographical distance from the target groups. For PES, remotisation refers to the possibility of creating alternatives to physical interactions between caseworkers and customers by means of digital layers that direct customers towards online services (Scarano & Colfer, 2022, p. 101). Automation refers to recent advancements in data and analytics allowing for the generation of knowledge and intelligence from data to support decision-making. For PES, this primarily refers to the implementation of data-driven optimisation tools that are designed to anticipate customers' needs and suggest potential treatments and courses of action to caseworkers (Scarano & Colfer, 2022). According to the OECD (2022), digitalisation can encompass almost all PES operations and services, covering applications and user interfaces for better services for job seekers and employers, such as self-service tools for job/employee searches, tools for mapping skills, and providing career services and chatbots to facilitate information sharing and counselling. Beyond that, it can also provide more efficiency in defining jobseeker profiles, matching offers to candidates or automating administrative tasks. In Scarano and Colfer's (2022, p. 106) study, employment assistance was identified as the type of active labour market policy most sensitive to digitalisation and indicated that career guidance was closer to remotisation while profiling and matching were closer to automation. But while both remotisation and automation processes are currently in place in PES, they do not move at the same pace in all countries, nor with the same degree of implementation.

Meanwhile, digitalisation is also impacting labour markets, raising new challenges for workers and employers. Warhurst and Hint (2019, p. 1) list three aspects of digitalisation that change work: digitally-enabled machines with artificial intelligence (AI); digitalisation of processes that offer enhanced possibilities for the processing, storage, and communication of information; and the use of digital networks to coordinate economic transactions through platform-based algorithms. These changes are projected to have three

effects on labour markets and behaviours. The first effect concerns the ways in which technological innovation, such as automation, machine learning, and AI systems, may or may not shape work (Berg et al., 2018; West, 2018). It is stated, more specifically, that digital technologies are being used consciously and instrumentally to influence work and employment relations, such as through online platforms (Frey & Osborne, 2017). Secondly, digitalisation has increased the growth of jobs in the service and information industries, while also slowing that growth in the manufacturing and sourcing of material products (OECD, 2019a, 2019b). Third, as fewer work contracts provide a standard employment relationship, there has been an increase in the number of unstable types of employment. As previously stated, regardless of one's unique experience with precarious employment or present circumstances, these new changes have introduced an element of insecurity with severe health concerns (e.g., Fernández-Macías et al., 2023). They have wide repercussions and have implications not only for duties in the workplace but also for how and where individuals are employed. Although these advances do not yet appear to have increased joblessness, they may be related to a rise in underemployment.

Considering these debates, this article analyses the effects of the digital transition on PES and their clients in the aftermath of the pandemic, as well as the impacts of the policy measures that have been implemented in three European countries: Portugal, Bulgaria, and Lithuania. We explore the endurance of the pandemic effect through the analysis of these three case studies with diverse geographical and cultural profiles, shedding light on the advantages and disadvantages of the adoption of technology by PES while taking into account local contexts.

3. Methodology

The data presented in this article is part of the project Track-In: Public Employment Services Tracking Effectiveness to Support Rural NEETs (ID No. 2020–1–0011) funded by EEA and Norway Grants Fund for Youth Employment, the aim of which is to deliver an evaluation model of the effectiveness of PES. Results from the collaborative work developed within the WP2—Rural PES tracking programs, mapping, and validation are intended to map and validate the most replicable programme of each PES tracking support type in improving rural NEETs' employability. WP2 has members from six different countries: Portugal, Spain, Bulgaria, Estonia, Lithuania, and Italy.

One of the axes of the methodological strategy comprised a screening phase to map the structures of implementation of employment services through a PES survey addressed to national and regional heads of PES. More specifically, the aim was to collect information on how PES are organised, their target groups, the available measures and programmes addressed to NEETs, and how the performance of these programmes is measured.

To guarantee comparability between different countries and standardise PES' definitions and terms, the survey was based on some reference surveys also used to research PES, namely those conducted by the World Association of Public Employment Services, the International Labour Organization, and the European Network of Public Employment Services.

The survey included questions about PES institutional structure and services addressed to NEETs, encompassing the following dimensions: (a) PES services' institutional structure, (b) portfolio of PES'

activities and services, (c) PES services and measures in the context of the Youth Guarantee implementation, (d) reaching out to NEETs, (e) assessing the needs of NEET young people, (f) post-placement support provided to young people, (g) PES response to the Covid-19 crisis, (h) assessment and monitoring, and (i) strategic flexibility.

The online version of the survey was added to the Qualtrics platform and disseminated through the national PES in four countries. It was not possible to apply the questionnaire in Italy and Spain due to the delays in the PES protocol agreements. Data was collected between December 2022 and February 2023. In total, 157 valid responses were collected: Bulgaria ($n = 71$), Portugal ($n = 50$); Lithuania ($n = 31$), and Estonia ($n = 5$). Given the low size of the sample, Estonia was not included in the analysis.

Taking into account the disproportionate sample size in each country, data analysis will be presented as independent case studies and not as a direct comparative statistical analysis. The data has been treated and analysed in SPSS. As a complement to the quantitative exploratory data, all teams have conducted PES case studies in rural areas in their own countries. The case studies comprised documental analysis, interviews with PES technicians and directors and focus groups with NEET youth. Some of this data is presented here, triangulating data collection strategies for better comprehension of national contexts.

For the purpose of this article, we selected the survey dimension concerned with PES response to the Covid-19 crisis, the aim of which is to provide an understanding of the impact of Covid-19 on the introduction and implementation of PES strategies or reforms. This particular dimension was based on the European Network of Public Employment Services survey on PES capacity (Peters, 2022), which comprises a set of questions related to the impact of the Covid-19 pandemic on PES services.

The survey covered categories related to communication/interaction with the public, either through greater digitalisation of services or diversification of interaction channels (channels used). It also covered categories related to the measures and services provided by the PES or other bodies, whose aim is to facilitate the integration of unemployed and other job seekers in the labour market (ALMPs and client services) and procedures (rapid service and support; internal procedures/processes). Finally, it covered categories related to income support, such as redundancy measures and short-term work, to support firms that experienced economic difficulties, allowing them to temporarily reduce the number of working hours or give support to the employees that receive income support from the state for the hours not worked. In the period of the Covid-19 pandemic crisis, most of the European states adopted these types of schemes, allowing the partial suspension of the employment contract or, in some cases, the temporary redundancy, which allows a full suspension of the employment contract. Another important response during the pandemic crisis was income provision, allowing out-of-work income maintenance and support. The aim was to understand whether the pandemic accelerated (speeded up) or boosted their introduction (initiated) or on the contrary, it postponed (introduction postponed) or delayed their implementation (introduction delayed) of such measures.

4. Cross Country Overview

An initial and general review of the data in the following table allows us to see that the support services for NEETs were not particularly affected by the constraints imposed by the Covid-19 pandemic. Supporting this

conclusion is the fact that only five indicators have averages below three, which indicate delays or postponements in the implementation of the measures in question.

Among these figures are income provisions for Portugal (2.79) and Bulgaria (2.84), followed by redundancy measures and short-term work (2.86) reflecting a negative impact (see Table 1). Finally, in Lithuania, there were delays or postponements in ALMPs and customer services (2.57) and redundancy measures and short-term work (2.78). Among all of the measures, the digitalisation of services (4.25) had the highest implementation, which was boosted as a result of the pandemic. In turn, the pandemic also had the greatest impact on income provision (2.92). This last aspect presented the greatest implementation difficulties among the three countries, to the extent that both Portugal and Bulgaria have averages that indicate a negative impact.

Table 1. PES areas affected by the Covid-19 pandemic.

	Portugal	Bulgaria	Lithuania
Digital(isation) services	4.08	3.68	4.25
Channels used	3.88	3.50	4.05
ALMPs and customer services	3.46	3.08	2.57
Income provision	2.79	2.84	3.05
Redundancy measures, short-term work	4.27	2.86	2.78
Rapid service and support	3.68	3.79	3.16
Internal procedures/processes	3.91	3.80	3.11
Other	4.00	3.17	3.00
	$n = 50$	$n = 71$	$n = 31$

We will now proceed to the individual analysis of each country case, followed by a mixed analysis, comprising a qualitative analysis of the interviews with PES technicians and directors, a documental analysis of official and institutional reports, and a quantitative analysis of PES survey data.

4.1. The Portuguese Case

In 2022, Portugal was in 15th place (score 50.8) in the Digital Economy and Society Index (DESI) with slow progress—Compared to the previous year it only moved up one place and is still below the EU average score of 52.3 (European Commission, 2023c). In the range of indicators that comprise this index, Portugal has a lower performance in connectivity (score of 51.6), far below the European average (score of 59.9). Despite the investment and increase in coverage in the last decades, resulting in an increase in households with an internet connection, there are still some territorial disparities and inequalities, with very limited coverage in rural and remote areas.

In the other three dimensions, Portugal is aligned with the EU average. In the human capital dimension, Portugal matches the EU average, although there is still significant room for improvement, with 55% of the population having at least basic digital skills (European Commission, 2023c).

Regarding the integration of digital technology in business activities, Portugal scores 37.6 (EU average score of 36.1)), with a significant increase—five steps in the ranking—when compared with the 2021 performance

(European Commission, 2023c) revealing the impact of Covid-19 on the digitalisation process of these services (European Commission, 2023c). Finally, in the digital public services dimension, Portugal scores 67.9 (EU average score of 67.3), standing out from the European average in terms of pre-filled forms (score of 76 for Portugal and 64 for the EU) and digital public services for citizens (score of 79 for Portugal and 75 for the EU).

During the last few decades, Portugal invested in the digitalisation of services, with the implementation of the Simplex programme in 2006 being a highlight in this process. The aim of this programme was to simplify the administrative procedures and empower the relationship between citizens and the state, with many of the measures involving the mediation of this relationship through the digitalisation of certain services. Since 2020, Portugal has been implementing the Action Plan for the Digital Transition prepared by the Ministry of Economy and Digital Transition. This measure aims to digitalise the 25 public services most used by citizens and companies, ensuring simplification and online access to digital public services for all citizens. The projects Emprego + Digital 2025 and Upskill are two main measures to requalify and train workers, company managers, and citizens in general in digital technologies. Portugal's Action Plan for the Digital Transition will be reinforced by the Recovery and Resilience Plan aiming to meet the goals of the 2030 EU Path to the Digital Decade. The aim is to improve population skills, expand connectivity, and support the public and private sectors in the process of technological adaptation and digitalisation. Considering Portugal's digital gap, the strategy of digital transition needs to be accompanied by investment in the training of people and service workers, otherwise there is a risk of leaving many people behind who are unable to keep up with the digitalisation of services and benefit from the potential of this offer.

Meanwhile, the impact of the Covid-19 pandemic lockdowns accelerated the digitalisation trend of the service sector, especially that of PES, which plays a critical role in providing young people with employment and training opportunities. The transition from an in-person to a digital approach brought not only the adoption of digital tools and technology operations but significant changes to the delivery models of training and job-search support, as well as counselling. Most PES organisations developed digital platforms, websites, and apps to deliver digital services, leading to significant opportunities to provide essential services, especially for the unemployed (International Labour Organization, 2022; OECD, 2021). This also increased the potential role that employment services can play through remote services, especially in rural areas, by reaching a higher number of vulnerable people, improving the quality of employment in the formal economy, and promoting the formalisation of the informal economy.

In the post-pandemic period, digital service delivery and in-person contact have become a permanent feature of PES across Europe. OECD countries are harnessing digitalisation to improve the effectiveness and efficiency of PES in connecting people with good-quality jobs, besides monitoring and evaluating the performance of the digital tools. Moreover, the full integration of the European Skills, Competences and Occupations classification into the PES IT system is being implemented to improve the identification and addressing of skill deficits among job seekers.

The data gathered by our survey reveals the impact of Covid-19 on the digitalisation process. Although there is some overrepresentation of the centres in the central region, it is important to point out that only three cases reported by the respondents mentioned the existence of constraints in the pandemic context (delaying the implementation or introduction of digitalisation measures), two of which were in the central region and

the other in the Alentejo. Hence, the data shows how COVID-19 has accelerated the process of digitalisation of services (Table 2).

Table 2. Impact of digitalisation on the Portuguese PES: Results by region.

	NUTS 2 regions				
	North	Centre	Lisbon Metropolitan Area	Alentejo	Total
Delayed implementation	0	2	0	0	2
Delayed introduction	0	0	0	1	1
Not affected	4	2	3	0	9
Initiated	0	2	1	1	4
Accelerated	0	10	5	5	20
Total	4	16	9	7	36

From interviews with PES caseworkers, we can grasp how steep the adaptation curve was for the services, and how peer learning was crucial. The caseworkers were not used to working remotely on the dissemination of training or rights and duties for subsidised applicants or other types of programmes:

> We always did it face-to-face and, from the moment we stayed at home, we had, like everybody else, to adapt to the new technological means. So, it was almost overnight: Now they're going to have Teams training tomorrow and from now on they'll start doing things like that. And, okay, and we even started doing it in pairs, but it was a bit complicated. For those who already know how to work remotely, it was easy; for those who started working like that and had to do a session, we did it in pairs. (PES worker from the Algarve headquarters)

While some of the changes remained after the pandemic, presential contact needed to be reinstated:

> Everything has been dematerialised; everything that was possible. A lot of it remains. There has been a step backwards. There are a few things, especially in relation to customer service. As I was saying, our work is with people. Nothing replaces these conversations, not even at a distance. It is not the same. It was difficult to reengage in presential consultations. The post-pandemic and the return were highly regulated, but it was essential. Of course, during the pandemic, certain situations were eased. We stopped making calls; we did not call people in; we presented them directly at the workplaces. We never stopped; the institute never closed its doors. (PES director, Central Region)

The impact of the pandemic has made the skill gap in Portugal more evident and has directly impacted the digitalisation process. Digital training is recognised as a key element in the economic and personal development of Portugal as it aims at digital citizenship. There is not only a shortage of digitally competent PES workers, but also a shortage of digital literacy. Lower internet subscription rates among rural citizens are also evident, where these citizens are constrained by geographic and socio-economic issues, among other vulnerabilities. These factors can be an obstacle to the successful implementation of digital measures, increasing the risk of poverty and social exclusion for low-skilled and vulnerable citizens, especially young

people. In this sense, digital skills gaps have been prioritised by governments and business leaders across various regions and industries.

4.2. The Bulgarian Case

In 2022, Bulgaria ranked 26th on the DESI, with a score of 37.7, far below the EU average score of 52.3 (European Commission, 2023a). Considering digital skills, less than one-third of the population has at least basic proficiency (31%), significantly lower than the EU average (54%) and far from the 80% target defined by Digital Compass to be reached in 2030. Bulgaria has its worst performance in the integration of digital technology (score of 15.5), below the EU average (score of 36.1). However, Bulgaria is closest to the EU average in the connectivity dimension, scoring 50.7 compared to the EU score of 59.9 (European Commission, 2023a). In 2020, Bulgaria's Broadband Plan update was launched, aiming to improve the country's connectivity indicators as a basis to develop more diversified and complete digital services (The Republic of Bulgaria Council of Ministers, 2020).

Concerning the digitalisation of public services, Bulgaria (score of 51.9) is also below the EU average (score of 67.3) facing challenges in developing digital public services for citizens and using pre-filled online forms to access public services (European Commission, 2023a). Despite this trend, some efforts have been developed in the past years, for example, with the update of the National Strategy for e-Government in 2021. Also significant is the investment from Bulgaria's Recovery and Resilience Plan which has digital transition as one of its goals and foresees the development of measures to boost e-government and digital public services in several areas, including employment, through investment in the Modernisation of the Employment Agency (European Commission, 2023a).

The digital and green transition and the consequences of the Covid-19 pandemic also have led to significant structural change in the labour market and in the services provided by the Employment Institute in Bulgaria. Among the main priorities of the national employment policy in the country are increasing the scope, efficiency, and quality of employment services, and the implementation of new services, including digital ones:

> People searching for a job can access job listings, apply for unemployment benefits, and receive career counselling remotely. We started to use virtual job fairs and webinars to connect unemployed people with employers. And this was a very useful online service. (Director of the Labour Office, Razlog)

During the pandemic, the services provided by PES in Bulgaria were directed to support both employees and employers. With employees, PES offices worked on listing vacancies on the PES online job board, including e-labour offices, referring candidates to employers, offering employment mediation, and organising job fairs. With employers, PES were working to publish information on issues such as support for dismissed employees to register with the employment agency, employers' obligations for mass layoffs (including the timing and structure of consultations), information on the Covid-19 job-retention scheme, and information on hiring foreign workers.

The data gathered by the PES survey shows that PES in Bulgaria were not negatively affected by the Covid-19 pandemic, with few respondents pointing out the delay of services and measure implementation and introduction. In most cases, the pandemic accelerated ($n = 12$) or initiated ($n = 6$) the implementation of

measures (Table 3). Due to the overrepresentation of the Southwest Region (representing 88% of the sample), it is not viable to make a regional comparison.

Table 3. Impact of digitalisation on the Bulgarian PES: Results by region.

	NUTS 2 regions			
	Central-North Region	Southwest Region	Central-South Region	Total
Delayed implementation	0	1	0	1
Delayed introduction	0	4	0	4
Not impacted	0	12	0	12
Initiated	0	6	0	6
Accelerated	2	7	2	11
Total	2	30	2	34

Interviews with PES personnel further confirm this data. PES officers worked continuously:

> During the pandemic we did not stop working, work was outsourced to other offices, there were also teams that served people at the entrance of the labour office. Some of the services were also done digitally. Applications from employers could be submitted through the agency's website. Most of the contact was made over the phone. During this period, the electronic registration service also arose. In my opinion, we coped well with the situation and the innovations in the work process. Digital services' innovations, such as electronic registration, have remained so far. (Director of the National Employment Agency, Blagoevgrad and Kyustendil Region)

> We had a few problems with customer service, perhaps related to people's fear of not going to the right desk. But the problem was solved by enabling people to register using an identification code and submit documents through the electronic service system….The service for the unemployed was carried out for the most part by phone, but we also kept the service on site, which was taken to the ground floor of the building….With the young people, however, we responded and had Zoom meetings. The activity and the connection between us—young people and employers—never stopped. (Case manager, National Employment Agency, Blagoevgrad and Kyustendil District)

The high number of young NEETs in the country continues to be a challenge, and actions to identify and reach them will intensify and expand. According to the National Strategy for Employment 2021–2030 (Bulgarian Ministry of Labour and Social Policy, 2021), reaching every single rural NEET youth in Bulgaria will be a priority, and efforts to identify and reach these youth will intensify and expand. This will include intensive use of digital tools and social media, as well as the development/creation of a registry where these young people will be listed. The purpose of this procedure will be to identify their profile and appropriate measures and actions that can be taken to reach them, via their place of residence, and help to activate them.

In their work, youth and Roma mediators and all specialists involved in activities for identifying, reaching, and activating inactive young people, will be able to use the practical handbook for reaching and activating NEETs. They will continue to be encouraged to use available e-services, and to be involved in creating new ones.

During the pandemic, PES collaborated with other government agencies, employers' organisations, and trade unions to coordinate efforts. This cooperation ensured a more comprehensive approach to addressing the challenges in the labour market:

> It's very important to note that the specific measures and their implementation may have evolved over time as the pandemic situation changed; for that reason, it was very helpful for us as experts to collaborate with other institutions. We adapted the services we provide to meet the emerging needs of persons searching for a job and employers while complying with public health guidelines. (Director of the Labour Office, Razlog)

In the post-Covid-19 period, Bulgaria faces the challenge of continuing the trend of accelerating digitalisation that the pandemic seems to have driven. One of the biggest challenges will be to overcome territorial contrasts, particularly between urban areas and rural and more remote areas. The Bulgarian government has recently invested in the digital transition process, reinforced by the resilience plan, but this investment needs to be continued for Bulgaria to come closer to the EU average in the various indicators that map the digital transition, namely connectivity, digital skills, and public digital services.

4.3. The Lithuanian Case

In 2022, Lithuania ranked 14th in the DESI, with a score of 52.7 (European Commission, 2023b), being the only country of the three case studies that reached a score above the EU average score of 52.3. Considering the four index dimensions, Lithuania performs worse in human capital and connectivity.

Regarding literacy, despite being below the EU average, it has a good performance with almost half of the population (49%) with at least basic digital skills. Lithuania has implemented several programmes to improve digital skills across diverse institutions and populations, from the digital training of children and young people in schools to the upskilling and reskilling of public and private sector workers (European Commission, 2023b).

Considering infrastructure, although Lithuania has a coverage above the EU average in households (78% in Lithuania and 50% in the EU), the country ranks low in connectivity (49.4 in Lithuania against 59.9 in the EU). The Lithuanian National Broadband Plan 2021–2027 (Ministry of Economy and Innovation of the Republic of Lithuania, 2021) aims to increase and improve coverage throughout the territory with particular emphasis on rural and more remote areas where coverage is more deficient.

In terms of the integration of digital technology, Lithuania is in line with the EU average but where it has its best performance is in digital public services, far above the EU average (score 81.8 in Lithuania and 67.3 in the EU). E-government users, pre-filled online forms, and digital public services for citizens and businesses are all above the EU average. Many of these achievements arise because of the investment made in the digital transition, highlighting, among others, the GovTech sandbox and Lithuania's 2030 National Progress Strategy (European Commission, 2023b; Ministry of Economy and Innovation of the Republic of Lithuania, 2021). Lithuania also benefits from the Recovery and Resilience Plan where 20% of the budget is allocated to digital transition.

Despite all of these technological developments, the pandemic has exposed some weaknesses in Lithuania's digital and technological transition process. The Covid-19 lockdown significantly affected the youth

unemployment rate, especially among young people aged between 18 to 35 years old. It increased in Lithuania more than the average in the EU-27 (Eurostat, 2023). The pandemic created significant challenges for NEETs in general, which have been amplified for rural NEETs, such as the availability of reliable internet and technology infrastructures that provide remote access to learning, training, and job opportunities. This can further widen the already existing digital divide between rural and urban areas. Another challenge is the lack of public transportation in rural areas, which can limit NEETs' ability to avail of job opportunities and training programmes that may be available in nearby locations (OECD, 2021). Indeed, the pandemic highlighted the pre-existing inequalities and challenges that rural NEETs face, and policymakers and community leaders need to prioritise addressing these issues to ensure equal access to education, employment, and training opportunities. Despite the development of services, problems in terms of connectivity and digital skills for some segments of the population pose extra challenges, especially at the territorial level. This was particularly visible during the pandemic.

In this pandemic context, PES had to adapt their procedures and avail of distance and digital environments regarding NEETs. Lithuania's situation of support services for NEETs was not particularly affected by the constraints imposed by the pandemic. Instead, in most cases the pandemic has initiated or accelerated the process of digitalisation of services (Table 4).

Table 4. Impact of digitalisation on the Lithuanian PES: Results by region.

	NUTS 2 regions		
	Vidurio ir vakarų Lietuvos Regions (central and western)	Sostinės Region (capital)	Total
Delayed implementation	1	0	1
Not affected	3	0	3
Initiated	2	3	5
Accelerated	7	2	9
Total	13	5	18

As a consequence of Covid-19, most services were provided online, by phone or e-mail. The youth were constantly informed about events, the promotion of entrepreneurship, and motivational and voluntary activities. They could acquire skills in training sessions organised by the social partners. Youth centre specialists and partners organised educational and motivational seminars online.

However, some young people have been excluded from this process, particularly the most vulnerable, including NEETs. If unable to use technologies and benefit from these digital services, they could suffer even greater social exclusion and further social inequalities.

Some interviewees reflected on these concerns. Caseworkers stated:

> The Covid-19 pandemic made work more digital, taking protective measures was still needed when meeting, but a lot of it happened remotely. There were no more newcomers during Covid because it was just too hard to connect with new people online. (Caseworker, PES, Alytus County)

> People can write to me at any time if they have questions. They can write via SMS, via Facebook, they have Wi-Fi. Due to Covid, they communicated all day. I could communicate with all of them at once via messenger. Covid has shown that it is possible to communicate with an established connection, but in-person conversations are necessary to establish a new connection. (Caseworker, PES, Elektrėnai County)

As we have seen, Lithuania's performance in digitalisation is more advanced when compared with Bulgaria and Portugal. This is mainly due to the development of the dematerialisation of public services, including PES, which has been further boosted by the pandemic. However, despite the investments made by the Lithuanian government, especially with Lithuania's 2030 National Progress Strategy, this process of digitalising public services is not accompanied by the same pace of development regarding citizens' digital skills and the extension of connectivity throughout the territory. Indeed, in this last dimension, Lithuania's performance is below the European average and that of Portugal and Bulgaria.

5. Conclusion

Our findings have confirmed the main results highlighted by large-scale surveys conducted by the OECD and the European Public Employment Services Network. In response to the Covid-19 pandemic, PES implemented several reforms in customer services to address the emerging needs arising from the pandemic. Even in rural areas, where issues of connectivity and literacy are more prominent, digitalisation processes took place in order to continue service delivery. This holds true for all countries in the case studies. However, remotisation of services is still the more prevalent trend in all three cases presented when compared with automation, perhaps because even PES personnel need increased training and better AI development to adopt automation tools in tasks such as profiling and signalling. Hence, efforts should be made to support the digitalisation process by focusing not only on infrastructure but also on enhancing the digital capabilities of human resources, who faced a steep learning curve during the pandemic. Ensuring digital inclusion for PES workers, particularly in terms of accessibility, connectivity, and digital literacy, is also a key consideration in the digitalisation of PES.

On a regional level, it is possible to take the cases of Portugal, Bulgaria, and Lithuania as examples of the pandemic effect on labour market policies, considering other Southwestern, Eastern, and Baltic countries. As in Bulgaria, the Romanian PES implemented simplified procedures for delivering the necessary documents either by post or by e-mail to validate unemployment claims and to pay unemployment benefits. In addition, a specialised call centre was set up, providing all necessary information to potential beneficiaries of the newly introduced measures. In general, those PES that closed their offices or restricted face-to-face meetings and replaced them with remote communication channels had to change their rules. The Spanish situation resembles the Portuguese one, both in the acceleration of digitalisation following the onset of the pandemic and the subsequent remission of these processes as the pandemic receded. This was due, in no small part, to the challenges associated with implementing digital programmes in contexts where no such precedent existed, especially in rural areas. Finally, compared with Lithuania, youth unemployment also increased in Estonia, but there was no need to create new labour market measures aimed at young people, as they already existed. Even so, the pandemic resulted in more online counselling and submission of e-documents, solutions that have been progressing ever since.

The Covid-19 pandemic accelerated the digitalisation process but also impeded progress in other areas of reform, such as income provisions, active labour policies, and redundancy measures, as evidenced in our survey results. These reforms experienced delays or suspensions and were postponed to a later date in all three countries. On the other hand, as soon as lockdowns were over, PES services fought for on-site service delivery again. In their view, there is no substitute for direct human contact, particularly in services that rely so much on support and contextual information. Also, some caseworkers felt that most vulnerable clients face further issues with digital literacy and can therefore be harder to reach from a distance. Hence, it is possible to affirm that the limits of digitalisation should be considered when adopting it in the context of welfare services. For instance, considering education provision, it is essential to acknowledge the limitations of online training models, including distance learning (which encompasses more than just online teaching), considering the quality of the training provided. Individualisation, which is sometimes highlighted as the main advantage of digital learning, may not be suitable for diverse young profiles, since distance learning requires increased autonomy and motivation. Further, there is an impact on interpersonal relationships due to the reliance on computer-mediated online interaction for individual career plans. Therefore, a blended approach, combining both online and in-person elements, is recommended.

To conclude, in all three cases, the recent experience generated as a result of the pandemic remains relevant, especially since some of the practices implemented during this period remain in place, such as remote counselling and online registration. However, considering the digital divide, there is a need to better equip both PES and citizens to fully benefit from this transition, particularly in rural areas, where infrastructure and access to the internet is still very deficient. In all cases, it was clear that, despite recent public investment, there is still a lot to be done for connectivity in rural and more remote areas. Poor network coverage hinders the access of young people living in these areas to digitalised employment services, further reinforcing their already vulnerable situation and deepening inequalities of access to employment and education. Further, digitalisation tools and AI models should develop more inclusive features that cater for individual differences in literacy, thereby enhancing employability prospects for all.

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Conflict of Interests

The authors declare no conflict of interests.

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