

NEETS INTEGRATION INTO SOCIAL AND ECONOMIC ACTIVITY IN A CONTEXT OF SUSTAINABILITY

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Abstract: *This article examines the integration of “Not in Education, Employment, or Training” (NEETs) into social and economic activities within the context of sustainability. NEETs represent a significant challenge for societies, as their exclusion from these activities can have adverse economic, social, and environmental consequences. The article explores sustainable approaches to address this issue, considering the potential of social entrepreneurship, green jobs, and environmentally friendly initiatives in fostering the integration of NEETs in different countries. Additionally, it discusses the importance of education and training programs that align with sustainable development objectives and empower NEETs to actively participate in a sustainable economy. The factor and regression analysis were used for this research. By exploring the nexus of NEETs integration, social and economic activities, and sustainability, this article offers insights and recommendations to policymakers and stakeholders aiming to promote inclusive and sustainable societies from the perspectives of examined countries.*

Keywords: *NEETs, education, employment, training, entrepreneurship, integration.*

INTRODUCTION

NEETs (the acronym for “Not in Education, Employment, or Training”) refer to individuals who are not engaged in any form of education, employment, or vocational training. This phenomenon typically applies to young people, often in the age range of 15 to 29, who are not enrolled in school, are unemployed, and are not participating in any training programs (Rahmani & Groot, 2023).

The term NEETs was first introduced by the Organisation for Economic Co-operation and Development (OECD) in the late 1990s. Now the OECD played a significant role in popularizing and conceptualizing the NEET category as a way to measure the disengagement of young people from education, employment, and training. The concept gained traction as researchers, policymakers, and international organizations began to recognize the importance of addressing the challenges faced by young people who are neither in education nor employed (Dluhopolskyi & Zhukovska, 2023; Zatonatska et al., 2022).

This study proposes an analysis of integration pathways into social and economic activity among NEETs representatives based on case studies from various EU countries. The research question consists in clarifying the differences in the trends of distribution of NEETs in European countries and generalizing the methods of their socio-economic adaptation.

LITERATURE REVIEW

The country that is most famous for researching the NEET phenomenon is Japan. NEET as a term gained rapid popularity in Japan after the publication of the “White Paper on Labor Economy 2004” by the Japanese Ministry of Health, Labor, and Welfare (MHLW). Mass-media, researchers, tabloids, newspapers, and NGOs made NEET definition popular and buzz (Rahman, 2007; Rahmani & Groot, 2023). The depletion of human capital, known as “scarring effect”, frequently leads to recurrent periods of unemployment and reduced future earning potential (Gangl, 2006).

The article (Schmidt, 2021) explores the phenomenon of NEETs in Japan, where there has been a notable increase in young people choosing unemployment, contrary to traditional social norms. While Japan has long upheld the ideal of lifelong employment, many young individuals are opting out of this conventional path due to various factors, including dissatisfaction with the demanding work culture, personal circumstances such as health issues or caregiving responsibilities, and changing economic realities. However, society often stigmatizes those who opt out of traditional employment, viewing them as lazy or even criminal. This stigma is deeply ingrained, to the extent that some individuals continue to maintain the facade of employment even after losing their jobs. Additionally, chosen unemployment is perceived as detrimental to the workforce and economy, exacerbating labour shortages in Japan. Despite societal disapproval, there is a growing trend of “neo-NEETs” who reject traditional employment but still find ways to earn income, often through online platforms or freelance work. While they may not conform to the conventional work ethic, they demonstrate a willingness to contribute to society on their terms (Schmidt, 2021).

Some researchers argued (Kosugi, 2005a; Kosugi, 2005b; Hoang, 2016; Rahman, 2007), that NEETs in Japan have different attributes from those in other countries, defining them in few categories (Table 1): yankee; hikikomori; tachisukumi; tsumazuki, and regard them as Japanese-style NEETs. Others, like K. Rahman (2007), Y. Hori (2005) define NEETs based on their background and values, namely reluctance to assume responsibility, socially reclusive, parasite single, ambition indifferent, and family ruining.

Table 1

Japanese-style NEETs

№	Type of NEETs	Characteristics
1.	Yankee-type	Antisocial type but seeks pleasure
2.	Hikikomori-type	Unable to build social relationships type and remains confined at home (reclusive or unsociable). “Those who are neither in work nor school, do not have social interactions and are socially withdrawn for more than 6 months”.
3.	Tachisukumi-type	Overly conscientious in job-hunting type but ultimately breaks down after failure (fear paralyzed)
4.	Tsumazuki-type	Job quitter type who finds employment, yet soon quits, loses confidence after a while, and then plunges into despair

Source: developed based on (Kosugi, 2005a; Kosugi, 2005b; Hoang, 2016; Rahman, 2007; Norasakkunkit & Uchida, 2012; Uchida & Norasakkunkit, 2015).

To gain a comprehensive understanding of the diverse NEET cohort, Eurofound (2016) suggests categorizing them into distinct subgroups (Table 2): economically active and economically inactive NEETs.

NEETS INTEGRATION INTO SOCIAL AND ECONOMIC ACTIVITY IN A CONTEXT OF SUSTAINABILITY

Table 2

NEETs classification (Eurofound)

Economically active NEETs	Economically inactive NEETs
Unemployed NEETs – those actively seeking and available for work: - long-term unemployed NEETs – individuals unemployed for over one year; - short-term unemployed NEETs – individuals unemployed for less than one year.	Discouraged NEETs – individuals who believe no work is available despite their willingness.
	NEETs with a disability – those unable to work due to incapacity, illness, or disability.
	Care-giving NEETs – individuals with family responsibilities, such as caring for children or relatives.
	Re-entrants – individuals awaiting imminent re-entry into employment, education, or training.
	Other NEETs – a residual group encompassing: 1) voluntary NEETs engaged in individual activities like traveling, volunteering, or informal study; 2) those reliant on family financial support; 3) youth facing more complex life challenges.

Source: developed based on (Eurofound, 2016; Assmann & Broschinski, 2021)

The study (Assmann & Broschinski, 2021) delves into the concerning rise of young people categorized as NEET across European countries over the past decade. By utilizing fuzzy-set Quantitative Comparative Analysis (fsQCA) on aggregated EU Labour Force Survey data from 2018 across 26 European countries, the study uncovers the intricate relationship between institutional configurations and the prevalence of various NEET subgroups. The findings underscore that the institutional drivers of NEET status are as varied as the group itself. For instance, countries with insufficient family-related services coupled with weak formalized long-term care tend to exhibit higher rates of young NEETs with care responsibilities, particularly evident in Central Eastern European nations. Conversely, Northern European countries with generous yet ineffective disability benefit schemes tend to have elevated proportions of NEETs with disabilities, fostering disincentives for labour market participation. Additionally, countries experiencing economic crises alongside labour market rigidities and inadequate vocational training policies, such as Southern and some Central Eastern European countries, tend to have higher rates of unemployed and discouraged young NEETs.

The article (Avagianou et al., 2022) presents a theoretically grounded empirical investigation into the uneven spread of young individuals categorized as NEETs across the EU South, specifically in Italy, Spain, Greece, and Cyprus, spanning from 2008 to 2018. Through the lens of “youth spaces”, the analysis critically evaluates the economic, social, and political dimensions shaping the intricate relationship between youth and the labour market, particularly addressing the persistent prevalence of NEETs in the EU South. The forms of labour precariousness experienced by young people vary spatially and encompass unpaid internships, low-paying contracts, family labour without compensation, and non-standard or informal employment arrangements (Gialis et al., 2020; Avis, 2014; Quintano et al., 2018). These practices evolve from eroded collective social bonds and exclusionary labour market structures, shaping the reproduction of young labourers. Notably, Southern European countries within the EU are often characterized as fragmented socio-economic entities within semi-peripheral yet advanced capitalist systems (Gambarotto et al., 2019; Surmanidze

et al., 2023; Hajiyeva et al., 2023; Zvarych & Brodovska, 2023; Zvarych & Rivilis, 2023). These economies are service-oriented, historically providing limited well-paid permanent positions for young individuals (Leontidou, 2012; Ruesga-Benito et al., 2018). Labor precarity, informal employment practices, and insecure flexibility have long been prevalent among younger generations in these societies (Gialis & Leontidou, 2014; Okulich-Kazarin et al., 2024).

The paper (Maynou et al., 2022) examines the convergence of NEET rates across 274 European regions from 2000 to 2019. This study contributes to understanding regional differences in NEET rates and highlights the importance of tailored policy measures to address youth inclusion and employability. But further research is needed to explore the NEETs integration in social and economic activity in a context of sustainable development.

METHODOLOGY

The methodology employed in the article involves K-means clustering within the EU and further analyzing pathways for NEETs integration into the socioeconomic activities of their countries. K-means clustering, a technique rooted in vector quantization originating from signal processing, endeavors to segregate a set of n observations into k distinct clusters, with each observation assigned to the cluster possessing the closest mean, commonly referred to as cluster centers or cluster centroids, thus serving as an archetype of the respective cluster (Sharma, 2024).

The overall objective of k-means clustering is to minimize the within-cluster sum of squared distances, making it particularly useful for partitioning data into compact, well-separated clusters, which can be mathematically represented as (Sharma, 2024):

$$\sum_{j=1}^k \sum_{x_i \in C_j} \|x_i - \mu_j\|^2, \quad (1)$$

where the outer summation goes over all clusters and the inner summation calculates the sum of squared distances between data points and their respective cluster centroids within each cluster.

However, its performance can be sensitive to the initial selection of centroids and may not be optimal for datasets with non-linear or irregular cluster shapes.

The k-means clustering algorithm can be summarized by the following steps:

- 1) initialization – randomly select k data points from the dataset as the initial cluster centroids;
- 2) assignment step – assign each data point to the cluster with the nearest centroid. This can be represented mathematically as:

$$\operatorname{argmin}_j \|x_i - \mu_j\|^2, \quad (2)$$

where x_i represents the i th data point, μ_j represents the centroid of the j th cluster.

- 3) update step – recalculate the centroids of the clusters by computing the mean of all data points assigned to each cluster. This can be represented mathematically as:

$$\mu_j = 1/n_j \sum_{x_i \in C_j} x_i, \quad (3)$$

where C_j represents the set of data points assigned to cluster j , n_j represents the number of data points assigned to cluster j .

- 4) convergence – repeat the assignment and update steps iteratively until convergence criteria are met, such as minimal change in cluster assignments or reaching a maximum number of iterations;
- 5) final clustering – once convergence is achieved, the final clustering is obtained, where each data point belongs to one of the k clusters based on its proximity to the cluster centroids.

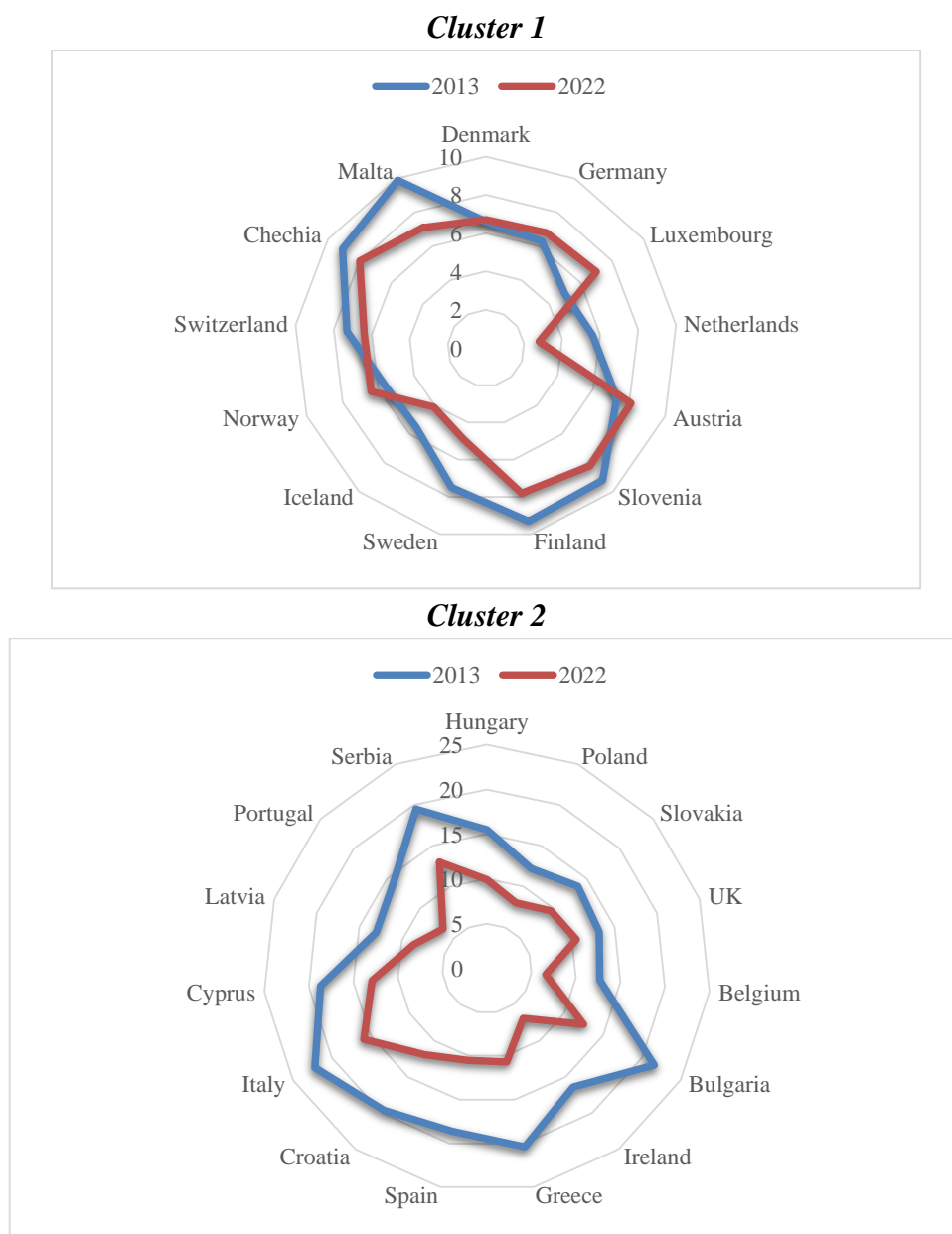
NEETS INTEGRATION INTO SOCIAL AND ECONOMIC ACTIVITY IN A CONTEXT OF SUSTAINABILITY

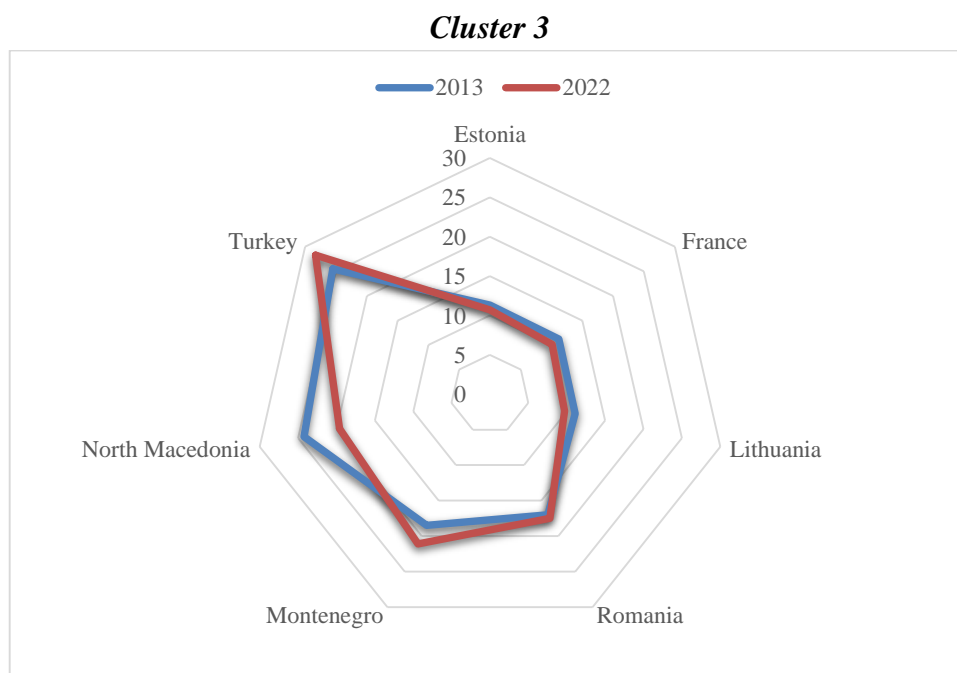
RESULTS

Currently, the phenomenon of NEET poses a significant national challenge, characterized by a notable lack of clarity regarding both its prevalence and the fundamental factors driving it. Effective solutions and interventions remain elusive, awaiting further exploration and understanding.

To cluster the countries based on their NEET rate dynamics, we can use the K-means clustering algorithm. As a result, we can group countries into three clusters (Figure 1, Table 3): cluster 1 – countries with consistently low NEET rates or positive changes; cluster 2 – countries with high NEET rates in 2013 but significant reductions by 2022; cluster 3 – countries with relatively high NEET rates and minimal improvements or even increases over the period.

Figure 1
NEETs clusters





Source: own research based on (Eurostat, 2023).

Table 3

NEETs dynamics 2013-2022

Countries	2013	2022	Change, %
Cluster 1			
Denmark	6,6	6,7	0,1
Germany	6,3	6,8	0,5
Luxembourg	5,0	7,0	2,0
Netherlands	5,6	2,8	-2,8
Austria	7,3	8,1	0,8
Slovenia	9,2	8,2	-1,0
Finland	9,3	7,8	-1,5
Sweden	7,5	4,9	-2,6
Iceland	5,5	4,1	-1,4
Norway	5,6	6,4	0,8
Switzerland	7,3	6,4	-0,9
Chechia	9,1	8,0	-1,1
Malta	9,9	7,1	-2,8
Cluster 2			
Hungary	15,5	9,9	-5,6
Poland	12,2	8,0	-4,2
Slovakia	13,7	9,6	-4,1
UK	13,2	10,5	-2,7
Belgium	12,7	6,6	-6,1
Bulgaria	21,6	12,5	-9,1
Ireland	16,4	6,9	-9,5
Greece	20,4	10,7	-9,7

NEETS INTEGRATION INTO SOCIAL AND ECONOMIC ACTIVITY IN A CONTEXT OF SUSTAINABILITY

Spain	18,6	10,5	-8,1
Croatia	19,6	11,9	-7,7
Italy	22,2	15,9	-6,3
Cyprus	18,7	12,9	-5,8
Latvia	13,0	8,6	-5,0
Portugal	14,1	6,6	-7,5
Serbia	19,5	13,0	-6,5
Cluster 3			
Estonia	11,3	10,7	-0,6
France	11,2	10,1	-1,1
Lithuania	11,1	9,7	-1,4
Romania	17,0	17,5	0,5
Montenegro	18,5	21,1	2,6
North Macedonia	24,2	19,6	-4,6
Turkey	25,5	28,3	2,8

Source: own research based on (Eurostat, 2023).

Referring to the experience of the countries of the cluster 1, we can note several features of integration NEETs into the socio-economic life of communities. Over the past decade, numerous policy initiatives in the Nordic nations have been dedicated to addressing and providing assistance to NEETs. A multitude of projects, spanning local, regional, and national levels, have been implemented to facilitate the integration of this demographic into educational and employment opportunities.

In recent years, both national and regional authorities in Denmark have made significant efforts to address the re-engagement of marginalized young people. One notable initiative is the establishment of guidance centres, mandated to reach out to early school leavers up to the age of 25 (Karlsdóttir, 2024). These centres aim to assist youths by providing a range of education programs and facilitating their transition to suitable educational pathways, training opportunities, or employment prospects. Challenges faced by young dropouts in Danish rural areas include a lack of role models, particularly in socially deprived small towns characterized by high unemployment rates and a need for skills enhancement. Additionally, certain groups, such as individuals with mental health issues or radicalized youth at risk of criminal involvement, present further complexities.

Another project, operating across six centres in Denmark, predominantly in rural areas, adopts the philosophy of consequence pedagogy, encapsulated in the principles of proactive action, accountability, and forward-thinking. This approach has demonstrated effectiveness in engaging the most vulnerable segment of young people. Referred to as TAMU (Karlsdóttir, 2024), this program offers personalized consultations and real work opportunities to participants aged 18–30, many of whom possess limited formal education. Participants receive housing, meals, and a structured environment akin to military discipline. TAMU aims to empower these individuals to become valued members of the workforce, regardless of past challenges such as criminal backgrounds or substance abuse histories. The program emphasizes the development of essential life skills alongside practical work experience across various sectors. Municipalities play a crucial role in funding both projects, contributing to trainee salaries and reinforcing the significance of these initiatives in promoting youth re-engagement and rehabilitation.

In 2019, Finland enacted national legislation known as Nuorisolaki 1285/2016, which mandates municipalities to employ proactive social workers tasked with actively reaching out to marginalized young individuals. Finland has garnered positive experiences through its proactive outreach efforts aimed at youths who have become disengaged from conventional support systems (Halvorsen et al., 2013). One-stop guidance centres, also known as low-threshold services, have been established in Finland to cater to young individuals who are unemployed, not engaged in training, or out of education. These guidance centres offer comprehensive support services encompassing general guidance, specialized education, social care, healthcare, and employment assistance, all conveniently available in a single location and free from bureaucratic complexities.

Referring to the experience of the countries of the cluster 2, for example, Italy stands out in the European Union for its high rate of NEET. In response to this problem, the Italian government introduced a “NEET plan” in January 2022 aimed at addressing the more than 3 million young people in the country who are neither working nor in education or training. The plan focuses on reinforcing existing measures such as the Youth Guarantee, establishing youth desks at employment centers, and providing informational support through campaigns like GIOVANI2030 (Montasser, 2022). Additionally, efforts are being made to promote the inclusion of young people with fewer opportunities in programs like Erasmus+ and the European Solidarity Corps. Despite these efforts, further action is needed to effectively tackle the NEET issue. A survey among Italian NEET individuals revealed that many had never visited employment centers, indicating a need for broader outreach initiatives. Additionally, investment in childcare and care facilities is crucial, as many NEETs cite family responsibilities as a barrier to employment or education. Moreover, targeted education programs with practical training components can better prepare young people for the job market (Quintano et al., 2018).

NEET phenomenon in Italy is marked by regional disparities, with Southern Italy being particularly affected, as well as gender inequality, disproportionately impacting women. By identifying different groups within the NEET population and implementing targeted measures, such as the NEET plan, Italy aims to reduce the number of young people facing economic inactivity. However, additional efforts, including promotional campaigns and support for young mothers, are essential to fully address the complexities of the issue.

According to Spain and Portugal, however, age is positively associated with long-term unemployment across countries. Additionally, higher educational attainment is associated with a lower likelihood of long-term unemployment but a greater likelihood of short-term unemployment. The research (O’Higgins & Brockie, 2024) highlights the relationship between vulnerability to poverty or social exclusion, individual characteristics, and NEET subgroups. It reveals that vulnerability is more pronounced among young NEETs compared to young workers or students and varies significantly across different types of NEETs. Particularly, vulnerability is notably high among young people NEET due to family responsibilities, primarily young women, and this vulnerability has increased over time.

Referring to the experience of the countries of the cluster 3, researchers (Işık, 2016; Özdemir et al., 2023) investigated the challenges of youth unemployment and NEET phenomenon within the Turkish context. The research comprehensively addressed various aspects such as workforce demographics, gender-specific data analysis, and the interconnected issues of education, unemployment, and economic stagnation affecting the young labour force. Findings highlighted

NEETS INTEGRATION INTO SOCIAL AND ECONOMIC ACTIVITY IN A CONTEXT OF SUSTAINABILITY

Turkey's leading position in NEET rates among OECD nations (Table 3), primarily attributed to gender disparities.

According to Turkey, Romania, higher education correlates with lower instances of low digital skills. Access to education and digital skills training is crucial, especially for rural youth facing barriers to traditional mobility. Gender disparities persist, with women disproportionately represented among NEETs, reflecting broader global trends of gender discrimination in education and employment. Addressing these disparities is essential for achieving gender equality and empowering women and girls, particularly in rural communities (Neagu et al., 2021; Kiziloglu et al., 2023). Improving access to education and digital skills can break the cycle of poverty and enhance civic engagement. However, rural populations in Romania and Turkey face numerous challenges, including limited education access and job opportunities, contributing to a significant portion of youth being classified as NEETs.

The Government of the Republic of North Macedonia since 2018 introduced the Youth Guarantee to provide NEETs for 4 months, offering employment, continuing education and training, or internship. Having in mind the success of the implementation of the Youth Guarantee 2018-2019, the Plan for the implementation of the Youth Guarantee 2020-2022 was adopted. In 2023, a new Plan for the implementation of the Youth Guarantee for the period of 2023-2026 was adopted, continuing the commitment to enhancing young people's access to the labour market (Integration of young people, 2024).

The Youth Guarantee in the Republic of North Macedonia provides the following services: professional orientation and career counselling; motivational training; individual and group counselling; and job search training. The Youth Guarantee foreseen the following employment measures: subsidies for the employment of young people; and incentives for hiring young people with disabilities.

DISCUSSIONS AND CONCLUSIONS

The limitations of the scientific article are that the problem of NEETs is a relatively new phenomenon in behavioral research, affects several state policies (demographic, social, educational, economic) and in each country its challenges are overcome with its own set of tools. That's why we made an attempt to cluster countries, highlighting common best practices.

Strengthening social protection emerges as crucial in discouraging youth from becoming NEETs, emphasizing the need for comprehensive public policies covering various domains like health and education to foster youth development without disparities. Future research should adopt a dynamic perspective, analyse a broader range of years, and delve deeper into the influence of specific policies on youth engagement and social inclusion to foster sustainable development. Moreover, further investigation into country-specific social policies' impact on including NEETs is warranted.

By employing a combination of different methods and tailoring interventions to the specific needs and circumstances of NEETs (mentorship and support networks, employer engagement, career counselling and guidance, financial incentives, youth employment programs, et.), policymakers, employers, and community organizations can work together to facilitate their successful integration into the labour market. Each country, as it turns out, develops its own mechanisms of social and economic integration of NEETs depending on the needs and goals of its own development.

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*NEETS INTEGRATION INTO SOCIAL AND ECONOMIC ACTIVITY IN A CONTEXT OF
SUSTAINABILITY*

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