

The Evolution of the Labour Markets from the European Union Member States in the Context of the COVID-19 Pandemic

ALINA LIGIA DUMITRESCU

Center for European Studies

Institute for World Economy

Calea 13 Septembrie Nr.13

ROMANIA

alinaligia1@yahoo.com

Abstract: The article follows the developments of labour markets during the Covid-19 pandemic, focusing on the impact analysis on labour supply and demand. In this direction, the evolution of three main indicators is analysed, such as the employment rate, the unemployment rate and the number of hours actually worked, based on the data provided by Eurostat and Statista. Following the impact research, the author emphasizes the Member States solutions to cope with these issues, and presents the measures to combat the negative effects. The conclusions are that the pandemic crisis is a wake-up call that has drawn our attention to the structural weaknesses of the Community economy, the vulnerability of some industries and the need for better cooperation between Member States and a European Community mechanism to stimulate the EU economic recovery and resilience, which cannot be possible without increasing employment and supporting integration on the most vulnerable groups to Covid-19 pandemic.

Key-Words: COVID-19, European Union, impact, labour market, employment, unemployment,

JEL Classification : J23, J22, J68, J78

1. The social-economic impact of COVID-19 pandemic

According to Eurostat data, in the second quarter of 2020, the EU's GDP dropped by 11.2%, which led to a recession in the EU (a contraction in GDP of 6.1% in the EU and 6.6% in the Euro zone in 2020 comparative to 2019) as a result of quarantine, social distancing and limitation measures, or temporary closure of economic activities. The negative impact was strong during 2020, and the spread of the SARS-CoV-2 virus affected the supply chains of raw materials, the development of production activities, the flow of transport, closed or restricted for long periods a number of sectors such as tourism and cultural and entertainment activities and, last but not least, restricted the free movement of people and goods (two of the basic pillars of the EU single market). Therefore, the industrial production experienced the biggest drop in April 2020, by 19.0%, leading to an annual decrease of 8.0% in 2020 compared with 2019. As a result of the 2020 recession, the real GDP per capita in the EU stood at 26.230 euros, which was 9.0% higher than in 2005 and only slightly above 2015 levels, but the EU economy shows signs of recovery and total real GDP is forecast to grow by 4.2% in 2021 (Eurostat, 2021).

The COVID-19 pandemic had a strong negative impact, affecting the various components of the labour market, prompting member states to respond quickly to new challenges and step up their efforts to overcome this crisis by focusing on the objectives. European pillar of social rights (employment support measures). The member states of the European Union have promoted a wide range of measures to respond to this pandemic crisis, which have focused on protecting workers and strengthening the resilience of employers, encouraging social dialogue and other public / private partnerships in the labour market. But the pandemic is not over yet and the economic recovery is expected to be slow. That is why the EU has adopted short-term work schemes (SUREs) to help Member States protect jobs and, implicitly, employees, as well as the self-employed, against the risk of unemployment and loss of income. Many Member States have also accelerated the implementation of digital technology, and promoted distance learning, online schooling, and the expansion of e-commerce. These changes have led to the emergence of new skills and competency requirements in the EU labour markets.

2. The influence of the COVID-19 pandemic on labour demand

According to the economic theory, employment is a structural indicator, which reflects the structure of labour markets and economic systems, measured by the balance of labour supply and demand or the quality of employment. As a short-term indicator, employment follows the business cycle. Employment statistics are at the heart of many EU social policies.

European Commission (2020) underlines that the *employment growth rate* has slowed or become negative in several Member States in the first quarter of 2020 (with an average quarterly negative growth of 0.2% in the EU). Subsequently, all Member States, except Malta, recorded a slowdown in the second quarter of 2020 (by an average of 2.7% in the EU), compared to the peak of employment recorded in the fourth quarter of 2019, this decrease represents about 6 million people. The largest declines were recorded by Spain (8.4% that means 1.7 million people.), Ireland (6.1%) and Estonia and Hungary (5.6%), between the fourth quarter of 2019 and the second quarter of 2020. Over the same period, employment decline was below 2% in thirteen other member states and slightly more moderate in Cyprus (0.9%), Poland (0.4%) and Luxembourg (0.3%). Malta was the only EU country to see an increase in employment of 1.7%.

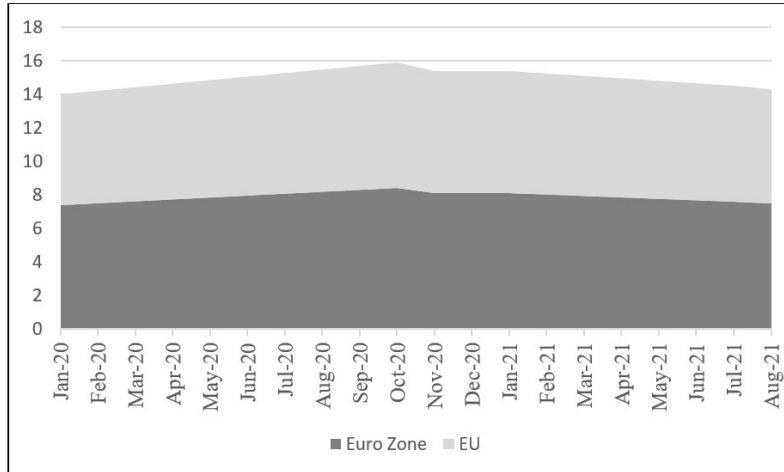
Data provided by Statista (2021) show that in the EU-27 Member States, the *employment rate* fell to 66.9% in the second quarter of 2020, the lowest employment rate recorded since the beginning of 2018, and increased to 67.9% in the third quarter of 2020. During the peak period of the pandemic, in the third quarter of 2020, there were significant differences between Member States in terms of employment, so that the highest levels were recorded in the Netherlands (77.6%), Germany (77%), Sweden (76%), Norway (74.6%). On the other hand, the lowest employment rates were recorded in the Southern European Member States, namely Greece (57%), Italy (58%) and Spain (60.8%), the latter two being hit hard of the pandemic. With regard to the Member States of Central and Eastern Europe, the employment rate in the Czech Republic was 74.4%, Estonia 73.5%, Latvia 71.6%, Slovenia 70.8%, Lithuania 70.7%, Hungary 70.2%, Bulgaria 69.6%, Poland 69% and was below the EU average in only three of them, namely Slovakia 67.5%, Romania 66% and Croatia with 63%.

Kurzarbeit -type labour flexibility schemes have helped to limit the loss of many jobs, in sectors that have been severely affected by the restriction of economic activities as a result of the quarantine measures imposed. The European Commission (2021a) has appreciated that since the onset of the crisis many Member States have extensively implemented flexible work schemes, in order to limit the job losses, to avoid the reduction of the human capital at the firms' level and to support the aggregate demand in the peak phase of the economic crisis. *At the same time, some employers have gradually adjusted their labour demand according to the restrictions imposed, in order to ensure the sustainability of their activity.*

However, the decrease in *hours worked* was substantially higher than the decrease in employment, respectively reached 13.5% in the second quarter of 2020, compared to the fourth quarter of 2019. Thus, among the Member States with the largest reductions in working hours were Luxembourg, Greece, Slovakia, Lithuania, Italy, Portugal, Slovenia and France. In the third quarter of 2020, the number of hours worked partially recovered increased by an average of 11.9% compared to the previous quarter in all member states except Romania (Eurostat, 2021c). At the same time, the number of workers absent from work (as a percentage of total employment) rose sharply from 9.7% in the fourth quarter of 2019 to 18.7% in the second quarter of 2020, representing an increase of 9 percentage points for the EU as a whole. Layoffs rose sharply from 0.2% of total employment in the fourth quarter of 2019 to 7.4% in the second quarter of 2020 (European Commission, 2020a).

According to Eurostat data (2021b), in January 2021, *the unemployment rate* in the Euro zone (seasonally adjusted) was 8.1%, up from 7.4% in January 2020, stable compared to December 2020. Unemployment rate in the EU -27 was 7.3% in January 2021, up from 6.6% in January 2020, also stable compared to December 2020 (Chart 1). Eurostat (2021b) estimates that 15,663 million people in the EU, of which 13,282 million in the Euro zone, were unemployed in January 2021. In comparison, in January 2021 compared to January 2020, unemployment increased by 1,465 million in the EU and 1,010 million in the Euro zone, and compared to December 2020, the number of unemployed increased by 29,000 in the EU and 8,000 in the Euro zone. In August 2021, the Euro area seasonally-adjusted unemployment rate was 7.5%, down from 7.6% in July 2021 and from 8.6% in August 2020. The EU unemployment rate was 6.8% in August 2021, down from 6.9% in July 2021 and from 7.7% in August 2020 (Eurostat 2021d).

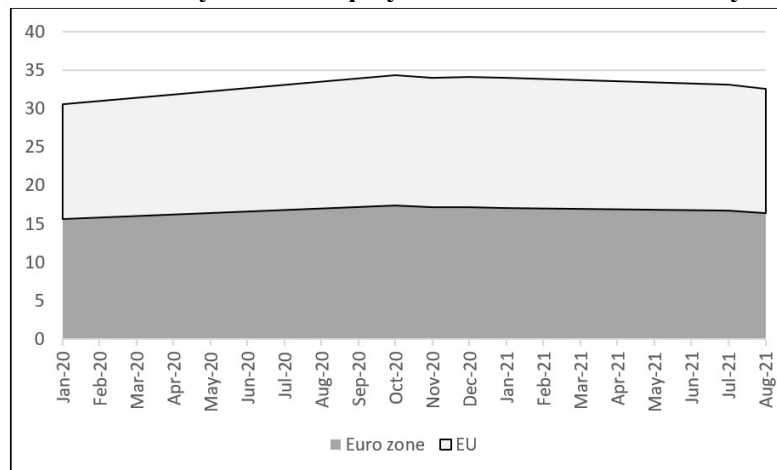
Chart 1: The evolution of the unemployment rate between January 2020-August 2021



Sources: Author based on Eurostat data (2021b, 2021d)

The young people were one the most affected by the Covid-19 pandemic restrictions. According with Eurostat (2021b), in 2020, the tendency to increase the *unemployment rate among young people* was accentuated, having a level double comparing to the total unemployment rate (15-74 years). In January 2021, 2,929 million young people (15-25 years old) were unemployed in the EU, of which 2,356 million in the Euro zone. In January 2021, the youth unemployment rate was 16.9% in the EU and 17.1% in the Euro zone, compared to 16.9% and 17.2% in December 2020, respectively (Chart 2). Compared to January 2020, the youth unemployment has increased by 184,000 people in the EU and by 89,000 in the Euro zone. In August 2021, 2,833 million young persons (under 25) were unemployed in the EU, of whom 2.317 million were in the Euro zo. In August 2021, the youth unemployment rate was 16.2 % in the EU and 16.4 % in the Euro zone, down from 16.4 % and 16.7 % respectively in the previous month (Eurostat 2021d).

Chart 2: The evolution of the youth unemployment rate between January 2020-August 2021



Sources: Author based on Eurostat data (2021b, 2021d)

3. The effects of the COVID-19 pandemic on labour supply

The COVID-19 pandemic exacerbated the imbalance between the skills and job training (supply) and the employer requirements (demand). The COVID-19 crisis has accelerated the digitalization of many economic activities and amplified inequalities, which have highlighted the strong correlation between the socio-economic environment in which a person lives and access to education systems. The European Commission's analysis (2020a) suggests that restrictions have had a different negative effect, mainly affecting the most vulnerable or those in less developed regions of the EU. The European Commission (2020a) also points out that online learning requires that every child has at least one computer or tablet with a fast internet connection, plus the skills to use it, and that this is not always possible for children living in disadvantaged areas or having families at risk of

poverty and social exclusion. In the EU, in 2018, about 3.9% of households could not afford a computer, and for households with incomes below 60% of the average equal income the percentage was 12.8%.

The social distance measures, which were taken in most Member States, have made the use of digital skills indispensable for business provision, online education and training, healthcare, and for professional communication, but the European Commission (2021) emphasizes that there were significant gaps between Member States. Therefore, in five of the Member States: Denmark, Germany, Sweden, Finland and the Netherlands, the share of adults with digital skills is between 70% and 80%, in seven below 50%, and in Bulgaria and Romania it is below 40%. In terms of age group structure, less than 25% of people aged between 65-74 years have the necessary basic digital skills, compared to 80% of young people aged 16-24; this share of adults with digital skills reaches 32% for those with secondary education, compared to a level of 84% of people with a higher level of education.

The COVID-19 pandemic, through the restrictions imposed, accelerated the digitalization process in both the public and private sectors, which changed the structure of the demand for skills in the labour market, in favour of digital ones. Therefore, the European Commission (2021) allocates significant funds to address the digital skills' gap of young people and adults in the member states and meet the requirements of digitalization of most economic activities. The instruments established at EU level in the multi annually budget for 2021-2027 provide major opportunities for Member States to support the sustainable development of digital skills and include:

- The *recovery and resilience mechanism*, through which 20% of its funds must be spent on the digital transition of the Member States, including digital skills.
- The *Digital Europe program*, which has a budget of approximately 200 million euros for the period 2021-2022 and aims mainly at promoting digital skills.
- *European Social Fund Plus (ESF +)* which is a fund designed to support EU Member States in reforming national education and training systems.
- *The European Globalization Adjustment Fund (EGF)*, which supports the training of digital skills to help laid-off workers find another job or start their own business.
- *Horizon Europe*, which funds grants for research, master's, doctoral or other postgraduate studies in all fields, including digital.

4. The impact of the COVID-19 pandemic on economic activities

According to the European Parliament (2021), the COVID-19 crisis has had an *uneven impact* on the EU-27 economy and real GDP is projected to reach before crisis levels by mid-2022, both in the EU and in the Euro zone. Most production-based areas were affected by short-term supply chain delays, but began to recover relatively quickly in the third quarter of 2020, following the gradual lifting of quarantine measures. However, there are important differences, in terms of recovery between economic sectors, but also within them.

Experts from the European Community have analysed the impact of the COVID-19 pandemic on economic activities and employment (European Parliament, 2021). According to them:

- The pandemic directly affected more than *1.1 million jobs in the EU due to the shutdown of factories between March and May 2020*. In addition, in the same period, on the one hand to comply with measures of isolation and social distancing and, on the other hand, due to low economic performance and declining demand, the number of people who actually worked in factories was substantially reduced. At the same time, some employees were fired, and many of them were rehired only on a short-term basis. For example, in Germany about 95% of employees in car companies benefited from the reduced work schedule - *Kurzarbeit* - during the first wave of the pandemic.
- A differentiated recovery process was registered between the economic branches (type V, U, L). In the first part of the pandemic, several companies in the *digital industry achieved very good results*, and sectoral analyses show that the pandemic has acted as an accelerator of digitalization in many economic sectors. The *pharmaceutical and medical equipment industries also performed well throughout 2020*. The *construction and the food industry*, after a slight decline in activities in the second quarter of 2020, benefited from a *V-shaped recovery* (rapid economic recovery and strong). Despite the initial shocks, in the *automotive and textile industries the relaunch was U-shaped*, so that after the fall of the activity caused by the shutdown of the factories, the economic activity recovered slightly after the removal of the restrictions, only to

- rise again. The *sectors that are dependent on social interaction, such as the cultural and creative industries, tourism and transport, have experienced substantial declines* (due to decreased mobility and free movement of people) and are likely to remain affected for long periods of time following these unprecedented shocks. It is possible that the recovery of lost jobs, income and sales may take several years (*L-shaped recovery*).
- According with Eurostat (2021e), “looking at the major international players in chemicals trade”, the EU headed the list in 2019 with a total trade of 642 billion euros, which consisted of 407 billion euros of exports and 235 billion euros of imports, thus recording the highest trade surplus (172 billion euros); the United States was the largest importer (243 billion euros) and second largest exporter (201 billion euros) and China was both the third largest importer and exporter with values of 196 billion euros and 145 billion euros respectively. In 2019, in EU the chemical industry held 12% of total employment. The average annual growth of the production of chemical over the period 2010-2020, was 2.7%, leading to a peak of 657 billion euros in 2019, *dropping slightly to 649 billion euros in 2020* (Eurostat, 2021e). Between *January and June 2020*, the production of the *chemical industry decreased by 5.2% in the EU-27* compared to the levels of the same period of the previous year, and the lowest level was reached in April. In June 2020, there was an increase in production by 2.9% compared to May 2020, marking the first early but modest signs of recovery. *The priority of the chemical industry in the first months of 2020 was to ensure the supply of chemicals considered "essential" in supply chains during the pandemic, such as raw materials for medicines or disinfectants* (European Parliament, 2021). *In 2020, the largest product group in trade of chemicals is “medical and pharmaceutical products”, which in exports its share is 52% and in imports it is 40%; two other groups had shares above 10%, “Organic chemicals” had 12 % of exports and 23% of imports and “chemical materials and products” had 10% of exports and 11% of imports* (Eurostat, 2021e).
 - *The pandemic caused declines in the production of classic cars, based on gasoline or diesel, but at the same time created new growth opportunities in the automotive sector, by redirecting manufacturers to the manufacture and the sale of the electric cars.* The average share of electric car sales in total car sales increased from 3.4% in 2019 to 7.8% in the first half of 2020, with a peak of 11% in April and about 8% in May and June. Moreover, the crisis is forcing consumers to re-evaluate their needs and implicitly their consumption behaviour, opting for electric cars, which leads to an acceleration of the green transition and the implementation of the European Green Pact.

5. The impact of the COVID-19 pandemic on work schedule

According to Eurostat data (2021c), at EU level, the total index of hours effective worked decreased by 5.0 points between the fourth quarter of 2019 and the fourth quarter of 2020, from 101.8 points to 96.8 points, with the highest low value recorded in the second quarter of 2020 (85.9 points) (using the year 2006 as reference with an index of 100 points). In comparison, Romania registered a significant reduction in the total index of hours effective worked, of 15 points between fourth quarter of 2019 and second quarter of 2020, but the decrease was only 2.7 points in fourth quarter of 2020, compared to fourth quarter of 2019 (Chart 3).

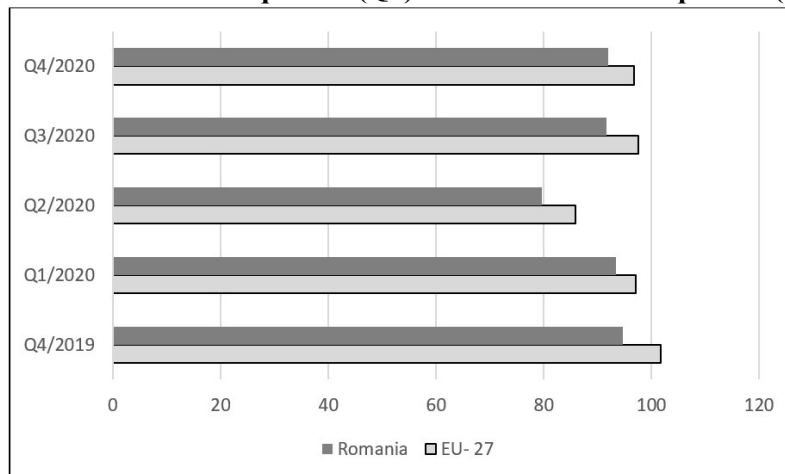
Looking at the gender differences, Eurostat data (2021c) show *that women have been more affected than men in terms of reducing the effective time worked due to the COVID-19 crisis, throughout 2020.* The total hours effective worked among women was 108.4 points before the COVID-19 crisis, respectively in the fourth quarter of 2019, reflecting an increase in working time for women compared to the reference year 2006. During the first year of the COVID-19 pandemic, the number of hours effective worked by women decreased several times: first, it decreased from 108.4 points in fourth quarter of 2019 to 102.5 points in first quarter of 2020; reached 89.9 points in second quarter of 2020, the lowest level since 2006; subsequently, the index of hours effective worked increased to 104.0 in third quarter of 2020, to decrease again to 102.3 points in fourth quarter of 2020. That means a record total decrease of 6.1 points between fourth quarter of 2019 and fourth quarter of 2020.

For men, the working hours index went from 97.6 points in fourth quarter of 2019 (pre-pandemic) to 93.3 points in fourth quarter of 2020, corresponding to a decrease of 4.3 points. It also fluctuated during 2020, but to a lesser extent than for women. Consequently, from 97.6 points in fourth quarter of 2019, it decreased to 93.7 points in the first quarter of 2020, continued to decrease to 83.3 points in second quarter of 2020, subsequently increased to 93.5 points in the third quarter of 2020 and stabilized at 93.3 points in the fourth quarter

of 2020. As such, between fourth quarter of 2019 and the second quarter of 2020, the negative difference amounted to 14.3 points in men compared to 18.5 in women, and between third quarter of 2020 and fourth quarter of 2020; the negative evolution corresponded to 0.2 points in men, versus 1.7 points in women (Eurostat, 2021b).

According to Eurostat data (2021c), analysing the real change in hours effective worked between fourth quarter of 2019 and fourth quarter of 2020, a decrease of 4.9% can be observed at EU level. *There were significant differences in the situation across countries. Six Member States were severely affected by the COVID-19 crisis in terms of reducing the hours effective worked, namely: Austria (-11.7%), Greece (-9.8%), Slovakia (-8.3%), Italy (-7.8%), Ireland (-7.4%) and Malta (-7.3%). In contrast, Poland (-1.5%), Slovenia (-1.4%), Finland (-0.7%) and Denmark (-0.4%) were in the best situations.*

Chart 3: The evolution of the total index of hours effective worked in the EU-27 and comparatively Romania, between the fourth quarter (Q4) of 2019 - the fourth quarter (Q4) of 2020



Note *: (year 2006 is used as a reference with an index of 100 points)

Source: Representation of the author based on Eurostat data (2021c)

6. The measures to combat the negative effects of the COVID-19 pandemic on labour markets in the Member States

Peromingo (2020) estimates that all national governments in the Member States have allocated significant resources to mitigating the impact of the pandemic on labour markets and that, according to Eurofound, Member States *have initiated more than 300 new laws and amended 200 pieces of legislation* in the same purpose. Many of these measures have focused on protecting workers' incomes during quarantine, being imposed by many Member States at the beginning of the pandemic. Other measures have been taken, in parallel, to maintain jobs and avoid massive layoffs (Box 1).

Box 1: The types of the labour market support measures taken by EU Member States, during the COVID-19 pandemic

TYPE OF MEASURES	DESCRIPTION OF THE MEASURES	MEMBER STATES, INSTITUTIONS
1. Ensuring security of the income (labour supply protection)	- The employees which are infected with SARS-CoV-2 coronavirus are provided with a paid sick leave of up to 100% of their average net salary during the quarantine period.	- Lithuania
	-The workers in the areas essential to overcoming the pandemic have their basic salary increased by between 10% and 200%, depending on the level and period of exposure to risk.	- Slovenia, Ministry of Labour, Social Affairs, Family and Equal Opportunities

	- The unemployed are allowed to work in agriculture without losing unemployment benefits.	- Bulgaria, Ministry of Labour and Social Policies
	- The self-employed workers can claim compensation if they have previously contributed to social security and lost their earnings due to restrictions. The benefits can be between 50% -75% of the basic contribution, but not more than 700 euros per month. The application may be renewed every month for the actual quarantine period.	- Latvia, Ministry of Welfare
	- The self-employed persons who have closed their business can claim compensation for the loss of income of up to 80% of the national minimum wage. In the case of freelancers with an income reported below 50% of the minimum wage, compensation can be requested for all their income. The self-employed workers who pay taxes on the basis of a tax card (simplified form of corporate tax) can claim an allowance in a lump sum equivalent to 300 euros.	- Poland, Ministry of Labour and Social Policy
2. Preserving jobs (stimulating labour demand)	- The government covers the costs of health insurance and pensions for employees and provides total or partial exemptions from income tax and profit tax for all businesses affected by coronavirus, those who have a 20% - 50% decrease in revenue.	- Croatia. Ministry of Labour and Social Security System
	-Temporary emergency schemes were taken for job preservation, in support of companies that lost at least 20% of their revenues during the pandemic year. The state pays employees' salaries for three months, up to a maximum of 90% of the company's total salary costs, depending on the loss of turnover. In addition to the payment of salaries, the state also pays the social security contributions of the employer and the employees.	-The Netherlands, the National Employment Agency
	- The companies in the most affected sectors may temporarily suspend their social security contributions. In addition, the rent cannot be increased and the leases for commercial premises cannot be terminated. The eligible sectors are tourism,	- Hungary, National Employment Agency

	restaurants, entertainment, sports, cultural services and taxi services.	
3. Stimulating business continuity (stimulating the labour demand)	- The automotive industry has facilitated the gradual return of workers to factories, with the support of epidemiologists and the government.	- Slovakia, Ministry of Labour, Social and Family Affairs
	- The Chamber of Commerce, in cooperation with the online job promotion platform WorkLinks.com, facilitates the temporary secondment of employees from other companies to help companies that need staff.	-Czech Republic, Chamber of Commerce
4. The development of innovative jobs (stimulating the labour demand)	- Granting money for the support of the digitalization of business processes, which increases the companies' ability to use the Internet as an effective means for business development.	- Ireland, Government
	-As part of the 'Restart Luxembourg' aid package, which includes recovery funding and sectoral grants; the government provides funding of up to 50% for investment projects focused on the development of activities based on digitalization and environmental protection. Particular emphasis is placed on ecological recovery; for example, the modernization of buildings with heating systems based on renewable energy sources and the production of electric cars and vans.	- Luxembourg, Ministry of Labour, Employment and Social Economy
5. Skills development in order to correlate the labour supply and the demand	- The Employment and professional accreditation programs co-financed by European funds, that were in progress or were about to start when the pandemic crisis started, are delivered and fully certified online. This measure has been approved by the National Accreditation System.	- Greece, National Employment Agency
	- The online training courses (especially in the field of basic skills) are made available to all jobseekers, and these training programs are also widely open to people in active detention. This public employment service has been requested by many more users than in the pre-pandemic period.	- Belgium, National Employment Agency
	- The development of online learning for jobseekers through the "Office 365 Platform", which offers training	- Portugal, National Employment Agency

	programs for workers selected by employers and for trainees included in the training program offered by the Employment and Training Centres.	
	- Providing over 150 new completely free online training courses for job seekers. These courses prepare the unemployed to work in 20 professional sectors that actively recruiting. This program was created and accelerated through a long-term partnership with a training organization specialized in open and online learning, which has developed technical and educational tools, information technology (IT) platforms and educational methods adapted for online.	- France, National Employment Agency
	- In response to the large influx of unemployed, during quarantine, the public employment agency introduced a fast service for job seekers called "remote meetings". This format allows the creation of a short but personalized profile of candidates. In June 2020 alone, more than 600 new job counsellors were quickly trained to help the unemployed people.	- Sweden, National Employment Agency

Source: Selection made by the author based on Peromingo (2020).

7. Conclusions

The very strict measures during quarantine and social distancing, as well as the ensuing economic recession, have had a negative impact on labour markets in EU Member States. *Thus, the number of unemployed increased, the number of employees decreased and there was a flexibility of work by reducing the work schedule and the number of hours actually worked. The employment structure was also affected, given that we are witnessing a differentiated recovery of the economic branches (type: V, U, L). There has also been a shift in the demand for workforce skills in favour of digital skills.*

However, the COVID-19 crisis is also creating opportunities for development and innovation in labour markets in the EU. For this, it is imperative to step up efforts to reform and make the labour market more flexible in order to meet the challenges of a more economically, socially and environmentally sustainable post-pandemic society. An important role in this direction is to put into practice the objectives of the EU Pillar of Social Rights to increase the employment rate, through a better qualification of the workforce and a more efficient use of human resources. In this regard, the EU remains actively involved in the fight to promote smart, green and inclusive economic growth in all EU countries.

References:

- [1] Dumitrescu, A.L., Prisecaru, P. (2021). Politicile sociale de ocupare în contextul Semestrului european și al pandemiei Covid-19, 118-131. *EUROINFO*, Nr.1 (Volum 5). Available on: <http://www.iem.ro/rem/index.php/euroinfo/article/view/789/876>.
- [2] European Commission (2020). *Proposal for Joint Employment Report 2021*. Available on: <https://ec.europa.eu/social/main.jsp?langId=en&catId=101&furtherNews=yes&newsId=9834>.
- [3] European Commission (2021). *Digital Skills Initiative*. Available on: <https://digital-strategy.ec.europa.eu/en/policies/digital-skills-initiatives>.

- [4] Eurostat (2021a). *Sustainable development in the European Union Monitoring report on progress towards the SDGs in an EU context*. <https://ec.europa.eu/eurostat/documents/3217494/12878705/KS-03-21-096-EN-N.pdf/8f9812e6-1aaa-7823-928f-03d8dd74df4f?t=1623741433852>
- [5] Eurostat (2021b). *Euro area unemployment at 8.1%*. Available on: https://ec.europa.eu/eurostat/documents/portlet_file_entry/2995521/3-04032021-AP-EN.pdf/cb6e5dd6-56c2-2196-16b7-baf811b84a4f.
- [6] Eurostat (2021c). *Hours of work - quarterly statistics*. Available on: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Hours of work - quarterly statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Hours_of_work_-_quarterly_statistics)
- [7] Eurostat (2021d). *Unemployment statistics*. Available on: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment statistics#Unemployment in the EU and the euro area](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics#Unemployment_in_the_EU_and_the_euro_area)
- [8] Eurostat (2021e). *Production and international trade in chemicals*. Available on: [https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Production and international trade in chemicals](https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Production_and_international_trade_in_chemicals)
- [9] Peromingo, M. (2020). The impact of Covid-19 and response on the European Union Labour Market. *SOCIEUX+ Expertise on Social Protection, Labour and Employment*. Available on: <http://socieux.eu/wp-content/uploads/2020/08/The-impact-of-COVID-19-and-response-on-the-European-Union-Labour-Market-SOCIEUX-Technical-Report.pdf>
- [10] Portuguese Presidency of the Council of the European Union (2021). *Porto Social Commitment*. Available on: <https://www.2021portugal.eu/media/icfksbgy/porto-social-commitment.pdf>.
- [11] Parliament European. *Impacts of the Covid-19 pandemic on EU industries*. Available on: [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662903/IPOL_STU\(2021\)662903_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662903/IPOL_STU(2021)662903_EN.pdf)
- [12] Statista (2021). *Employment rate in selected European countries as of 3rd quarter 2020*. Available on: <https://www.statista.com/statistics/1195140/employment-rate-in-europe-by-country/>.