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Innovative training material and methodology to support the development of marketable digital and green skills of NEET youth from rural areas to empower their employability
PROJECT ID: 2021-1-BE01-KA220-VET-000035895

PR1-A3: STATE OF THE ART REPORT ON YOUNG/WOMEN NEETS' EMPLOYABILITY WITHIN THE DIGITALAND GREEN ECONOMY SECTORS

Co-funded by the European Union

Introduction

The state of the Art Report on young/women NEET´s employability within the Digital and Green Economy sector is a compilation of national reports from the consortium (Belgium, Greece, Bulgaria, Austria, Spain, and Cyprus).

Each national report is itself a combination of field and desk research. For the field research, we had participation, from each country, of 35 NEETs women from the rural area, and also 5 organisations from the Digital and Green Economy sector.

The main goal of this document is to understand the actual situation of the NEETs woman and the DaGE sector, to see where are the reasons, backgrounds, and future these people in the professional market. Also very important, as we have a wide view of the situation in Europe (6 countries) we can see and analyze the common and particular issues for this target group in each country.

Having this crucial information, we can use this document as the base where the consortium of this project will build up the online material to put the light in ton places where this target group will need the most support.

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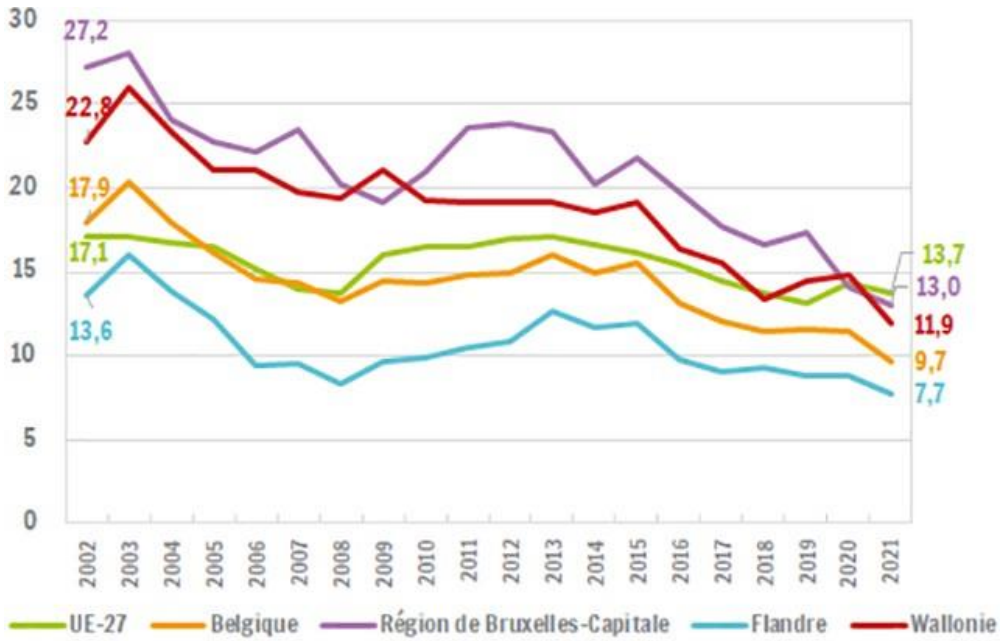
Unit 1. Desk research on national level

1.1. **Belgium** (SQUAREDEV and Official Spanish Chamber of Commerce in Belgium and Luxembourg)

Data and statistics

Belgium is a complex country in organizational terms and is divided into three highly autonomous regions: the Flemish Region (Flanders) in the north, the Walloon Region (Wallonia) in the south, and the Brussels-Capital Region.

At national level, the proportion of young NEETs in Belgium (9.7%) is lower than the average for EU countries (13.7%). However, there is contrast between the different regions of the country. In Wallonia in 2021, 11.9% of young people aged 18 to 24 were no longer in education, training, or employment. Wallonia is in less favorable situation compared to Flanders (with a rate of 7.7%) and in a slightly better situation than the

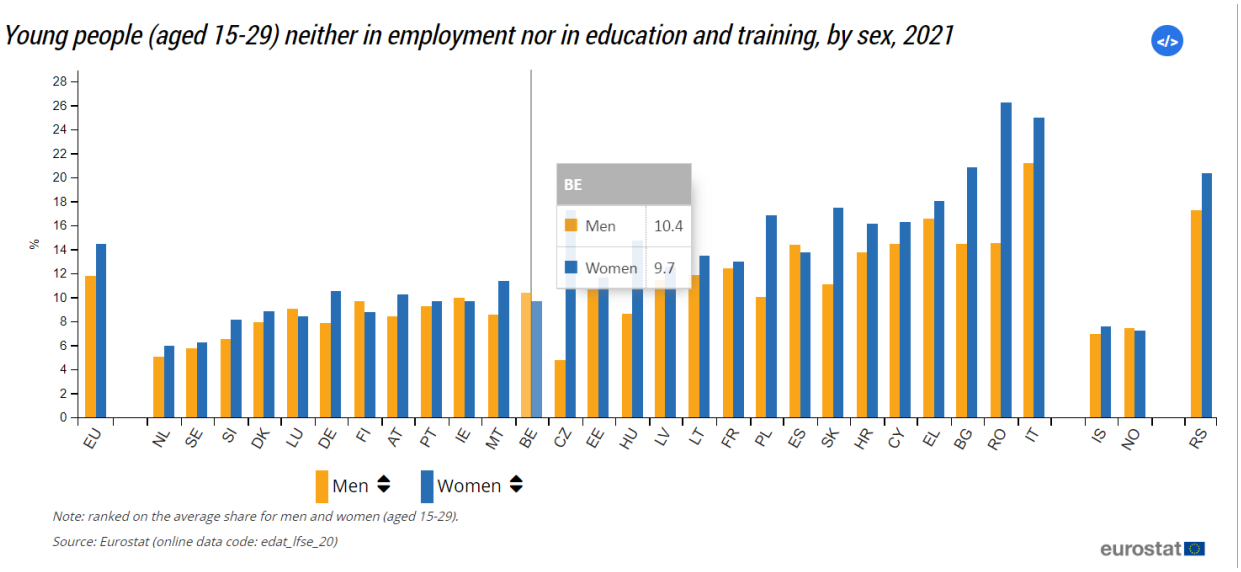


Brussels-Capital Region (13%). It should be noted that Wallonia is the least industrialized region in the country.

Graphic 1 (Sources : Eurostat et Statbel – Enquête sur les Forces de Travail, 2002à 2021 (Moyenne annuelle) ; Calculs : IWEPS)[2]

Gender:

The gap between genders in Belgian NEETS (0.7%) is smaller than the average for EU countries (2.7%). Here is important to underline that in terms of NEETs gender, in 2021, Belgium was one of the few EU Member States where the proportion of young male NEETs was higher than the corresponding share for young women, surpassed only by Finland.



Graphic 2 (Source: Eurostat)1

Age:

An analysis of the different age groups of young people shows that the EU gender gap for NEETs increased in relation to age in 2021, and this is clear when looking at the oldest

age group, those aged 25–29. For this age group the NEET rate was consistently higher for women than for men in all EU Member States.

Table 1: Young people (aged 15–29) neither in employment nor in education and training, by sex and age, 2021 (%)

	Total				Men				Women			
	15-29 years	15-19 years	20–24 years	25–29 years	15-29 years	15-19 years	20–24 years	25–29 years	15-29 years	15-19 years	20–24 years	25–29 years
EU	13,1	6,8	14,8	17,3	11,8	7,1	14,3	13,6	14,5	6,4	15,3	21,2
Belgium	10,1	3,5	11,2	14,9	10,4	3,8	12,5	14,5	9,7	3,1	9,9	15,3

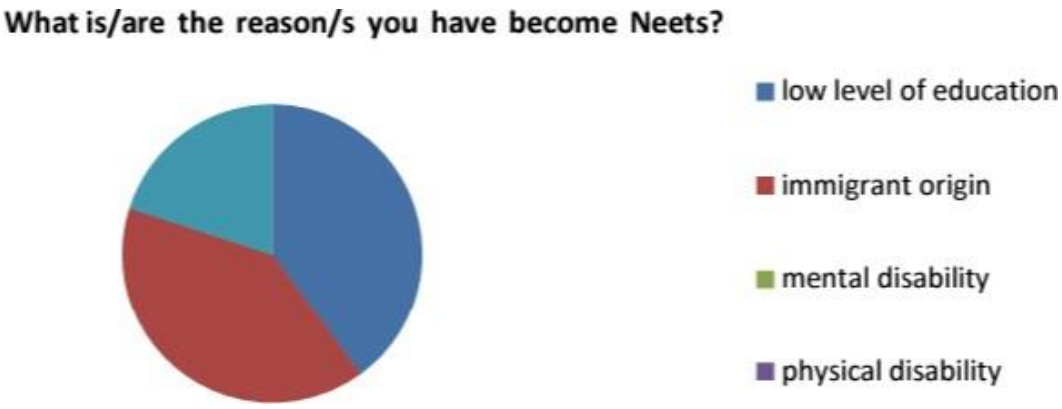
Family environment:

As young women become older, they are more often neither in employment nor in education or training. This pattern may be linked, at least in part, to the growing number of women who postpone childbirth, a low share of men who interrupt their careers to help raise a family, and a range of difficulties faced by women who wish to integrate a professional career with their maternal role.

Family reasons such as caring for children or sick relatives, but also lack of knowledge about the labour market in case of migration movements on the part of NEETs can explain these high rates.

Health conditions:

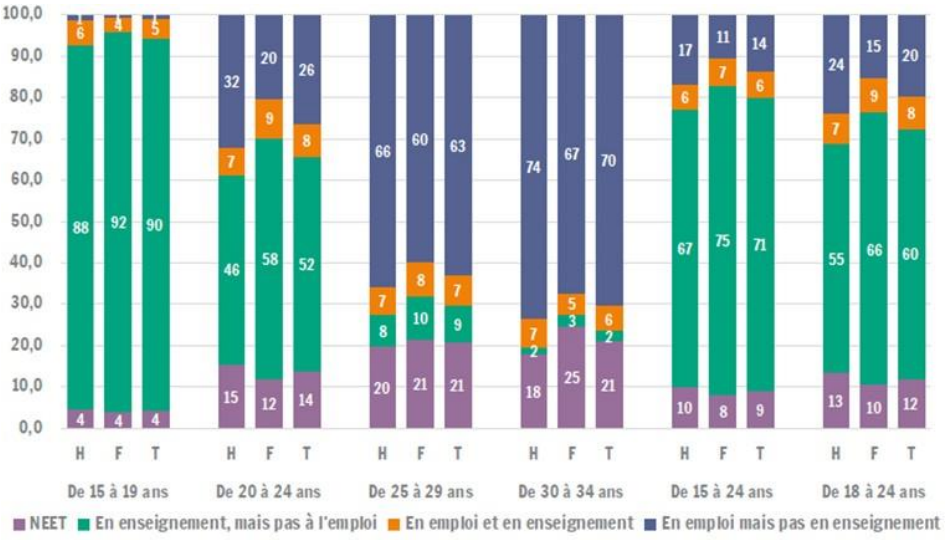
One of the last major reasons behind this phenomenon is the health of the young person, being a NEET being positively related to a situation of disability or illness that they can have that impede their entrance in the labour market.



Graphic 4 (Source: Noneets)6

As graphic above shows, the immigrant origin plays an important role on the people that are identified as NEETs. Belgium, and more precisely, Brussels-capital region, are populations with a high rate of immigrants.

Structure by age and gender in Wallonia (2021)



Graphic 3 (Source: Statbel & IWEPS)[2]

In this graph, young people in a given age group are divided into four categories: (1) NEETs, at the bottom of each bar, (2) young people in education only, (3) young people combining education and employment, and (4) young people in employment only. For this project, we will focus on young people around 18-24 years old.

The share of young people in education only decreases with age: it represents 90% of 15-19 years old and 52% of 20-24 years old. The share of NEETs is very lowfor 15-19 years old (4%) and then increases to reach its maximum for 30–34-year- olds (21% of this age group). The share of young people in employment only naturally increases with age: very low before 20 (1%), 26% of 20-24 years old. (*Source: IWEPS*)[2]

NEETs and Education:

- **What is their level of involvement in education?**

Young people neither in employment nor in education and training by sex, age and educational attainment level (NEET rates) (online data code: EDAT_LFSE_21)
Source of data: Eurostat

Settings: Default

Table | Line | Bar | Map

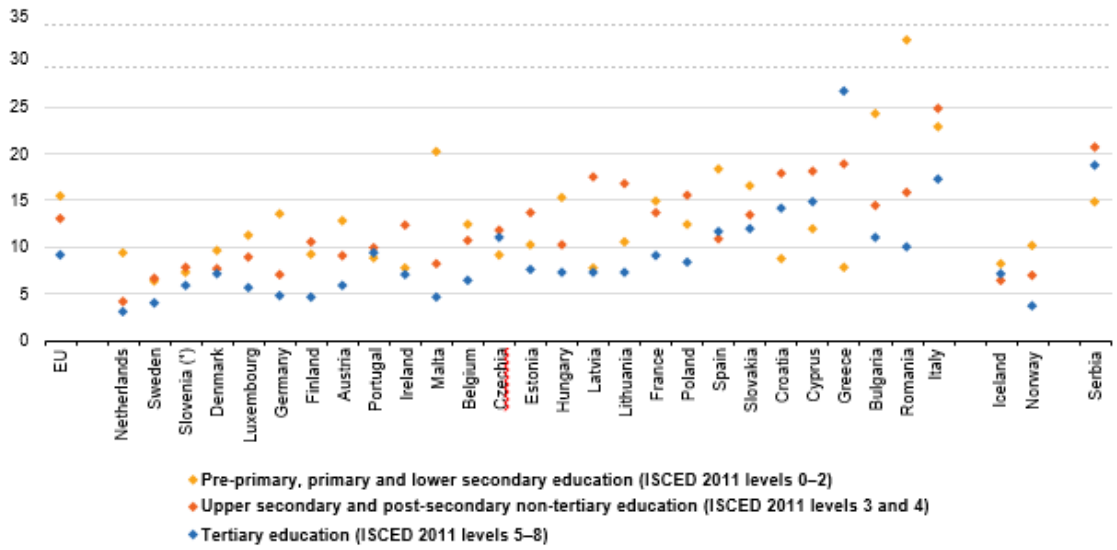
GEO \ TIME	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
European Union - 27 countries (from 2020)	17.0	17.1	16.6	16.1	15.4	14.5	13.8	13.2	14.4	13.7 (b)
European Union - 28 countries (2013-2020)	17.2	17.1	16.4	15.8	15.2	14.3	13.7	13.2	:	:
European Union - 15 countries (1995-2004)	17.0	16.8	16.2	15.6	15.0	14.2	13.8	13.3	:	:
Euro area - 19 countries (from 2015)	17.1	17.0	16.6	16.2	15.5	14.7	14.0	13.4	14.7	13.6 (b)
Belgium	15.0	16.0	15.0	15.5	13.1	12.1 (b)	11.5	11.6	11.4	9.7 (b)

https://ec.europa.eu/eurostat/databrowser/view/edat_lfse_21/default/table?lang=en

There is a lower level of education among NEETs, which causes a mismatch between the level of skills required by employers to perform job-related functions and the level of skills acquired by NEETs. In the same line, there is also a lower level of education or inactivity, this time among the parents of NEETs. (Source: La libre)5

Considering the following graphic, not having a diploma is directly related to higher NEET rate. Youths have more difficulties when introducing to the labour market when they did not reach tertiary education.

Young people (aged 15 –29) neither in employment nor in education and training, by educational attainment level, 2021
(%)



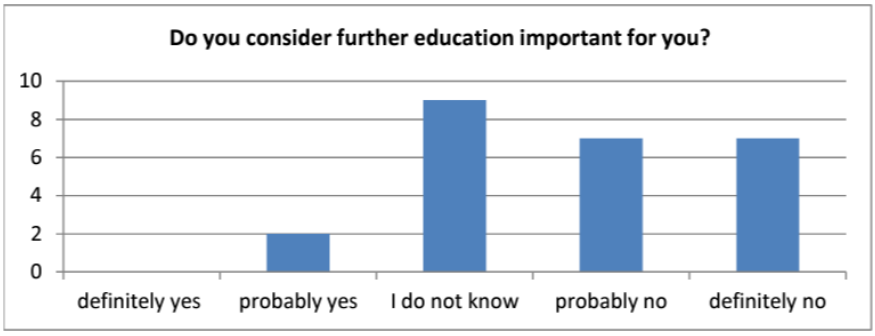
Note: Ranked on the overall NEET rate.
(*) ISCED 2011 levels 5-8: low reliability.
Source: Eurostat (online data codes: edat_lfse_21)

Although this represents the highest percentage of the NEETs, there are also some formed young people that have difficulties finding a job related to their studies.

	Pre-primary, primary and lower secondary education (ISCED 2011 levels 0–2)	Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4)	Tertiary education (ISCED 2011 levels 5–8)	Total ISCED
Belgium	12,5	10,8	6,5	10,1

o **What plans do they have related to education and training?**

Being a NEET also affects the economic future of young people. This is because periods of unemployment have a negative impact on a person's future employment and earnings. It is therefore more likely that a NEET will experience unemployment in his or her working career, which may then lead to disengagement from the labour market. Such disengagement will have consequences for their financial and physical health. These individual problems, if they become numerous, could then turn into societal problems such as increased pressure on government spending or a breakdown in social cohesion leading to crime problems. (*Source: La Libre)*[5]



Graphic 5 *(Source: Acti-fias)*[7]

The question *"Do you consider further education important for you?"* was asked to the NEETs that participate in a survey of Acti-fias, and the answer was clear. They denounced the fact that the offers do not always match with their wishes or their level of education. Multidisciplinary is also considered as an issue. A young person who wants to do music or woodcarving does not necessarily need to have management or computer skills. They think they have to live and expresstheir passion for the job. The increasing number of short courses that do noteffectively contribute or have an effect in their career is also criticised. (*Source: Acti-fias)* [7]

Young people in their majority are willing to join training courses but they allexpress their preference for a more practical and less theoretical learning approaches. In Belgium, the so-called technical vocational represents the high interest of young people in the practical aspect of training level. *(Source: Acti- fias)*[7]

What work experience do these youths have and what are their careerplans (if any) for the future?

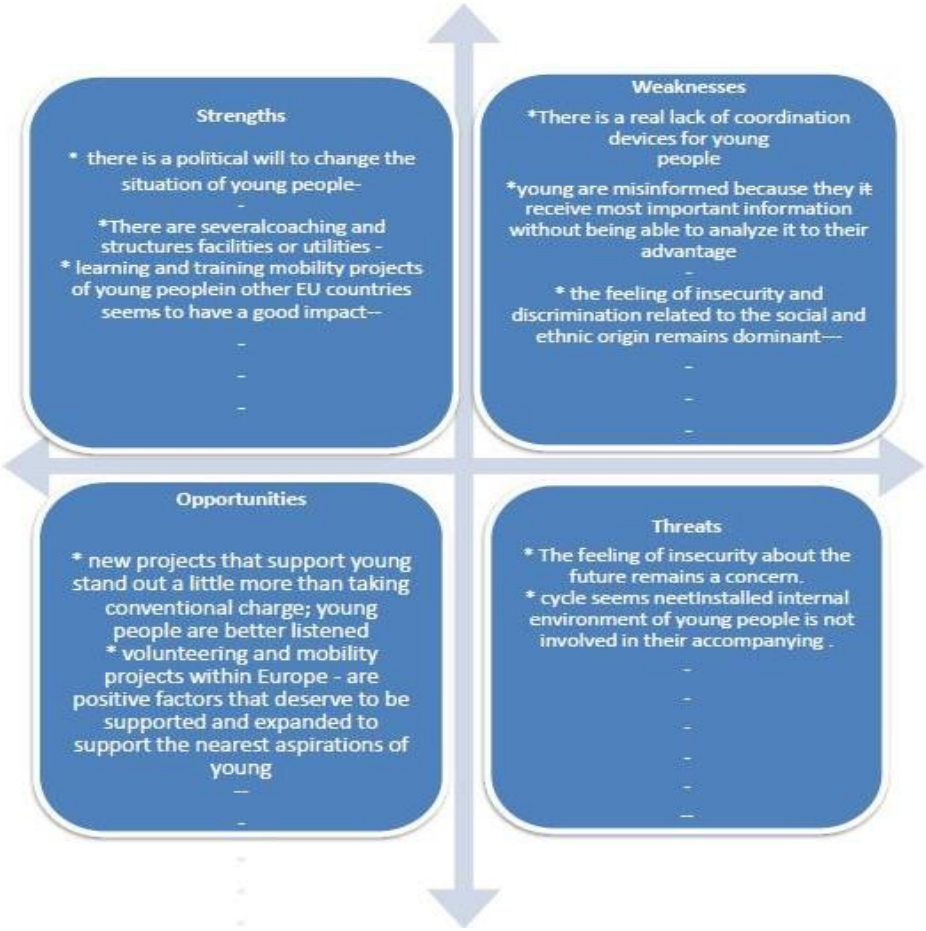
Normally, most of the young people that are identified as NEETs, they did not have the opportunity to work. But thanks to a cooperation agreement of the Ministery of Defense and Industry, Belgium wants to give them a first professional experience and enable them to follow a mutually recognised training course tofacilitate their professional integration. The Ministry of Defence will search for young people through local organisations, provide guidance and introduce the young people to military life. After that, they can either enter a "classical career" in the Defence or in the partner companies (*Source: 7sur7)*[5].

All the young NEETs prefer to work in the private sector in their countries or in theEuropean Union. Languages also remain problematic in the Brussels' region; Bilingualism is not clear but 85% of Brussels population speak a foreign language (Arabic, Turkish, Linguala) referring to their ethnic origin. Some youngbelieve that foreign languages don't help that much in their

job search. They expressed also the need to have a diploma but also consider personal acquaintances as essential (*Source: Acti-fias*)[7]

The NEETs of Belgium always consider that the experience and know-howshould be more valued by the society and employers, so they don't focus themselves on a job which a diploma or a degree is required.

What barriers/obstacles are preventing them from getting into work, education, or training?



(*Source:Noneets*)[6]

Nowadays young people are changing jobs more frequently and it takes a longer time to get established on the labour market. Therefore, it is important to make sure that the

transition from education to work is smooth and also highlight the risks of being neither in employment nor in education or training.

There are risks, both for the individual and in the long run for society, if young adults find themselves disengaged from both education and the labour market. (Source: Eurostat)1

The previous SWOT Analysis shows the different barriers and weaknesses that the NEETs have in Belgium, in order to find a job; contrasting that information with all the opportunities and strengths they have (mostly from their governments or even from the EU).

NEETs gather common disadvantages such as lack of a diploma, immigrant origin, living in precarious neighborhoods and from unemployed parents (which greatly reduces their mobilized social capital to ensure the inclusion of their children). (Source: Noneets)6

This rate of NEETs is accentuated during economic recessions, such as those that we experienced in 2008 or that we are currently experiencing.

1.2. **Spain** (Neotalentway)

Data and statistics

The indicator young people neither in employment nor in education and training, abbreviated as NEET, refers to the percentage of the population of a specific age group and sex who are unemployed or not in further education or training. The indicator's numerator as understood in the Spanish context refers to those who match these two criteria: they are unemployed or inactive (as defined by the International Labour Organization); they have not obtained any formal or non-formal education or training in the four weeks prior to the poll. In 2021, the Spanish rate of the population between 15 and 29 years of age that neither studies nor works reaches 14.1%. In terms of gender, the national average is 14.4% for men and 13.8% for women.

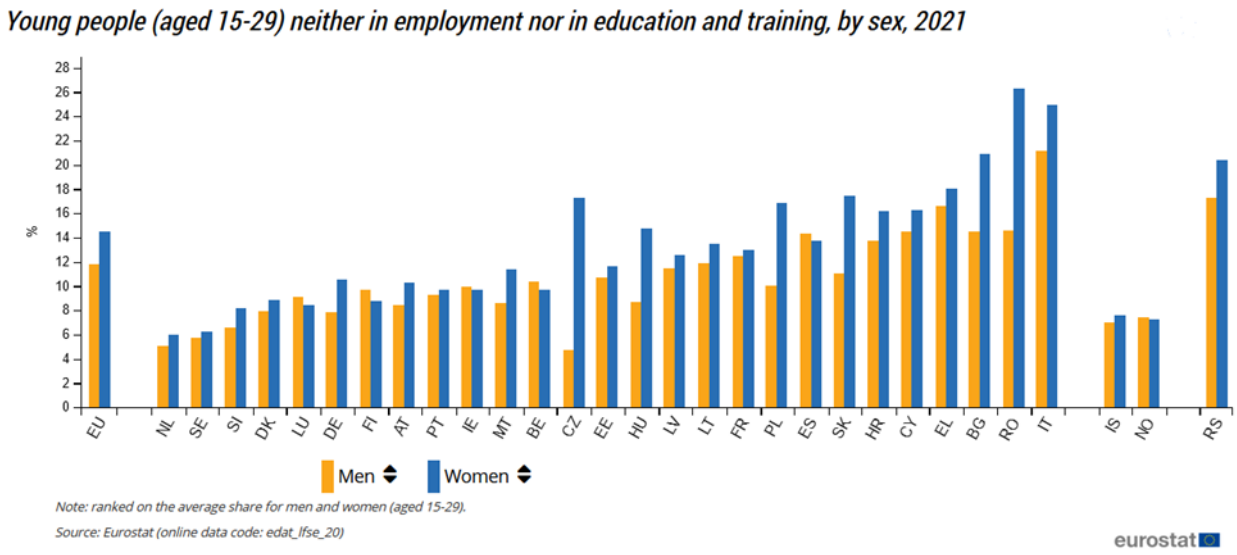


Figure 1: Spanish ranking of young NEETs

Young workers are characterized by significantly higher levels of temporary employment, so that most of their access to employment is through temporary contracts. The Europe 2020 Strategy included the objective of reducing the early school dropout rate among the population aged 18 to 24 years to 10% in the EU-28 by the year 2000. early school dropout rate among the population aged 18 to 24 to 10% in the EU-28 by 2020. the year 2020. In the case of Spain, the objective was to reduce it to 15% in 2020, with an intermediate target of 23% in 2015, already achieved in 2014.

The percentage of people aged 18 to 24 who did not continue their education after completing lower secondary education has been on a downward trend since 2008, when it peaked at 31.7%, according to Eurostat data.

In 2020, according to available Eurostat data, it continued that trend and fell to 16.0%, 1.3 pp lower than the dropout rate reached in 2019. In the EU, that rate stood at 10.1%. In 2021, the early school dropout rate stands, according to the data advanced by the Ministry of Education and Vocational Training, at 13.3%, 2, 7 pp below that achieved in 2020, so that the target set for Spain in the Europe 2020 Strategy (15%) would have been reached.

At December 31, 2021, the number of young people affiliated to the Special Regime for Self-Employed Workers (RETA) shows a year-on-year increase of 2.91%, 7,297 more young people affiliated. At the end of December 2021, the number of RETA members under 30 years of age was 257,892, of which the majority, 161,596, were men (62.6%) and 96,295 women (the remaining 37.4%).

1.3. **Greece** (AKMI and INNOVATION HIVE)

Data and statistics

The indicator young people neither in employment nor in education and training, abbreviated as NEET, refers to the percentage of the population of a specific age group and sex who are unemployed or not in further education or training. The indicator's numerator as understood in the Greek context refers to those who match these two criteria: they are unemployed or inactive (as defined by the International Labour Organization); they have not obtained any formal or non-formal education or training in the four weeks prior to the poll.

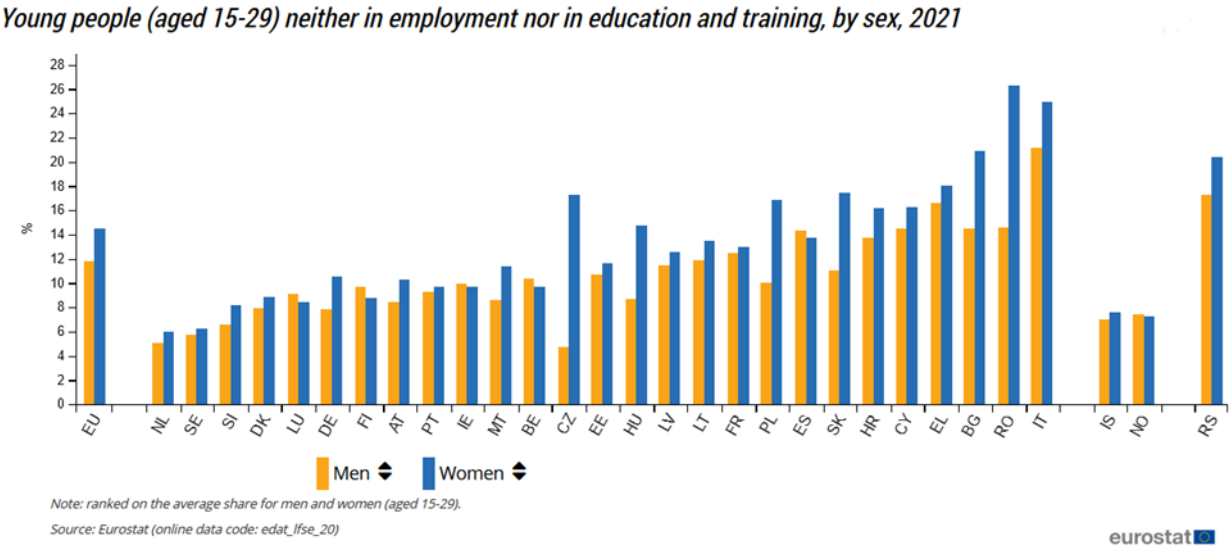


Figure 1: Greece ranking of young NEETs

Young people are changing jobs more frequently these days in Greece, and it takes them longer to establish themselves in the labor market. As a result, it's critical to ensure a smooth transition from education to work, as well as to emphasize the dangers of not being employed or in education or training. If young adults become disconnected from

both schooling and the labor market, there are concerns for both the person and society in the long run. While there is some background material for persons aged 15 to 34, the major age group referred when you mention young NEETs is young adults aged 15 to 29.

The European Union has established an EU-wide aim for this age group, stating that by 2030, the proportion of young people who are neither employed nor in education or training should be fewer than 9%. NEETs accounted for 13.1 percent of the EU population in 2021.

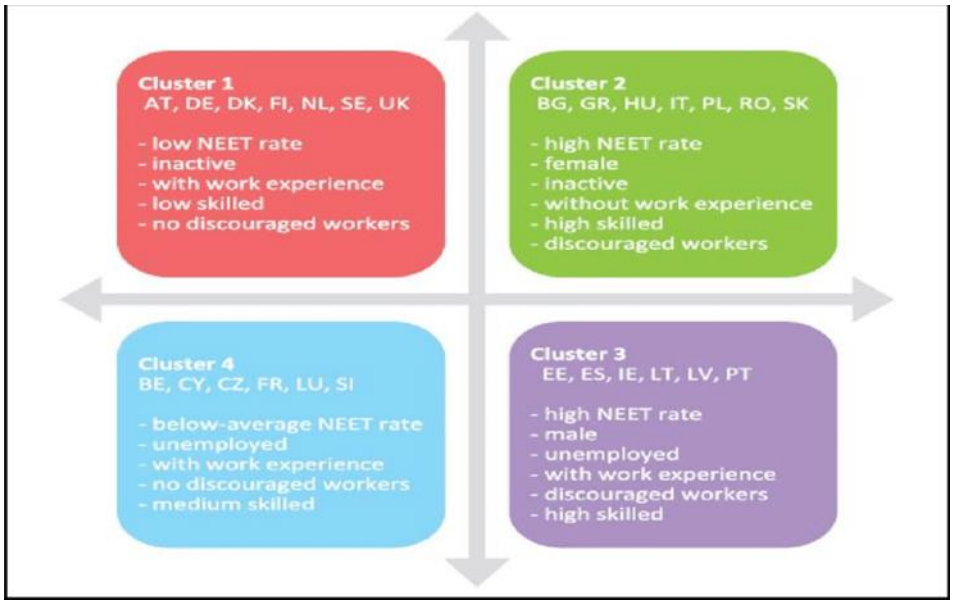


Figure 2: NEETs clusters in Europe and Greece

There are disparities amongst Member States, however, as several countries have already met the 2030 target. Greece is among the two countries (Greece and Italy) that had NEET rates of 19% or higher at this level of education, while the Netherlands was the only country with a share of less than 5% according to Eurostat. NEET rates for those aged 15–29 with a tertiary education were generally lower than for people with other levels of education, while Greece had the most at 26.8%. In all but six EU Member States, young adults with a tertiary education had the lowest NEET rates in 2021, except in Portugal, Czechia, Croatia, Cyprus, Spain and Greece, according to Eurostat. One

important thing to highlight in matters of sex categorization is that in Portugal, Slovenia and Greece more women were unemployed NEETs.

Building the NEET profile in Greece. Parameters, trends and common characteristics

For the majority of the Greek population the term NEET is something new, as the phenomenon is not considered a priority from the «political elite» of the country. Hence, the definition and characteristics of this socially vulnerable group remain unknown to the Greek society as there is not available any definition about this term. In Greece, is very common that the NEET population is often confused with the total number of unemployed young people, while the (sometimes) "underlying assumption that NEETs are a homogeneous entity is arguably, inaccurate" (Yates & Payne, 2006 cited in Denny, Hazenberg, and Seddon, 2010: 14). The Greek family, acting as a protecting and support 'umbrella' (unlike other family models of EU member-states), diminishes the effect of the phenomenon in Greece. The lack of information on the phenomenon at a political and social level makes it very difficult for the NEETs to be calculated and mapped.

Characteristics according to previous surveys:

- The rate of NEETs women in Greece is higher than this of men
- The percentage of NEETs is higher in rural areas of the country
- The Greek NEET has a low educational level (a majority has graduated from lower secondary education)
- the Greek NEET believes the educational system in Greece does not fulfill one of its most fundamental functions, that is to equip students with expertise and skills

1.4. **Cyprus** (STANDO LTD)

Introduction

The use of demographic factors to determine young people at risk of disassociating and becoming NEET is often influenced by professional experience and/or observation (Batten and Russell, 1995) as well as research findings. Numerous research have attempted to determine the features of disengaged young people as well as the conditions that cause them to become NEET. According to these research (see, for example, Dale, 2010; DELNI, 2010; Coles et al, 2002), youngsters who have become NEET share similar demographic characteristics:

• are carers,

• are young parents,

• have a physical disability/learning disability/chronic illness,

• have a mental illness,

• have experienced homelessness and/or lived in rented accommodation,

• have parent(s) who is unemployed or in unskilled manual occupations,

• live in high unemployment areas, and

• are members of some minority ethnic groups.

These features have been perceived as causes (NAfW, 2011; Social Exclusion Unit, 2000, 1999; WAG, 2009) and are used to establish systems at the regional level to identify kids who are at risk of becoming NEET. As there is little proof that utilizing population profiles to identify youngsters at risk of disengaging is successful (Hull, 2005), these methods have been regarded as ambiguous, imprecise, and, to a significant degree, pre-empirical in the literature (Brader and McGinty, 2005). For a variety of practical and accuracy

concerns, using demographic variables to classify students at risk of becoming NEET is problematic. Recognizing the association between school-based variables and resilience variables can improve the precision with which demographic characteristics indicate kids at risk of disengaging. These are connected to the personal and attitude indicators presented at the commencement of the research. Young people's perceptions and behavior are influenced not only by their families and communities, but as well as by the details of the surroundings in which they speak informally and the features of the community. The following are some of the factors that contribute to resilience (McMillan and Reed, 1994):

• Personal characteristics such as ambition and goal-orientedness.

• Time management skills, such as staying on track, doing assignments, and participating in extracurricular activities.

• Family life: such as encouragement and obligations from family members.

• The learning environment at school and in the classroom, including resources, technology accessibility, leadership, and the overall atmosphere.

NEETs and Education

According to Eurostat estimates released on Thursday, around 16.5 percent of young people aged 20 to 34 in the EU were neither employed nor enrolled in school or training in 2018. This equates to about 15 million young people. In Cyprus, the rate was 17.4 percent, higher than the EU-28 standard, with young women (20 percent) having a greater percentage than young men (14.5 percent). The NEET rate is significantly different between young women and young men. In 2018, the NEET rate for women aged 20 to 34 was 20.9 percent, compared to 12.2 percent for men aged 20 to 34.

Figure 1: Share of youth not in education, employment or training, total (% of youth population) – Cyprus

Most recent reports state that the rate of share of youth NEETs are at 14.4 percent in 2020. One of the most pressing challenges is reaching out to young people who are not in school, work, or training (NEETs) and other vulnerable populations. As step of an implementation plan, Cyprus has risen significantly outreach efforts by identifying and profiling the number of NEETs twice a year and forming relationships with local authorities. The strategy was established in April 2019 and is now being conducted, but its outcomes have yet to be assessed. Unregistered youth are being targeted through regional collaborations, and institutions are being informed about employment and training alternatives. Cyprus' progress on major Europe 2020 education and social scorecard metrics is varied, and basic skills attainment remains a concern. In 2018, the school dropout rate (also known as "early school leaving") decreased, with 7.8% of 18-24 year-olds leaving school early in 2018, especially in contrast to 8.5 percent in 2017, indicating that the Employment, Social Affairs, and Inclusion of the Youth Guarantee in

the Social Scoreboard by country is strengthening. Therefore, education attainment has increased much more.

		Cyprus		EU average	
		2009	2018	2009	2018
Education and training 2020 benchmarks					
Early leavers from education and training (age 18-24)		11.7%	7.8%	14.2%	10.6%
Tertiary educational attainment (age 30-34)		45.0%	57.1%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)		84.7%	92.0% [17]	90.8%	95.4% [17,d]
Proportion of 15 year-olds underachieving in:	Reading	32.8% [12]	35.6% [15]	19.5%	19.7% [15]
	Maths	42.0% [12]	42.6% [15]	22.3%	22.2% [15]
	Science	38.0% [12]	42.1% [15]	17.7%	20.6% [15]
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)	81.1%	78.9%	78.3%	81.6%
Adult participation in learning (age 25-64)	ISCED 0-8 (total)	8.3%	6.7%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)	:	35.1% [17]	:	3.6% [17]
	Credit-mobile graduates (ISCED 5-8)	:	1.7% [17]	:	8.0% [17]

Figure 2: Education and training 2020 benchmarks, Cyprus vs EU average

Cyprus has the second-highest tertiary educational attainment rate in the EU, at 57.1 percent (the average is 40.7 percent). SDG 4 also mentions that underachievement in fundamental skills among 15-year-olds is a concern. Optimizing academic performance requires modernizing the educational system.

Work Experience of NEETs

Applicable studies have come to conflicting results in terms of career chances. Some researchers believe that the sharing economy (SE) encourages entrepreneurship, economic growth, and job creation (Fang et al., 2016; Varma et al., 2016; Mao et al., 2019), while others believe that any boost will be offset by counter-effects on existing traditional (non-sharing) sectors of employment (i.e., Airbnb "cannibalizes" hotels, Uber "cannibalizes" taxi drivers, and so on), with the net effect on employment for the young NEETs. Additionally, generating income, possessing flexible working conditions, assisting others and remaining efficient, savouring social harmony, socialising, having a bit of fun

and getting to know people, and contributing to sustainable development are the main motivations for employment in the SE (Plenter, 2017; Hossain, 2020). These benefits may balance the significant disadvantages that individuals experience, such as joining a job with no national insurance or employment protection, and with earnings that are typically insufficient to replace full-time work (Malhotra & van Alstyne, 2014; Schor & Fitzmaurice, 2015; Cheng, 2016). The Cyprus government wants to spread the word about the "Contemporary Apprenticeship program" to other parts of the country. It will also be extended to include new industrial sectors like natural gas and hydrocarbons. Both business and professional features will be covered. Young people will be accepted into the Apprenticeship Program as part of the Youth Guarantee Action Plan.

Barriers to getting into work, education, or training

Being a NEET has several unfavourable effects that affect not only people and their families but also community as a whole. It was argued that youths in this segment are overlooked from both the labor market and the educational system, increasing the danger of sociocultural marginalization and the likelihood of engaging in anti-social conduct. This has an impact on a person's mental state as well as his or her interactions with society. Low or no income forces the NEET to abandon the opportunity to participate in a variety of activities, as well as the consumption of goods and services. As a consequence of such economical and other hurdles to involvement in society, as well as daily encounters with systems and processes, young NEET persons are more likely to accumulate traumatic experiences, which can lead to overall dissatisfaction with society and the world. Youth who do not educate and do not pursue jobs are different from their classmates in terms of self-worth and activity efficiency. Low self-esteem leads to a lack of perseverance in tough or stressful situations, which occur on a daily basis in the unpredictable labor market. Alongside personal motives, the importance of perseverance in overcoming challenges associated with school or job search should be addressed. Lack of drive, reluctance to any demands and sacrifices, difficulty in adjusting

to school or employment regulations, as well as stress and aggravation, are all elements that ontribute to inactivity.

1.5. **Bulgaria** (Balkan Bridge EOOD)

Data and statistics

The share of NEETs among young people of school age (15-18 years) is just under 11%, and among older people (between 19 and 24 years) it reaches 28%. This, recalculated to the general population of 15-24 year olds, means that there are a total of 167,670 young people on the site who are not employed and do not participate in any form of training. 26,650 of them are aged 15-18 and 141,020 - between 19 and 24

The young people in the NEETs group are supported by a clear socio-demographic profile. The majority have secondary or lower education, live especially in small settlements, more than half belong to the minority ethnic groups.

Education is the socio-demographic characteristic that determines to the greatest extent the inclusion or non-inclusion among NEETs. The group includes both persons with all educational degrees and those without education. Essential however, the share of early school leavers is 47%.

The structure of NEETs by ethnicity is dominated by Roma and Turkish ethnic groups (51%), 46% are Bulgarians. Ethnicity can be defined as a second risk factor for falling into the group of NEETs. The Roma are 4 times and the Turks - 2 times more at risk of NEETs compared to ethnic Bulgarians.

The structure of NEETs is dominated by people from small settlements (63%). As much as

the smaller the settlement (as a type), the greater the share of NEETs is.

The reasons can be found mainly in the depopulation of small settlements and their poor economic situation as a result. This makes the settlement the third most important risk factor for joining the group.

In the case of minority ethnic groups, gender appears to be an additional risk factor

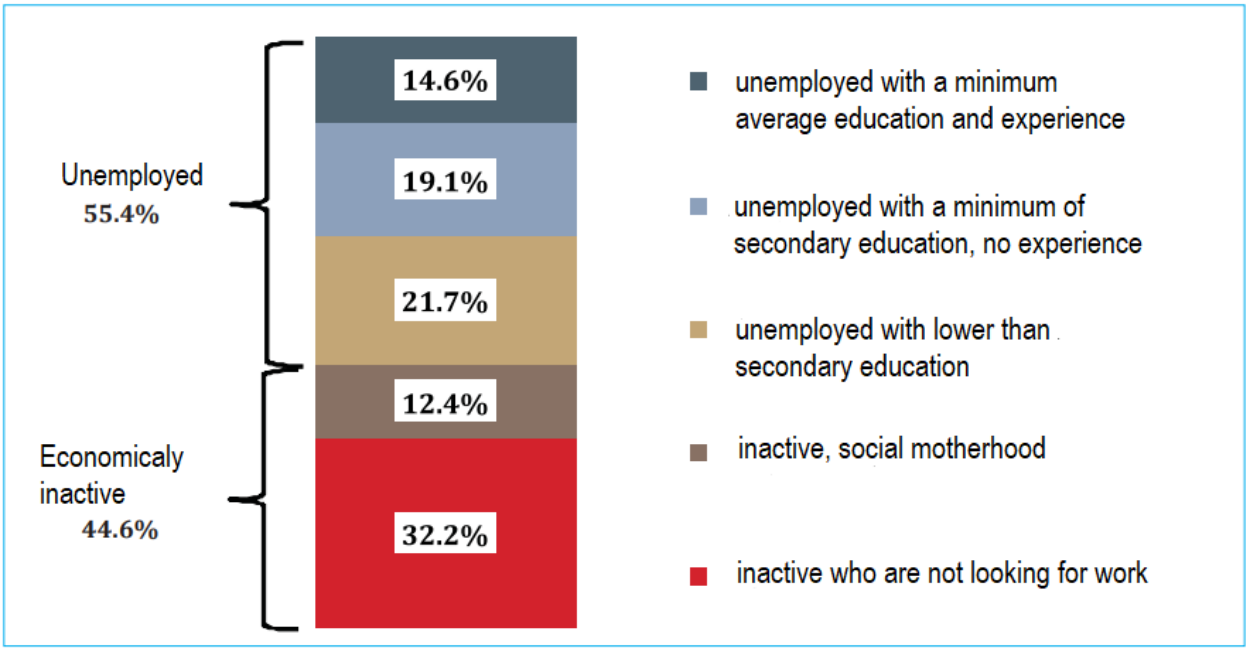
joining the group. Due to the municipal specifics of women the mean NEETs were almost 3.5 times, and the average for men was 2.3 times higher than in the control group (young people who were not NEETs). This means that women, especially Roma, can be identified as a high-risk group in terms of accession to NEETs.

The NEET group includes several subgroups with varying degrees of vulnerability, characteristics and needs. There are two major categories - unemployed (55%) and economically inactive (45%). They cover the following subgroups:

- unemployed with a minimum average education and experience (15%),
- unemployed with a minimum of secondary education, no experience (19%),
- unemployed with lower than secondary education (22%),
- inactive, social motherhood (12%)
- inactive who are not looking for work (32%).

The economically inactive are the most risky category in terms of long-term NEETs.

The tendency above can be depicted in the diagram below:



A total of 44% of NEETs remain permanently (over 1 year) in a situation of not studying, not training and not working. The premature dropouts stay in the group for the longest time from school and especially those among them who have never worked. The duration of NEETs situation depends mainly on the education of young people.

Prerequisites for joining NEETs

NEETs are a heterogeneous group that is formed both under the influence of socio-demographic characteristics and under the influence of various other factors /prerequisites. The complex interaction of factors of institutional, systemic and individual nature increases the risk of joining NEETs.

The studies allow to identify four major areas, contributing for the formation of the group of NEETs:

1. Family, social environment and Lifestyle

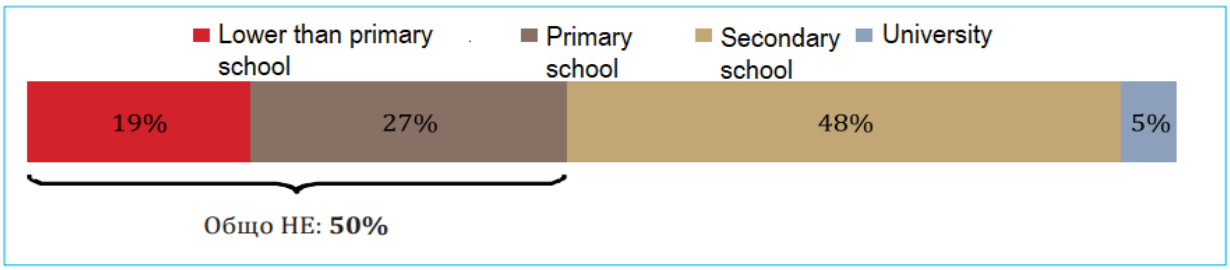
2. Education

3. Qualification and experience, behavior on the labor market

4. Motivation

What is their level of involvement in education?

Joining the group of NEETs is largely a function of the degree of completed education. This is clearly seen in the profile of the group, according to which 47% of NEETs drop out of school prematurely, ie. remain with primary or lower education.



Within the difficulties in school are two significant problem areas in the education system, registered by both young people and professionals working directly with them.

The first is related to the educational material and teaching, and in particular - the weak orientation towards learning to practice, the large volume and lack of focus and structure of the learning content, the passive model and the lack of an interactive approach to teaching.

The second concerns the way in which educational institutions are financed. The formula "more students = more money ”is valid for both schools and universities. That leads to the vicious practice of admitting to higher classes / courses persons who do not have reached the required level only for the purpose of remaining in the school / university. This leads to a decrease in the overall quality of education, as it is lacking

competition ("anyone can pass"). The most extreme dimension of the problem is the paradox educational degree to be acquired by illiterate young people.

NEETs and VET

In the topic of education as a factor in joining the group of NEETs important aspect is the vocational education and training (VET), with a view to its important role in building a skilled workforce and a competitive knowledge-based economy.

There is a general consensus among stakeholders (mainly VET teachers/trainers/organizations) that there is a serious discrepancy between what is offered by vocational schools and market demand for labor. Moreover, vocational schools are lagging behind in offering new professions, and some produce staff whose implementation is problematic. In many cases the acquired specialties turn out to be inapplicable, especially in the smaller settlements places where the business is represented by 1-2 operating companies. This imbalance is one the reasons why young people who have graduated from high schools or colleges with a certain profession remain "offboard" and fall into the group of NEETs.

Lack of work experience

The next key prerequisite for acquiring NEET status is lack of work experience.

Two thirds of the young people in the group have never worked, and 36% are looking for a job but have no previous experience. While lack of qualifications is an obstacle mostly for people with low education, lack of experience is a barrier especially for people with secondary education.

One possible solution is to participate in internship programs. They are expected to Complement what you have learned in school / university with practical knowledge to help you find a job and help the learner to decide if the job is appropriate for him/her

and also whether he/she has the necessary qualities and skills to deal with it in the future.

However, young people rarely benefit from this type of program - probably because of a lack of information, but also because in small settlements and those with declining economic functions there are no such programs. On a national basis (for 15-24 year olds in total) only 3.3% participated in internship programs, all of them outside the group of NEETs.

Lack of motivation

There are three possible reasons for the lack of motivation.

The first is that the reluctance to work and study stems from financial security and support from parents who let the young person do whatever he or she sees fit without encouraging him or her to develop.

The second possible reason is that behind the denial lies an excuse for the unfavorable situation in which the young person has fallen, and avoid admitting the lack of professional realization. Thus, the situation is presented as personal choice, not as a lack of opportunity and a bad coincidence.

The third possible reason is the lack of desire to work or study as a result of the negative impact of the family environment and the environment, when these role models do not stimulate development, on the contrary, they give ideas for other possibilities.

Solutions for NEETs

To address the NEETs problem, it is necessary to provide working mechanisms for identifying, reaching, informing, activating and supporting them. The following steps are generally recommended:

- Building a national early warning system for young people at risk of early school leaving and / or joining the NEETs group. It should mainly involve schools, but also work

in partnership with locals organizations, representatives of local communities and the families of children at risk from dropping out.

● Establishment of a national system for registration and monitoring of the development of NEETs. Data on the system must be provided by municipalities in partnership with schools and other organizations / individuals (eg mediators). Based on the system, a "map" of NEETs should be developed, which will serve for statistical monitoring of the group and adequate planning of the next steps.

● Conducting massive information campaigns such as "children help children", as well as through community figures (teachers, librarians, local leaders of opinion, mediators) to provide the basic information needed by NEETs to support their activation.

● Development of a set of specific measures for each of the NEETs subgroups in view of their specific needs, taking into account their demographic characteristics. In the measures account must be taken of the fact that a large proportion of NEETs are economically inactive and not registered with the TBT (i.e. other intermediaries should be provided to assist them).

● Development of a system for monitoring and evaluation of the effect, effectiveness and impact of policies and measures regarding NEETs.

Measures to address the problem of NEETs should be introduced in four main directions, which are also the key prerequisites for the formation of the groups of NEETs :

Direction 1. Family and environment

On a national basis, the problems in the families are covered in the National Strategy for the child, 2008-2018, as well as in the draft Law on the Child. They envisage activities and measures related to parents and families aimed at improving skills for parenting and changing attitudes towards the child.

Direction 2. Education

The educational model in our country causes serious systemic problems: lack of motivation for learning, low functional literacy, difficulties in the realization of young people labor market, lack of motivation to introduce and use modern interactive teaching methods by teachers, tolerance of the situation by parental side. All this, combined with the general economic situation and labor market conditions, brings out the need for stakeholders - business, non-governmental sector, parent organizations, educational and training institutions, to demand and support the need for structural reform of the education.

Direction 3. Labor market

NEETs are considered to be one of the most problematic groups in the context of youth unemployment at European Union level. This problem in Bulgaria is addressed by several key ones document - the National Plan for the Implementation of the European Youth Guarantee (the so-called "Youth Guarantee"), the Updated Employment Strategy, the National youth strategy, regional development strategies for the period 2014-2020.

In view of the synchronized implementation of all envisaged policies and measures, a strict coordination mechanism is needed, which will position the individual institutions throughout the system of interventions to NEETs and to clearly describe the role and the responsibilities of each participant and the specific way of interaction.

Direction 4. Motivation

Motivation is one of the significant problems related to the inclusion of NEETs in the market of labor, given the fact that this is a dynamic quantity that decreases with the feeling of success.

Measures in this direction are mainly proposed by the Employment Agency, which organizes motivational training for the unemployed, including young people.

1.6. **Austria** (LEVILO)

Introduction

The aim of this project activity is to provide a comprehensive picture of the profile of NEETs from rural areas in order to identify their needs related to employment and education as well as to point out the most vulnerable sub-groups for intervention measures such as VET training and education.

More specifically, this project activity attempts to answer the following research questions:

i. What are the personal and social demographic characteristics of NEETs?

ii. NEETs and Education:

o What is their level of involvement in education?

o What plans do they have related to education and training?

iii. What work experience do these youths have and what are their career plans (if any) for the future?

iv. What barriers/obstacles are preventing them from getting into work, education, or training?

What are NEETs?

Young people who are not in employment, education, or training are referred to as NEETs. The phrase NEET has sparked the interest of policymakers as a notion and a beneficial signifier for observing young people's labour service and social situations. Numerous European Commission regulations have highlighted the need to prioritise more on youth in NEET situations. This is certainly relevant in the rural context, where youth face a variety of possible factors for becoming disregarded for a variety of reasons, including geographical, social, and economic factors, as well as a lack of ambition and self-esteem. Many youths who are NEET or at stake of becoming NEET are 'unnoticeable' and 'not on the spotlight' of various policies. Several young people are experiencing an

extremely challenging obstacles and become demoralised as a result. This frustration can have an impact on both the progression of studies, enrolment in training, and/or the career opportunities.

For the framework of this research, only people aged 18 to 30 from rural areas who are not presently engaged in any formal employment, education, or training (therein referred to as NEETs) will be considered.

This age bracket was agreed by partners in order to avoid any issues coming from the data processing coming from minors. Moreover, a strong focus will be put on NEET women during the whole research process.

What is a rural area?

As the United Nations explain , “because of national differences in the characteristics that distinguish urban from rural areas, the distinction between the urban and the rural population is not yet amenable to a single definition that would be applicable to all countries or, for the most part, even to the countries within a region. Where there are no regional recommendations on the matter, countries must establish their own definitions in accordance with their own needs.”

In Austria, The Austrian Conference on Spatial Planning (ÖROK) defines the term "rural area" as all places, municipalities and towns with less than 20,000 inhabitants . However, even this definition is criticized because not all rural areas are in the same situation. Therefore, the "Austrian Conference on Spatial Planning" has divided rural areas into three categories:

- Rural areas in urbanized regions
- Rural areas with intensive tourism
- Rural areas in peripheral locations

Because NEETs in rural areas are especially hard to reach, NEETs from all of these rural areas were included in the research, since agriculture and tourism go often hand in hand in Austria and there are more NEETs in rural areas in urbanized regions.

NEETs in Austria

In Austria, the number of NEETs is significantly below the EU average and has declined compared with 2004. While 9.1% of young people were neither employed nor in education in 2004, the share of NEETs was 8.5% in 2021, 0.5 percentage points higher than in the previous year, which might be explained by the ongoing pandemic. On average, 76,000 young people were neither employed nor in education in 2021, which corresponds to 8.5% of 15-24 year-olds (women: 8.5%, men: 8.5%). In the EU27 average, 11% (2021) of young people were NEETs .

Statistically speaking, NEETs in Austria are often older youths, young people with a migration background and young people living in cities. However, these factors operate in the background. A direct influence on the NEET risk is exerted by early school leaving and illness, and in the case of female adolescents also by care obligations . Even though in the total statistics, women and men are equally affected, there are more female NEETs in the 20-24 age group. Influences on the situation of NEETs are on a national level the economic situation and active labor market policy. On the personal level leaving school early, illness/disability and unemployment experience are influences. For women, a major influence is motherhood. However, for most NEETs an interaction of several factors is relevant.

Unit 2. Field research findings on national level

2.1. **Belgium** (SQUAREDEV and CHAMBRE DE COMMERCE D'ESPAGNE EN BELGIQUE ET AU LUXEMBOURG)

In order to have the real situation of the NEETs in Belgium, we shared a questionnaire in June and July with organizations that work directly with the NEETs from the rural areas in the 3 regions of Belgium. This questionnaire was done in Google Forms to simplify the sharing, answering, and compilating of the results. Belgium is one of the countries with a lower number of NEETs, that´s why it was really complicated to contact them, even for the organizations that work directly with them.

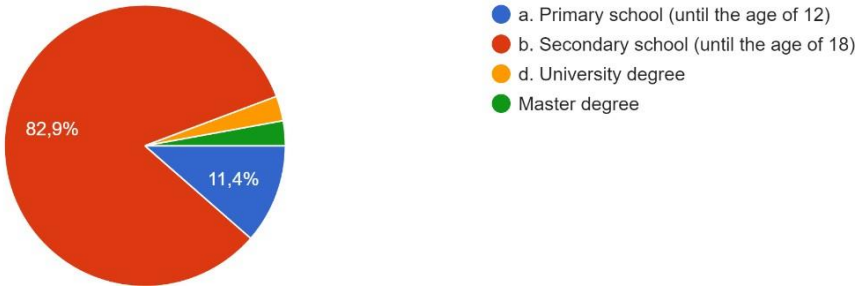
SECTION A: PERSONAL INFO AND EDUCATION AND TRAINING

In Belgium, the obligatory education is until 18 years old. Most of the NEETs from our research have no diploma and have only Secondary School (82,9%).

Therefore, there are some who has University degree.

The two main reasons for stopping their education were financial (34,3%) and medical reasons (31,4%).

1. What is your Highest Level of Education?
35 respuestas



On the other hand, the 51,1% have not any plan to engage in any educationalor training course. Despite that, the NEETs that where interesting in having additional education or

training, expressed that they will engage in some Full-time (48,6%) with a classroom based format (25,7%).

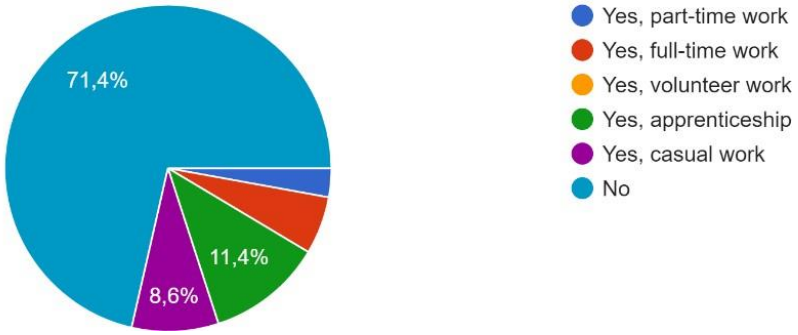
SECTION B: WORK EXPERIENCE AND INTERESTS

One of the main reasons to have long-term NEETs in Belgium is the lack of work experience. This is one of the biggest walls that the NEETs are confronting in their lives. 71,4% of them have not to work experience. On the other hand, 11,4% have work experience in apprenticeship, 8,6% in casual work, and only 5,7% full- time work.

The main reason for this situation was that they don´t have the required qualifications (45,7%) medical reasons (26,6%) and personal reasons (25,7%). On the other hand, there are a significant 17,1% of NEETs that they don´t found a job that they like.

1. Do you have any work experience?*

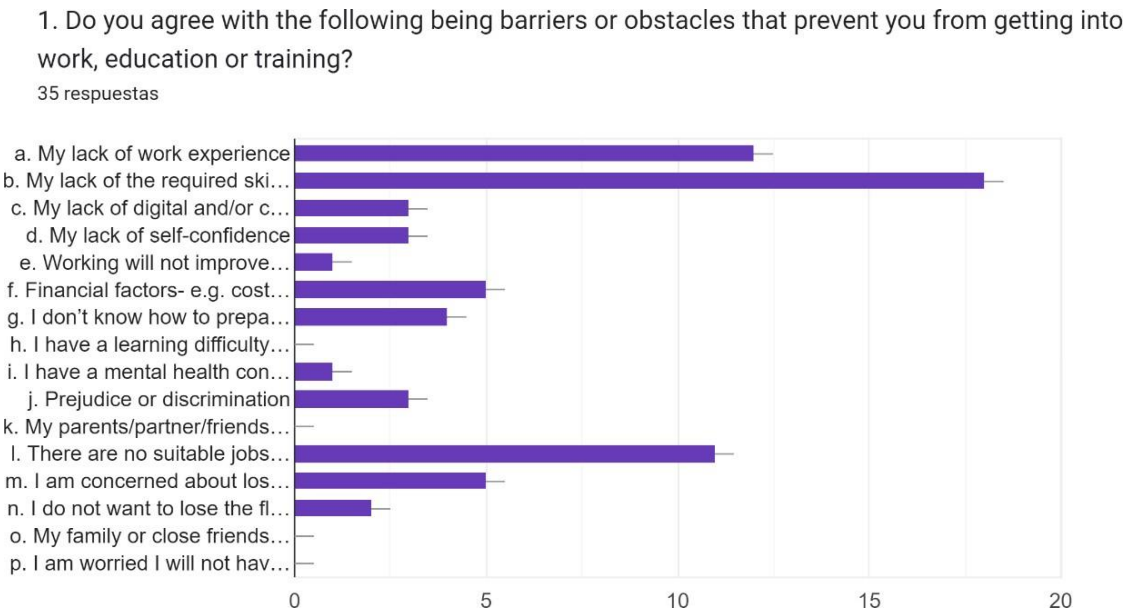
35 respuestas



SECTION C: FEEDBACK

This section of the questionnaire is very important for us because we can see the reasons that the NEETs think they don´t have a job. With 51,4% the “lack of the required skills

and qualifications" is the most common reason. Secondary, the "lack of work experience" with 34,3%. Finally, they don´t find suitable jobs in their locality (31,4%).



Conclusions

As we can see in the questionnaire and in the desk research, there is some percentage of the society that is sensitive to becoming NEET. People who are in social exclusion, because of their financial situation, who are not integrated into society, if they don´t have a solid educational background (VET or Diploma and not just Secondary School).

The people in social exclusion who don´t have a solid educational background, have fewer opportunities to have a first professional experience, due to a lack of skills and qualifications. If this happens, the gap in their CV is growing and because of a bad financial situation, they cannot have additional education. If this scenario, the lack of interest in the professional environment increases in the NEETs, creating a vicious circle.

Overall, the main reason for not having a solid educational background is not having a family-supportive environment where is evaluated the need of having an education is

an opportunity. Many of the NEETs are coming from emigrants' families, where one of the parents is not working. This makes the most complicated financial situation.

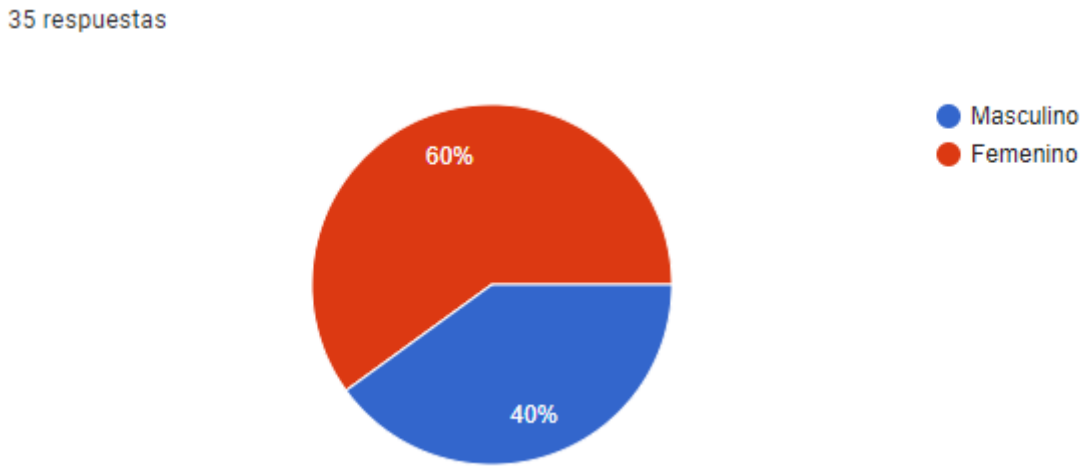
2.2. **Spain** (Neotalentway)

Methodology

Neotalentway in order to implement the field research through the questionnaires, prepared a common Google form. In this way, Neotalentway shared the forms to their network. For the national report, the Spanish partners collected 35 responses.

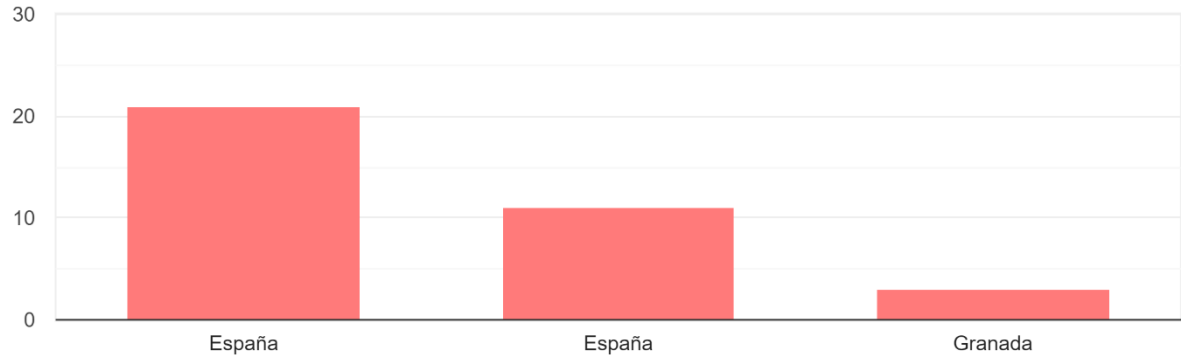
In the following national report, the reader could find the results of the questionnaire about profiling NEETs at national level.

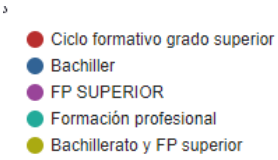
Gender



País de residencia.

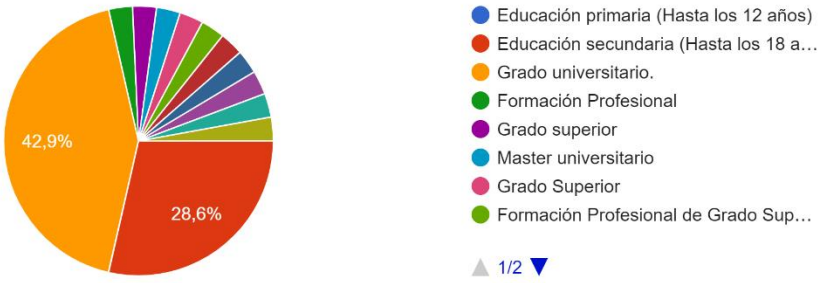
35 respuestas





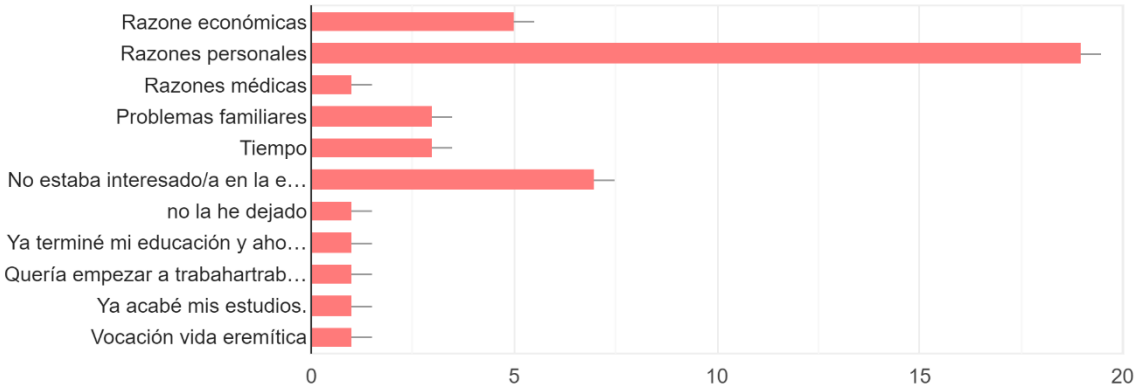
¿Cuál es su nivel más alto de educación?

35 respuestas



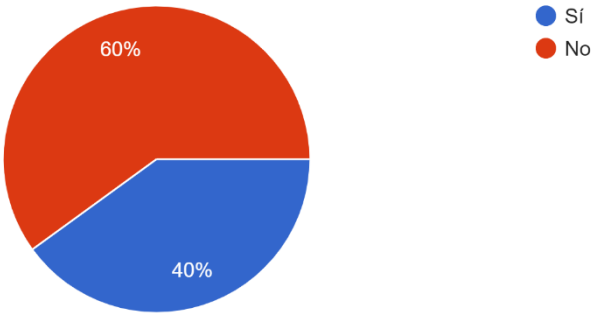
¿Por qué dejó su educación o formación? Elija todas las que correspondan.

35 respuestas



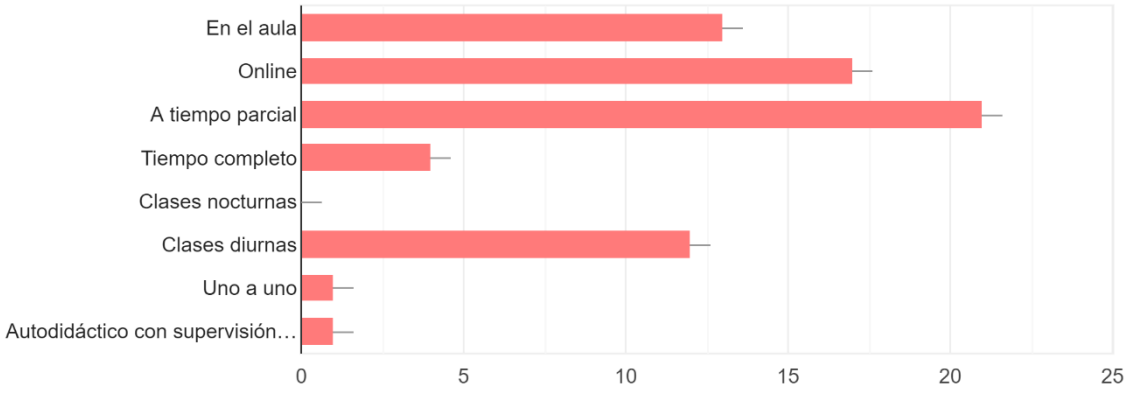
¿Tiene previsto realizar algún curso de educación o formación?

35 respuestas



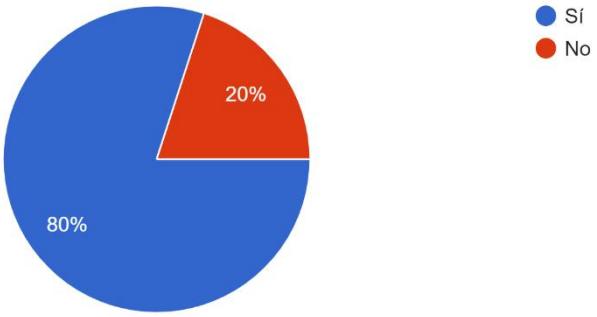
Imagina que tienes la oportunidad de participar en algún tipo de curso educativo o de formación, ¿Qué tipo de cursos preferirías? Elija todas las que corresponden.

35 respuestas



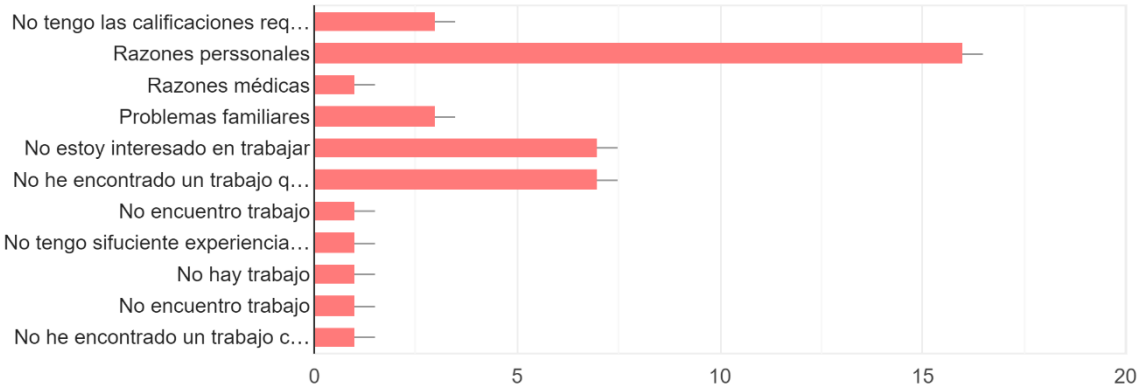
¿Tiene alguna experiencia laboral?

35 respuestas



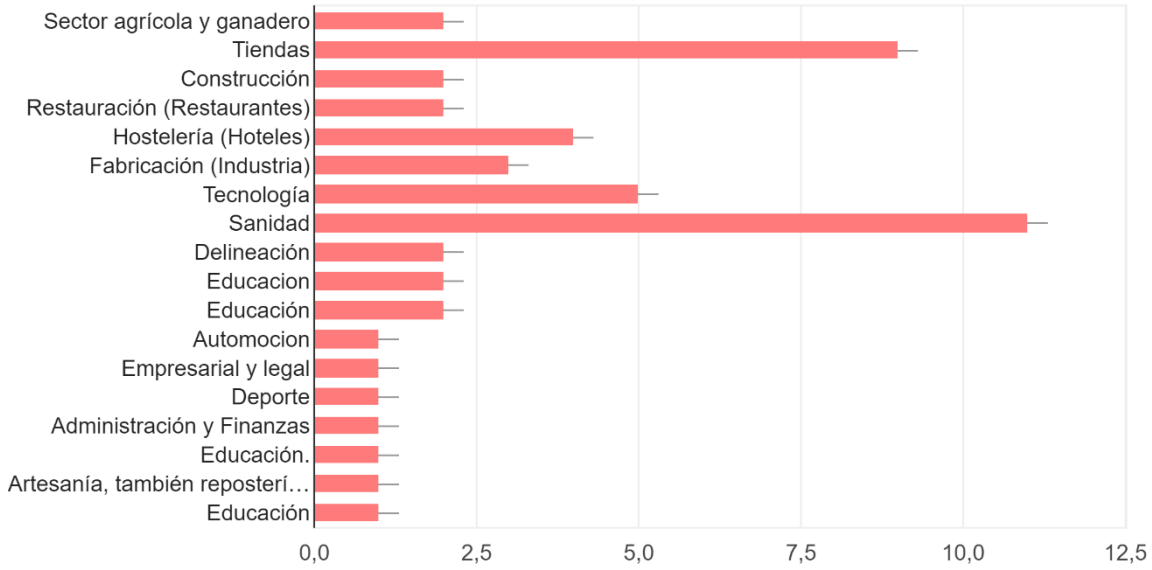
¿Por qué está actualmente desempleado? Elija las que correspondan.

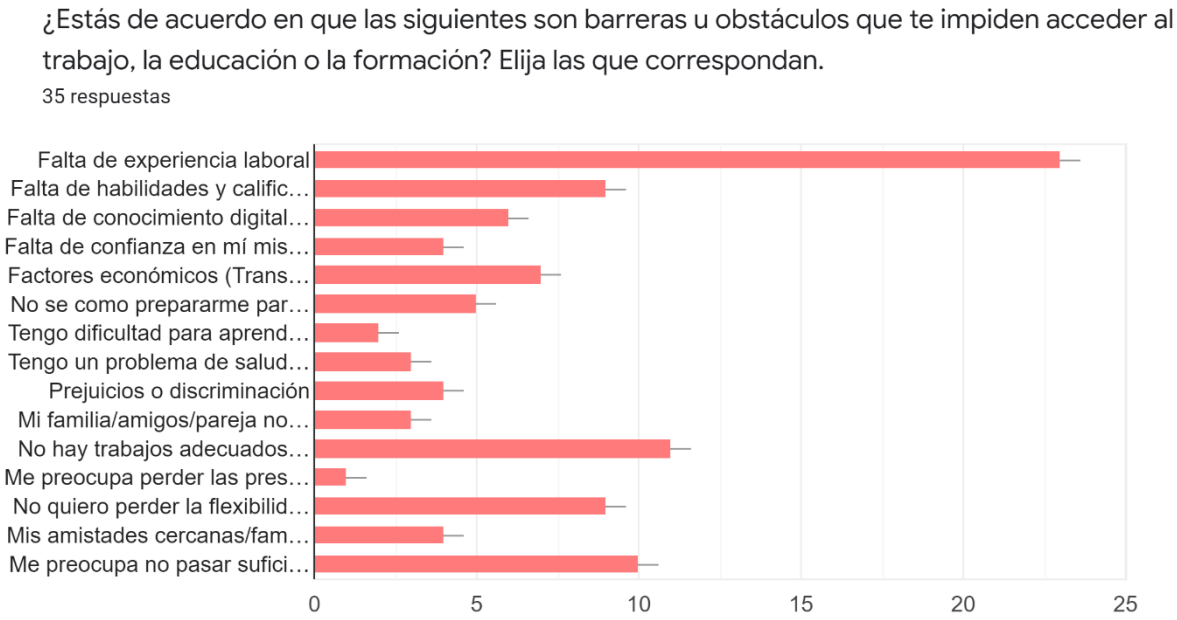
35 respuestas



¿Qué sectores le interesa más? Elija los que correspondan.

35 respuestas





What is hindering you from seeking educational, training, or job opportunities? (forgetabout all the previous questions you have answered)

family obligations
Financial reasons
Lack of funding
Lack of family conciliation
Perhaps my lack of experience
I want to focus on myself this period of time

Lot of academic's requirements
Lot of experience required

What would you like to see implemented by the Government/local authorities to encourage you to take further training/ schooling and/or seek employment?

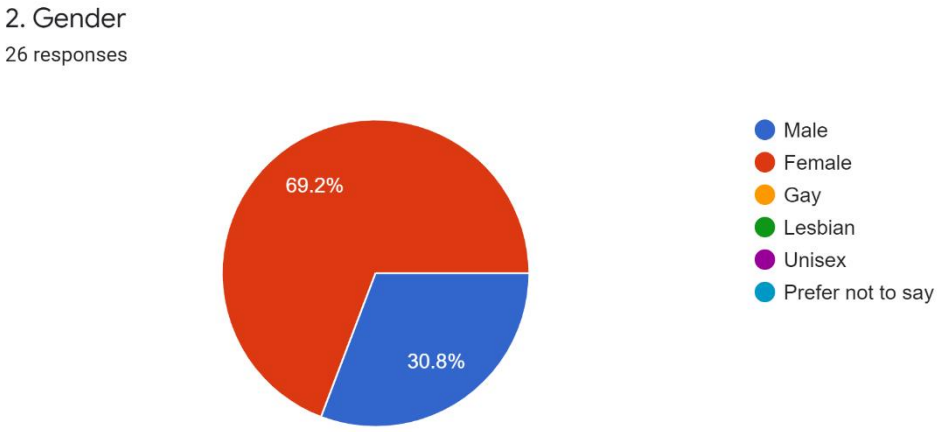
Finance help and opportunities
Social training
Free lessons
More opportunities
Further promotion of these programs
Provide initiatives like funding for the employment of unexperienced or provide paid training
Financial support so that I can concentrate on my studies
More flexible training programmes. More chances for internships. More govermental projects that enhance employability
More support for self-employment
greater support in training courses
flexibility in work hours

2.3. **Greece** (AKMI and INNOVATION HIVE)

Methodology

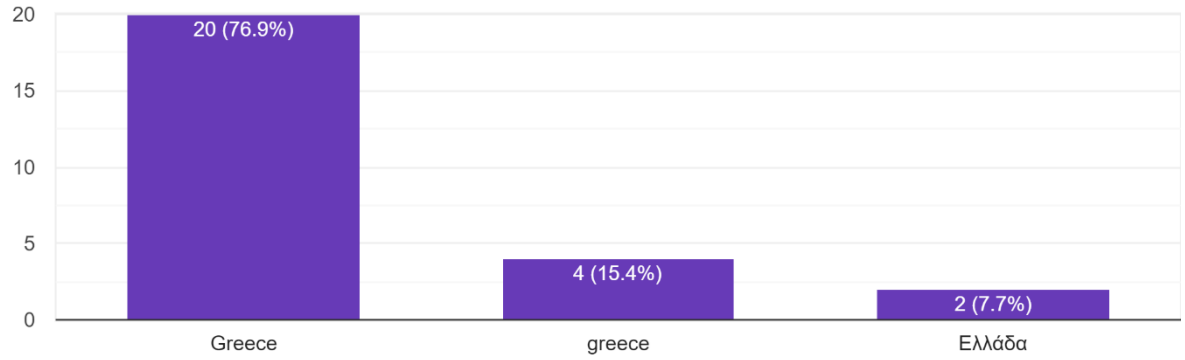
Innovation Hive and AKMI in order to implement the field research through the questionnaires, prepared a common Google forms. In this way, the Organisations shared the forms to their network. For the national report, the Greek partners collected 26 responses.

In the following national report, the reader could find the results of the questionnaire about profiling NEETs at national level.



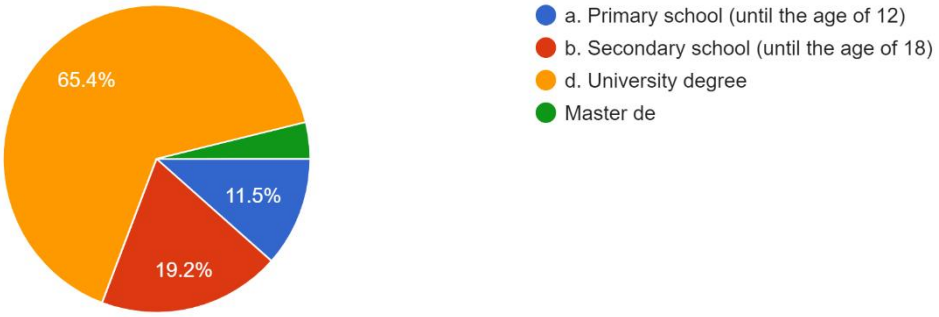
3. Country of residence

26 responses



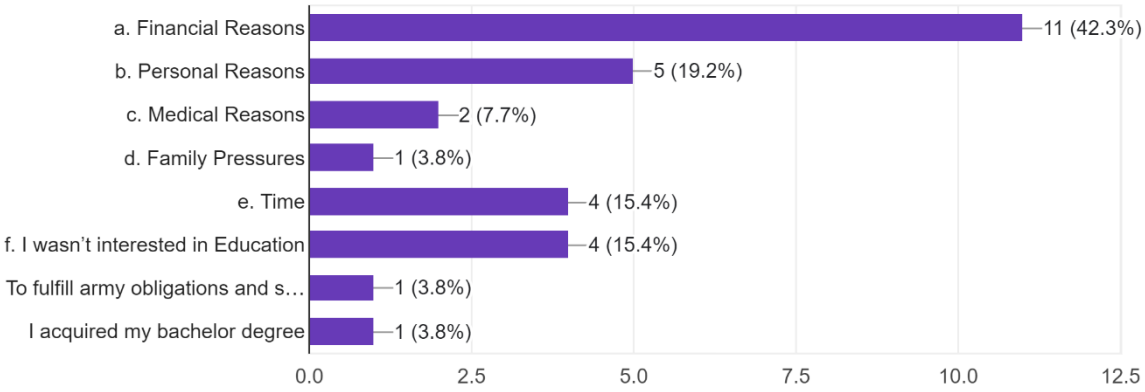
1. What is your Highest Level of Education?

26 responses



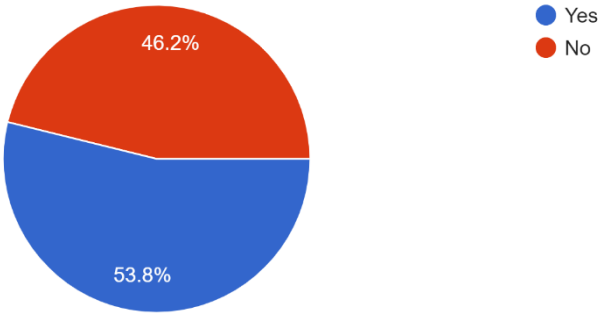
2. Why did you stop your Education or Training? (Choose all that apply)

26 responses



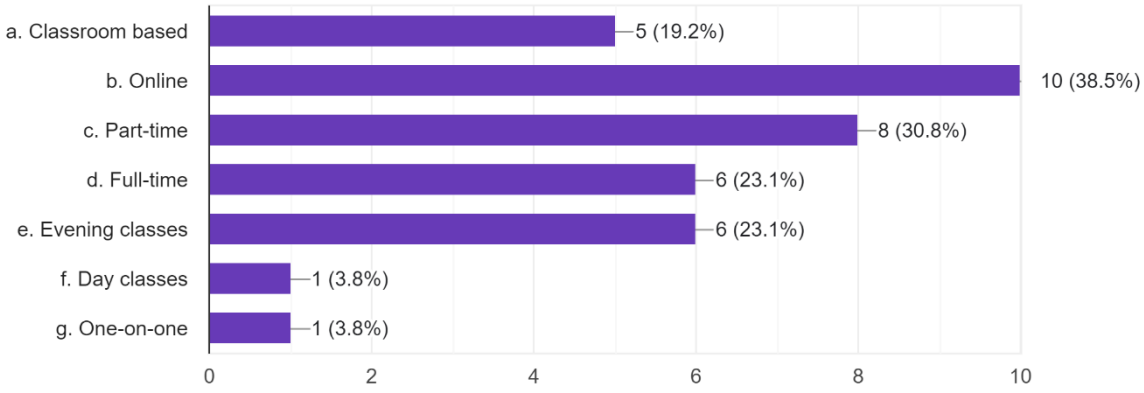
3. Do you currently have any plans to engage in any educational or training courses?

26 responses



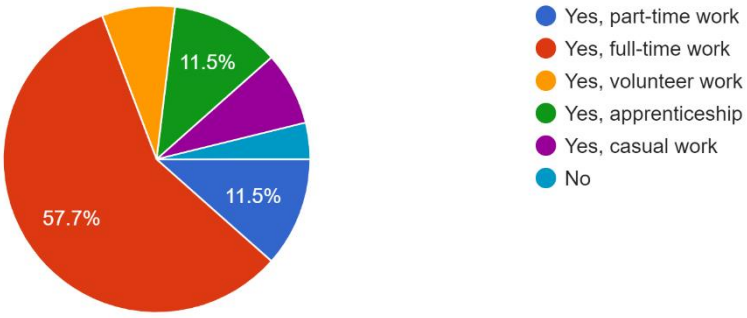
4. Imagine you were given the opportunity to participate in some form of educational or training courses, what sort of courses would you prefer. (Choose all that apply)

26 responses



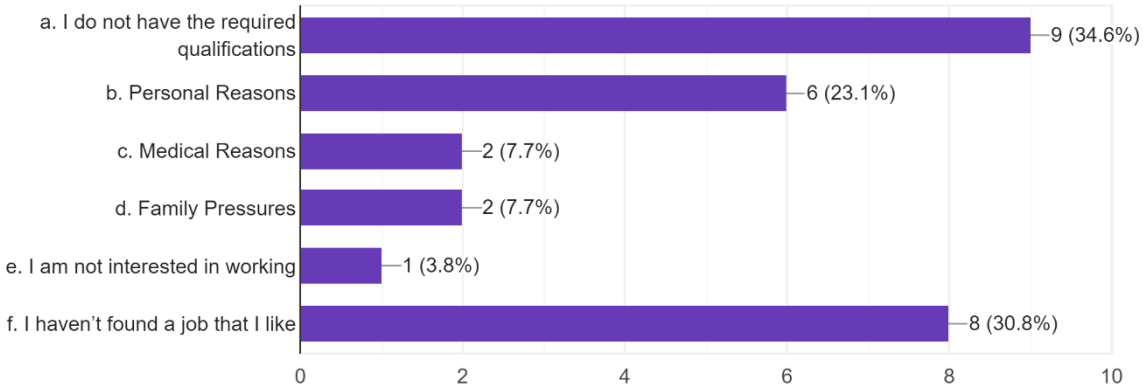
1. Do you have any work experience?

26 responses



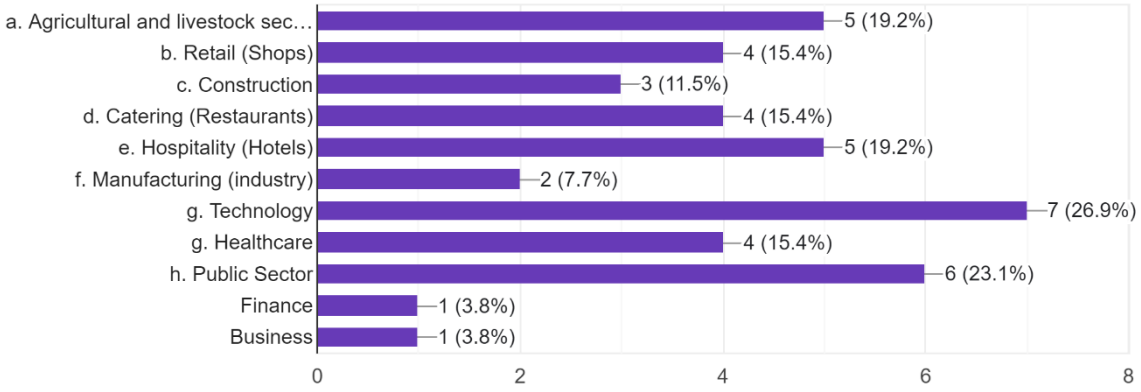
2. Why are you currently unemployed? (Choose all that apply)

26 responses



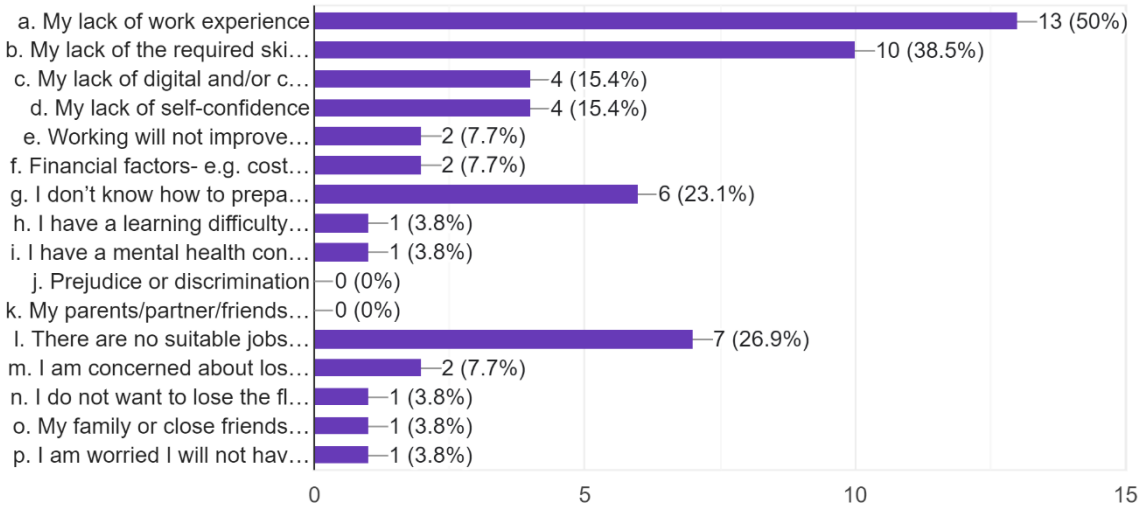
3. Which sectors interest you the most? (Choose all that apply)

26 responses



1. Do you agree with the following being barriers or obstacles that prevent you from getting into work, education or training?

26 responses



What is hindering you from seeking educational, training, or job opportunities? (forgetabout all the previous questions you have answered)

family obligations
Financial reasons
Lack of funding
Time and money
Perhaps my lack of experience
I want to focus on myself this period of time

When I finished the secondary education, I had to work due to financial issues and afterthat I was not able to work because I had to grow up my child till he will be able to go to kindegarden.
I cannot find a job with a satisfied salary due to my qualifications. So, I would like to improve them joining to further educational programmes.

What would you like to see implemented by the Government/local authorities to encourage you to take further training/ schooling and/or seek employment?

Finance help and opportunities
Social training
Free lessons
More opportunities
Further promotion of these programs
Provide initiatives like funding for the employment of unexperienced or provide paid training
Financial support so that I can concentrate on my studies
More flexible training programmes. More chances for internships. More govermental projects that enhance employability
bigger variety in job opportunities
greater support in training courses
flexibility in work hours

2.4. **Cyprus** (STANDO LTD)

Methodology

STANDO uses questionnaires to conduct field research and create a standard Google form. STANDO distributed the forms to their network in this manner. We have 35 replies for the national report.

The reader can find the findings of the questionnaire regarding the national profiling of NEETs in the subsequent national report.

1. Date of birth?

More Details

35
Responses

Latest Responses
"1994-12-28"
"1998-09-22"
"2001-10-12"

2. Gender?

More Details Insights

Male	24
Female	11

3. Country of residence?

More Details

35
Responses

Latest Responses
"Cyprus"
"Cyprus"
"Cyprus"

4. Postal code of your residence?

More Details Insights

35
Responses

Latest Responses
"2456"
"2458"
"2410"

5. What is your Highest Level of Education? (Choose one)

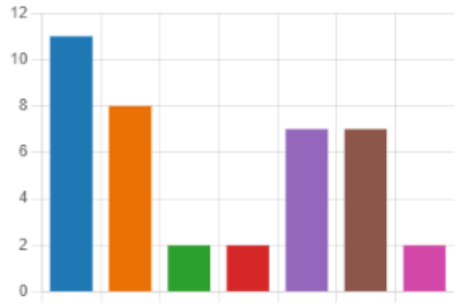
More Details

Primary school (until the age of ...	0
Secondary school (until the age ...	29
University degree	6
Other	0

6. Why did you stop your Education or Training? (Choose **all** that apply)

More Details

Financial Reasons	11
Personal Reasons	8
Medical Reasons	2
Family Pressures	2
Time	7
I wasn't interested in Education	7
Other	2



7. Do you currently have any plans to engage in any educational or training courses?

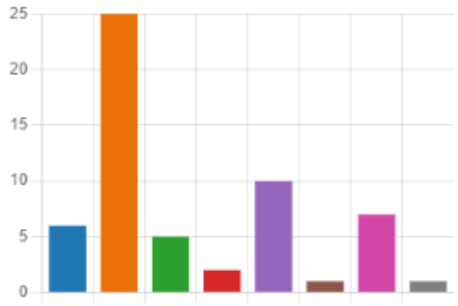
More Details

Yes	16
No	19

8. Imagine you were given the opportunity to participate in some form of educational or training courses, what sort of courses would you prefer. (Choose **all** that apply)

More Details

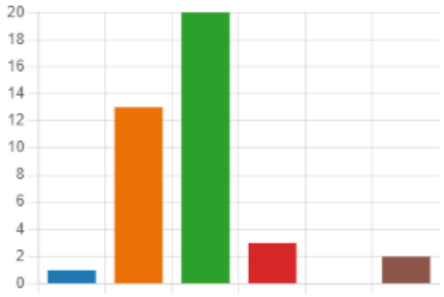
Classroom based	6
Online	25
Part-time	5
Full-time	2
Evening classes	10
Day classes	1
One-on-one	7
Other	1



9. Do you have any work experience? If yes, please specify. (Choose **all** that apply)

More Details

No	1
Part-time work	13
Full-time work	20
Volunteer work	3
Apprenticeship	0
Casual work	2



10. If you have ever had any work experience, how would you describe it? (Choose **all** that apply)

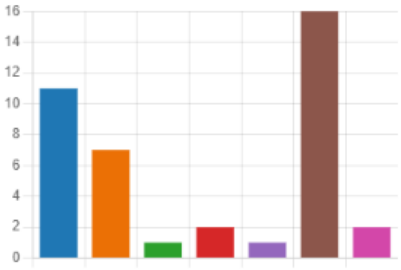
More Details

Great, I was treated fairly and re...	3
It was ok	23
I didn't like the work I was doing	7
I wasn't treated fairly	2
I hated it	0

11. Why are you currently unemployed? (Choose **all** that apply)

More Details

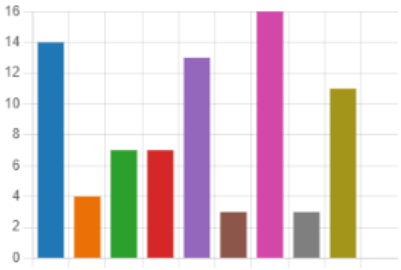
I do not have the required quali...	11
Personal Reasons	7
Medical Reasons	1
Family Pressures	2
I am not interested in working	1
I haven't found a job that I like	16
Other	2



12. Which sectors interest you the most? (Choose **all** that apply)

More Details

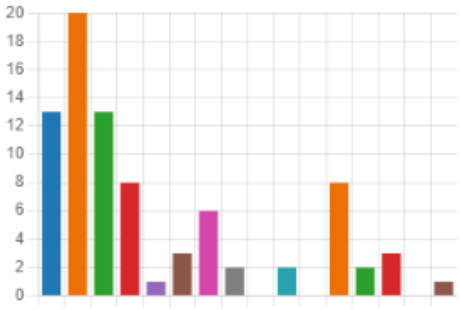
Agricultural and livestock sector	14
Retail (Shops)	4
Construction	7
Catering (Restaurants)	7
Hospitality (Hotels)	13
Manufacturing (industry)	3
Technology	16
Healthcare	3
Public Sector	11
Other	0



13. Do you agree with the following being barriers or obstacles that prevent you from getting into work, education or training? (Choose **all** that apply)

More Details

My lack of work experience	13
My lack of the required skills an...	20
My lack of digital and/or compu...	13
My lack of self-confidence	8
Working will not improve my fin...	1
Financial factors- e.g. cost of tra...	3
I don't know how to prepare for...	6
I have a learning difficulty or dis...	2
I have a mental health condition	0
Prejudice or discrimination	2
My parents/partner/friends do n...	0
There are no suitable jobs for m...	8
I am concerned about losing th...	2
I do not want to lose the flexibili...	3
My family or close friends are n...	0
I am worried I will not have eno...	1



14. What is hindering you from seeking educational, training, or job opportunities? (forget about all the previous questions you have answered)

More Details Insights

35
Responses

Latest Responses
"Time availability"
"It is too late for my age to attend a full-time education at the moment"
"Lack of qualification"

14. What is hindering you from seeking educational, training, or job opportunities? (forget about all the previous questions you have answered)

Lack of money
I am not good at learning
No workshops that interest me for knowledge and skills that I want to develop

Nothing different from the above
Lack of experience
Financial reasons
Not having a higher education degree
Insufficient financial support
I have not been able to find a job in a sector which do not require much skill
Inadequate time available to focus
Job availability
Not having a university degree
Education background
Not sure what I want to do in life
Lack of opportunities
I could not find the right job for me and right education field as well. Also I have a lack of confidence
Lack of passion towards education
I do not possess a higher degree
Reasonable salary
Time consuming
Medical and financial obstacles
Financial and lack of qualifications
There is no point in sustaining a further education
Financial aspects
Time consuming
Sufficient time
Educational background
Financial barrier
Inadequate time

Lack of relevant qualification
Lost focus in further education
Lack of qualification
It is too late for my age to attend a full-time education at the moment
Time availability

15. What would you like to see implemented by the Government/local authorities to encourage you to take further training/ schooling and/or seek employment?

Opportunities to VET centres to offer a variety of trainings
Better organised seminars and workshops
Seminars of workshop that give certification
More opportunities for people that already have families and want to proceed with education
Aid in job research and consulting
Employment fair event to take place
Traineeship opportunities for youngsters who lack an university degree
Training programs to attract youngster who has financial difficulties
Create a union for youngsters where they can all attend and find a best possible job that matching up with their skills
A platform where unemployed young people can get in touch with firms directly such as a fair
Providing free courses
A better funding and payment plan in return for attending a university
Provide me free opportunities to learn different stuff and see what fits me better
Variety of choices
Reduce working hours and increase evening classes
Traineeship leading to a permanent professional career

Affordable prices to attend
Not only consulting but also aid in finding a job till success
Flexibility in balancing the mix between education and work
Aid in financial support and job opportunities for people with learning difficulties
Increase the number of traineeship programs
Creating a job from service sectors or programs to get certified
Higher up the amount of employees needed for governmental job as there are many of us waiting for calls
Create a lower fee education for adults who has no time in working hours to focus on education
Technological traineeship programs attached with possible direct job opportunity
Job allocation guarantee
Certified courses from organisations that end up with potential employment
Funding programs with an affordable payback plan
Employment programs from different sector where potential employability at the end happens
A special program for whom cannot afford education
Online courses that lead to an employment
Create a program for young people who are either not interested/able to have further education or unemployed
Develop an online education system for whom cannot afford it with a student loan program
Online programs with accreditation with negotiated organisations

Conclusion

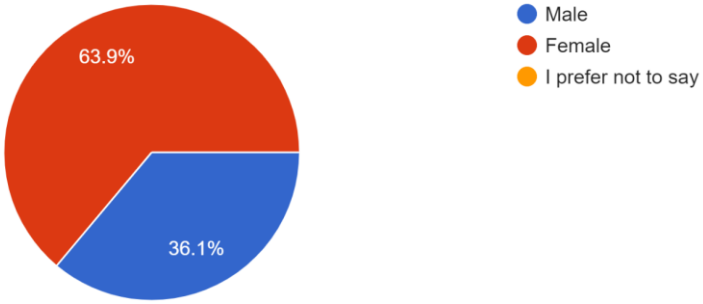
The total contribution number to the project activity is 35 people and we have collected their responses through online. The participants were mainly male (24) and the number

of female participants were eleven. They are residing all around the Cyprus depending on their postal area codes. Majority of NEETs are having the secondary school as their highest level of education (29 participants) and only 6 people have managed to graduate from university. The main reason for stopping either education or training reason seemed to be mainly because of financial reasons (11 participants). However, personal reasons, time and lack of their interest in education are not separated by them with a significant value. NEETs do not clearly identify that they no longer have interest in any educational or training courses as the 16 of them has still interest in while 19 of participants stated that they do not. Respectively, even if they are giving the opportunity to participate in any form of educational or training courses, majority of them (25) would like to prefer an online education or evening classes (10). 20 participants stated that they have had full-time work experience and 13 have had part-time work experience. They have clarified that they have found the experience was quite okay. When it comes to present a reasoning for their unemployment, overall conception was either they have not been able to find the job which they have liked (16) or they do not possess the required qualification for the job requirements (11). Within the giving nine sectors options, four of them outstands which are the technology (16), agricultural and livestock (14), hospitality (13) and the public sector (11). As for what could have been a barrier for them to find a job, they have identified their lack of required skills and qualifications the most (20). Following up by their lack of work experience and digital skills equally (13). Question number 14 is an open-ended question as for them to express their feeling about what can be the factor to hinder them for further education, training or job opportunities. Overall responses states that they have mainly identify financial, time and lack of educational background aspects as their barriers. Last but not least, participants demanded training programs which will lead them into an employment from their government mostly to encourage them to further participate in education or training and funding aid from local authorities to enable themselves to afford the prices of education and/or training.

2.5. **Bulgaria** (Balkan Bridge EOOD)

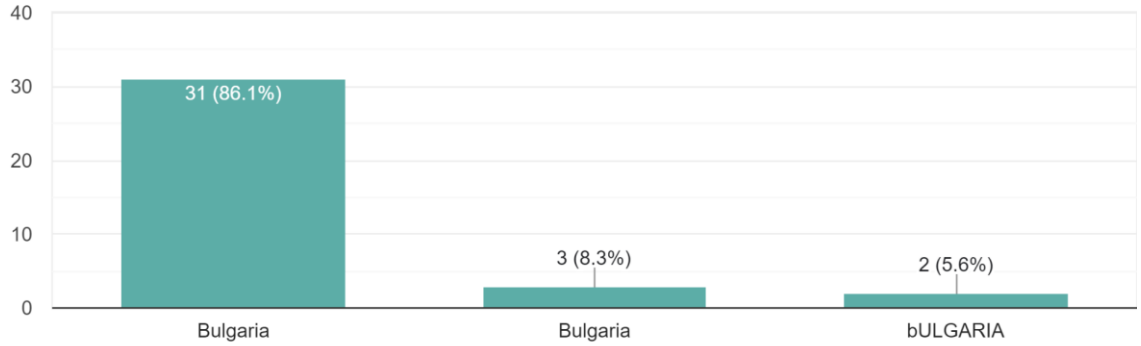
Gender

36 responses



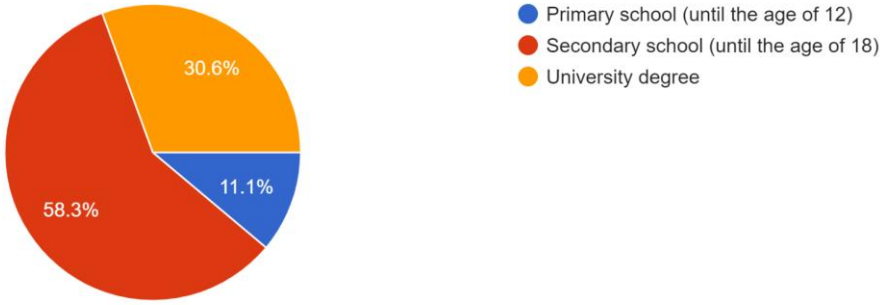
Country of residence

36 responses



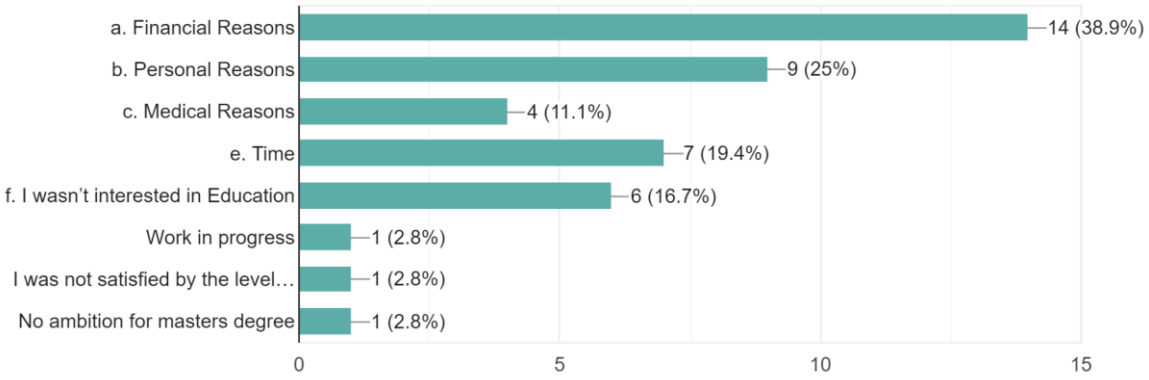
What is your Highest Level of Education? (Choose one)

36 responses



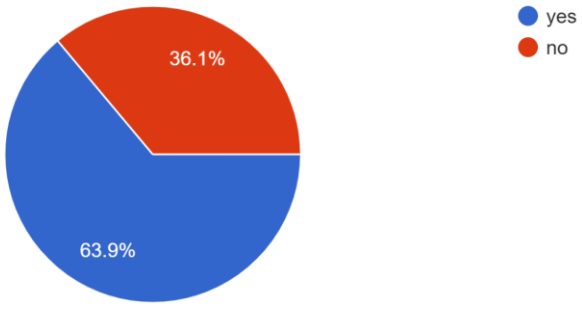
Why did you stop your Education or Training? (Choose all that apply)

36 responses



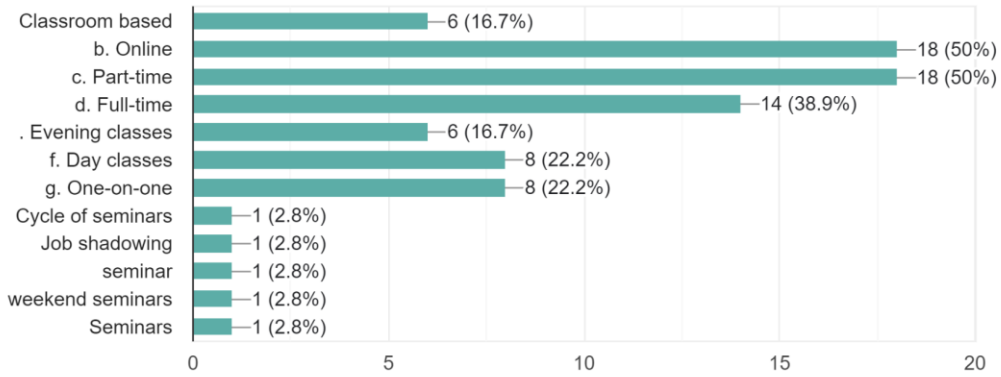
Do you currently have any plans to engage in any educational or training courses?

36 responses



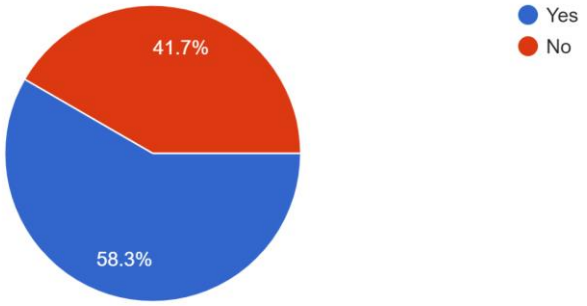
Imagine you were given the opportunity to participate in some form of educational or training courses, what sort of courses would you prefer. (Choose all that apply)

36 responses



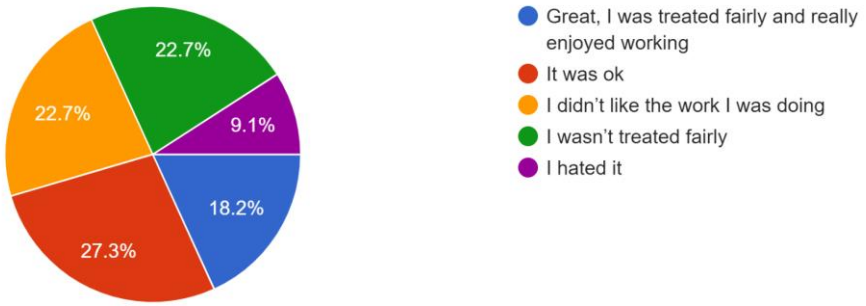
. Do you have any work experience?

36 responses



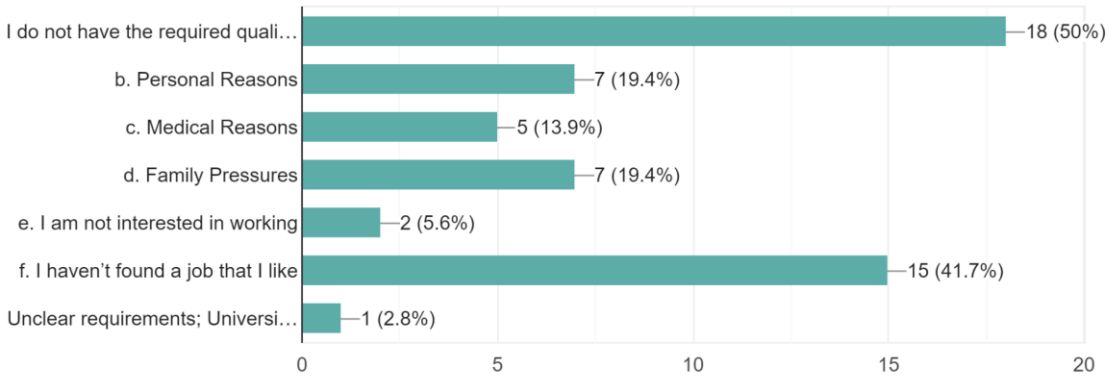
If you have ever had any work experience, how would you describe it? (Choose all that apply)

22 responses



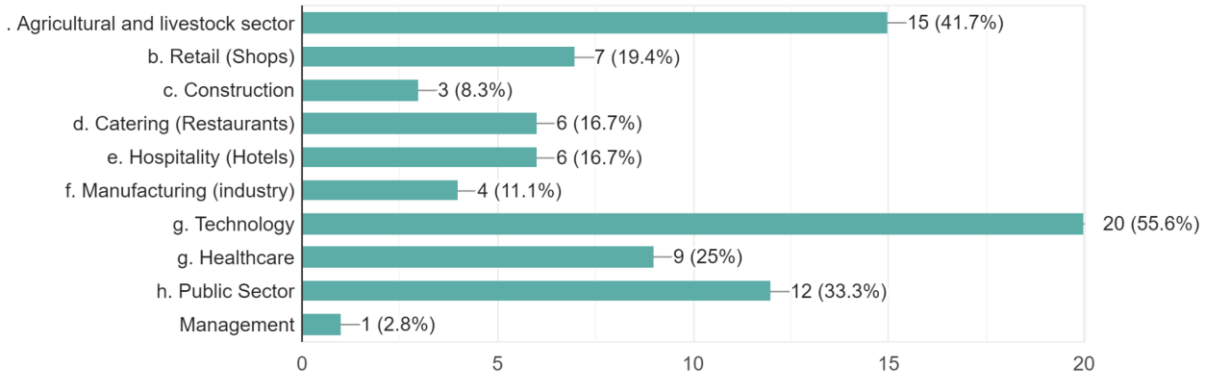
Why are you currently unemployed? (Choose all that apply)

36 responses



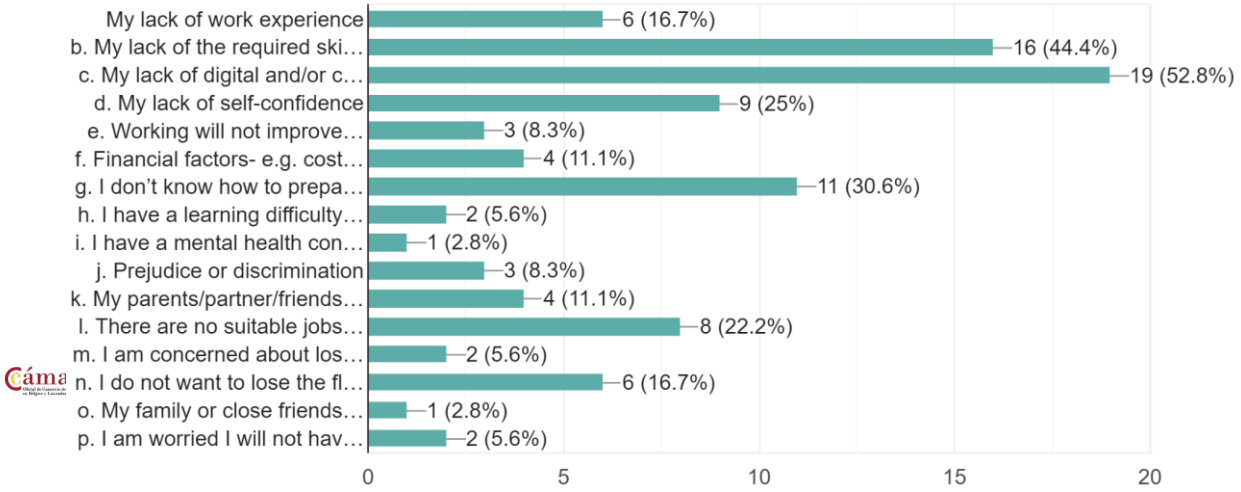
Which sectors interest you the most? (Choose all that apply)

36 responses



Do you agree with the following being barriers or obstacles that prevent you from getting into work, education or training?

36 responses



What is hindering you from seeking educational, training, or job opportunities?

(36 responses)

- lack of opportunities
- N/A
- I dont want to study but for job i am not certified enough
- Not good payment
- I want to spend my time and efforts for something that is for me
- Not being qualified enough for the nowadays requirements
- I dont think the traditional education is helpful for the labour market and Im now looking for good perspectives in the private courses
- I don't feel like hindered, but these are the obstacles at the moment.
- Mostly lack of self-confidence.
- I can't find proper financial conditions that I'm seeking.
- Not having the required qualifications
- Cost of traveling
- I'm anxious that I'm not qualified enough
- I have not founded appropriate courses
- Lack of financial resources and specific qualifications.
- My family duties
- I haven't found any interesting offers for working in the areas that I would choose.

- My ethnicity
- The lack of many job oppurtunities in the city that i live and my lack of education.
- no working positions
- I dont know foreign languages and dont have digital skills
- I cannot afford to travel constanly to workplace
- Lack of job postions for distant working
- Education is nearly in no way connected to job requirements; It lacks recognition as needed experience for a specific job, where people with no education and a little experience are more preffered by the employer, just because they know what the state of education is - namely not connected with the specific requirements of the business.
- Lack of good job oppurtinities in my city for the qualifications I have from my edcuation.
- I haven't found a job I like with good salary and flexible work time.
- The mismatch with the real demands of the modern labour market
- Tıme and money
- Accessibility
- People not reacting well when finding out about my mental condition.
- I want to change the field of work but I am worried I am not prepared well enough.
- Lack of more flexible options for education in the fields I'm interested in.
- no opportunities

- Lack of qualifications

What would you like to see implemented by The Government/local authorities to encourage you to take further training/ schooling and/or seek employment?

(36 responses)

- N/A
- Better labour market conditions
- n/a
- Flexible educational system that you can choose your profession
- More practical educational system that synchornize with the modern trends
- Financial conditions, friendly communication, chance of growth in possible company.
- Free education for a second master's degree
- Better ratio in employer's work requirements and financial conditions.
- more additional courses
- Opportunities for one on one classes so people can gain experience
- More opportunities for self-starting
- More programmes for internship positions for gaining specific work knowledge and experience.
- Additional money for young mothers
- More innovative job positions that will make the job more interesting.
- More programmes for roma minority

- I would like for there to be more work options in smaller cities that offer prior training for people with no education or specific skills.
- more working positions
- more language classes and training periods for jobs
- good quality of education and good payment for working
- Create more job postions in rural areas
- A simple procedure where I can recognize my education as work experience and where it will be a valid one indeed. In addition, Bulgaria does not recognize the so called "civil contracts" or temporary employment as work experience and I cannot include the work and time I've invested in different organizations or businesses into my retirement plan. Allowing this type of work and experience recognition will boost my motivation and will bring a purpose into my doings.
- More job offers for qualified people that are digitalized and more contemporary developped.
- Better occupation oppurtunities with flexible work hours that also offer trainings to develop my skills.
- Better employability potentials and preliminary work training
- The attitude of people and the evaluation of a person.
- Equal opportunities
- Generally implementing more national programmes about the inclusion of people with mental health conditions in variety of job oppurtunities.
- Better job and payment opportunities for people with medical conditions that hinder their movement and flexibility.

- Improve the educational system level
- More options for online courses or trainings at the workplace to gain experience while being able to work at the same time.
- more language and digital courses
- More flexible educational prgrammes

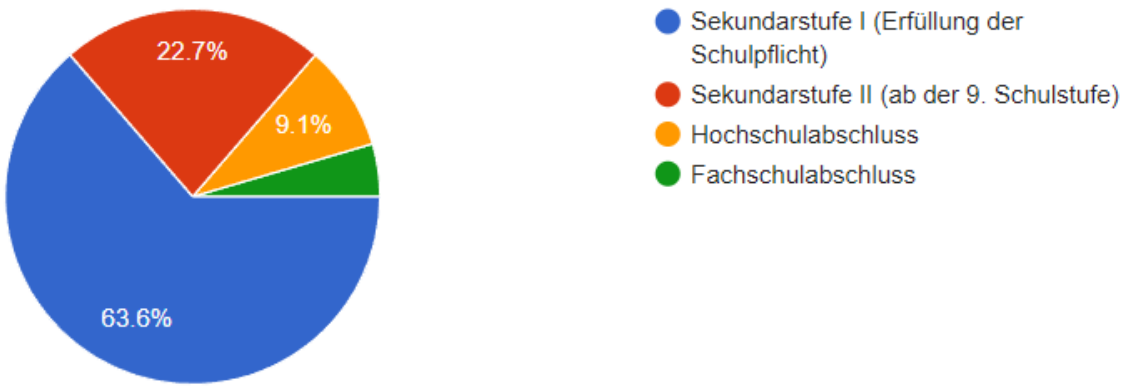
2.6. **Austria** (LEVILO)

To identify the situation and needs of NEETs an online questionnaire was sent out via e-mail during the month of May in 2022 to organizations that are working with NEETs with the request to send it to NEETs. For the questionnaire, Google Forms was used. This approach was chosen since NEETs are a target group that is really hard to reach because of their very nature. However, this very approach made it harder to only reach the target group because we had no control over who answers the questionnaire, so some male NEETs answered as well as some NEETs from an urban area. However, most respondents were from rural areas in urbanized regions according to their zip code. Since Austria is a quite small country with a low number of NEETs, finding respondents was a challenging task but the agreed upon number was reached in July, 2022.

The first few questions are about the demographics of the NEETs. This is to ensure that the respondents are part of our target group.

NEETs and education

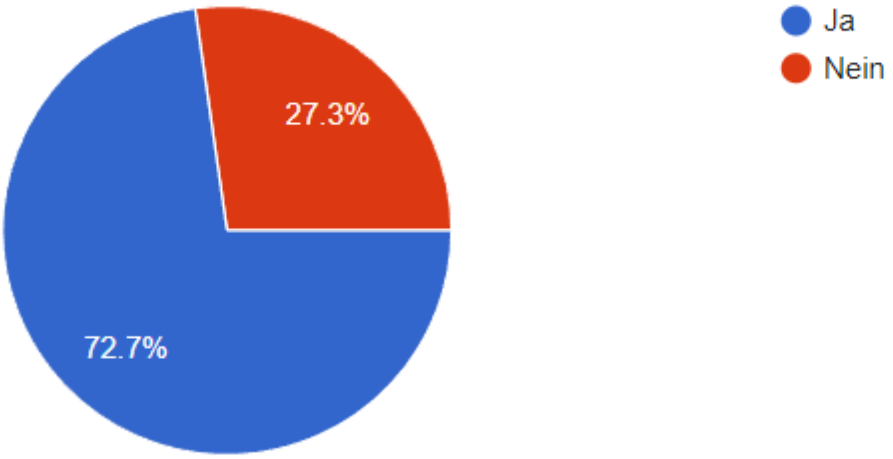
In Austria, school (or some sort of education) is obligatory until the 8th level. More than two thirds of the respondents finished their obligatory education and nothing more. 25,7% finished secondary education. A few respondents even finished university. The two main reasons for the NEETs to end their education were personal reasons (42,9%) and the fact that they weren't interested in further education (45,7%).



Plans for the future

Three thirds of the respondents claimed to have plans for future education. The participants who have educational plans then were asked to elaborate on them. All answers fall into the VET-category, with the NEETs mostly wanting to become mechanics, technicians, retail merchants or working in the social fields. An interesting observation is that no one answered something related to agriculture. When reaching out to organizations to contact NEETs for the questionnaire, I was told by an expert that young people, especially with migration background, do not want to work in agriculture. But since DG-VET is focusing on green and digital skills in agriculture and the questioned NEETs showed interest in mechanics and technology, the output provided by DG-VET

might be able to awaken interest in that field.



Even though some male NEETs answered the questionnaire as well and the data is anonymous, one can still tell which plans the female NEETs have because the German language differs between the genders. So, a not very surprising result is that male NEETs mostly want to become car mechanics or technicians while females want to work in retail, become bakers or work in the social fields. So, an important part of the work in DG-VET will be to awaken the interest of females in the technological and green sectors.

When asked about their preferred type of course or teaching method, respondents were open to everything. Notably, 40% equally preferred part-time education and lessons in a classroom (note that the respondents could choose multiple answers). Also important for the respondents are online courses (37,1%) as well as courses in the evening (31,4%). The least favorite type of course is one-on-one teaching with 11,4%. Apart from the wish for lessons in the classroom, the e-learning platform by DG-VET seems to cater to the wishes of the NEETs because they can learn via online courses and do not have to do it full-time, as well as in the evening.

Experience and interests

82,9% of the young NEETs have some sort of work experience with an overwhelming 82,8% having gained it in some sort of apprenticeship. About one fourth of the respondents have worked full-time before.

Surprisingly, most of the NEETs had positive experiences when working. 45,2% answered that they were treated fairly, and they had fun at work. 48,4% say that it was alright. 19,4% didn't like the work they had to do, 12,9% weren't treated fairly, and 12,9% hated their working experience. So, it seems that former bad job experiences are not necessarily to blame for their NEET status.

The NEETs were asked to identify the reasons why they are without a job. Three main reasons were named. 40% claim to be unemployed because of personal reasons. Another 40% said that they have not found a job that they like and 17,1% said that they are missing the necessary qualifications. The fact that not having found a job that they like is the primary reason named might be a trend within younger generations. A study in 34 countries, Austria being among them, showed that 40% of people would prefer to be unemployed than to be unhappy within their job[1]. However, only one of the respondents said that they are not interested in a job. One girl even claimed to have not gotten a job because of her headscarf (note that Islam is not the dominant religion in Austria).

When asked which fields are most interesting to the NEETs, 40% of the respondents said that they want to work in retail. 28,6% want to work in the field of technology and 22,9% want to work in public health. 20% want to work in agriculture and livestock. Again, with a focus on the digital and technological aspect of agriculture, DG-VET might be able to widen the interest in the field of agriculture. An interesting observation is that no one

[1] https://www.derstandard.de/story/2000134786230/viele-junge-menschen-wollen-lieber-arbeitslos-als-ungluecklich-im-job

wants to work in gastronomy and only one person wants to work in the hospitality industry – fields where work force is needed in Austria[2].

The NEETs were asked if they agreed with reasons provided in the questionnaire to why they are not pursuing a job or further education. The only two reasons where more respondents agreed with more than they disagreed with was lack of self-confidence and not wanting to lose their flexibility. The most disagreement was with the reasons "I have a mental health condition", "My parents/partner/friends do not want me to work" and "I am concerned about losing the security of social benefits". The caretaking of children was also not a reason that the respondents agreed with. However, that might be explained by the young age of the respondents.

The biggest reason for the NEETs not pursuing a career or education is their lack of self-confidence, followed by not knowing how to prepare for their education or work, financial factors and not wanting to lose flexibility. Other reasons were their lack of qualifications, and also their lack of computer and digital skills. So, DG-VET can help reducing the major reasons of NEETs not pursuing a job or education, especially with teaching digital skills. Maybe completing the e-courses will give the NEETs more self-confidence as well. This should be something kept in mind when building the platform and writing the learning materials. The wish for flexibility is also in line with the online concept of the DG-VET project.

When the respondents were asked to write what hinders them to pursue a (educational) career, the answers were slightly different. Some NEETs responded that they simply don't know or don't know what they want. Others wanted a VET-place that is hard to find or where there's too much competition. The reason of being too nervous was named as well. Another group of people also didn't feel enough support from their environment or society.

[2] https://kurier.at/wirtschaft/ak-sieht-arbeitskraeftemangel-in-gastro-und-hotellerie-hausgemacht/401997687

When asked what politics or local authorities could do to encourage them to pursue jobs or an education, the answers provided by NEETs can be put in three categories. One group wishes for more support – with more education, more financial aid, as well during their education, but also more chances to participate and openness. The other group answered that they do not know what they could do. Another group wishes to see an alternative approach to the working world, which can be observed throughout the youth. They want more pay, less working hours and more flexible working hours. One answer stood out: “don't paint everything so dark...when I think of working, all I think of are bad-tempered people who are paid too little”.

Conclusion

Judging by the needs of the NEETs that were shown in this questionnaire, DG-VET could provide important added value for NEETs. While they are not as interested in agriculture, maybe showing the digital and technological side of agriculture can lead more NEETs into that field, since this is where their interests are. For female NEETs that are not as interested in technology, the green skills could be of interest. With online courses that can be taken individually, DG-VET caters to the wishes of the NEETs since they preferred online classes as well as part-time education.

It seems that the most important thing is to provide the young NEETs with good experiences to build up their self-confidence as well as giving them a more positive picture of work. By providing them with important skills in a gamified manner, DG-VET might help them to grow their self-confidence while also having fun.

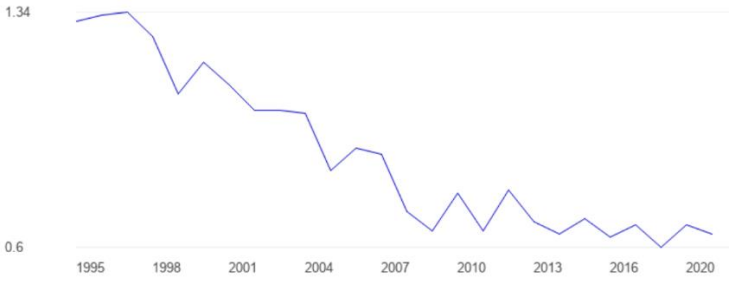
Unit 3. Desk research on national level

3.1. **Belgium**

The aim of this project activity is to profile within the local rural economy the DaGE sectors with greatest potential for development and economic growth, and, therefore, with the greatest potential to provide new job opportunities/absorb trainees. Additionally, it aims to identify the needs of the target sector in terms of specific skills for targeted training courses.

More specifically, this project activity attempts to answer the following research questions:

The following questions that will guide the partners:



Graphic 6 (*Source: The Global Economy)*[10]

1. What part of the overall gross domestic product (GDP) of your country is distributed by the agricultural sector?

Belgium

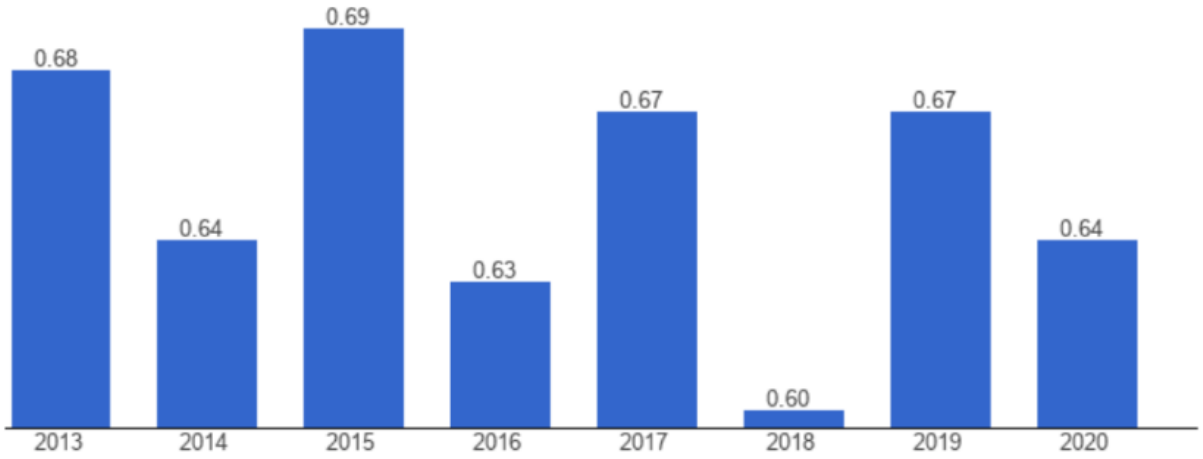
1. KEY DATA

Macroeconomics				
Population				
Total population (number of persons), of which:	**2020**	**11 522 440**	**2.6%**	**of EU27_2020**
in predominantly rural regions	2020	8.5%	20.8%	in EU27_2020
in intermediate regions	2020	38.1%	38.9%	in EU27_2020
in predominantly urban regions	2020	53.4%	40.3%	in EU27_2020
Population in Predominantly rural regions (Persons)	**2020**	**979 680**	**1.1%**	**of EU27_2020**
GDP (current basic prices)				
Total (million EUR)	2020	451 177	3.4%	of EU27_2020
GDP per capita (EUR/person)	2020	38 438	29 355	in EU27_2020
GDP per capita (PPS/person)	2020	34 800	29 700	in EU27_2020
Real GDP growth rate (% change over previous year)	2020	-8.4%	-7.4%	in EU27_2020
Gross value added				
Agriculture, forestry and fishing (% of total GVA)	2020	0.8%	1.9%	in EU27_2020

(Source: European Commission)[8]

The importance of agriculture in the economy of Belgium and other countries is measured as the value added of the agricultural sector as percent of GDP. Agriculture includes forestry, hunting, and fishing, as well as the cultivation of crops and livestock production (Source: The Global Economy)10. In Belgium, the agricultural sector represents 0.8% of the GDP (almost the 1%) in 2020. But this number has been decreasing for the last few years.

As we can see in the Graphic 6, since 1995 the decrease of the percentage is getting bigger. The urbanisation of the population is the key factor of the loss of almost half of the economic loss of this sector. Nevertheless, in Graphic 7, it can be appreciated that in the last few years the percentage of the agricultural sector of the overall GDP, it's getting constant (Around 0.6% and 0.69%).



Graphic 7 (*Source: The Global Economy)*[10]

2. Which percentage of? Which are the most common contracts used in this sector?

Belgium is a member of the:

• World Trade Organization (WTO).

• Food and Agriculture Organization of the United Nations (FAO).

• International Plant Protection Convention (IPPC).

• Office International des Epizooties (OIE)/World Animal Health Organisation.

(Source: Practical law)9

In Belgium, the three regions (Flanders, Wallonia and Brussels) have jurisdiction to regulate agricultural policy. But the region of Brussels is not focused on the agricultural sector. The Flemish Government has identified numerous policy goals, giving central

importance to a sustainable income model and a fair income for farmers. Innovation and entrepreneurship are also deemed essential. The Government of the Walloon Region focuses its agricultural policy on the following strategic areas:

• Supporting farmers in the development and transformation of their activities.

• Promoting short circuits between producers and consumers by giving preference to local production and implementing a Walloon product label.

• Encouraging practices that reduce emissions of air pollutants and greenhouse gasses and promote soil protection, to bring agriculture into the circular economy.

The Belgian regions are part of the Common Agricultural Policy (CAP) and have

acknowledged the continued importance of the EU context. The Flemish and the Walloon regions deal with applications and support within the framework of the CAP independently. Farmers can file applications online (Source: Practical law)9.

3. How well the innovative tools in terms of digitalisation and green practices

are integrated within the agricultural sector?

What is meant by digitalisation of agriculture? In a cowshed, for example, it could be robots that milk the cows. In the field, it could be drones or satellite images that can judge the condition of your wheat or maize by its color. Then, it is the tractor's GPS that will precisely identify the areas where fertilizer needs to be applied or that will specify whether to sow in such and such a place. (Source: RTBF)12

In Belgium, one farmer out of five works with robots, GPS tractors and connected weather stations, according to a study by the CBC bank. If you include office work, two out of three farmers use the internet on a daily basis. (Source: RTBF)12 But as everyone knows, technologies are increasingly accessible and their use is tending to intensify: like any other economic sector, agriculture is gradually becoming digital. Despite this, the lack of basic and continuous training is one of the obstacles that has been identified for

a harmonious digital transformation of the sector. (Source: Sillon Belge)11 In addition, the interest of AI is also addressed in order to analyse and interpret the increasing amount of data. There are courses offered that are resolutely future-oriented and aim to accompany the agroecological transition of the agricultural sector as closely as possible.

4. What are the main needs and challenges that the agricultural sector faces?

Farming is a complex, unpredictable and individual business. There are increasing pressures from climate change, soil erosion and biodiversity loss and from consumers' changing tastes in food and concerns about how it is produced. Not only that, but also they have to invest in farm productivity, adopt and learn new technologies, stay resilient against global economic factors and; especially, inspire young people to stay in rural areas and become future farmers (Source: Syngenta)13. In most European countries, Belgium included, financing of agriculture is subject to higher interest rates and unfavorable conditions, when compared to other sectors of the economy. In addition, no matter the performance of the sector, the reports found that there was insufficient flexibility in lending and repayment conditions – something that is particularly needed in agriculture. (Source: European Commission)10

While large farms seem to have a rather easy access to finance, young farmers and new entrants are amongst the most affected groups, and often lack adequate financing possibilities. Small farms face significant difficulties in terms of accessing development investments, due to a lack of assets to use as guarantees (collateral) and of necessary skills on how to prepare business plans. (Source: European Commission)10

5. Is there any educational or training course/material available with DaGE skills for people willing to access the sector?

The European Commission gave 6 million euros to Belgium ir oder to help th country to step into the transition towards the Digital and Green Economy. Not only the European Commission, but also the European Investment Bank's(EIB) latest survey said that a long term investment is needed to support the green and digital transitions in Belgium's economy (Source: EIB)14

The plan reinforces economic and social resilience with measures fostering effective and inclusive education systems, skills acquisition in line with current and future labour market needs, including the green and digital transition, and the participation of vulnerable groups (low-skilled, women, people with a migrant background, people with disabilities) to the labour market. (Source: European Commission)6

The plan includes measures to make public spending more efficient and sustainable. Spending reviews will contribute to improve the quality and efficiency of Belgium's public spending, allowing to reprioritise it towards more growth and environmentally friendly expenditures. A reform of the pension regime is expected to improve the sustainability and adequacy of pensions.

3.2. **Spain**

Data and statistics

Spain's digitalization performance is above the EU average. The DESI index (Digital Economy and Society Index) tracks the progress made by EU Member States in digital competitiveness.It should also be noted that the data in the report correspond mainly to the first half of 2020, so the effect of the pandemic is only partially reflected. Its consequences will become clearer in the next edition.

In this context, Spain is positioned in 9th position, improving two positions compared to the previous year. Spain remains ahead of the European average in all 4 categories

analyzed, standing out especially in the dimensions of digital public services and connectivity

The Secretary General of Agriculture and Food, Fernando Miranda, has stressed the support of the Ministry of Agriculture, Fisheries and Food to facilitate the digitization process of small and medium-sized agri-food companies to help them successfully face the challenges of the future.

One of these actions is the creation of the Observatory of digitization in the agri-food sector, under the collaboration agreement between the Ministry and Cajamar, endowed with 1 million euros, to carry out a monitoring of the degree of implementation of new technologies in the sector. The other action consists of the Agroinnpulso Line, with which the Ministry aims to promote innovation and digitization of SMEs in the agri-food sector throughout its value chain, by financing innovative business projects, an action endowed with 30 million euros of European funds, plus 3 million of nations

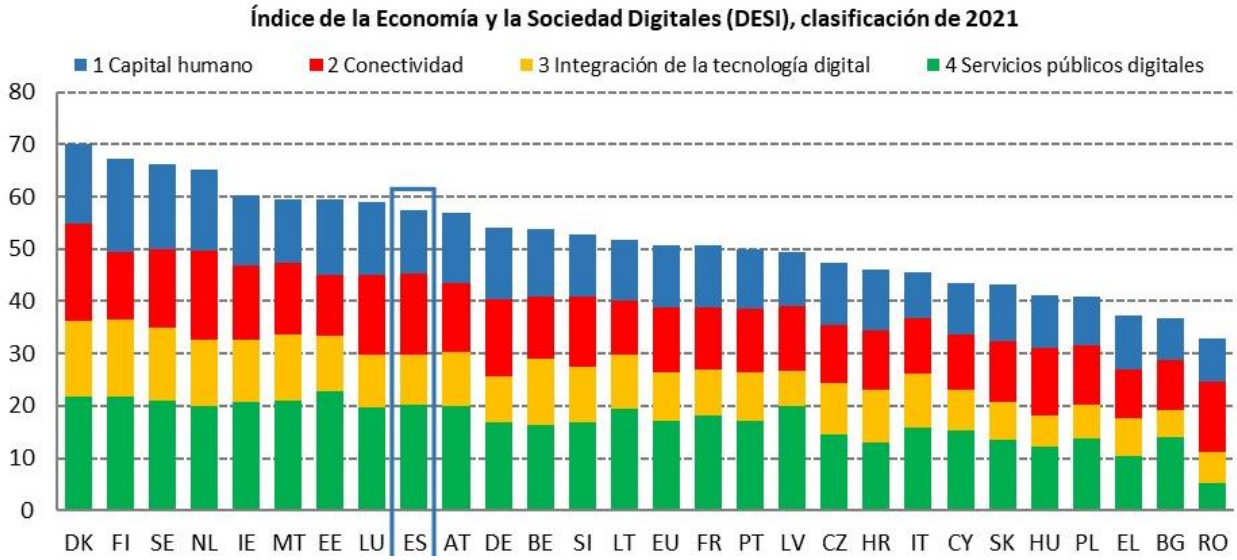


Figure 1. The position of Spain in the Digital Economy and Society

The Digitalization Strategy for the agri-food and forestry sector and the rural environment (Strategy, hereinafter) defines the strategic lines and measures necessary

to promote the digital transformation of the agri-food and forestry sectors and the rural environment, as well as the instruments foreseen for its implementation.

Its general objective is to seek the elimination or reduction of the technical, legislative, economic and training barriers that currently exist, thus contributing to the leadership of an economically, socially and environmentally sustainable agri-food sector, and to the active population of the rural environment, making it an active place to live. the active population of the rural environment, making it a more attractive, lively, dynamic and diversified diversified, generating wealth and quality employment, with special attention to young people and women. and women.

To this end, the following three strategic objectives have been established:

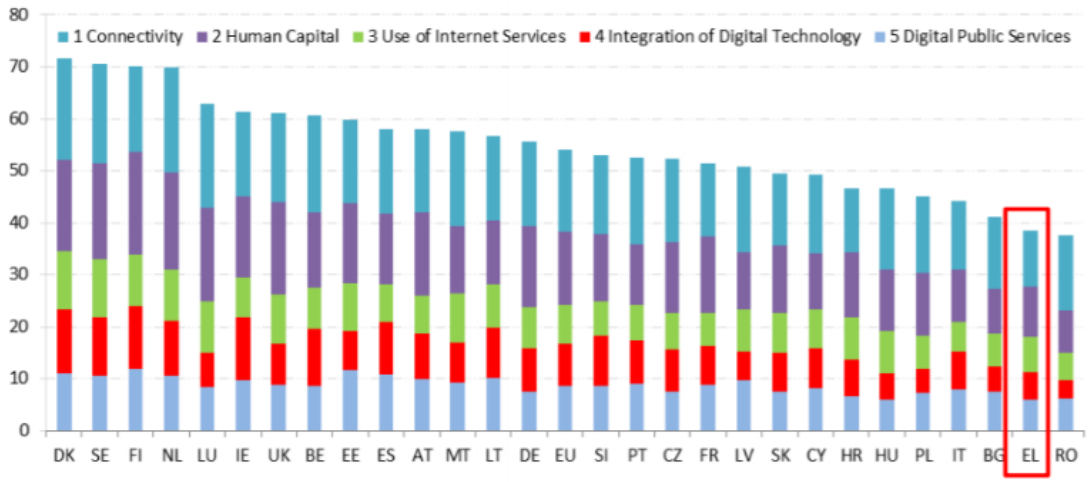
1. To reduce the digital divide, both the urban-rural divide and the divide between small and large companies, aiming to ensure connectivity for all. To this end, work is being done on connectivity, with the aim of reducing the physical digital divide, infrastructure, and training to reduce the technology adoption gap.
2. Promote the use of data as a driving force for the sector, addressing the interoperability of sector data and data openness, understanding the concept in a broad sense, so as to encourage such openness, both on the part of the Administration and in the field of research and the private sector.
3. Promote business development and new business models, bearing in mind Industry 4.0 and the opportunities for economic diversification offered by new technologies. To this end, it is essential to strengthen the digital innovation ecosystem as a key aspect for the modernization of the sector, providing advice for digital adoption in the agri-food, forestry and rural Knowledge and Innovation Systems and in the promotion of new business models, which in many cases arise from the application and adoption of technologies in certain areas.

3.3. **Greece**

Data and statistics

Greece's digitalization performance falls below the EU average. In both 2017 and 2018, Greece ranked 27th out of 28 EU Member States on the Digital Sector and Society Index (DESI), indicating a low integration of more advanced digital technology throughout the economy. The country's performance in digital public services and digital skills remains low, which could operate as a roadblock to the digital economy and society's further progress.

“The digital transformation of the agricultural sector is a one-way street in which we must work altogether: the state, the academic community, rural businesses, cooperatives, agricultural advisers and, first of all, farmers, both young and old, in order to create the country’s agricultural growth prospects towards in the post-2020 CAP,” Stelios Rallis, Secretary General for Digital Policy at the Ministry of Digital Policy.



Source: Digital Economy and Society Index 2018, Country Report Greece

Figure 1. The position of Greece in the Digital Economy and Society

Agri-food, or agricultural food production, is becoming increasingly important in Greece. Traditional food companies are inventing new goods and names based on the country's national character in order to break into new markets. Food producers have been reinventing themselves to compete outside the local market, seeking consumers from other countries in a sector that has far-reaching economic implications. Food companies are the country's major manufacturers and second-largest employers, employing one-third of the workforce. Olives and olive oil, seafood, flour-based products, honey, and processed meats, spoon sweets, preserves, and cheese are among Greece's primary food exports. Along with tourism, the food industry has been one of the few industries to weather Greece's economic storms, rising at an annual pace of 1.9 percent on average from 2009 to 2016, owing primarily to export activities.

Greece has a large pool of qualified employees from which to choose. Greeks place a great value on education and learning foreign languages, hence the country's workforce is among the best educated in the world. Efforts to maintain high educational levels were maintained during the crisis, providing potential employers with a significant number of qualified candidates from which to fill their positions. Improvements have also begun with one of the labor market's most serious issues: the mismatch between university graduates and market demands. Greeks are becoming more aware of what employers want, while businesses take steps to reduce the gap.

Greece's agriculture sector has the potential to become a key economic driver while also benefiting local communities by producing jobs. As a result, and in response to rising global demand for healthier organic foods, the country's manufacturers are redesigning and rebranding their products in an effort to penetrate into international markets. The agri-food sector, according to some estimates by Greece Investor guide, can inject up to €12.2 billion into the Greek economy each year. The agri-food sector in Greece has consistently demonstrated its strength, which, when combined with technology, reveals

the sector's boundless potential. The agri-food industry in Greece has seen significant transformations. Many young people were obliged to return to their villages to work on their families' farms due to the country's high unemployment rate, which peaked at 28 percent in 2013.

What is the advantage?

Newly minted farmers are frequently internet-savvy university graduates who are assisting in the modernization of family operations. The current projects focusing on improvements in farming, a sector associated with older workers in Greece, are indicative of this trend.

Although most of the programs are focused on the food industry, a few of them also cover agribusiness. An interesting example is the inaugural crowdhackathon #agrifood meeting that was hosted in April 2019 by the country's Ministry of Rural Development and Food. The event drew approximately 350 people together to create digital apps that may be utilized by agri-food enterprises.

3.4. Cyprus

1. What part of the overall gross domestic product (GDP) of your country is distributed by the agricultural sector?

Services account for 83.7 percent of gross value added in Cyprus, whereas industry accounts for 7.9 percent, construction accounts for 6.3 percent, and agriculture, forestry, and fishing accounts for 2.1 percent. The economy has become more diverse during the last two decades. Although tourism continues to remain among the most important industries, particularly along with its broader impact on commerce, transportation, construction, and labor, its significant contribution has now been surpassed by professional services, telecommunications, financial services, and real

estate. Overall macroeconomics and its distribution within the agricultural sector has been shown in the table below.

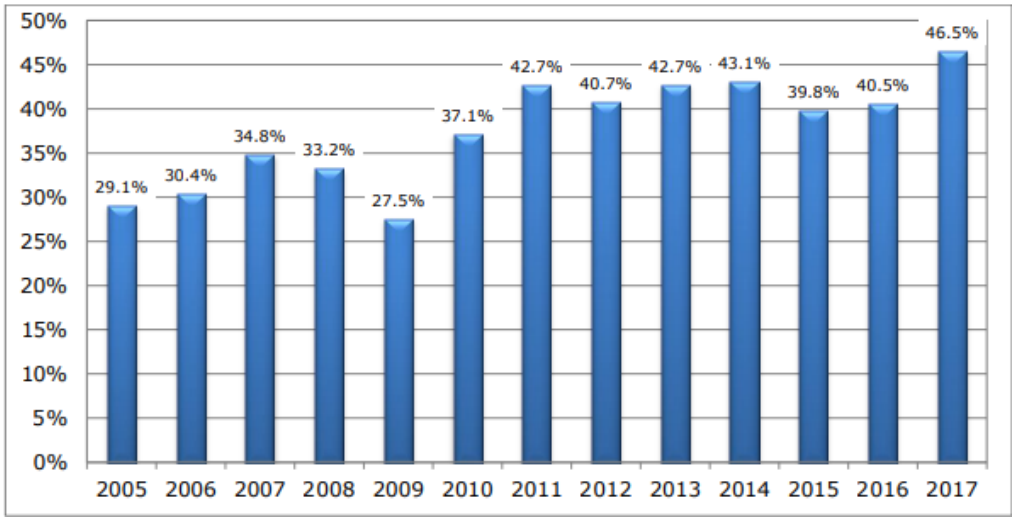
Macroeconomics				
Population				
Total population (number of persons), of which:	**2020**	**0 888 005**	**0.2%**	**of EU27_2020**
in predominantly rural regions	2020	:	20.8%	in EU27_2020
in intermediate regions	2020	100.0%	38.9%	in EU27_2020
in predominantly urban regions	2020	:	40.3%	in EU27_2020
Population in Predominantly rural regions (Persons)	**2020**	**:**	**:**	**of EU27_2020**
GDP (current basic prices)				
Total (million EUR)	2020	20 841	0.2%	of EU27_2020
GDP per capita (EUR/person)	2020	23 660	29 355	in EU27_2020
GDP per capita (PPS/person)	2020	26 800	29 700	in EU27_2020
Real GDP growth rate (% change over previous year)	2020	-6.2%	-7.4%	in EU27_2020
Gross value added				
Agriculture, forestry and fishing (% of total GVA)	2020	2.1%	1.9%	in EU27_2020
Financial aspects				
Common Agricultural Policy expenditure				
Total expenditure (million EUR), of which:	**2020**	**73**	**0.1%**	**of EU27_2020**
Direct payments (%)	2020	66.0%	69.9%	in EU27_2020
Market measures (%)	2020	8.1%	4.6%	in EU27_2020
Rural development (%)	2020	25.9%	25.5%	in EU27_2020
Economic accounts of agriculture				
Agricultural output (current basic prices)				
Agricultural output (million EUR), of which:	**2020 (e)**	**734**	**0.2%**	**of EU27_2020**
Crop output, of which:		**39.2%**	**0.1%**	**of EU27_2020**
Cereals (including seeds)		1.8%	0.0%	of EU27_2020
Industrial crops		0.1%	0.0%	of EU27_2020
Forage plants		5.4%	0.2%	of EU27_2020
Vegetables and horticultural products		10.0%	0.1%	of EU27_2020
Potatoes		4.9%	0.3%	of EU27_2020
Fruits		9.1%	0.2%	of EU27_2020
Wine		3.7%	0.1%	of EU27_2020
Olive oil		1.6%	0.3%	of EU27_2020
Animal output, of which:		**60.8%**	**0.3%**	**of EU27_2020**
Cattle		2.1%	0.1%	of EU27_2020
Pigs		10.4%	0.2%	of EU27_2020
Sheep and goats		3.3%	0.6%	of EU27_2020
Poultry		8.6%	0.3%	of EU27_2020
Milk		29.6%	0.4%	of EU27_2020
Eggs		2.2%	0.2%	of EU27_2020
Gross value added at current prices (million EUR)	2020 (e)	340	0.2%	of EU27_2020
Agricultural input (current basic prices)				
Total intermediate consumption (million EUR)	2020 (e)	420	0.2%	of EU27_2020
Agricultural income (real prices)				
Agricultral Income*(% change over previous year, 2010=100)	2020 (e)	3.9%	-1.2%	in EU27_2020

Due to the global pandemic that commenced in 2020, Cyprus has cemented its status as a resilient economy with one of the EU's strongest growth rates. Significant financial support for the EU's green and digital transitions strategy has given digitalization, modernisation, and green policies fresh impetus, while new incentives to encourage a diverse range of high-quality foreign investors continue to be launched. As terms of the EU's Recovery and Resilience Facility, the prime objective for the next several years will

be to promote digitization, liberalization, and economic greening (RFF). The new Deputy Ministry of Research, Innovation, and Digital Policy, which was founded in March 2020 and was critical in optimizing the digitalisation of the public service at the peak of the epidemic, will provide significant structural stability in this endeavor. The administration has also announced plenty of other programs aimed at boosting performance and accelerating the transition to a green economy. (Cyprusprofile, 2021). The agricultural sector has long been a high-productivity component of the country's economy. The prominence of the agricultural sector has dwindled over time as the economic situation (accession to the EU, trade liberalization) and social structures have changed. The agricultural economy has been unable to adapt to quickly changing circumstances.

2. Which percentage of? Which are the most common contracts used in this sector?

Investigations between agricultural and non-farm earnings are complex and challenging. Agricultural output, as defined by entrepreneurial income per family labor unit, is, on average, lower than the average income in the rest of the economy, as measured by average pay. Various definitions do not change this fact, which, together with higher efficiency, reveals why the agricultural industry is viewed as less appealing than other sectors and the EU continues to lose agricultural workers. Nevertheless, the income disparity between farmers and the rest of the economy is shrinking. Farmers made close to half of what other workers might earn in 2017, up from a third a decade prior. Farm income comparison to the average wage, EU-28, are stated in the figure 1 below.



(https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/key_policies/documents/cap_specific_objectives_-_brief_1_-_ensuring_viable_farm_income.pdf)

Farmers provide not only agricultural products, but also amenities such as biodiversity, climate, and landscape features. These items are not compensated by the market, despite the fact that they enrich all EU inhabitants. After 1992, the CAP's subsequent changes delivered financial assistance, first through direct payments according to production parameters (area, livestock heads), then mostly through decoupled and non-product specific support. Only a limited portion of the combined support was left to address problems unique to a given industry, production type, or agricultural practice. While the importance of direct payments in stabilizing farm income is acknowledged, there is less unanimity when it comes to how they are distributed, with the fact that 20% of farmers receive 80% of payments causing considerable controversy. In the national debate, the unequal distribution of assistance creates questions about economic efficiency and social equality that must be addressed while remaining in context.

3. How well the innovative tools in terms of digitalisation and green practices are integrated within the agricultural sector?

Cyprus has implemented a variety of projects to strengthen the agricultural sector over the previous two years, including water and waste management, precision agriculture, environmental preservation, and new wildlife conservation laws. Furthermore, the country is working on conserving and marketing high-quality traditional products around the world, which will soon be identified by a new global and official seal of authenticity to recognize items created by the local agricultural industry utilizing local raw materials. (Andreou A., 2020). A greater emphasis should be put on guaranteeing food security and agricultural product quality. The major manufactured agricultural product exported from Cyprus is halloumi, a form of cheese for which the European Commission has approved an application as a Protected Designation of Origin product (PDO) (Cyprus Ministry of Agriculture, Rural Development and Environment, 2018).

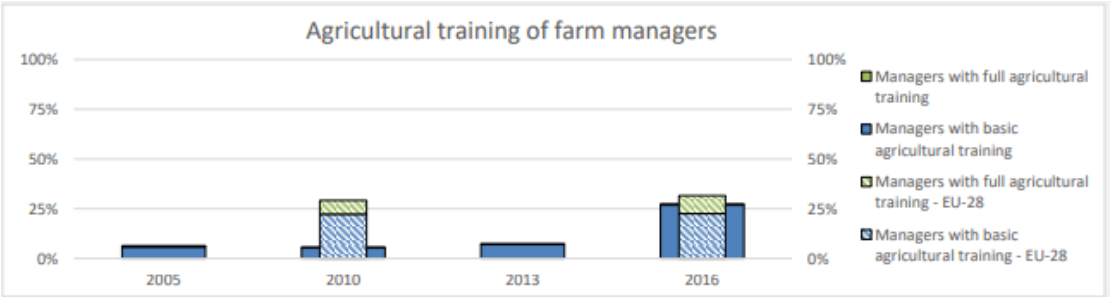
4. <u>What are the main needs and challenges that the agricultural sector faces?</u>

Despite the great quality of agricultural products, Cyprus' agriculture sector is not competitive due to high production costs and a hostile hot environment. Farmers are currently struggling with rising feed, electric, water, and gas expenses, according to Minister Kouyialis, Cyprus Minister of Agriculture, Natural Resources and Environment (Towers, L., 2013). As a result of joining the EU, farmers are now required to employ specific equipment in order to comply with EU policy. This equipment is frequently costly and must be imported. The hot, dry climate makes it difficult to access overseas markets because huge quantities of items cannot be produced all year. The Cypriot government is sponsoring training programs to assist new persons entering the agricultural sector. These programs are designed to provide aspiring farmers with the knowledge and skills they will need to produce sustainably using modern technologies. The government is also assisting in the provision of land for those who cannot afford it, as well as combining farmers into unions to enable them to establish contracts with exporters. Minister

Kouyialis stated that by uniting together farmers, they are able to deliver the consistent supply and big volume required for export contracts.

5. Is there any educational or training course/material available on with DaGE skills for people willing to access the sector?

In Cyprus, 28% of the total farm managers attained basic or full agricultural training in 2016. This share was 5.7% in 2010. Compared to the EU, the share of farmers that attained full agricultural training (meaning any training course continuing for the equivalent of at least two years full time training after the end of compulsory education and completed at an agricultural college, university or other institute of higher education in agriculture) is lower in Cyprus. Training given to the managers have been shown by the table below.



Source: DG AGRI - EUROSTAT

Climate-smart agriculture is a strategy for modernizing agricultural systems utilizing digital technologies in order to achieve sustainable agriculture and food stability in the face of climate change. Climate-smart agriculture (CSA) is a strategy for transforming, reorienting, and developing agricultural systems using digital technology, with the goal of improving global food security as component of climate change adaptation and mitigation efforts. CSA includes behaviors that contribute to better resource management (e.g., land and freshwater usage), ecosystem development and management, and suitable digital services for farmers to facilitate the implementation

of required reforms (e.g., smart farming technology). Increase agricultural productivity, quality, production, and profitability while lowering environmental impact. The use of climate and soil variables for agricultural scheduling can minimize the ambiguity caused by global warming, for instance, by constructing detection systems for weather extremes (e.g., water shortages, flood) along with pest and disease incidence, allowing farmers to take proactive steps, efficiently allocate resources, and lower significant risks. Smart farming innovations including robotics, the Internet of Things (IoT) in agriculture, and precision agriculture (e.g., remote sensing) make use of improvements in information and communication technology (ICT) to boost agricultural productivity, production, and profitability while lowering environmental impact.

3.5. **Bulgaria**

Data and statistics

Bulgaria is quite behind other EU members in regards to introduction of digital technologies in the economy and society taking one of the last places in the EU in terms of Integral Index for Introduction of Digital Technologies in the Economy and Society – DESI. There is a great variation on the extent of digitalisation in different subsectors of agriculture, farms of different juridical type and size, and different regions of the country. Most agricultural holdings are not aware of the content of digital agriculture as 14% apply modern digital technologies. Major obstacles for introduction of digital technologies are qualification of employees, amount of required investment, unclear economic benefits, and data security. Main areas where state administration actions are required are: support of measures for supplementary training of labour, tax preferences in planning of actions and digitalisation of activity, stimulation of young specialists, introduction of internationally recognized processes of standardisation and certification, adaptation of legislation in the area of data protection, and securing reliable and high speed networks.

A survey of the Ministry of Agriculture and Food among farmers in 2019 on the digitalization of Bulgarian agriculture gives some essential data for the DG-VET project.

The question "Are you familiar with the essence of digital agriculture "the majority (49%) answered that they are not familiar, 27% are partially familiar, 19% are moderately familiar, and only 5% are largely familiar (MAF, 2019).

Regarding the question "Do you use modern digital technologies in your farm "- 86% of respondents said they do not use them, and the remaining 14% use mainly GPS navigation systems.

To the question "Do you expect digitalisation to affect the number of employees in Your farm? " - 83% said they expect no change, 13% expect the number to decrease, and only 4% expect the number of employees to increase.

To the question "Do you have a department or a specific employee who is specifically responsible for digitalisation on your farm? " - only 8% of respondents say they have an employee in charge of digitization, and the majority (92%) do not have such an employee.

To the question "Are you planning to invest funds for the next five years for the development of digitalization in your farm? " - 4% answered that they intend to invest more than 10% of the funds planned for investment in digitalization, 96% of the respondents stated that they intend to allocate less than 10% of the funds planned for investment or do not intend to allocate funds for digitization.

To the question "Do you intend in the future to link your production with digital technologies? " - 38% of respondents state that they do not intend to digitize ; 33% intend to digitize only some of the stages of production, and the remaining 29% plan to introduce digital technologies within the next five years.

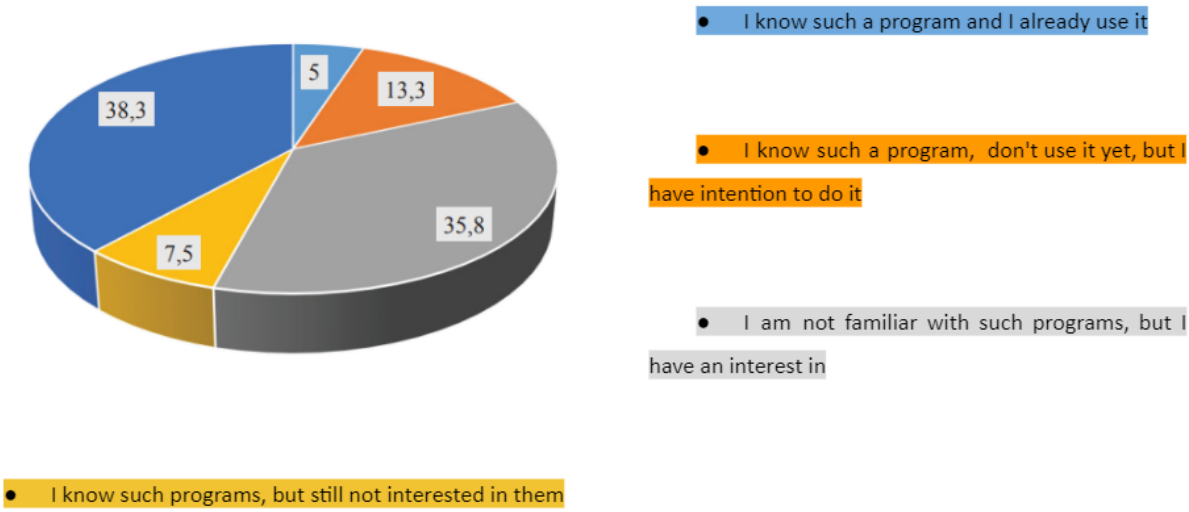
To the question "What do you think would be the benefits to your farm when introducing digital technologies? " - 22% indicate increase efficiency, 17% reduce costs, 16% better planning and management, 14% increase in productivity, 12% acquisition of data and their analysis, 9% preservation of competitiveness, 4% increase in turnover, 2% each indicate greater added value and possibility for individualization of products, 1% indicate acceleration of "Time-to-Market" and 1% do not see the benefits of digital technology.

To the question "What do you think are the possible obstacles and risks in the introduction of digital technologies?" - 24% of respondents indicate the qualifications of employees, another 24% indicate the amount of investment, 19% identify unclear economic benefits as risk, 15% data security, 7% insufficient technology maturity, 5% insufficient standardization and certification, 3% insufficient capacity for recording and storage of digital information, 2% lack of clear priorities by the management of the farm and 1% no can identify risks and barriers before the advent of digital technology.

To the question "In which areas is action needed by the state administration regarding the introduction of digital technologies?" - 21% of the respondents indicate support for measures for additional qualification of employees, others 21% indicate tax incentives when planning measures and digitizing the activity, 18% promotion of young professionals, 11% introduction of internationally recognized processes for standardization and certification, 11% adaptation of the legislation in the field of data protection, 11% ensuring highly reliable and high-speed networks, 7% promotion of development activities.

Representative survey of farms in the mountainous regions of the country in 2017 found that only 5% of producers actually use computer programs in the management of the farm. However, more than half of the respondents (54.1%) expressed one or otherwise positive attitudes towards such programs. The share of farmers who lack interest is still

significant from the acquisition of knowledge about these programs, as well as to their application (38.3%).



*The diagram shows the Farmers Attitude in Mountainous Regions of Bulgaria to Computers Programs in Farm Management

Legal framework on national level: strategies and policies

In 2019, a Strategy for Digitization of Agriculture and Rural Areas of the Republic of Bulgaria was adopted, which aims to transform Bulgarian agriculture and related agricultural business into a high-tech, sustainable, highly productive and attractive area of the global economy that improves living conditions of farmers and rural areas.

The priorities are yet to be specified and to set aside European and national funds for the implementation of the strategy and effective digitalization of Bulgarian agriculture in the period 2021-2027.

Needs and challenges that the agricultural sector faces

<u>Low level of investment</u>

Most experts believe that the level of public spending and investment in digitalization in the agricultural sector (81.2%), for agricultural research and for the implementation of

agricultural innovations (62.5% each), for agricultural councils and training (43.7%) is low or very low (Fig. 8). There is a particularly large consensus among experts on the low level of public investment in digitalization in the agricultural sector, which lags far behind the modern needs of society and industry. In the same time none of the experts did not think the level of costs and investments for digitalization is high. Therefore it should to significantly increase public spending and investment in the development of these important ones areas of the JSIS in order to achieve the main objectives of the CAP in the next programming period. Half of the experts assess the effectiveness of public spending and investment in digitalization in the agricultural sector as low or very low (Fig. 9). However, every fourth participant in the panel is of the opinion that the return on funds in this area is satisfactory, and the remaining quarter that it is good or high. The latter proves that despite the extremely low level of public investment in this area, their social efficiency is relatively high. Hence the investment in this sphere need to be expanded in order to realize the existing high potential for improving efficiency.

Imbalance in the development of the different regions of the country

According to the majority of experts, the North-Eastern region (37.5%), which is also a leader in the application of precision farming technologies (50%), process automation (37.5%) and the application of digital technologies, software, etc. (34.4%). A relatively small number of experts point out South Central and Southeast region, which intensively implement innovations (respectively 15.6% and 12.5%), apply precision farming technologies (15.6% and 12.5%), and automate production processes (15.6% each).

According to the vast majority of experts, the degree of innovation, the application of modern technologies for precision agriculture, process automation, digitalization, etc. in other areas of the country is small. This requires introduction of specific measures for public support and partnership, for intensification of the introduction of innovations in the latest areas such as: modern technologies for precision agriculture, process automation and digitalization in other areas of the country. In this way it will be possible

to overcome the great imbalance in the development of the different regions of the country.

Training course/material available on with DaGE skills

There are private educational and training centers that offer from 30 to 150 hours of courses. An option of issuance of a certificate. The topics of the training courses cover a variety of DaGE sectors specifics.

The Agricultural University of Plovdiv also offers such a training programmes with duration of max 150 hours. https://www.au-plovdiv.bg/%D0%BD%D0%BE%D0%B2%D0%B8%D0%BD%D0%B8/%D0%B1%D0%B5%D0%B7%D0%BF%D0%BB%D0%B0%D1%82%D0%BD%D0%B8-%D0%BA%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B5-%D0%BA%D1%8A%D0%BC-%D1%86%D0%BF%D0%BE-%D0%BA%D1%8A%D0%BC-%D0%B0%D0%B3%D1%80%D0%B0%D1%80%D0%B5%D0%BD-%D1%83%D0%BD%D0%B8%D0%B2%D0%B5%D1%80%D1%81%D0%B8%D1%82%D0%B5%D1%82-%D0%BF%D0%BB%D0%BE%D0%B2%D0%B4%D0%B8%D0%B2

3.6. **Austria**

Agriculture in Austria

For centuries, Austria's agriculture has served as the basis for the quality of life in rural areas and as the foundation of the country's historical and cultural tradition[3]. In 2020, agriculture contributed around 1,1% of Austria's GDP[4]. Despite the very small share of agricultural and forestry activities themselves in Austria's gross value added, upstream

[3] https://landforstbetriebe.at/themen/landwirtschaft
[4] Statista: https://bit.ly/3DOAG8K

and downstream economic sectors make a significant contribution to sales revenues and employment and thus represent important economic sectors for the country[5].

In 2020, an average of 3.9 percent of the workforce in Austria was employed in agriculture[6]. Of the 162,018 farms in Austria in 2018, 36% were managed on a full-time basis, 55% on a part-time basis, and the remaining 9% were managed by communities of persons or legal entities. Of the 107,200 purely agricultural farms in Austria in 2018, most were managed by men (68%), and the majority of the managing male and female farmers and farmers were between the ages of 45 and 59[7].

Legal Framework

In Austria, collective agreements are the most common form of work contract, which is also true for the agricultural sector. They are written agreements concluded between authorized collective bargaining partners. On the employer side, the agricultural and forestry employers' associations or the provincial chambers of agriculture are authorized to conclude collective agreements. On the employee's side, the trade unions and the chambers of agricultural workers are authorized to bargain the collective agreements.

The most important collective agreements in the field of agriculture and forestry (partly concluded at the state level) are:

- Collective agreement for agricultural workers in farms/estates
- Collective agreement for forestry workers in the private sector

5 https://genos.univie.ac.at/fileadmin/user_upload/genossenschaftswesen/Eller_L__2021__Solidarische_Landwirtschaft_in_%C3%96sterreich_Alternativen_f%C3%BCr_den_Agrarsektor.pdf

6 https://de.statista.com/statistik/daten/studie/217608/umfrage/erwerbstaetige-nach-wirtschaftssektoren-in-oesterreich/#:~:text=Im%20Jahr%202020%20waren%20in,und%2071%20Prozent%20im%20Dienstleistungssektor

7 https://genos.univie.ac.at/fileadmin/user_upload/genossenschaftswesen/Eller_L__2021__Solidarische_Landwirtschaft_in_%C3%96sterreich_Alternativen_f%C3%BCr_den_Agrarsektor.pdf

- Collective agreement for employees in horticultural enterprises
- Collective agreement for estate employees

Since Austria's agriculture is almost exclusively managed by family farms that are diverse in size, it important to point out the legal situation[8]. Family employees, like spouses or children are, in the case of full-time employment, apart from the regulations on employee protection are generally exempt from land labor law. As a rule, these persons are subject to the Farmers' Social Insurance Act[9].

Digitalization and automatization in Austria's agricultural sector

Because non-wage labor costs are high in Austria, it is relatively expensive to hire workers. There is also a lack of well-trained personnel in many cases. For this reason, many companies are trying to automate work steps. Digitization has enormous potential in this regard[10]. Digitalization tools and concepts have been used in Austrian's agriculture for some time. Smart farming brings networking and management of information and processes to support decisions in farm management and to automatically document activities and procedures. Digital technologies enable agriculture to precisely adapt the use of inputs to the respective location and thus reduce them overall. Inexpensive robots for precisely controlled mechanical crop care can also replace chemical crop protection in the future. Water consumption can be reduced on an as-needed basis. Digital fleet management and optimized coordination of machine use (for example, during harvesting) ensure effective transport journeys with reduced energy consumption[11].

[8] https://landforstbetriebe.at/themen/landwirtschaft
[9] Chamber of Agriculture: Legal Aspects of Direct Marketing - employment of outside workers
[10] https://info.bmlrt.gv.at/themen/landwirtschaft/digitalisierung/praxis/tierhaltung.html
[11] https://www.umweltbundesamt.at/digitalisierung/nachhaltiger-mehrwert-fuer-die-landwirtschaft

The attitude of farmers toward Agriculture 4.0 is predominantly positive and, according to a survey, the farmers feel well informed[12]. A significant part of the administration, accounting and grant application process already takes place digitally on most farms[13].

In addition to the technological and economic prerequisites, it is also important to be prepared for the digital age in the area of education and consulting. In addition to the development of lecture sequences for established educational events, farmers will now be provided with further specialist content on the cross-sectional topic of "Agriculture 4.0" on the knowledge platform lkdigital.at. This website is intended to point out the multitude of areas in which digitization is already taking place. "Smart farming" applications will probably no longer be an exception in a few years, so it is crucial to offer as many farm managers as possible a high-quality, comprehensive and, above all, area-wide range of educational opportunities[14]. Chambers of agriculture and rural training institutes are striving to continuously develop their digital offerings. The main topics of education in the field of digitized farming are precision farming, animal-specific sensors and data networking[15].

The education campaign 'Digitization in Agriculture and Forestry' of LFI Austria, launched in 2017, prepares information around 'Agriculture 4.0', sets awareness-raising measures and integrates digital topics into the educational programs of the Rural Training Institutes in the long term. The increasing integration of digital technologies on agricultural and forestry operations has long been standard practice in many places.

Through the educational project "Digitization in Agriculture and Forestry", LFI Austria therefore aims to address the diverse and emerging challenges in the digital age in order

[12] https://www.ots.at/presseaussendung/OTS_20210729_OTS0080/digitalisierungs-studie-baeuerliche-betriebe-offen-fuer-innovationen
[13] https://info.bmlrt.gv.at/themen/landwirtschaft/digitalisierung/digitalisierung-in-der-landwirtschaft.html
[14] https://www.lko.at/digitalisierung-in-der-land-und-forstwirtschaft+2400+2646915
[15] https://www.ots.at/presseaussendung/OTS_20210729_OTS0080/digitalisierungs-studie-baeuerliche-betriebe-offen-fuer-innovationen

to ultimately offer a timely service for agricultural businesses. In addition to activities such as the implementation of topic-specific conferences or the conception of a pilot course, an online knowledge platform was also created as part of the project[16].

The Innovation Farm initiative, founded in 2020 with locations in Wieselburg, Raumberg-Gumpenstein and Mold as well as numerous pilot farms, makes digitization in agriculture tangible. Since then, farmers have been able to learn about the advantages and disadvantages of new technologies in numerous courses, webinars and practical workshops.

Farmers, students, trainee pupils of agricultural education branches, benefit from the knowledge of the Innovation Farm and can thus apply imparted knowledge in practice. Participating educational institutions include rural training institutes, the University of Applied Sciences Wiener Neustadt, the University of Applied Sciences Upper Austria, the Austrian Board of Trustees for Agricultural Engineering and Rural Development, the University of Natural Resources and Applied Life Sciences, the Bildungswerkstatt Mold, the HBLFA Francisco Josephinum, the HBLFA Raumberg-Gumpenstein and individual agricultural colleges[17].

EDP & Information Technology	• MFA online application • Filming with Smartphone • Product photos with smartphone • Photo editing with Snapseed • Geoinformation systems in agriculture and forestry - introduction to QGIS

[16] https://www.lkdigital.at/projekt/
[17] https://www.innovationfarm.at/bildung/

Plant cultivation	• Further training for the plant protection certificate (5h) • Continuing education for the phytosanitary certificate viticulture (5h) • Further training for the plant protection certificate for horticulture, vegetable growing and fruit growing (5h) • Continuing education for the plant protection certificate (2h)
Animal husbandry	• Protection against infectious diseases on the farm (TGD recognition) • Maintaining udder health - prevention - treatment (TGD recognition)
Alpine pasture management	• Basics of professional alpine pasture management (TGD recognition)
Business management	• My farm concept
Forestry and timber management	• Further education for the plant protection certificate forestry[18]

[18] https://oe.lfi.at/onlinekursangebote+2500+2043946

Challenges and needs

Austria - and especially the Alpine region - is particularly affected in a global comparison by the temperature rise. In Austria, an increase in extreme weather events in the form of heat, drought, floods, hail, animal pests and diseases can be observed due to the rise in temperature, which pose enormous risks for agricultural production. Crop yields are decreasing due to climatic changes, leading to yield fluctuations and financial stress, especially for small farms. With the dependence of agricultural yields on the weather, Austrian farmers are overburdened and forced to insure themselves against these risks through agricultural insurance and rely on adaptation measures from policy makers. A possible solution for the ecological and economic grievances could be the increased production of regional food, via shortened transport routes and higher added value[19].

However, agriculture is not only affected by climate change, it also contributes to 10% of Austria's greenhouse gas emissions. On other side, agriculture binds a total of 26.8 million tons of CO2 through the production of biomass - three times more than it emits. Thus, it not only provides food, but also contributes to halting climate change. Agriculture and forestry therefore have a positive climate balance in Austria. However, they are now faced with the challenge of maintaining and ideally even improving this climate balance despite increasing demand for food, building materials and energy sources[20].

Uncertainties due to climate change, lack of social recognition, pressure to grow, no farm succession, high bureaucracy, dependence on world market prices and rising operating costs are challenges for farms and some of the reasons why more and more farms are being abandoned[21].

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19 https://genos.univie.ac.at/fileadmin/user_upload/genossenschaftswesen/Eller_L__2021__Solidarische_Landwirtschaft_in_%C3%96sterreich_Alternativen_f%C3%BCr_den_Agrarsektor.pdf

20 https://oekosozial.at/wp-content/uploads/2020/12/factsheet_FINAL_Dez2021_klein.pdf

21 https://kommunal.at/strukturwandel-der-oesterreichischen-landwirtschaft

What is needed is stronger networking between research disciplines, between research-consulting-practice-trade, the integration of new research disciplines, the scientific processing of questions on system- and location-adapted solutions[22].

In general, the implementation of environmentally friendly reforms is not easy, because social and financial components also play an important role. For example, the conversion of a conventional family farm conventional family farm to an organic one is a financial hurdle[23].

Unit 4. Field research findings on national level

[22] https://raumberg-gumpenstein.at/jdownloads/Allgemein/Biologische_Landwirtschaft_und_Biodiversitaet_der_Nutztiere/40_2016_steinwidder_bio_lw_2030.pdf

[23] https://genos.univie.ac.at/fileadmin/user_upload/genossenschaftswesen/Eller_L__2021__Solidarische_Landwirtschaft_in_%C3%96sterreich_Alternativen_f%C3%BCr_den_Agrarsektor.pdf

4.1 Belgium

FIELD RESEARCH: In order to have the real situation of the DaGE transformation in Belgium, we shared a questionnaire in June and July with organizations involved in this process from the three different 3 regions of Belgium. This questionnaire was held by Google Forms to simplify the sharing, answering, and compilating of the results. Data has shown that the agricultural sector in Belgium represented almost the 1% of the GDP in 2020 and this number has been decreasing for the last few years due to one key factor.

SECTION I: ORGANISATION's FIELD

Among the different types of representative organisations that the questionnaire has been held, it can be found a wide range of different companies, such as NGO'S, consultancies, agricultural enterprises, or private companies. The main sectors in which these companies operate are mainly related to agriculture, green and European policies, and smart innovations, considering this as valuable information about the sector. The companies participating in the survey have declared that they belong to an

SME, having from 1 to 25 workers in the enterprise, which is not a lot.

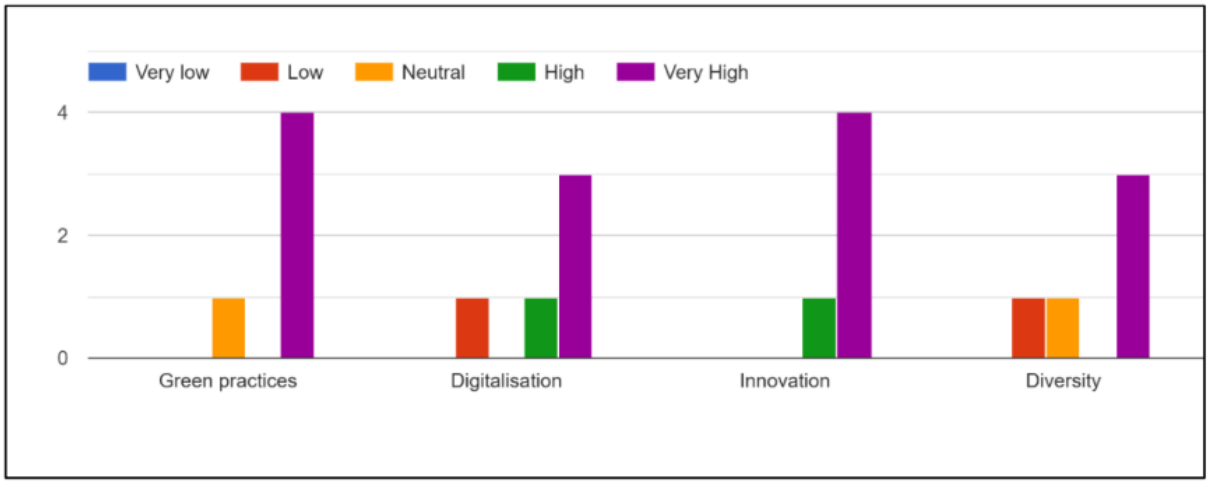
SECTION II: BUSSINESS VALUES

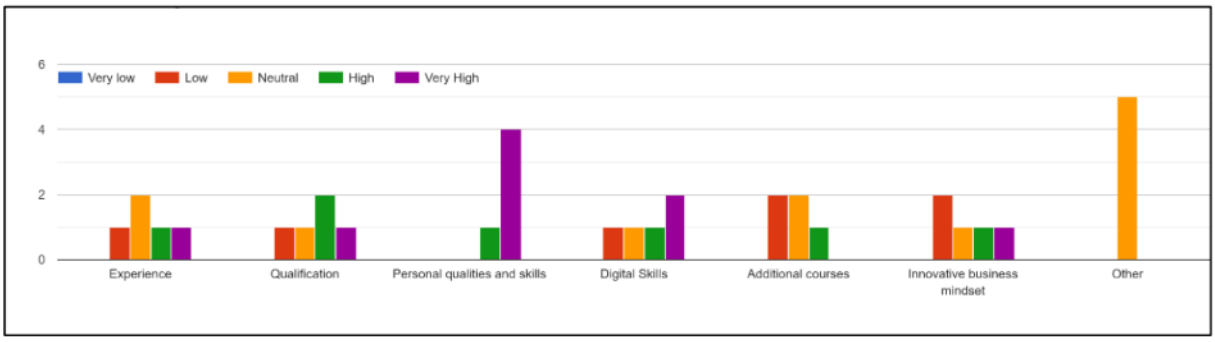
In the business world, establishing clear and defined values in a company is one way to ensure its success. As the following graph shows, the survey's respondents have mainly considered that green practices and innovation are very important values to embed in

your business, implying that digitalization and diversity are not considered the key values to move into a greener and cleaner economy.

SECTION III: RECRUITMENT PROCESS

An effective recruitment process can help companies to develop, achieve faster levels of growth, and provide a competitive advantage that directly impacts their business performance. Most of these enterprises are currently hiring new



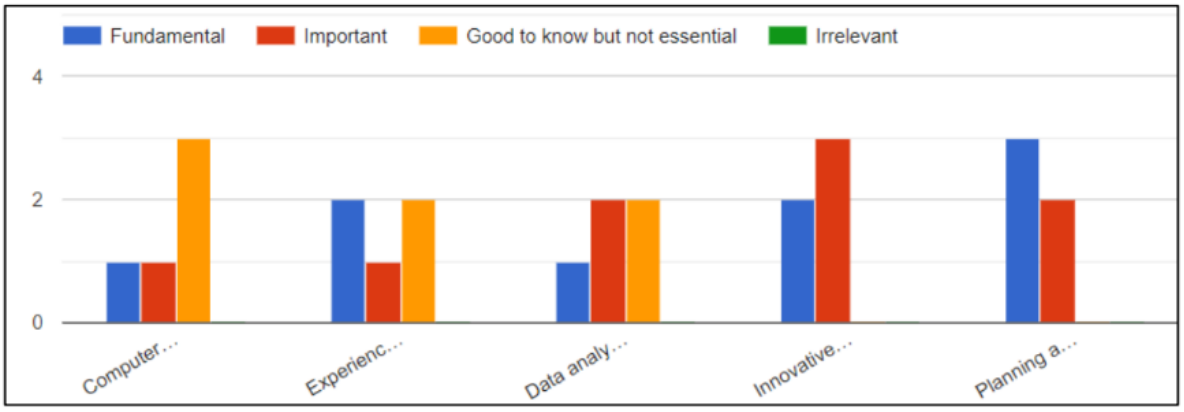


talents but not all of them offer training periods for the job positions the company holds. In addition to experience, qualifications digital skills, and innovative business mindset,

they are above all looking for personal qualities, skills, and additional courses that can provide some other relevant expertise in the sector.

SECTION IV: AGRICULTURAL PROFFESSIONAL SKILLS

Companies have shared what they consider the most important personal and professional skills for a person who wants to work in the agricultural sector with no previous experience. They agree that an innovative mindset, a good planning and resources management and previous experience with technology and digital tools applied to the agricultural sector are fundamental skills that would fit the competitive profile that a company seeks.



Furthermore, they describe their ideal candidate as someone who is passionate, creative, and enthusiastic about the job. Being smart and hard worker is also an asset, together with hands-on and willingness to learn.

CONCLUSIONS

As a result of the urbanisation process, in 2020 the agricultural sector represented the 0.8% of the GDP, which has been decreasing for the last few years.

The Flemish Government has identified numerous policy goals, giving central importance to a sustainable income model and a fair income for farmers.

Innovation and entrepreneurship are also essential in the three regions of Belgium (Flanders, Wallonia, and Brussels), who have jurisdiction to regulate agricultural policy.

In Belgium, one farmer out of five works with robots and digital tools, which makes the process much easier. The lack of basic and continuous training is one of the principal obstacles that has been identified for a substantial digital transformation of the sector.

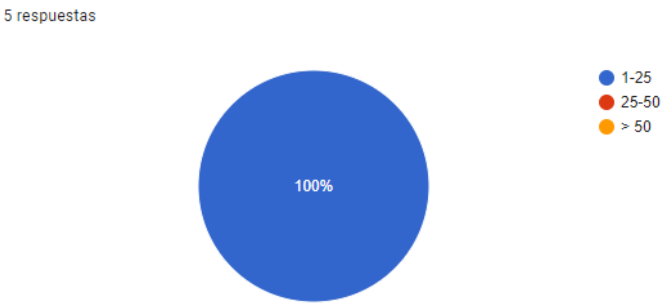
In terms of finance, the agriculture sector has unfavourable conditions, and young farmers, and new entrants are amongst the most affected groups, which is considered a matter of national interest.

Some institutions propose various plans to reinforce economic and social resilience with measures fostering effective and inclusive education systems, skills acquisition, and green and digital transition, which has been supported by different companies saying that these are key factors for change.

4.2. Spain

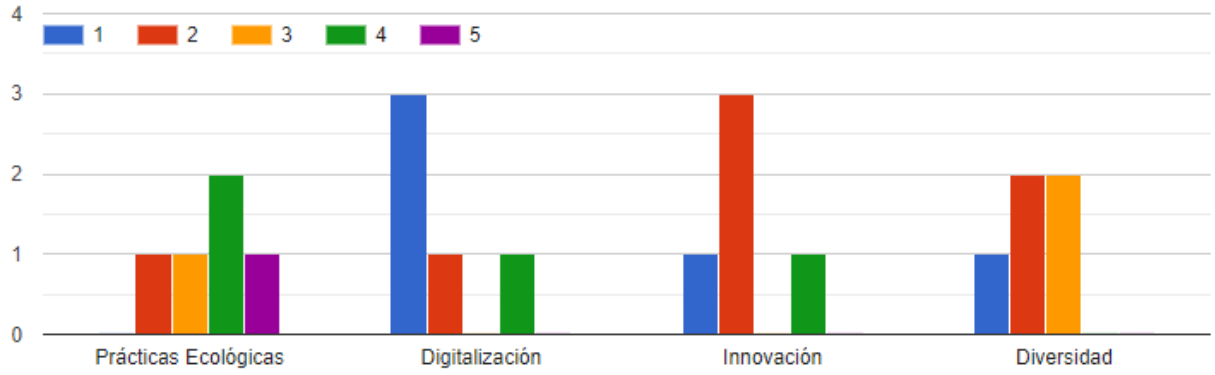
In the following national report, the reader could find the results of the questionnaire about profiling DaGE (Digital & Green Economy) sectors at national level (Spain).

How many employees do you have?

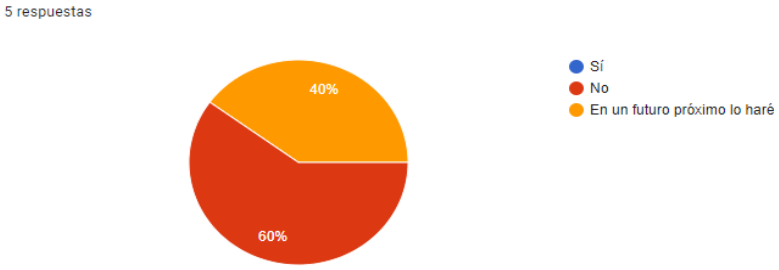


How successfully each of the following values are embed into your business/ organization?

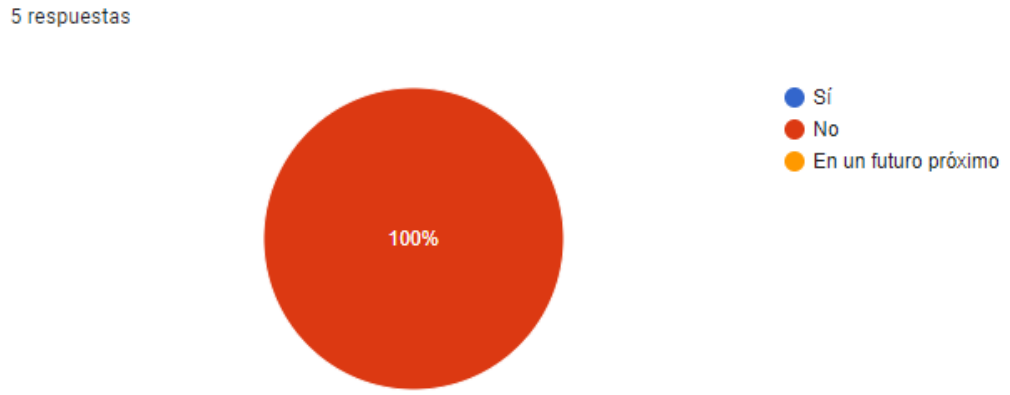
(1 really low integrated, 5 really integrated)



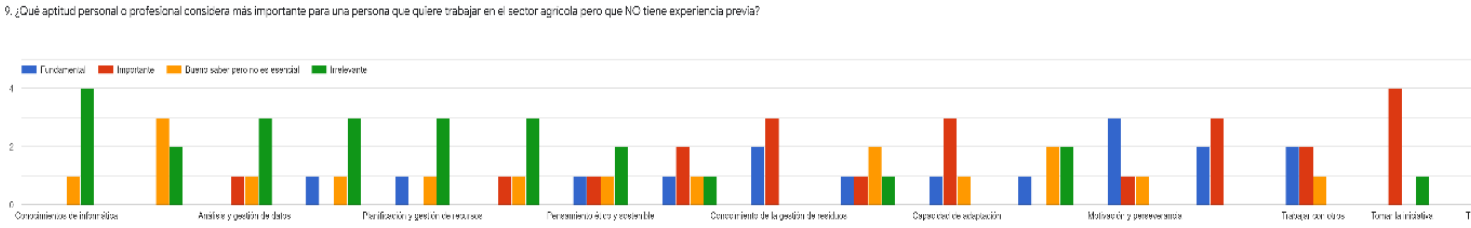
Are you currently recruiting?



Do you have training periods for the job positions your company/ organisation offers?



What personal or professional skill you consider as most important for a person who wants to work in the agricultural sector but has NO previous experience?



4.3. Greece

Methodology

Innovation Hive and AKMI in order to implement the field research through the questionnaires, prepared a common Google forms. In this way, the Organisations shared the forms to their network. For the national report, the Greek partners collected 7 responses.

In the following national report, the reader could find the results of the questionnaire about profiling DaGE (Digital & Green Economy) sectors at national level.

1. What is the type of your company/organisation?

7 responses

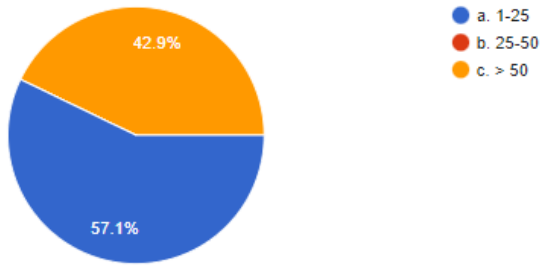
2. What is the main activity of your company/organisation?

7 responses

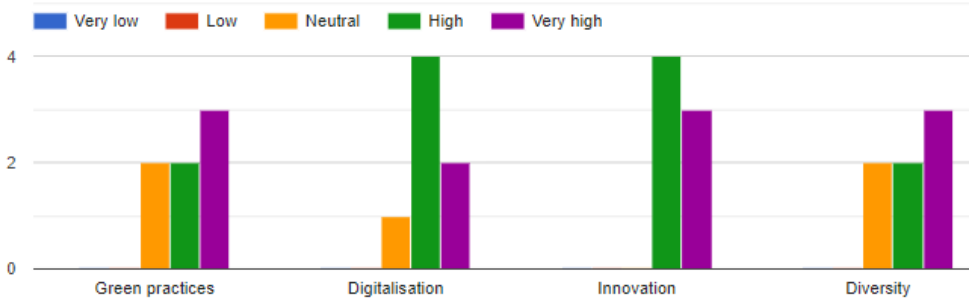
- Women's economic empowerment
- Career Coaching Services
- Agriculture science
- UN Goals, 4, 6, 7, 9, 11, 12, 13, 14, 15
- Agricultural services
- Agricultural services and consulting
- Telecomunications

3. How many employees do you have?

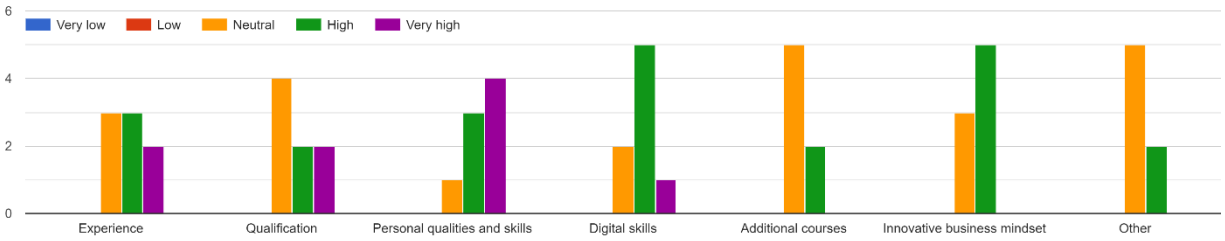
7 responses



4. How successfully each of the following values are embed into your business/ organisation?

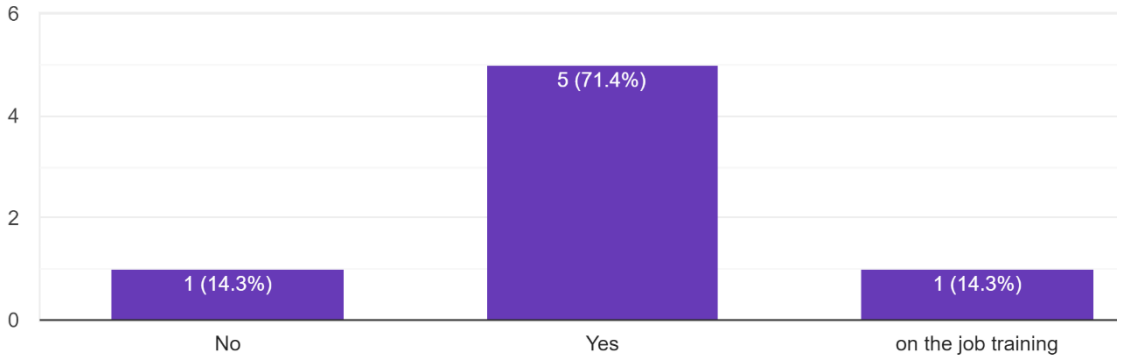


5. Are you currently recruiting?

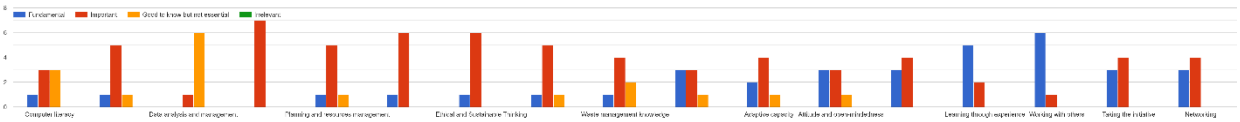


6. Do you have training periods for the job positions your company/ organisation offers?

7 responses



7. What personal or professional skill you consider as most important for a person who wants to work in the agricultural sector but has NO previous experience?



8. <u>Can you describe your ideal employee in 3 words?</u>

Hard working, conscientious, gender aware
Passionate Curious Leader
Open minded, ambition to collaborate, team spirit
Self respect, integrity/focus and commitment
Ambitious, Eager, Innovative
Communicative, Willing, Opinionated
consistent, hardworking, adaptive

4.4. Cyprus

1. What is the type of your company/organisation?

Responses
Small-scale farming company
Solar Energy
Energy Consulting and Engineering
Eco-efficient products for new construction
Organic Farm

2. What is the main activity of your company/organisation?

Farming
Implementation of solar energy panels
Engineering consultancy
Eco-efficient elevators, escalators and autowalks
Harvesting organic products

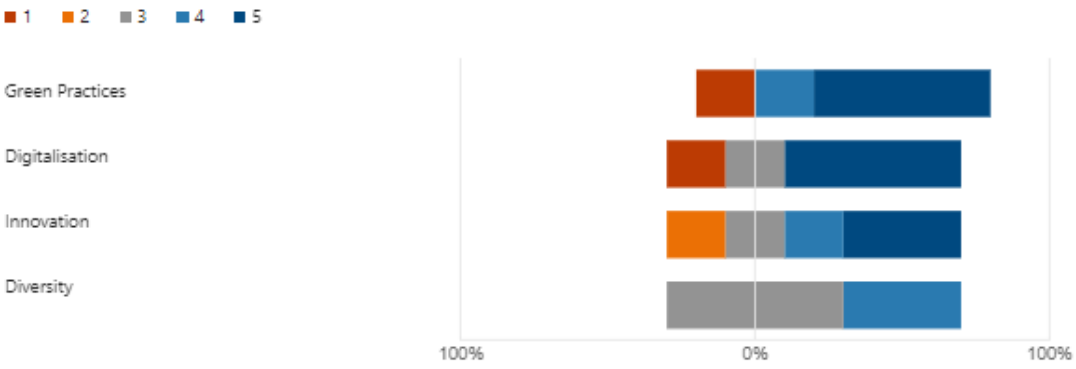
3. How many employees do you have?

More Details

1-25	4
25-50	1
> 50	0

4. How successfully each of the following values are embed into your business? (1 = Very Low, 5 = Very High)

More Details



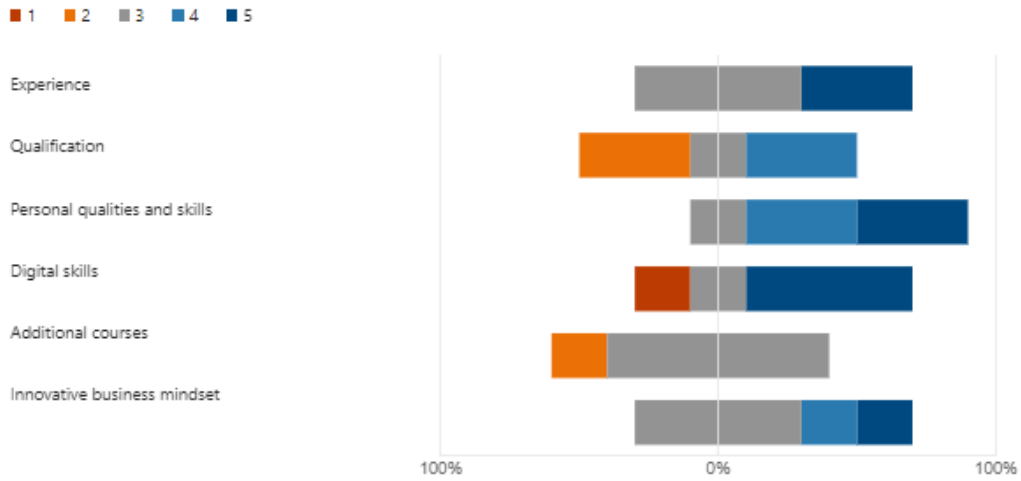
5. Are you currently recruiting?

More Details

Yes	0
No	4
In near future I will	1

7. What is your recruitment criteria? (1 = Very Low, 5 = Very High)

More Details



Responses

Experience	Qualification	Personal qualities and skills	Digital skills	Additional courses	Innovative business mindset
5	2	5	1	2	3
3	4	4	5	3	3
3	4	5	5	3	5
3	3	4	5	3	3
5	2	3	3	3	4

Open Question Responses

10. Can you describe your ideal employee in 3 words?

Responses
Dedicated, determined, passionate
Green environmental mentality
Green, innovative and open-minded
Green, smart and innovative
Determined hard-working individual

Conclusion

We have managed to get responses from five organisations in Cyprus in regards to the completion of the field research. Those five companies are mainly having either an agricultural background or involved in a renewable energy sector. Four out of five organizations are a small-scale organisations as they have employees in the range of one (1) and twenty-five (25) whereas only one of them are having twenty-five (25) to fifty (50) employees. The participating organisations mainly rated green practices and digitalisation highly to be embed into their businesses. Innovation are following as their third best option and diversity has been valued as the least important value to be integrated into their businesses. Only one of them will consider recruitment in the near future and the rest of them are not considering any employment at the moment. However, if they consider a recruitment, they would have like to focus on recruiting people who has personal qualities and skills as their optimal choice. Their recruitment criteria has been followed by experience and digital skills as their top three values where having an additional courses valued as their least important criteria. Out of five, only

one of them does not offer a training period for their newly employed personnel whereas the rest of them provide a training to the newcomers. In regard of what has been valued as the most fundamental aspect expected from a person who is willing to work in agricultural sector with no experience, there were three equally top-rated answers have been obtained and those are to have a climate change and adaptation knowledge, ethical and sustainable thinking and energy and water-saving thinking. These three are identified as the most crucial factor that has been in need to work in agricultural sector and it has been followed by the technological and digital tools usage experience. Taking initiative has been regarded as the least valuable aspect. Lastly, the most popular answer from the organisations are to identify their ideal employee and the outcome has revealed that the employers would like to hire a green-thinker, innovative and determined individuals.

4.5. Bulgaria

What is the type of your company/organisation?

(5 responses)

- Farming organisation
- Farming technology supplier
- Agricultural company
- Agricultural pesticides distibution
- Agricultural

What is the main activity of your company/organisation?

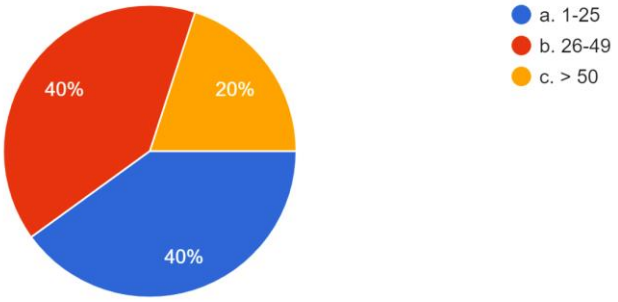
(5 responses)

- Production of apples and grapes

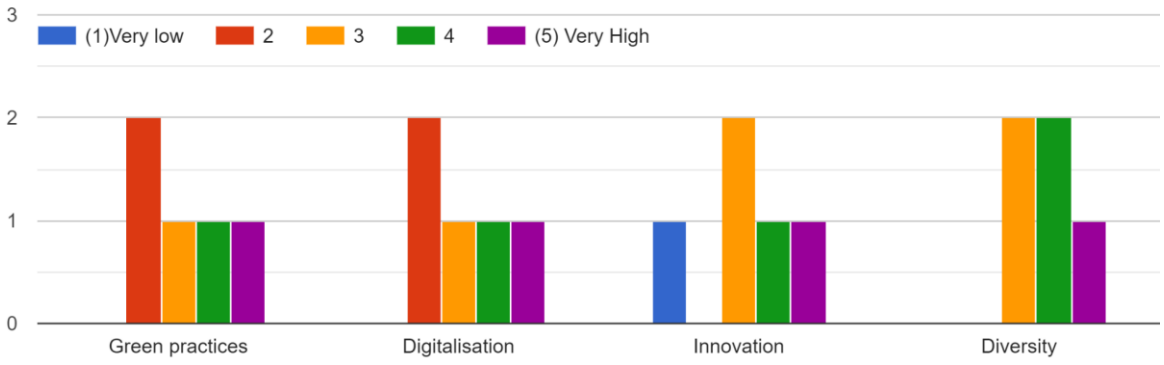
- Supplying better technologies for the farmers
- Breeding
- Fertilisers and Plant Protection
- Chemicals, pesticides

How many employees do you have?

5 responses

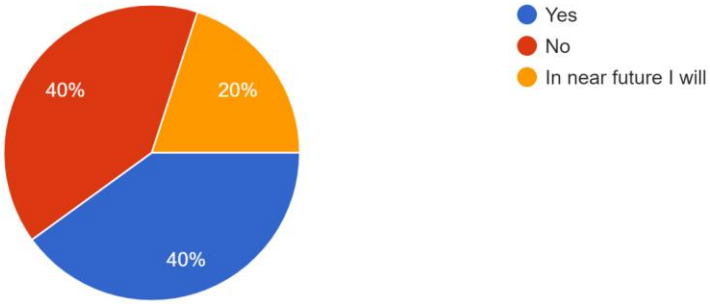


How successfully each of the following values are embed into your business?

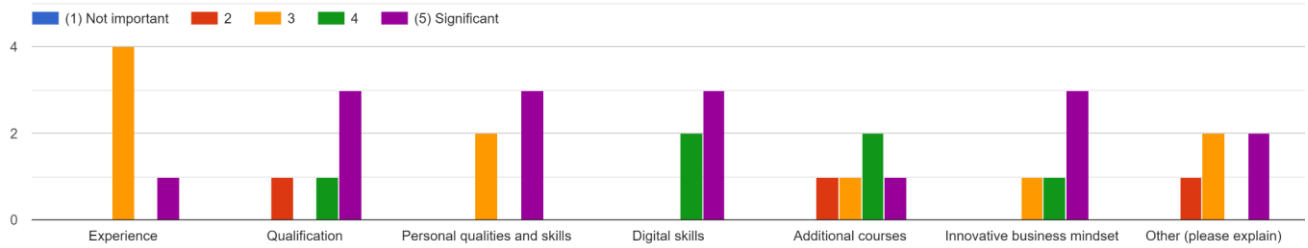


Are you currently recruiting?

5 responses

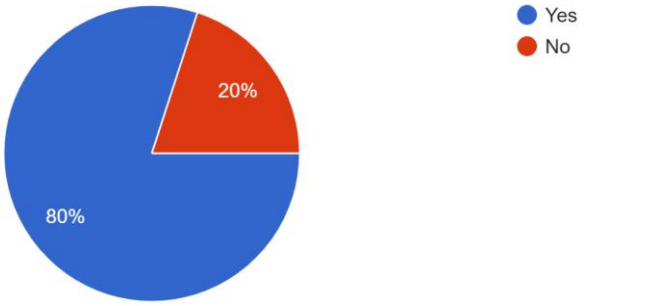


What is your recruitment criteria?



Do you have training periods for the job positions your company offers?

5 responses



Open Question: Can you describe your ideal employee in three words?

Young, ambitious, innovative thinking

Young, curious, ambitious

Hard-worker, responsible, reliable

good communication skills, knowledge ot modern trends

Problem-solving skills, good learner and good listener

4.6. Austria

Field Research

The aim of this project activity is to profile within the local rural economy the DaGE sectors with greatest potential for development and economic growth, and, therefore, with the greatest potential to provide new job opportunities/absorb trainees. Additionally, it aims to identify the needs of the target sector in terms of specific skills for targeted training courses.

For this purpose, 5 agricultural businesses were contacted via e-mail and provided with a short online questionnaire, using Google Forms. To ensure some sort of digitalization or innovation, the website www.meinhof-meinweg.at was used to look for agricultural businesses because one can search under the category “Technological and digital solutions”.

All of the businesses are mainly in food and raw material production; however, it is quite common for farms in Austria to have a second source of income. One company is also organizing events on the side, one is a forestry as well and one has a gastronomy on the

side. All of the agricultures are small businesses, with under 25 employees which is also common in the Austrian agricultural sector, as written before.

Especially sustainability and diversity seems to be virtues that are important for the farms. However, all of the farms have more less successfully implemented digitization, innovation and diversity into their businesses.

One of the two farms that are looking for new employees is looking for an agricultural helper. The other one is looking for someone as versatile as possible (pedagogy, handicraft, agriculture, cooking). As, as written before, it is typical for Austrian farms to have some sort of second business module, like tourism or a restaurant, versatility comes in hand. This could be kept in mind when creating the learning materials for the DG-VET project.

The answers for important employment criteria are all over the place. No one thought that qualification was “very important” and two claimed it was not important at all. While for some digital skills, additional courses and innovative thinking were (very) important, for some it was not important. This might be because the businesses are more interested in hiring auxiliary workers. When asked to name important criteria, the response that all farms gave was working independently. Other criteria that were often named were eagerness to learn and logical thinking. It is interesting to see that no specific skills were named but rather characteristics.

The agricultural businesses were asked which personal or professional skills they consider important for a person who wants to work in the agricultural sector but has no previous experience. The skills that were unanimously considered fundamental are adaptive capacity, motivation and perseverance, learning through experience and taking the initiative. Attitude and open-mindedness, networking, energy saving and water-saving thinking, innovative mindset and planning and resources management were also considered important skills. While the farmers considered computer skills good and important, data analysis was considered irrelevant or good but not essential. The ideal

employee for the respondents is diligent, independently working, reliable and eager to learn. Again, the characteristics and virtues of potential employees are considered more important than specific skills.

Since most farms in Austria are of the smaller size, it makes sense that the farmers are not looking for employees with specific skills but rather with certain attitudes to make him or her versatile. If one is eager to learn and diligent, they can be taught skills during the work. However, skills like planning, resource management and efficiency are skills that DG-VET can teach to young NEETs through their program that might enhance their employability. An important quest for DV-VET is going to be to make the students versatile but even more important will be to arouse motivation and interest for agricultural practices.

Final Conclusions

Around 16.5 percent of young people aged 20 to 34 in the EU were neither employed nor enrolled in school or training in 2018. This equates to about 15 million young people. In Cyprus, the rate was 17.4 percent, higher than the EU-28 standard, with young women (20 percent) having a greater percentage than young men (14.5 percent). The NEET rate is significantly different between young women and young men. In 2018,

As we can see in the questionnaire and in the desk research, there is some percentage of the society that is sensitive to becoming NEET. People who are in social exclusion, because of their financial situation, who are not integrated into society, if they don´t have a solid educational background (VET or Diploma and not just Secondary School).

We can define that the NEETs are a heterogeneous group that is formed both under the influence of socio-demographic characteristics and under the influence of various other

factors /prerequisites. The complex interaction of factors of institutional, systemic and individual nature increases the risk of joining NEETs.

The studies allow to identify four major areas, contributing for the formation of the group of NEETs:

1. Family, social environment and Lifestyle
2. Education
3. Qualification and experience, behavior on the labor market
4. Motivation

We can find some differences depending on the country as Greece is among the two countries (Greece and Italy) that had NEET rates of 19% or higher at this level of education, while the Netherlands was the only country with a share of less than 5% according to Eurostat. NEET rates for those aged 15–29 with a tertiary education were generally lower than for people with other levels of education, while Greece had the most at 26.8%. In all but six EU Member States, young adults with a tertiary education had the lowest NEET rates in 2021, except in Portugal, Czechia, Croatia, Cyprus, Spain and Greece, according to Eurostat. One important thing to highlight in matters of sex categorization is that in Portugal, Slovenia and Greece more women were unemployed NEETs.

The rate of NEETs women in Greece is higher than this of men, and in Belgium is the opposite. the NEET rate for women aged 20 to 34 was 20.9 percent, compared to 12.2 percent for men aged 20 to 34. Due to the municipal specifics of women the mean NEETs were almost 3.5 times, and the average for men was 2.3 times higher than in the control group

However, there are many similarities between the NEETs among of the countries from the consortium.

Many of the reasons to became NEET are: their financial situation, who are not integrated into society, if they don´t have a solid educational background (VET or Diploma and not just Secondary School). carers, young parents,have a physical disability/learning disability/chronic illness, have a mental illness,have experienced homelessness and/or lived in rented accommodation,have parent(s) who is unemployed or in unskilled manual occupations,live in high unemployment areas, and are members of some minority ethnic groups.

Overall, the main reason for not having a solid educational background is not having a family-supportive environment.

About the education among the NEETs the majority of NEETs are having the secondary school as their highest level of education.

The barriers for stopping either education or training reason seemed to be mainly because of financial reasons. However, personal reasons, time and lack of their interest in education are not separated by them with a significant value.

The barriers to enter to the professional life for the NEETs are,overall ,conception either they have not been able to find the job which they have liked or they do not possess the required qualification for the job requirements. Within the giving nine sectors options, four of them outstands which are the technology, agricultural and livestock, hospitality and the public sector.

As for what could have been a barrier for them to find a job, they have identified their lack of required skills and qualifications the most (20). Following up by their lack of work experience and digital skills equally (13). Question number 14 is an open-ended question as for them to express their feeling about what can be the factor to hinder them for

further education, training or job opportunities. Overall responses states that they have mainly identify financial, time and lack of educational background aspects as their barriers. Last but not least, participants demanded training programs which will lead them into an employment from their government mostly to encourage them to further participate in education or training and funding aid from local authorities to enable themselves to afford the prices of education and/or training.

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