Review of the unequal impact of COVID-19 pandemic on employment across regions and industries, 1st and 2nd Quarter of 2021.

Analysis of the regions of Cyprus, France, Spain, Greece, Italy, Malta, Croatia and Portugal.

Report by the [e-Aegean] ResLab* Research team.

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Introduction

The last two years have been marked by one of the most devastating pandemics of the recent decades, with severe health and socioeconomic implications. The mitigation strategies that have been devised to control the pandemic have brought severe financial consequences. Whole economies were wound down due to curfews and suspension of business activity. In hopes of limiting the economic slump, the European Union (EU) has pushed for stimulus measures while lockdowns were in place. According to the European Commission, it is only in 2023 that employment is estimated to reach the levels of 2019. Besides, the footprint of the pandemic on employment has been disproportionate among sectors, as, mitigation measures have had a deeper effect on certain industries, and prominently those related to tourism and hospitality. Thus, the consequences of the pandemic have been geographically unequal, as the industrial structure of each region has been determinant.

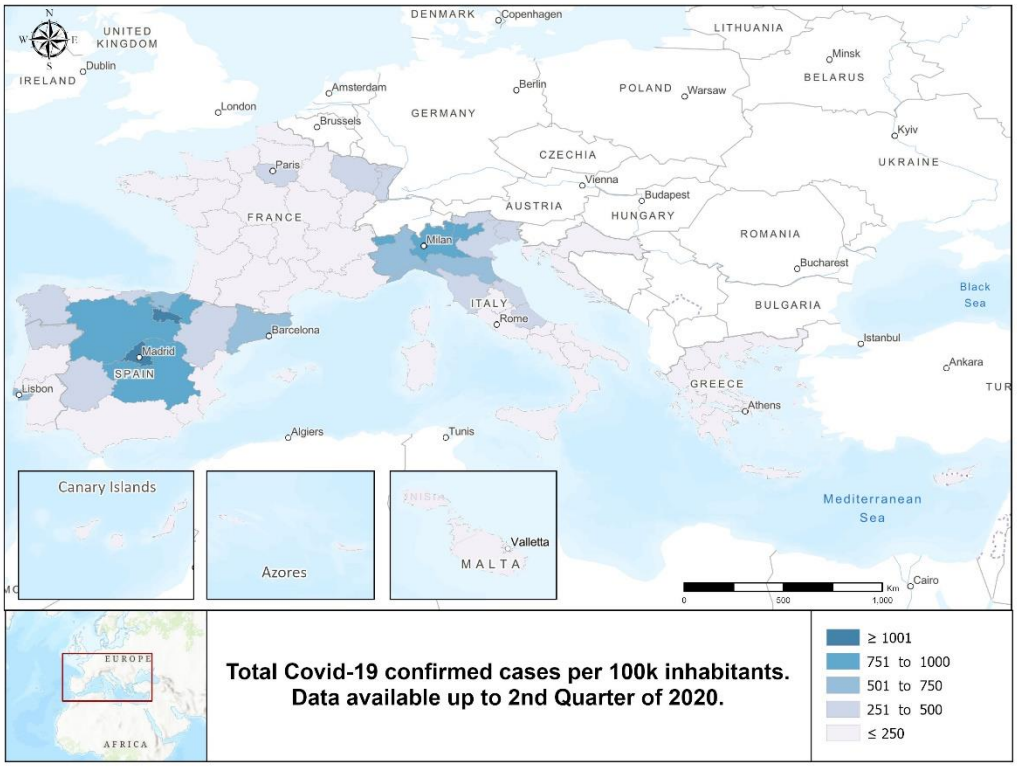
The social and economic context of the pandemic and its derived crisis becomes even more complex when examining the economic impact among the EU countries. The financial crisis of 2008—still ongoing in many countries—and Brexit, which altered trade agreements and affected commercial trends, slashing demand and the subsequent deflationary tendencies,[1] created a compound negative effect during the pandemic. As a result, regional inequalities escalated, even within robust EU economies. EU member states have not even agreed upon implementing a unified common set of strategies in addressing the pandemic.

The report at hand examines the geography of the COVID-19 pandemic and its effect upon employment in regions and sectors of the EU Mediterranean countries up to the first half of 2021. Ultimately, it seeks to draw valuable conclusions regarding the social and economic consequences of the pandemic, thus contributing to the ongoing debate on whether further state support to economy and employment is needed. The countries under study are Portugal, Spain, France, Italy, Malta, Croatia, Greece and Cyprus.

The unequal expansion patterns of the pandemic

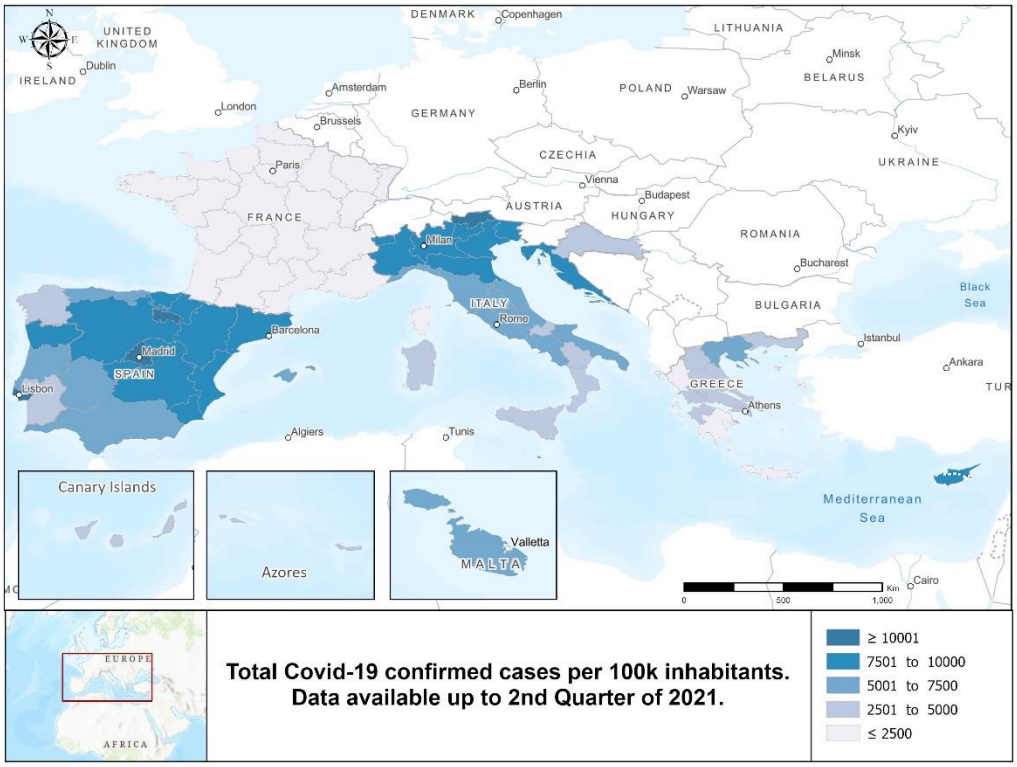
The expansion of the SARS-CoV-2 virus has been quite rapid, making the COVID-19 pandemic the most severe public health crisis of the 21st century. However, infection and fatality rates are affected by a wide array of factors, including the implemented set of mitigation measures, industrial structure, degree of global interconnectedness, and population density.[2]

[1] BBC (2021) Available at: https://www.bbc.co.uk/news/business-59070020
[2] Word Health Organisations (2022) Available at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov



Map 1:Total COVID-19 confirmed cases per 100k inhabitants. Data available up to 2nd quarter of 2020.

As a result, the virus spread has been geographically unequal, with metropolitan regions being the first to be exposed. Map 1, that provides a snapshot of the 1st pandemic wave which ended in 2020Q2, indicates the severe implications for the northern regions of Italy at first and subsequently for the metropolitan regions of Spain. Especially when it comes to the former, there has been an extended discussion about the non-suspension of manufacturing activity despite the high infection risk it posed, putting health systems under severe pressure. Eventually, a national curfew—albeit imposed belatedly—managed to mitigate the spread of the virus in Italy.



Map *2: Total COVID-19 confirmed cases per 100k inhabitants. Data available up to 2nd quarter of 2021.*

The 2nd and 3rd waves altered the geography of the pandemic drastically, with cases soaring in most regions (Map 2). High infection rates were also spotted in other metropolitan regions (Attiki, Área Metropolitana de Lisboa). However, the greatest increments in cases were spotted in island and coastal regions that are highly dependent on tourism between 2020Q2 and 2021Q2. Specifically, regions of Portugal (Centro, Algarve), Spain (Illes Baleares, Communidad Valenciana, Canarias), Italy (Sicilia, Basilicata), Croatia (Kontinentalna Hrvatska) and Greece (Crete, South Aegean), as well as Malta and Cyprus saw significant increases in cases. Surging infections in these countries became subject to sharp criticism, with governments claiming that their tourism-oriented economies had to keep running so as to recover and retain their volume of jobs. However, employment in sectors related to tourism did not recover before 2021Q2, showing that policies followed in the tourist season of 2020 brought controversial—to say the least—results.[3] Last, it must be noted that within all countries studied, peripheral regions recorded higher mortality levels than metropolitan areas.

Employment changes between 2019 and 2021

Figure 1 shows that changes in employment between 2019Q1 and 2020Q1 were small, as expected, since the first wave broke out at the end of March of 2020. On the contrary, changes between 2020Q1 and 2021Q1 were much larger in scale, with Malta and Cyprus being the exception. Specifically, the rest of the countries documented employment contraction of around 5%. Croatia recorded the steepest losses due to its heavier dependence on tourism during the whole year (including winter), unlike—for example—Greece and Cyprus, and its vulnerable

[3] Fosse J. et al. (2021) The future of Mediterranean tourism in a (post) covid world. eco-med briefing 01/21. *eco-union*

industrial base.[4] It must be noted that 2021Q1 was characterized by a generalized implementation of lockdowns. In 2021Q2, the administration of widescale vaccination programs and the urgent need of states to keep their economies running favored a recovery of employment numbers in almost all countries. In particular, most economies documented slight increments apart from France and Croatia. Thus, whilst total employment contracted between the 1st quarter of 2020 and 2021, it slightly recovered between the 2nd quarter.

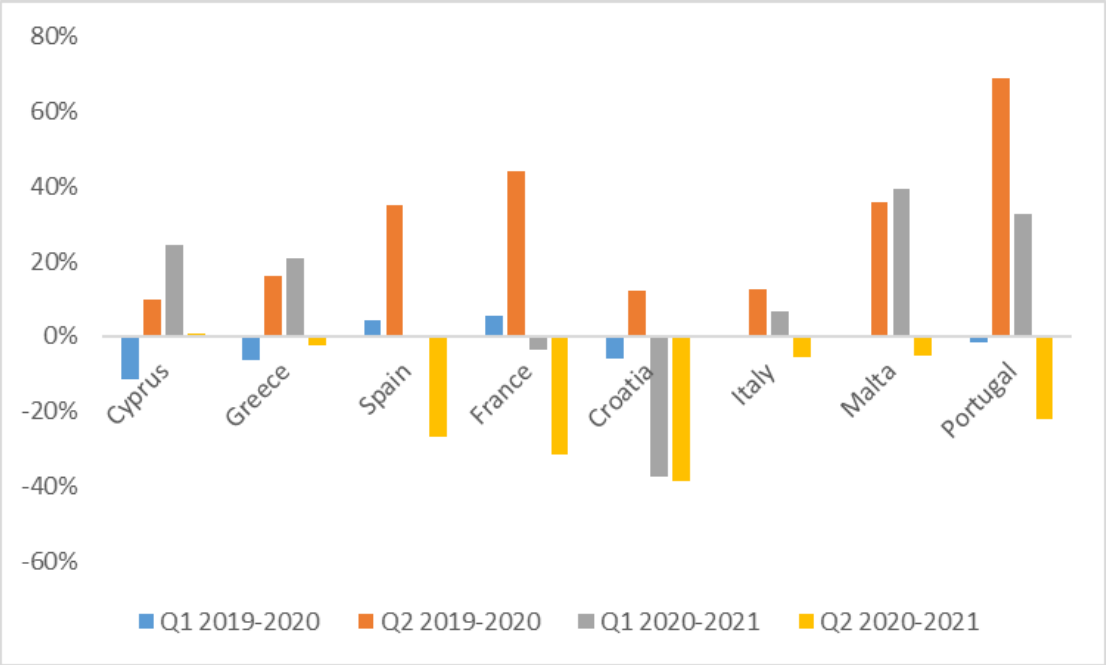
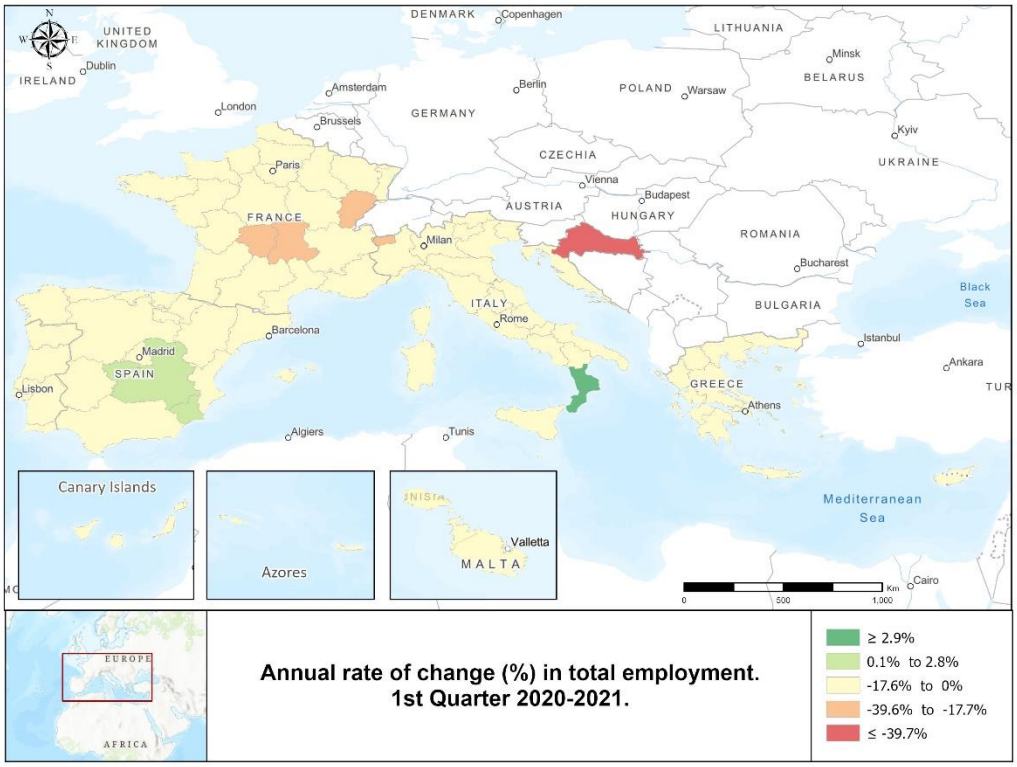


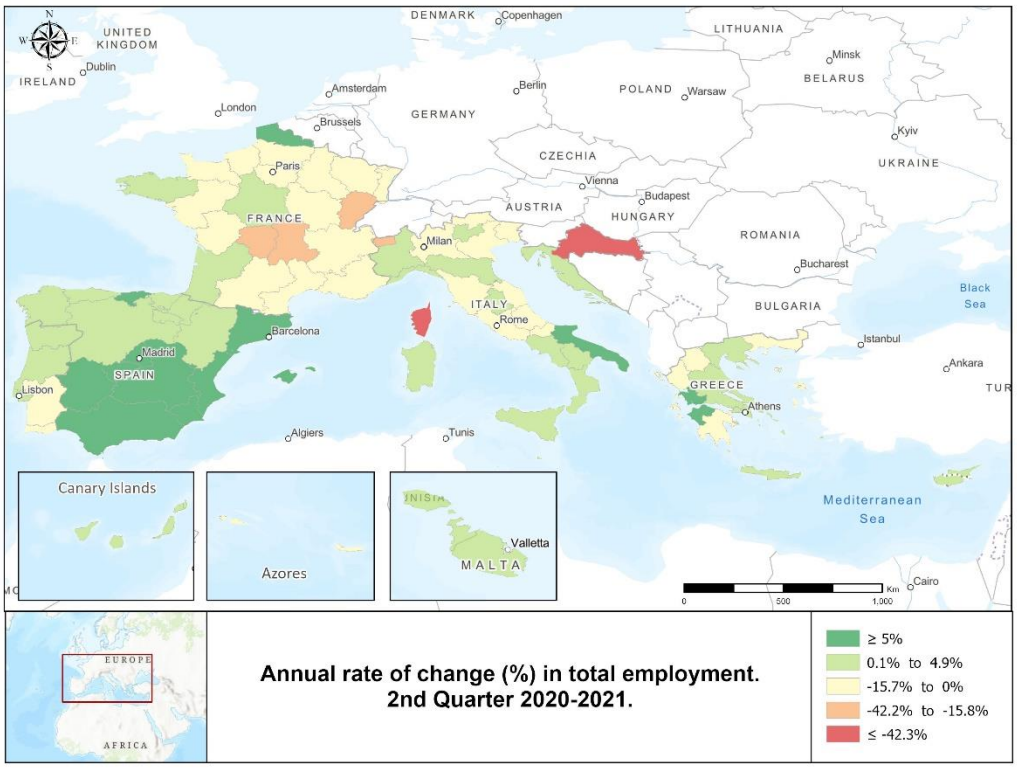
Figure 1: Annual rate of change (%) of total employment of Mediterranean European Countries, 1st and 2nd quarter 2019-2021.

Employment changes did not only variate among countries but also within them. In general, employment losses in the year to 2021Q1 were steeper in comparison to those documented between 2019Q1 and 2020Q1.[5] Amidst this reality, economically developed regions with a stronger productive base documented a notable resilience and managed to counterbalance their initial losses (Attiki, Communidad de Madrid, Cataluña, Lombardia, Piemonte, Área Metropolitana de Lisboa). On the contrary, coastal and island regions proved to be much more vulnerable (Kriti, Ionia Nisia, Canarias, Languedoc-Roussillon, Puglia, Algarve), contrasting the resilience they had exhibited during the recession in the aftermath of the 2008 crisis, a trend closely associated with their heavy dependence on tourism.

[4] Simmonds, L (2021) Available at: https://www.total-croatia-news.com/lifestyle/49900-unemployed-croatian-residents
[5] COVID-19_Regional_Labour team (2021) Overview of the COVID-19 effects on employment during 2020, Available at: http://www.youthshare-project.org/blog/2021/07/28/overview-of-the-COVID-19-effects-on-employment-during-2020/



Map 3:Annual rate of change (%) of total employment, 1st Quarter 2020-2021.

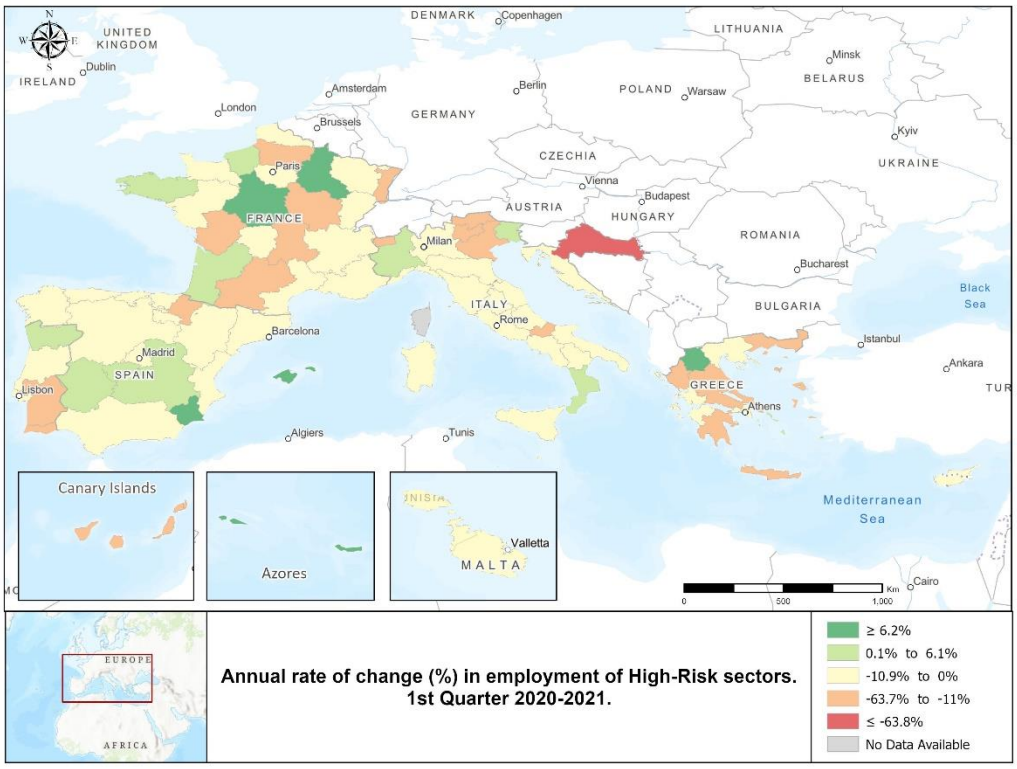


Map 4: Annual rate of change (%) of total employment, 2nd Quarter 2020-2021.

The sway of tourism over employment change is again confirmed when comparing 2020Q2 with 2021Q2, as the 2nd quarter generally marks the beginning of the summer tourist season. As such, total employment recovered in the majority of regions (Map 4), with these trends being more intense in island and coastal regions. At the same time, metropolitan and industrial areas exhibited a notably less dynamic recovery, a trend matching the respectively weaker pressure they have experienced during the wider pandemic period.

Employment change per industry

Considering the above, regional industrial structures played a key role in the geographically uneven consequences of the pandemic. During different waves and outbreaks, certain economic activities were affected more than others as they were related to higher infection risk, thus being subject to stricter measures. Specifically, these High-Risk sectors include i) the activities related to human health and social care, ii) transportation and storage, iii) wholesale and retail trade, repair of motor vehicles and motorcycles, iv) accommodation and food service activities.



Map 5: Annual rate of change (%) in employment of High-Risk sectors, 1st quarter 2020-2021.

In these high-risk sectors, employment in the year to 2021Q1 presented significant downward tendencies, especially in peripheral regions. Smaller countries (Cyprus, Malta, Croatia) recorded steeper job losses. Metropolitan areas (Attiki, Lazio, Communidad de Madrid) limited their losses compared to coastal and insular regions due to their lower dependency on the high-risk sectors. The few regions that had a positive employment change in high-risk sectors comprise a strong industrial base (Lombardia, Haute-Normandie, Norte). Manufacturing was relatively less affected by mitigation measures; its uninterrupted activity may have been an important factor in counterbalancing job losses in other sectors within regions specializing in this sector.

Between 2020Q2 and 2021Q2, high-risk sectors showed a mild recovery of employment. While national and regional economies experienced the first pandemic shock in 2020Q2 leading to unprecedented social curbs and suspension of business activity, by the 2nd quarter of 2021 most restrictive measures had been lifted. As a result, coastal and island regions with a strong tourism sector (Kriti, Notio Aigaio, Illes Baleares, Languedoc-Roussillon, Provence-Alpes-Côte d'Azur, Calabria, Sicilia Algarve) presented the strongest recovery tendencies.

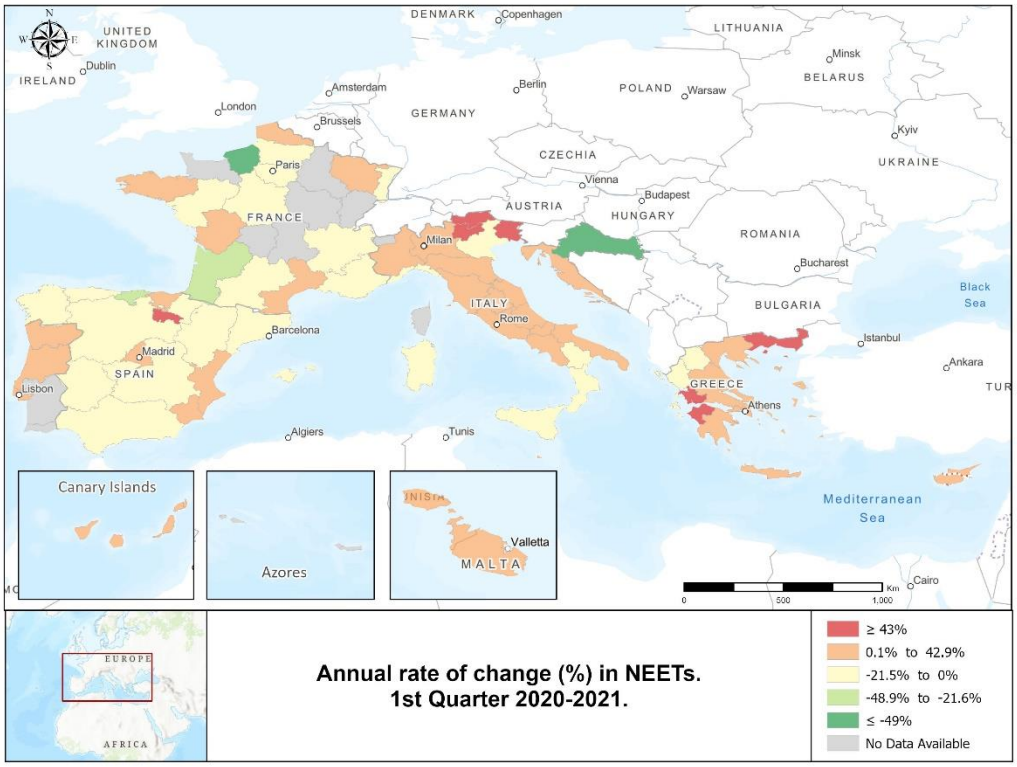
Changes in youth labour market

The pandemic bore implications which matched with an already adverse environment and prolonged the longstanding effect of the financial crisis of 2008. This environment has been characterized by economic uncertainty, which favored the expansion of precarious labour in the form of temporary and part time employment.[6] Especially for young people, the consequences of the pandemic are more severe. The rates of the economically inactive youth, i.e. the young people aged 15-29 years old, being unemployed or not seeking employment and not attending any program of education or training (NEETs), exhibited notable divergence among regions. All in all, the EU NEET rate increased from 16.6% in 2008 to 20.5% in 2013. With recessive pressures stabilizing in the course of the decade of 2010, NEET rates started decreasing. However, expanding tendencies returned in 2020, as a direct consequence of the pandemic; by the end of that year, EU NEET rate reached 17.6%.

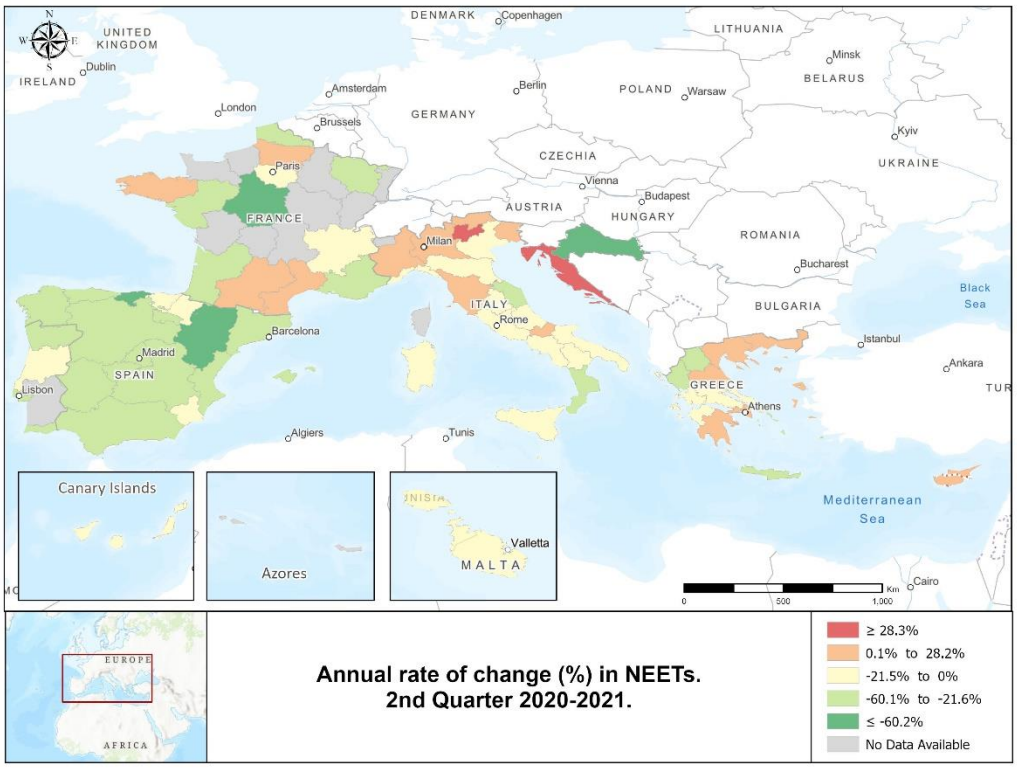
More specifically, the number of NEETs decreased between 2019Q1 and 2020Q1 in the majority of countries studied, apart from Spain and France (Map 6). This trend reversed in the following period (2020Q1-2021Q1). Youth employment has been particularly affected in the metropolitan areas of Italy (Lombardia, Lazio) and Spain (Communidad de Madrid), with the insular and coastal regions of Greece, Croatia, Cyprus, and Malta presenting a similar picture. In contrast, youth employment performed notably better in regions of France (Pays de la Loire, Provence-Alpes-Côte d'Azur), possibly due to the mobilization of the country's large domestic market in terms of tourism demand,[7] and industry that strongly depends on youth employment.

NEET rates retreated notably in the year to 2021Q2, especially in regions that concentrate activities related to tourism. Cyprus and Malta, as well as the coastal and island regions of Greece (Kriti, South Aegean), Italy (Calabria), Spain (Illes Baleares, Región de Murcia) and Portugal (Centro, Norte), exhibited a strong recovery. However, youth labour markets appeared less dynamic in the metropolitan regions of the abovementioned countries. Closing, developed regions in the Italian North continued to exhibit persistently high levels of youth inactivity rate, whereas youth labour markets in the majority of French regions recovered by the 2nd quarter of 2021 (Map 7).

[6] European Commission (2022) Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Eurostat_regional_yearbook
[7] ESPON (2020) Geography of COVID-19 outbreak and first policy answers in European regions and cities, https://www.espon.eu/geocov



Map 6: Annual rate of change (%) in NEETs. 1st quarter 2020-2021.



Map 7: Annual rate of change (%) in NEETs. 2nd quarter 2020-2021.

Conclusions

The report at hand analyzed the consequences of the COVID-19 pandemic and the subsequent mitigation policies on employment during the 1st and 2nd Quarters of 2020 and 2021, on national and regional level, in the Mediterranean EU. Summarily, regional disparities regarding job losses will probably lead to the exacerbation of already profound regional inequalities.

Industrial structure proved to be an important factor in the pandemic's geographically uneven impact. Regional labour markets highly dependent on sectors whose activity is associated with a higher risk of contagion, thus, posing a higher propensity to get suspended, tended to document the largest losses. On the other hand, metropolitan areas performed significantly better, both in comparison to other regions amidst the pandemic, as well as comparing to how they performed in the aftermath of the 2008 financial crisis. Meanwhile, government policies aiming to reduce the impact of the pandemic and stimulate economic activity failed to fulfill their purpose, as neither did they subvert the negative economic environment at the time the harshest mitigation measures were in place, nor they managed to kickstart the economy upon the lifting of these measures (in the 2nd Quarter of 2021). The constant risk of new virus mutations (such as the Omicron) adds to the economic uncertainty within the Mediterranean European economies. Besides, although spatially insensitive measures have been gradually abandoned as a course of action, labour markets have to face new challenges (teleworking). Thus, the withdrawal of such measures needs to be followed by supportive policies for workers, as the marginal situation of supply chains and the inflationary pressures make it difficult for economies to reach their pre-pandemic levels.

The significant increase of NEETs amidst the pandemic shows that the obstacles faced by youth in integrating into the labour market have increased. Particularly, youth labour markets specializing in tourism were hit hard, as this activity is based on seasonal employment, thus making the firms more vulnerable to suspension. The issue of youth inactivity demands immediate solutions, as it is related to brain drain, which has intensified since the 2008 crisis. The occurrence of two crises, one after the other, poses important risks for a whole generation of workers, as seen in the case of those eventually becoming completely demoralized.

The consequences of health and economic crises will be fully evaluated once the risk of new mutations—and the subsequent mitigation measures—is minimized. The *e-Aegean ResLab* Research Team will monitor, assess, and analyze these implications and their geographical and industrial variation.

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The [e-Aegean] ResLab Observatory operates in the context of the Research Electronic Infrastructure "Research network and Development of the Aegean Archipelago: Promotion of the Regional Innovation, Entrepreneurship and Excellence " {Code MIS: 5046494}, under the Commercial Program "Competition, Entrepreneurship and Innovation" co-financed by the European Regional Development Fund (ERDF) and Greece (NSRF 2014- 2020). The [e-Aegean] ResLab-Observatory visualizes data on employment and the Covid-19 pandemic. Employment figures are drawn from Eurostat's Labour Force Surveys as uploaded in the Eurostat

Database and as provided by Eurostat as microdata upon request. Data on Covid-19 cases and deaths are drawn from the respective National Health Authorities for all countries but Malta. For the latter, data are drawn from the World Health Organization database. Additional data on Covid-19 mortality rates are drawn from the Johns Hopkins University database. All the above sources are publicly available. Data from different sources are not always aligned. The [e-Aegean] ResLab-Observatory and its contents, including all data, visualization, and analysis, are provided to the public strictly for informative, educational and academic purposes. The [e-Aegean] ResLab-Observatory and visualizations and analysis provided herein remain the copyright of the University of the Aegean/ResLab- Observatory, all rights reserved. For any remarks or inquiries please contact: e-reslab@aegean.gr . The contribution of ESRI, US and Marathon Data Systems, Greece is highly acknowledged.