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# **OREN**

## **MULTI-STAKEHOLDER PLATFORM FOR RURAL ENTREPRENEURS**

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### **National Report – *BULGARIA***

## **PR1 Survey of the most promising rural business models and stakeholders' map**



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<b>Author(s)</b>	<b><i>Maya Popova Erina Guraziu</i></b>
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# 1. Introduction

## 1.1 Rationale of the OREN Project

While the role of rurality in the prosperity of the European Union (EU) is widely acknowledged, rural areas tend to lose their positions and opportunities in an increasingly urbanizing world. Despite the diversity of rural areas in terms of their socio-economic performances, natural characteristics, and cultural heritage, the majority of them demonstrates intrinsic fragility in social, economic and environmental aspects, and, consequently, different rural areas face common challenges, experience depreciation of their values and underutilization of the opportunities they are able to provide. In the 2016 High Level OECD Seminar “Delivering productivity and competitiveness for rural areas”, four “areas of opportunity” emerged: *forestry, local foods, tourism and renewable energy*. **Forestry** is considered to be an integral part of rural development. Beyond providing wood products, healthy, sustainably managed forests are valuable tools for mitigating and combating climate change. They are also locations for important recreational activities, such as appreciation of nature, hiking and mountain biking, and, together with other rural sectors, can produce a variety of local foods. In many EU countries, the **local food** system is used as part of a regional **tourism** strategy where specific foods are the focus for visitors who follow a “trail” that leads them from producer to producer. These local foods provide an opportunity to market a region’s food products to a global audience, as well as connecting local farmers to the communities in which they reside. To some, **renewable energy** is rural energy, because virtually all renewable energy technologies are space-intensive and thus rely upon a rural location. Wind, biodiesel, and photovoltaic technologies now represent the fastest growing energy industries, whereby windfarms require clear sites, biofuels rely on agricultural feed stocks, and solar generation, though somewhat more flexible, is increasingly implemented on open rural land. On the other hand, over the last few years experts on rural development policy have consistently identified out-migration and ageing as key trends affecting investment decisions in rural areas, along with “changes in the rural economic structure” and the “decentralization” process. Thus, rural areas share also common structural vulnerabilities: distance, lack of critical mass and low population density. Furthermore, the recession, the COVID pandemic in combination with the consequences from the ongoing climate change, and war crisis in Ukraine that contributed to the energy crisis have put an extra burden to rural entrepreneurs, who are facing increasing complexity and deep uncertainty in their business, exacerbating existing vulnerabilities. These vulnerabilities were further compounded since the spring of 2022, with Russia’s invasion of Ukraine leading to a worsening of the energy crises that had been brewing in Europe. Maximizing the opportunities depends on a constellation of factors coming together. If one or two of the elements cannot be achieved, there could be continued stagnation or decline instead of transformation. In other words, no matter how much progress is made towards tapping rural opportunities, if rural vulnerabilities are not addressed, they could render any form of progress shallow. These discussions underscore the importance of exploiting future opportunities in a manner that addresses rural vulnerabilities under a systemic perspective and current state of the art calls for new strategies and



models of rural development to be found and applied so to turn lagging rural areas into resilient rural communities.

The main objective of the OREN project is to involve agricultural entrepreneurs in an interactive learning programme, specifically designed and addressed to the rural development issues in the COVID era, while also considering the fall-out from Russia's invasion of Ukraine. The partnership will develop an interactive, multi-stakeholder platform that will contain sustainable rural business models, and simulation models, accompanied by a small set of managerial courses targeted to agricultural entrepreneurs. The purpose is to train the participants in some of the most needed managerial and business skills, as well as giving them a number of pointers in order to acquire more advanced ones, based on the most essential needs identified by the research. By acquiring such skills, the entrepreneurs will be able to analyze the root causes of successful business scenarios to improve their expertise and skills in understanding and modelling potential good practices.

## **1.2 Purpose of the Study**

The aim of this study is to develop a sound and updated insight of agricultural business models across Europe and their driving and limiting factors among the project partners and stakeholders. Through a deep analysis, based on both theoretical and practical approaches and concepts from several academic and operative actors, the work performed under this first project result intends to deliver explorative and comparative findings by systematizing this knowledge, identifying the skill gaps and rural entrepreneurs' needs in terms of courses and trainings. The skill gaps concern mostly the IT skills (especially for tourism) and needs focus around having access to a potential knowledge database, where aggregated would be best practices and insights from other rural areas – both national and international, and also some more common needs like access to slow capital. The study will also harmonize main findings within a systematic framework that will guide the research, analysis and piloting that is planned for the other project activities.

We will try to enrich our conclusions by: examining different case studies, analyzing relevant support and training programs for rural entrepreneurs, and by retrieving feedbacks to surveys aimed at specific target groups, so to ultimately construct a balanced, comprehensive and up-to-date overview.

In particular, the purpose of this document is to highlight the findings and results of research that has been conducted in Bulgaria.



## 2.Desk Research in Bulgaria

### 2.1. Brief introduction of the status of rural business development in Bulgaria

Talking about agriculture as an economic activity, it should be considered in direct correlation with rural areas and their vitality. It should also be clearly understood its two important aspects: economic and social - ensuring food security and maintaining biodiversity on the one hand and maintaining rural vitality on the other.

Agriculture, as a traditional sector for Bulgaria, is of strategic importance, not only because it provides food security, creates raw materials for many other industries and sectors of the national economy, but it also provides employment and income for a significant part of the rural population.

At the same time, the sector is among the most dynamically developing in terms of modernisation, robotics, digital and digital transformation, provoked also by ambitious goals related to climate and green challenges globally. Agricultural sector is at the centre of the circular economy and biobased societies, the preservation and development of regions, and it is closely linked to the development of science.

The differentiation between large and small farms is deepening and the bipolar model of agricultural structures is becoming more pronounced. Small farms and farms owned by individuals dominate, while the number of large farms is small, but they accumulate significant income and expand their economic boundaries. Support in the sector with European funds, national schemes and additional payments, which is expressed in serious resources - around EUR 7.5 billion per programming period, has failed to overcome the main shortcomings in Bulgarian agriculture and, above all, the detrimental impact on the structure of farms, employment and incomes in the sector.

Agricultural labour payment is lower than in the rest of the economy, due to the low added value per unit area and payment in the sector compared with the regional, national and type average.

In the rest of the economic sectors, labour costs account for between 45-50% of added value, whereas in agriculture this ratio is considerably lower. The lower pay in agriculture is also due to the lower productivity and returns in the sector per unit of expenditure, but also in the assessment of the quality of the labour supply and in the type of work offered.

In Bulgaria, the levels of productivity and return in the sector per unit cost are around 25% and a 50-60% increase in labour costs is needed to reduce the acute shortage of workers in the sector. Low incomes in agriculture largely explain the outflow of labour from the sector, but this is not the only reason for negative attitudes towards labour in agriculture.



The sector is also characterized by a number of risk factors, harsh working conditions, and an unattractive public image. The current pandemic has shed further light on these unfortunate facts. The shortage can be overcome with targeted measures for legal, secure and sustainable jobs.

High goals and high expectations for the sector, backed up by serious financial resources, cannot hide one truth - the unfair neglect of workers and the refusal to recognise their important role in the production process and the refusal to make social policy commitments to them.

Today, the pandemic and the ambitious targets give the EU, and Bulgaria in particular, a chance to rethink the model of the agricultural sector and make it more sustainable and socially fair - a model where human and labour rights of the workers have a place.

Bulgaria has had the most dynamic development of organic production and organic farming in the EU in recent years, but the potential that the sector has, linked to favourable climatic conditions and ecologically preserved areas, is not sufficiently exploited. Although between 2008 and 2016 organic operators in Bulgaria increased more than 22 times, and the areas where organic production methods are applied increased almost 10 times to 160 620ha or 3.2% of the total agricultural area in the country, Bulgaria still lags more than twice the EU average in terms of organic production areas.

Moreover, our country ranks last in the EU in terms of resource productivity - the rate of circular (secondary) material uses in our economy (in 2016) amounted to only 4.3% compared to the EU average of 11.7%.

We owe it to ourselves to use our biological resources more rationally so that we produce enough food with less environmental and climate impact per unit of biological material produced and recycled.

The introduction of innovations and digital technologies, including those related to precision agriculture, is one side of the transition from a linear to a circular economy in this sector. Linking knowledge, research and innovation in agriculture, especially in the broad spectrum of the bioeconomy - not just green or blue - is the other powerful driver for its development. The good news is that many of the (bio-based) technologies used to produce substitutes for all the products we extract today from fossil crude oil (e.g., materials, chemicals, plastics) are already developed and available. Moreover, many new and good/quality jobs will be created by implementing this approach.

One of the leading state institutions that implements state policy aimed at all branches of the sector, in accordance with a number of commitments to the EU and has the most important role in the implementation of the Common Agricultural Policy in Bulgaria is the Ministry of Agriculture Food and Forestry. The staff of the secondary authorising officers - agencies and services - are directly involved in the immediate servicing of farmers, carry the burden of almost all support campaigns run by Ministry of

Agriculture and State Fund for Agriculture, carry out control along the food chain and monitor animal welfare, support and protect farmland and water. The specific nature of the sector also requires the development and implementation of strong research activities, which means creating and developing highly qualified personnel, but above all keeping them in the sector.

For the competitive and sustainable development of the sector, it is necessary to apply a holistic approach that reflects the principles of equity in society. This covers both support for farmers and decent social security for the employees who serve them.

Improving the quality and capacity of agricultural workers in order to achieve levels of sustainable employment, income and motivation cannot be done without the availability of social protection and a guaranteed social policy for workers.

It is therefore necessary to pursue a policy that maximally reflects the specific needs of the industry (*Source: FNSZ, 2021*).

Rural tourism is developing steadily, the trend of increasing the number of tourists, visits, and overnight stays in places of accommodation in rural areas continues. The capacity of the bed base in rural areas was 232,546 in 2017, an increase of 34% compared to the national level in 2008. The income from overnight stays by foreign citizens for 2018 was 10,852,4585 BGN (55,487,752.11 EUR), which is 75% of the total income for the country. The data show that foreign tourists have the largest share of both overnight stays and revenues from overnight stays. In the country, a material base has been created and areas with very good opportunities for the development of rural tourism have been identified. Rural tourism is a relatively fast-growing and established alternative form of tourism that generates income and contributes to the local economy. In recent years, there has been a positive trend in this type of tourism, the number of tourists is increasing, the quality of the offered tourist product is improving. In order to further develop the competitiveness of rural tourism in our country, it is necessary to invest in innovations in the material base and production technologies of tourism, in technologies for automating activities in the sector, in innovative applications for digitization, for marketing, etc. (*Source: Mishev et al., 2019*)

### **2.1.1. Socio-demographic factors**

#### **Territorial distribution of the population**

The administrative-territorial structure of Bulgaria consists of six statistical regions (NUTS 2 level), 28 administrative districts (NUTS 3 level) and 264 municipalities (LAU 1).

The total territory of the country is 110371 km<sup>2</sup>. The largest area is occupied by intermediate municipalities 76.7% (84,654 km<sup>2</sup>) of the whole territory, rural areas 22.1% (24,387.9 km<sup>2</sup>) and an urban



municipality - Sofia with 1.2% (1,329.1 km<sup>2</sup>). The population density indicator was 63.9 persons/km<sup>2</sup> at the end of 2018 compared to 68.4 persons/km<sup>2</sup> in 2008. According to the EU urban-rural typologies statistics<sup>1</sup>, intermediate regions have an average population of 56.3 persons/ km<sup>2</sup>, rural areas 27.1 persons/ km<sup>2</sup>, and Sofia city has a population density of 999 persons/ km<sup>2</sup>. Rural population density is approximately three times lower than the national average.

According to the same Eurostat statistics, the population is distributed as follows: in rural areas, 12.9% or 905,297 people, in intermediate areas 68.1% or 4,766,622 people and in urban areas 19.0% or 1,328,120 people.

Following the accepted definition of rural areas (municipalities with population up to 30,000 people) and according to the European Typology of Municipalities, most of the rural population (78.0% or 2,131,769 people) lives in intermediate areas, and 22.0% or 600,117 people are concentrated in typically rural areas<sup>2</sup>. The data also show a clear trend of decreasing population density in North Central, North East and South Central. The most densely populated region is the South West, which is a result of the better living and working opportunities offered by the capital city. Increasing differences in population density for the country show a concentration of population in large cities and municipal centres at the expense of smaller settlements. For rural municipalities, population density declines in proportion to population decline.

Over the period 2008-2017, population density in Bulgaria has been steadily decreasing. The largest decline in population density was observed in 2011. In 2008, the population density per km<sup>2</sup> was 68.9 persons, while the average for rural areas was 39.2 persons per km<sup>2</sup>, which is 57% of the national population density. In 2017, the population density amounted to 63.9 persons per 1 km<sup>2</sup>. and the rural average was 34.4 persons per 1 km<sup>2</sup>. which is 54% of the population density at the national level. In terms of population density, depopulation trends in municipalities of up to 30,000 people with up to 10 people/ km<sup>2</sup> are highlighted. There is a decrease in population density, which is the result of demographic processes such as mechanical and natural population movement, as well as the process of urbanisation.

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<sup>1</sup> <https://ec.europa.eu/eurostat/web/rural-development/methodology>

<sup>2</sup> <https://ec.europa.eu/eurostat/web/rural-development/methodology>. "Classification of the regions. In the second step, NUTS 3 regions are classified as follows, on the basis of the share of their population in rural areas: 'Predominantly rural' if the share of the population living in rural areas is higher than 50; 'Intermediate' if the share of the population living in rural areas is between 20 and 50; 'Predominantly urban' if the share of the population living in rural areas is below 20; To resolve the distortion created by extremely small NUTS 3 regions, for classification purposes regions smaller than 500 km<sup>2</sup> are combined with one or more of their neighbours."

The demographic situation in the country is determined by economic, political, biological and social factors that determine the future potential of the economy and the quality of human resources. The demographic processes highlight many challenges for the future development of the regions, where in recent years there has been a pronounced dynamic of population decline, and a reduction of the population aged 7-29 years. The risk of a demographic crisis becomes more real if the population of the country continues to decline, this is confirmed by the intensity of the change in demographic indicators and the decline in the number of people in Bulgaria for the period under consideration (2008-2018).

The population of Bulgaria is 7,000,039 people (2018), which is 1.4% of the population of the European Union, decreased by 49,995 people compared to 2017. The population loss of 556,517 or 7.89% for the period 2008 - 2017 clearly shows a negative trend, which contrasts with the positive population growth for the 28 EU member states as a whole, which is a consequence of natural and mechanical population growth.

Table 1. Distribution by population in the rural area by EU typology in Bulgaria

	Rural areas - total	Intermediate areas	Mainly rural areas
Total number	232	169	63
Municipalities - number	2 696 887	2,090,371	606,516
Minimum population in a municipality	798	798	996
Maximum population in municipality	50,110	50,110	35,414
Average population in municipality (mean)	11,675	12,443	9,627

*Source: Calculations from Socio-economic analysis of rural development by Prof. Prof. Plamen Mishev et al. based on data from Eurostat and NSI, 2019*

In the municipal centre are located the institutions providing basic services for the population - educational, health, administrative, cultural and information centres, banking offices and shopping centres. Investment is predominantly in the municipal centre (the largest city by population) and access and quality of services is better than in settlements outside the municipal centre, where technical infrastructure is in poor condition and health and social services are of poor quality. In the villages the

population is decreasing, the maintenance of social and public services is not cost-effective, and they are being closed down, which worsens the quality of life in them and provokes further migration of the population.

### **Age structure of the rural population**

Demographic processes and changes in population structures over the last two decades are among the most important social, economic, regional and political challenges in the country's development. The main processes influencing changes in population numbers and structures are demographic - birth, death, age, structure and migration. Population numbers and structures are determined by the scale and intensity of migration (natural and mechanical population movement). The age structure of the population is particularly important for the natural reproduction of the population, but also for the labour resources.

The share of people aged 65 and over is highest in the districts Vidin (29.3%), Gabrovo (28.2%), Kyustendil (26.9%) and Lovech (26.6%). In nineteen districts this share is above the national average. The lowest share of the elderly population is in the districts of Sofia - 17.2% and Varna - 18.6%.

In rural areas, there has been a decline in the relative share of all age groups except for the population aged 65-79 and 80 and over. The population aged 0-39 declined by 21.1% and the 40-64 age group by 8.8%. The number of children aged 0 to 14 years decreased by 10.9%.

### **Mechanical population movement**

The mechanical population movement shows the number of persons who change their usual place of residence, i.e. the number of displaced or settled persons in a given territory. The reasons for rural-urban or urban-urban (industrially developed) migration is due to the difference in socio-economic development between regions and settlements, better developed public and engineering infrastructure and finding better working and living conditions. The mechanical movement of people directly affects the demographic profile of the municipality.

Communities with negative mechanical growth are due to the deteriorating economic performance of the Northwest and North Central regions. Much of the working age population is settling in larger communities attracted by employment opportunities.

Regional differences in the business environment, employment and education opportunities, pay levels and living standards between towns and villages are having an impact on the migration of young people to larger towns and the capital.

Mechanical population movement is characteristic of most rural municipalities, further exacerbating unfavourable demographic processes and negatively affecting not only reproduction but also their labour potential.

To sum up, the analysis of the demographic situation in rural areas places the demographic problem among the most serious for rural economic development. One of the consequences of an ageing population will be a change in the labour force, a change in the structure of the labour market, social services and health care. Health care will be targeted to maintain the good health of the elderly (flexibility of health workers and an increase in the number of doctors serving the elderly population or new mobile health care models are needed). Depopulating localities will be left with a small elderly population, with limited mobility and financial independence, highly vulnerable and in need of health and social services. An increase in the relative proportion of elderly people is a prerequisite for a growing poverty risk in rural areas.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

## **2.1.2 Economic factors**

### **Economic activity and business models**

Based on the research activities of the project on INNOGROW, the short report examines innovative business models in rural economies. The most important business models for entrepreneurship among small and medium-sized enterprises in rural areas are presented, as well as key factors for their implementation.

A business model is the organisational and financial 'architecture' of a company. Essentially, it represents the basic consideration that a company uses to create, deliver and capture value. It conveys information about how the company interacts with customers, manages its assets and combines technical capability with economic value. The business model gives us information about how companies do business to achieve operational goals and strategic objectives.

Entrepreneurs deploy one or more business models simultaneously, while they can adapt their business model depending on emerging needs. There is evidence that successful firms plan their growth strategies by carefully considering different aspects of doing business, such as supply chain, trade and R&D collaboration, market generation and market entry, and, importantly, product diversification strategies.

The most common business models in Bulgaria are:

- Cooperatives



- Horizontal supply chain collaboration
- Vertical supply chain cooperation
- Product diversification
- Development of an existing market
- Entering new markets.

Extended range of possible actions to facilitate capacity building and growth support for rural small and medium-sized enterprises:

- Providing funding for technological and other innovations that promote environmental, social and economic sustainability and growth. Such funding should be targeted in particular at small and medium-sized enterprises that face difficulties in accessing markets due to remoteness, lack of strategic planning for market entry or outdated product safety and quality specifications. In combination with training, small and medium-sized enterprises could benefit from technological solutions to overcome distribution barriers, reduce advertising costs, and communicate effectively with the sector to which they belong, regionally and trans-European. Transparent funding procedures would stimulate small and medium-sized enterprises to take action in terms of increasing their competitiveness and renewing their fixed capital, a process that often initiates a growth chain reaction, provided that appropriate advisory, auditing and quality control tools are in place. In terms of production levels and quality improvement, different technologies are gaining visibility, especially in the agricultural sector, and rural economies dominated by the primary sector could potentially face disruptive changes with the introduction of innovative technologies. Regional communities as a whole can only benefit from policies that remove barriers to technological innovation in small enterprises.
- Fund vocational training. Consistent with the previous recommendation, stakeholders in rural economies need sector-specific training to undertake innovation. For example, most technological innovations for the agricultural sector (i.e., smart farming) require some degree of digital literacy. More generally, all competing sectors are increasingly at least digitally savvy. Regional authorities are therefore encouraged to make full use of EU, national and other funding opportunities to promote digital literacy through instruments that support actions that are conducive to enhancing vocational training and in particular digital technologies in production and distribution.
- Create favourable conditions to attract investment, especially FDI. In addition to financing, regional authorities and policy makers should plan strategies and implement measures to increase the



chances of FDI and other investments. To make this possible, authorities are encouraged to take initiatives towards establishing alliances and presence in financing and investment consortia with the ultimate aim of increasing regional visibility and investment potential. Marketing products as truly regional products implies marketing the region, a strategy for which regional authorities have the means to implement.

- To revitalise the local economy by encouraging interaction, collaboration and sharing of ideas. Stimulate and involve small and medium-sized enterprises stakeholders in practices to value regional heritage through trade and product marketing.
- Promote and create trans-regional, sustainable trade and trade-related platforms. As EU regional development policy makers have repeatedly recommended, regional trade agreements and trade exemptions should be promoted at this level, for example in relation to agricultural products.
- Better monitoring of growth rates and relevant indicators (e.g. agricultural GDP) and ensuring consistency with macroeconomic policies.

*Source: Innovative business models for rural small and medium-sized enterprises on INNOGROW 2019.*

### **Employment in rural areas**

Employment in the Agriculture, Forestry and Fishing sector grew over the period 2008-2017. The services sector remains still the most significant contributor to rural employment, but it is followed by "Agriculture, forestry and fishing" and "Manufacturing".

The negative demographic trend should be taken into account for the development of economic activities in rural areas. Therefore, in order to achieve economic growth, the opportunity is to encourage investment in new technologies to compensate for future labour shortages. The Bulgarian economy lags behind in terms of technological intensity. In the European Commission's latest innovation report, Bulgaria, according to the Composite Innovation Index, is classified as a modest innovator as of 2017, in penultimate place among EU Member States with an index value below 50% of the EU average of 2,823.

In the Innovation Strategy for Smart Specialisation of the Republic of Bulgaria 2014-2020, one of the objectives is to move from "modest innovator" to "moderate innovator". Rural areas should invest in innovation activities and the ICT sector that are fundamental to changes in the structure of their economy.

Factors that determine the disparities by economic sector between rural and urban areas are:

- the educational structure of the population and the share of the working age population, which would consequently attract investment and increase labour supply



- the degree of diversification of the rural economy, the dynamics of economic development and the profile of the economy (which sector dominates and creates added value).
- the qualifications of people of working age.

### **Labour market factors and unemployment**

Economic development - the labour market and the unemployment rate depend on positive and negative effects in the cyclicity of economic development. Therefore, the fluctuation in the unemployment rate in rural municipalities is erratic. For some municipalities where a larger proportion of the population is older than the working age or due to low economic activity, the labour market is very limited. This explains the high unemployment rate in some municipalities where it is above 30% and 50%.

The level of education. Educational level affects the risk of poverty. People with low degree of education are difficult to adapt to the labour market. According to NSI data, the highest percentage of incomplete education (primary and illiterate did not attend school) are persons of Roma origin - 21.8%, persons of Turkish origin - 7.5%, persons of Bulgarian origin - 0.9%. A greater number of persons of Roma origin live in rural areas. The low level of education of the Roma population significantly limits their opportunities to participate in the labour market. In rural municipalities, characterized by persons with primary education, who are by definition poorly adaptable to the labour market, they do not seek work and remain stably unemployed and fall into the group of discouraged persons (people outside the labour force who wish to work but are not actively looking for work because they do not believe they will find one).

Demographic changes - these determine the potential of labour resources and labour supply. In municipalities where the working age population is declining and at the same time businesses are looking for labour, labour shortages are emerging. Rural municipalities where the demographic structure is severely deteriorated, rural municipalities where there is a tendency for an increase in the population over working age do not attract entrepreneurs and investors to develop businesses.

For rural areas, more specific activities should be sought to develop sectors (diversification of sectors). The problem here is the worsening age structure, the outflow of young people, population decline and lack of human potential. Many of the smaller settlements are dominated by the elderly over 65 years of age, while urban areas (mainly in the Sofia-City region) concentrate mainly young people of working age, where human potential is many times higher than in rural areas.

Investing in micro-enterprises in the information and technology sector and the creation of creative products can be engines for job creation in the field of technological management of agriculture, of



distribution technologies (merging market centres in the digital space), with digital technologies, information products for automation and robotization of production processes, etc.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

## **2.2. Desk research on the state-of-the-art business models in rural economies**

### **2.2.1. Bioeconomy and circular economy**

The bioeconomy includes agriculture, forestry, fisheries, food, pulp and paper, and parts of the chemical, biotechnology and energy industries. The agricultural sector and the food industry are all involved in the bioeconomy. In the other sectors, some activities are fully related to the bioeconomy and others partially.

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From the point of view of the bioeconomy, there are three main reasons to implement it for the development of the agriculture, forestry and fisheries sectors:

1. Paving the way towards more innovative, resource efficient and competitive production that combines food security with sustainable use of renewable resources for industrial purposes while ensuring environmental protection;
2. Mobilising research and innovation in the agricultural sector by stimulating private investment, developing new value chains and engaging stakeholders;
3. Education and training in the bioeconomy, preparing a skilled workforce for the different sectors of the agricultural sector.

Some of the main activities related to bioeconomy are biomass, biogas, manure, biodiesel production.

Biomass in agriculture is derived from the main crop yield (economic biomass) and the residues (solid waste) after harvest. Biomass is used for food, feed, biobased products and energy. Waste products are increasingly used as attention is paid to the careful use of land and maintaining a balance between food and feed production on the one hand and biobased products on the other. Although at a higher cost, the recovery of waste products leads to a more efficient use of resources and environmental protection.

The country's production of basic biomass in agriculture in 2017 amounted to 15.1 million tonnes, which is 2.6 times more than in 2007. The highest growth was in industrial crops, while the largest volume of biomass was from cereals.

This also implies an increasing mass of waste products, as their quantity is proportional to the main biomass.



Manure is increasingly used for on-farm biogas production. It is only one of the substrates involved in the production process. There is no data on the quantity used to produce biogas, but rough estimates can be made. If it is assumed that the biogas from anaerobic substrates is produced from agricultural raw materials and that 40% of the crops biogas is from manure, since it is only one of the substrates, 18.2 tons of oil equivalent (toe) are obtained. According to the NBSAP, 1 toe (tons of oil equivalent) is obtained on average from 4.65 tons dry mass of manure, or for 18.2 toe 84.4 thousand tons dry mass of manure is needed, which equals 337.8 thousand tons of manure at 25% dry matter content.

The development of the bioeconomy is an opportunity to find solutions to societal challenges such as: Challenges related to ensuring food security; Expanding information on the bioeconomy and enhancing dialogue between society and bioeconomy stakeholders; Reducing dependence on non-renewable resources; Limiting climate change, protecting biodiversity and natural resources; Stimulating employment, economic growth and competitiveness; Fully participating of the agricultural sector in building an innovative economy that combines the pursuit of food security and sustainable development of the sector with the use of renewable biological resources for industrial and energy purposes, ensuring biodiversity and environmental protection.

The circular economy accounts for a negligible share of Bulgaria's economy, but its relative contribution as measured by the share of GVA and investment in GDP is higher compared to the EU-28. The relative share of employees is also higher, which shows that the sector is socially important for the country. In technological terms, there is a lag, as evidenced by the low level of reused and recycled materials out of the total processed. This is the reason why exports of recyclable raw materials are almost twice as high as imports, whereas the trend is the opposite for the EU-28.

The RDP 2014-2020 plays an important role in introducing the circular economy model. It has an impact on biodiversity conservation, resource efficiency, sustainable use of natural resources, adaptation of economic activity to climate change. The Programme aims to achieve cross-cutting objectives related to the bioeconomy, innovation in agricultural and non-agricultural activities and sustainability in rural development.

Some of the measures in the RDP 2014-2020 support the preservation of water quality, the conservation of natural landscapes and rare species of animals and plant varieties, the protection of important habitats and biodiversity in lands of high natural value, contribute to sustainable land management, undertake various measures to preserve soil carbon stocks and act to prevent soil erosion and flooding, stimulate

the development of organic farming. The priority areas of the 2014-2020 RDP related to the circular economy are:

- Priority 1 - Stimulating innovation, cooperation and the development of the rural knowledge base; Strengthening the links between agriculture, food production, forestry and research and innovation, including to improve environmental management and performance.
- Priority 4 - Restore, protect and enhance biodiversity; Improve water management; Prevent soil erosion and improve soil management.
- Priority 5 - Improving water efficiency in agriculture; Improving energy efficiency in agriculture and agri-food; Facilitate the supply and use of renewable energy sources, by-products, waste and residues, and other non-food raw materials for the bioeconomy; Reduce greenhouse gas and ammonia emissions from agriculture; Stimulate carbon storage and sequestration in the agriculture and forestry sector.

In agriculture, the main object of the circular economy is to make fuller use of solid bio-waste - straw, maize stover, branches, etc., as well as livestock waste such as manure, whey, unusable food residues, etc. The issue of on-farm biogas production waste, which can be reused for fertiliser but at the same time pollutes the environment, is a topical one. One of the challenges for the circular economy included in the EC package is the development of technologies to use wastewater for irrigation.

Both all production and waste in agriculture fall under the biomass category (waste is divided into 4 categories, one of which is biomass). According to Eurostat, the relative share of biomass to total waste per capita is about 9.1% in Bulgaria. Since agriculture and forestry are the main contributors to the biomass processed, it is assumed that they account for less than 7-8% of the waste generated. Agriculture makes a significant contribution to achieving the Europe 2020 national targets on environmental protection, adaptation to climate change and the development of the EU bioeconomy.

In agriculture, there is a need to address the shortage and uneven distribution across regions of agricultural land for silage and grass fodder production. The vast majority of ruminants use collective pastures, but there are no statistics on how sufficient and rational their feeding is. There is a need to create incentives to curb the overproduction of energy crops and to encourage their processing in the country, which will increase the added value in the sector.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

### **2.2.2. Rural Economy**



## Assessment of tourism development and the established tourism infrastructure

Tourism is a rapidly growing structural sector in the Bulgarian economy, which is among the drivers of economic growth and makes a significant contribution to the Gross Domestic Product (GDP) and employment. Bulgaria is a country that is climatically and naturally endowed to develop winter, summer and alternative tourism. The country has conditions for many types of tourism - recreational (spa tourism), rural tourism, eco-tourism, wine tourism, cultural and historical tourism. The country is rich in mineral springs, in total in the country they are about 225, most of them are located in southern Bulgaria - 148 springs, and in the north – 77. According to the register of tourist attractions, there are over 3,500 tourist sites in the country, which are distributed relatively evenly throughout the territory.

In recent years, as a result of European (ERDF and EAFRD) and national funding, they have been transformed from natural, cultural and historical sites into tourist resources. The total number of cultural and historical tourist resources in Bulgaria is estimated at about 40,000. The Register of Tourist Attractions contains more than 3,500 sites that are located throughout the country, but some, due to poor quality road infrastructure, are difficult to access, which reduces attractiveness and visits.

Bulgaria is one of the richest countries in Europe in terms of biodiversity and attracts nature lovers with its natural and territorial complexes for hunting and ornithological tourism. According to NSI data, the country has 55 nature reserves, 364 natural attractions, 3 national and 11 nature parks.

Tourism is an important factor for the development of regions, for the development of local economic potential. The sustainability of the growth of tourists is reported for 2017 and 2018. Another factor to be taken into account is the good transport connectivity of foreign tourists, namely the increasing number of low-cost airlines entering the country and offering favourable fares for tickets to Bulgaria. In terms of foreign tourist arrivals, seasonality should also be taken into account, as well as the impact of climate change, which affects our winter resorts when snowfall is low. In order to reduce the effects of climate change, diversification of the sector is needed by developing and expanding alternative forms of tourism - spa, rural and eco-tourism.

A prerequisite for attracting tourists, for developing rural tourism and for expanding the bed base are tourist festivals and events that show the wealth of traditions and the authenticity of Bulgarian culture and spirituality. In the register of tourist festivals and events there are 1,278 entries, of which 99 are of international importance, 358 are of national importance, 279 are of regional importance, 43 are of municipal importance and 505 are of local importance.

Rural tourism has developed in recent years and is gradually beginning to compete with traditional types of tourism in Bulgaria. For rural settlements with natural, historical, cultural and environmental assets,

tourism is becoming an economic activity that can revitalise the local economy. This is of particular importance not only for the municipality concerned but also for the national economy. It is the diversification of economic activities in rural areas that creates an alternative to typical agricultural employment.

The municipality becomes attractive to both the local population and foreign investors, which is of considerable benefit in reducing the inequality between rural and other industrially developed areas. Yet the wealth and potential available in the country is not being exploited for tourism development in rural areas, most of the tourists visit the established tourist places for holiday breaks.

Some of the factors that are a **barrier** to the potential of the Bulgarian countryside, its natural, historical and cultural attractions and the expansion of the tourist base and to attract tourists are:

- Demographic factors - migration of the population to cities or emigration abroad from rural municipalities. The ageing population is definitely discouraging entrepreneurs to invest their resources in these areas, and they are directing their capital to the larger cities or to developed tourist localities where there is a demand and supply of tourist products. Depopulation, unemployment rates of working age people hinder investment and entrepreneurship.
- Problems arising from poor infrastructure in areas. In most villages the road network has not been upgraded, there is a lack of sewerage, internet and telephone connections. It is understandable that the young population is looking for another place with better living conditions, where they will get better opportunities for realization.
  - o Tourist infrastructure - it is important in terms of providing suitable conditions for stay.
  - o General infrastructure, water and electricity supply, is an absolute requirement for any tourist site.
  - o The development of broadband internet and access to information. Computerisation, complemented by established telecommunication networks, are the conditions for the digitalisation of activities such as marketing, advertising and the technological processes related to serving tourists. The entry of technological innovations in tourism will improve the tourism product offered to localities.
  - o Technical infrastructure - the development of the street network, lighting, an improved urban environment, an environment for tourist attractions, etc. There is still an imbalance in the municipalities regarding these elements.



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- Improvement of the accompanying infrastructure - retail outlets, catering facilities, advertising and information centres to provide and facilitate the logistics of offering tourist products and to support their promotion.
- Road infrastructure - according to the National Register of Tourist Sites, roads to some historical, natural and cultural sites are in poor or unsatisfactory condition, making them difficult to access for tourists.
- Transport accessibility - the organisation and frequency of transport outside the scope of first-class roads also limits access to tourist sites. Transport accessibility needs to be improved, which will help to increase the number of tourists, and access to and use of information and communication technologies in smaller towns and villages should also be increased.

Some conclusions can be drawn from the Rural Tourism Development Review:

- There is natural, historical and resource potential in rural areas that is underutilised as a tool for developing the local economy. In rural areas there is a combination of preserved forestry, historical and cultural attractions, diverse flora and fauna, which allows for the development of alternative tourism.
- Disparities in tourism development - strong dominance of mountain and seaside resorts which attract a significant proportion of foreign tourists. Foreign tourists compared to Bulgarian tourists are reported in Nessebar (13% foreign tourists per night compared to the national level in 2017), Balchik (4%), Bansko - 2%. Rural tourism does not attract enough foreign tourists.
- In some spa areas, the visits of Bulgarian citizens are more compared to foreigners (Velingrad - 2.8% Bulgarians, or 209,345 overnight stays, and 0.2% foreigners, or 11,321 overnight stays).

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

### **2.2.3. Long-term vision for rural area**

In order to attract young farmers and facilitate the development of rural businesses, the authors believe it would be appropriate to undertake actions related to:

1. Raising the educational level of those employed in the sector, including owners, managers and employees. This could be done by means of vocational training courses, qualification and retraining, and the introduction of vocational subjects in higher and secondary schools.

2. Start-up of new enterprises, including but not limited to young farmers, access to financial resources, including under the Strategic Plan (2021-2027);
3. Fostering the link between science and business;
4. Investing in the sector (in new and existing enterprises) - investing in technologies to ease the work of employees, increase productivity and quality of production, contribute to environmental protection. Investments can be grouped as follows:
  - innovation;
  - Proven successful existing technologies;
  - Environmentally friendly technologies: that contribute to a more efficient use of natural resources and energy sources; that allow the use of renewable natural resources; that minimise waste at farm and agri-food enterprise level;
  - Workshops, dairy factories, company stores to close the cycle from the production of primary agricultural products to their final marketing in fresh and processed state;
  - Digitalisation of the sector, where applicable;
  - Buildings, land, animals, agricultural machinery, inventories, etc.
  - Access to services - advisory, veterinary, breeding, agronomic, financial and accounting, etc.
  - Associations of producers and processors;
5. Raising incomes of employees, which would improve the attractiveness of work in the agricultural sector. We believe that raising incomes is directly related to both investing in the sector and raising the educational level of employees;
6. Investing in the quality of life in rural communities - providing quality healthcare, crèches, nurseries, schools, infrastructure, organising cultural, recreational and sporting events, which is particularly important to attract young people raising their children.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

### **2.3. Typology of rural business models and distribution in different types of areas**

Concrete alternative solutions are put forward as proposals for ensuring sustainable rural development in Bulgaria, in line with the specific strengths and weaknesses of rural development in the country, with practice and with the European Union's vision for smart, sustainable and inclusive growth. They aim to overcome the imbalances in the country's rural development and to achieve sustainability of this development by:



- Applying a territorially-based integrated approach to rural development policy - an approach that relies on a package of "soft" measures creating real and tangible effects for local populations.
- In terms of the target-orientation of this approach, the following main measures have been defined: strengthening local administrative capacity (through active cooperation and exchange of experience); practical implementation of the decentralisation process; introduction and actual functioning of self-monitoring measures and internal evaluation of local activities based on results obtained and implementation of good practices that have proven to be effective. By applying this approach, coherence and synergy of policies in the different economic and social spheres should be partially or fully achieved, accumulating a stronger impact and higher added value;
- Designing and implementing an investment programme to ensure the economic and social stability of rural areas - the instruments of this programme should focus on two main areas - investment in infrastructure and investment in human capital. The aim is to achieve integrity as a result of the interaction of the main factors of economic, ecological, social and infrastructural development, which will help to achieve balanced and sustainable rural development, intervening directly on problems such as: the rapid rate of depopulation, the ageing of the population, low employment rates and high unemployment, the underdeveloped economy, low incomes, underdeveloped technical and socio-living infrastructure and at the same time undervalued natural, social and economic infrastructure.
- Implementation of measures to influence the negative demographic trends in rural areas in the Republic of Bulgaria - Introduction of economic incentives such as: zero rates of certain taxes, percentage reduction of interest on investment loans, provision of state land for industrial construction, etc., should improve the microclimate in rural areas. The application of unpopular measures such as exemptions from property tax and household waste tax, for a certain period of time, on the birth of a second/third child, to parents with a permanent address in a rural locality (a locality with a population below 30 thousand) or exemptions from nursery fees could deter the rapid rate of depopulation in rural areas. Tax breaks, as a material incentive, would influence, albeit less tangibly, the attitudes of young families, who increasingly choose small settlements near an agglomeration centre as their home. In combination with other tangible and intangible incentives, however, the effect would be far more tangible;
- Implementation of measures to valorise the natural and cultural heritage of rural areas - the implementation of measures to develop nature and cultural tourism as well as to develop organic farming in rural areas would not only valorise the potential of these areas but would also diversify



their economy. The development of different types of tourism (nature, equestrian, ecological, rural, hunting, fishing, adventure, festivals, etc.) should accumulate higher gross value added. Bulgaria's rural areas represent territories with hitherto untapped potential for the development of such types of tourism, combining unique natural attractions and cultural and historical heritage, offering a recreational environment that meets modern requirements in terms of communication connectivity. In areas lacking natural, cultural and historical attractions, priority could be given to intervention in the field of organic farming;

- Implementation of amendments and additions to the national legislation directly or indirectly related to the development of rural areas in the Republic of Bulgaria - the need for amendments and additions to specific normative acts has been identified: The Law on Local Self-Government and Local Administration Act (LGSLA); the Agricultural Land Ownership and Use Act (ALUAA) and the Investment Promotion Act (IPA), as well as to certain normative acts indirectly related to rural development. Changes in the listed normative acts should be aimed at legal regulation of the processes of management and control of social and economic development of rural areas.

The author's opinion is expressed that the practical implementation of the proposed measures would lead to a reduction of inequalities in the socio-economic development of the regions (urban and rural), and therefore to overcoming most of the problems in the peripheral and backward rural areas of the country.

The following conclusions can be drawn from the above:

1. The concept of 'sustainable development' is more inherent in agriculture and its activities, since the level of living standards of both producers and consumers of agricultural products depends to a large extent on its competitiveness, environmental compatibility and social responsibility. The interrelationship between agricultural activities, the economy and the ecology is therefore at the heart of the sustainable development not only of the sector itself, but also of the rural areas in which it is a major industry;
2. Identifying weaknesses and highlighting obstacles to sustainable rural development is almost as important as finding management solutions and developing innovative development approaches based on the strengths of these areas;
3. Sustainable rural development is linked to the need for a territorially based integrated approach to rural development policy. An approach relying on a package of "soft" measures creating real and tangible effects for local populations;
4. Indicating the need for the elaboration of a national strategic plan for rural development - up-to-date or at least a targeted investment programme in support of rural development to be





- implemented in parallel with the operational programmes, generating positive cumulative results for the areas lagging behind in their social, demographic, cultural and economic development;
5. The deepening disparities in demographic development between urbanised and low-urbanised areas of the country are increasingly putting the latter at a disadvantage, and the negative impact of negative population growth invariably affects all aspects of social life. Our proposed unpopular measures (not often used in Bulgaria), such as tax breaks for the local population and stimulating investment activity in small settlements, would have a positive impact on the deepening problem of rural depopulation;
  6. The available resource potential in rural areas is quite sufficient as a basis for diversifying the economy in most of the rural areas, but it needs the introduction of management practices and consequently investments in tourism, organic farming, marketing and promotion of unique natural features, etc. Alternative options for valorising the natural potential of these areas;
  7. Sustainable and balanced rural development is impossible without legislative changes in a number of normative acts.
  8. The resource potential of Bulgaria's rural areas provides opportunities for diversifying the economy in these areas, but in order to achieve sustainable development in line with the vision of the European Union, our country should introduce a management model for rural development and invest as a priority in areas such as: social infrastructure, building mechanisms for ecosystem services, organic farming, nature and cultural tourism, etc.

*Source: Bankova B., Characteristics, functional imbalances and potential for Rural Development in the Republic Of Bulgaria in the context of EU membership, Autoreferat, 2020.*

## **2.4. Identification of driving and limiting factors based on literature**

### **2.4.1. Driving factors**

#### **Environmental, historical and cultural heritage**

Analysis and evaluation of cultural activities and cultural infrastructure Culture and spiritual development in rural areas are a factor for improving the quality of life, reducing the migration of young people, preserving cultural heritage and traditions. Bulgaria is a country with a rich cultural, historical and spiritual heritage. Libraries, community centres and museums are centres of culture and spirituality in the

settlements. In the larger towns, the regional centres offer more opportunities for cultural entertainment such as theatres, cinemas, etc.

A characteristic feature of culture in Bulgaria is its diversity, manifested in immovable and movable cultural assets and products of creative industries.

The cultural and creative industries are increasingly accepted not only as an independent economic sector with great development potential, but also as an important factor for economic growth and local development. Through these changes, cultural industries can develop in localities where there is a young population, and the demographic replacement rate is high.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

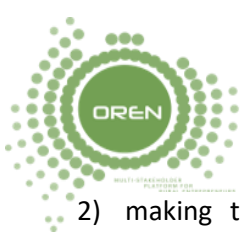
### **Ecological transition**

Environmental protection is among the global Sustainable Development Goals related to ensuring access to clean water, conserving water and protecting it from pollution; using renewable energy; reducing the number of resources used, and waste generated; protecting the seas and oceans of their ecological status and biodiversity; conserving land and forests; and reducing the harmful impacts of climate change and adapting to change. The 17 global goals of the 2030 Agenda for Sustainable Development and Transforming the World adopted in 2015 by the United Nations are the basis for adopting an environmental transition. In the same year, other important documents were adopted - the Sendai Framework for Disaster Risk Reduction and the Paris Climate Agreement - which also have implications for the European Union's environmental policy.

The achievement of the global sustainable development goals and the EU's intentions for a sustainable future are reflected in the declarations adopted by the Member States to put the subject at the heart of all policies and in the work of the Commission and in the documents being prepared for the post-2020 period, without underestimating the other two pillars of sustainable development with their economic and social dimensions. To support the Commission and the actors involved in this process, a platform for consultation on decision-making and exchange of good practices was set up in 2017.

The report "Europe's Environment - State and Prospects 2020" published by the European Environment Agency (EEA) identifies major gaps between the state of the environment and existing EU short- and long-term policy objectives. The EU's environmental policies are guided by three thematic priorities:

- 1) protecting, preserving and enhancing the EU's natural capital;



- 2) making the EU a resource-efficient, environmentally friendly and competitive low-carbon economy; and
- 3) protecting Union citizens from persistent environmental pressures and promoting health and well-being.

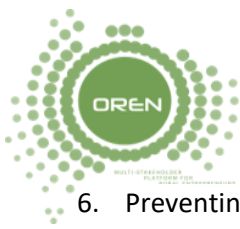
In recent years, the EU has also adopted a number of strategic policy frameworks that focus on transforming the EU economy and certain systems (e.g., energy, mobility) in ways that ensure well-being and equity while protecting ecosystems. The United Nations (UN) Sustainable Development Goals (SDGs) complement these frameworks by proposing a model of transformation that recognises the interdependence of social, economic and environmental goals.

The national environmental policy in Bulgaria is guided by the main objectives present in the Governance Programme of the Government of the Republic of Bulgaria for the period 2017-2021 and grouped around 3 priorities:

- 1) sustainable policy for a healthy environment, conservation and utilization of natural resources;
- 2) optimization of preventive action by simplifying the procedures of the investment process and improving the integration of emergency safety in the management of heavy industry; and
- 3) adaptation to the occurrence of adverse climatic events.

These objectives are further developed in the policy of the Ministry of Environment and Water and are supplemented in the annual review of achievements. The main objectives for 2021 and the actions oriented towards them are systematised in 10 points:

1. Improvement of the ambient air quality throughout the country through the implementation of a set of measures for the protection of ambient air purity.
2. Integrated water management, including the protection and improvement of water status, the achievement and maintenance of good quantitative, chemical and ecological status of water bodies on the territory of the Republic of Bulgaria and of the environment in marine waters, and the prevention or reduction of the adverse effects of water pollution.
3. Achieving resource efficiency by applying the waste management hierarchy, preventing waste generation, promoting reuse and recovery through recycling, reducing landfilling and limiting its harmful effects on the environment and human health.
4. Reducing the adverse impacts of climate change on human health, ecosystems and the national economy.
5. Protecting, maintaining and restoring ecosystems and their inherent biodiversity.



6. Preventing pollution and protecting the environment and human health through the application of preventive tools.
7. Ensuring adequate environmental monitoring and information infrastructure for environmental policy purposes, including public access to environmental information.
8. Development of the national environmental monitoring system. Ensuring the gradual publication on the Internet of information collections and resources in open format.
9. Raising public awareness and culture on environmental protection and effective implementation of control mechanisms for the enforcement of environmental legislation.
10. Ensuring sound financial management of EU funds for financing environmental protection activities.

*Source. SOCIO-ECONOMIC ANALYSIS OF DISTRICTS IN THE REPUBLIC OF BULGARIA 2021, National Centre for Territorial Development. This report has been produced under the budget line BG16RFOP001-8.002-0005 "Budget line of the Strategic Planning and Programming Department", Priority Axis 8 "Technical Assistance" of the Operational Programme "Regions for Growth" 2014-2020, co-financed by the European Union through the European Regional Development Fund and the State Budget of the Republic of Bulgaria.*

#### **2.4.2. Limited factors**

##### **Infrastructure**

The degree of development of the transport infrastructure (especially the road network) and the quality of the services provided by it have a decisive influence on the spatial organization of the territory and the functioning of the system of settlements, respectively the socio-economic development and cooperation between the regions and their constituent districts. Part of the description is borrowed from other works commissioned by the Ministry of Regional Development and Public Works.

The main road routes of the TEN-T network are formed by roads of international and national importance - motorways and first-class roads, the length of which represents 18.4% of the total length of the road network in the country. These roads ensure the integration of the country's road network with that of neighbouring countries and are important for the integration of the territory in national and European terms. Nine hundred and forty-five (945) plots in the rural municipalities are categorized as bad, of which 671 are without a repair project as of 2019.

For the period 2014-2018, progress has been recorded in the country in terms of road development, according to pavements, as follows:



- Total paved roads increased by 94 km, from 19,462 km in 2014 to 19,556 km
- Asphalt roads increased by 119 km
- Paved roads decreased by 5 km
- Cobblestone decreased by 8 km
- Ballast roads decreased by 12 km
- Unpaved roads increased by 54 km.

The road network in rural areas is relatively well developed, investments in road infrastructure have improved connectivity in communities. There are not few municipalities with roads in poor condition that need repair (complete or partial). The analysis notes that due to roads in poor or inadequate condition, tourist sites of national local importance are difficult to access.

### **Broadband infrastructure**

The country's broadband coverage in 2018 for Bulgaria is as follows: fixed broadband coverage in 2018 was 96%, compared to the European Union (EU) average of 97%, ranking the country 19th in this ranking. However, the spread of fixed broadband internet is 58%, compared to an EU average of 77%, placing the country last in the EU for this indicator.

Next Generation Access Network coverage is 75%, which ranks us 23rd, as the EU average for this indicator is 83%. Superfast broadband penetration is 43%, higher than the EU average of 41%, which ranks the country 15th because of the higher indicators of the other member states.

According to NSI data, access to broadband internet is 75.7% for cities and 58% for rural areas. The EC points out that broadband internet access contributes to improving the economic and social well-being of the population.

Bulgaria has seen an increase in mobile broadband subscribers - currently 82% of the population, but still below the EU average of 84%. In terms of 4G coverage, however, Bulgaria lags behind and ranks 26th with 66%, while the EU average is 84%.

The spread of high-speed connectivity is unevenly distributed across the country as private operators prefer to install internet in locations where there are more users - young people of working age.

"Broadband" is a generally accepted term for high-speed Internet connectivity and other technical features that allow access to or delivery of new content, applications and services.

Bulgaria has high-speed Internet; a problem exists for coverage in some small towns and remote rural locations. As a consequence of uneven coverage and the existence of white areas, there is still a population deprived of Internet and on-line services and information, which also puts them in a kind of

social isolation. According to the national documents it appears that access to the Internet due to insufficient broadband infrastructure is limited in sparsely populated rural areas, Infrastructure is better in cities with a larger population. Due to inadequate internet network penetration in remote settlements in mountainous and peripheral areas in rural areas is a barrier to establish businesses, access to electronic services and information. In this regard, providing access to the Internet and improving its speed will help to overcome regional disparities in access to electronic services and information.

Bulgaria is among the EU countries with a very good position in the area of ultra-high-speed broadband and has a good basis for the forthcoming widespread deployment of NGA networks, however the high costs of NGA development, combined with uncertainty in demand and return on investment, deter service providers and private investors from investing in NGA. In order to achieve the objectives of the Digital Agenda for Europe 2020, it is necessary to take concrete measures and develop mechanisms by the state to stimulate consumption. The EU points out that the deployment of NGA cannot be achieved without public and EU support.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

<https://www.mtc.government.bg/en/category/46/infrastructure-next-generation-access-nga#:~:text=The%20total%20coverage%20of%20fixed,19th%20place%20in%20this%20ranking.>

## **Increased unemployment rate**

### **1. Unemployment rate**

The rise in unemployment during the crisis (2009-2012) was particularly pronounced for workers aged 15-29 and for those aged 55 and over. In an environment of macroeconomic stabilization and growth of the Gross Domestic Product, the unemployment rate at the national level reached levels of up to 5.2% for 2018, which are lower than the level of the EU-28 (6.7% for 2018). On the positive side, the unemployment of persons up to the age of 29 is decreasing, but the levels are still higher than those of the EU-28. The reduced number of employed persons and a high number of unemployed keep unemployment rates high in some rural areas and reach over 30% or 50%, which can lead to increasing social isolation and poverty, as well as future depopulation. The negative trend is influenced by the demographic imbalance and the decrease in the demographic replacement rate and by weak economic activity.

The share of long-term unemployed workers is constant and shows that they are not the preferred workforce of employers and this determines the corresponding stratification of the population.

Level of education - in rural municipalities the share of unemployed persons with a low level of education and qualification is higher than in other municipalities. This applies to young people up to 29 years of age, as well as to long-term unemployed Roma who have lost work habits and find it very difficult to integrate into the labour market and are in danger of social exclusion and substantial impoverishment.

## **2. Ageing of the workforce**

The ageing of the workforce in a dynamic labour market with constantly changing demands on the qualifications and skills of employees is a process that gives rise to the need to continuously increase the overall potential of the workforce, on the one hand through lifelong learning and, on the other hand, through active ageing of those who continue to work into old age.

## **3. Employment**

Activity and employment rates are lower among people living in rural areas and small towns, due to the higher proportion of the population over working age. Limited job creation in a still low economic growth environment.

The working age population has been declining annually at a relatively constant rate of 1.4% on average over the last seven years. To a large extent, this negative dynamic is influenced by the substantial decrease in the demographic replacement rate and the emigration process of working age people also contributes to the trend.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

## **Education and educational infrastructure**

Human capital is identified with the qualities of people and depends on both the level of education and its quality. In today's dynamic environment, human capital is essential for the introduction of technological innovation and for the development of the economy. In the country, the educational level of the population has been improving significantly over the years, following a clear trend of increasing the number and share of the population with higher and secondary education and, at the same time, reducing the number of persons with primary and lower education.

Educational attainment is a prerequisite for securing employment for the population, for obtaining higher incomes, for achieving a better quality and standard of life for the population and, in territorial terms, for reducing the risk of poverty and social exclusion.

Although the country's educational structure is improving, Bulgaria still lags behind the EU average. In 2017, 27.8% of the population had tertiary education (compared to 31.4% in the EU), while the relative share of the population with primary education and below reached 17.2%. Educational characteristics vary between regions, with the largest number of people with tertiary education in large cities and the capital. Persons with secondary and tertiary education are in the cities, while in the villages the majority of persons have secondary education and fewer have primary education.

There is a disparity between rural and urban areas in terms of educational attainment. Attention needs to be paid to the school-age population in rural areas as a condition for achieving a balance in education. Small rural schools face barriers to providing high-quality education, particularly in terms of student effectiveness and achievement. In addition to the problems related to the insufficient number of teachers and the lack of sufficient educational resources, schools also face one main problem - a significant decrease in the number of school-age children. This leads to the existence of undersized classes and merges classes in many schools in the country, a reduction in the number of staff and the need for changes in the forms and methods of education. The smaller number of students in a class compared to the minimum normative requirements and the simultaneous teaching of students of different ages in one classroom does not allow an effective learning process to take place. Rural economic conditions can contribute to negative educational outcomes by pulling students out of the classroom and into the workforce prematurely. Family incomes are lower than those in the city, and therefore rural youth are more likely than their urban classmates to be called upon to leave school and find work to make up for shortfalls in family budgets. Low birth rates, migration of young people to urban areas and increasing life expectancy contribute to the demography and age composition of villages. On average across Organization for Economic Co-operation and Development (OECD) countries, about 22% of the population lived in rural areas in 2018, compared to 45% almost seventy years earlier (Marinkova S., 2019).

The population of the country continues to decrease, and this directly affects the education system - schools and kindergartens are closed in the settlements with the low birth rate characteristic of rural areas. It is mainly as a result of demographic changes in recent years that the number of children and students is decreasing. Thus, the rural education sector faces the challenge of adjusting to the declining demand for educational services in primary and secondary education.

In rural areas, the educational institutions are in the municipal centre and part of the students from the villages, due to remoteness, are transported by transport organized by the school. Improving the municipal educational infrastructure is essential to ensure the quality of education and training, but also to reduce the existing differences between rural and urban areas and to improve living conditions in rural



areas, as well as to limit the conditions for their depopulation. There were 1,234 general education schools in rural areas in 2008, and 1,132 in 2017, with a decreasing trend, and in 2018 there were 1,116 general education schools in rural areas. There were 167 vocational high schools in rural municipalities in 2008 and 144 in 2017. In rural areas, vocational training is for the most part tailored to the specifics of the local economy. However, in some high schools, training in traditional professions is still maintained, despite the reduction in their number or the closure of certain industries. The difficulties with finding a job and the discrepancy between the acquired qualification and the possibility of realization lead to an outflow from professional education of some young people, although in recent years there has been a minimal increase in the number of students in rural areas (for 2017/2018 the increase compared to 2016 /2017 is 10,852 students). Summing up, the number of students in secondary general education schools for the period (2013/2014-2017/2018) in rural areas decreased by 9%.

The analysis provides an overview of the number of students at the basic levels of education and changes in the number of educational institutions. One of the basic principles of the Bulgarian education system is openness - building an education system that is flexible in relation to the labour market and with equal access - in order to integrate all disadvantaged groups.

School education is divided according to the level into primary and secondary, and according to the content of training into general and vocational. Educational institutions in the country are divided according to the level of education - pre-primary (kindergartens), general and special schools (primary, elementary, high schools, secondary vocational schools of arts, sports schools, vocational high schools, vocational colleges, vocational training centres and higher education institutions).

The educational level and structure are determined by the developed network of educational institutions in the country, its accessibility for all population groups, the age structure of the population and the requirements of production and the market. The education system provides general and vocational education.

In the educational structure of the population, the share of the population with secondary education is the highest at 36%, followed by the share of the population with basic education at 24.7%, and primary education at 15%. The percentage of persons completing higher education is 31.6 (2018), almost reaching the target of 36%, for 2020. For the country, there has also been an increase in the number of secondary graduates.

*Source. Socio-economic analysis of rural development by Prof. Plamen Mishev et al 2019.*

## 2.5. Data collection process.

The scientific databases such as Scopus, Google Scholar, etc. and the Google search were searched with the terms: "business model" and "agriculture in Bulgaria" or their variants such as "Rural development". The initial list of papers was checked for relevance by reading the abstract and, if necessary, the full text. Most of the articles had very old data, so they were not included in the report, as the requirement was for a 5-year period. This is also the reason why the literature used is so little. In addition, by extending the concepts that were revealed from the literature, reports and data were collected from official websites of the Bulgarian government, such as Councils of Agriculture, National Statistical Institute, Ministry of Agriculture, etc. In addition, especially for the relevant programs, the parts of the Bulgarian legislation have been studied and the relevant official documents are indicated in the appropriate places in the text. Finally, in addition to the National Statistical Institute, the Eurostat website and database were searched for relevant information. All datasets are cited appropriately in the text.

## 3. Case Study analysis

The three case studies in Bulgaria, one farm with crops and livestock, one mushroom farm, and one complex containing a hotel, a restaurant, and a farm, stressed the importance of the local environment for their business model. The mushroom farm emphasized how crucial it is to have clean air and water, while the others stated that the local landscape was important as it related to traditions, and the traditional foods grown in this place, as well as traditional animal breeds.

Additionally, another important factor mentioned was the importance of local traditions, as there is currently in Bulgaria a high demand for authentic, traditional foods, as a response to conventional agriculture and mass production. Similarly, the mushroom farm, although it does not grow traditional Bulgarian products, emphasized that they relied on the public's demand for ecological, organic, and healthy products, as opposed to low-quality mass-produced foods.

All three businesses studied underlined the crucial need for training, in order for the business to thrive. Mentioned were both technical skills, such as the ones related to growing Shiitake mushrooms (there is a lack of trained staff), or breeding local breeds of cattle, as well as business skills related to management.

Similarly, a goal shared by all three businesses was preserving and transmitting knowledge and know-how for future generations, as well as implicating local communities, including schools, in seeing the importance of local businesses. This was also done by fostering short supply chains, with the consumer getting in direct contact with the producers, thus both keeping the prices low, and fostering a sense of safety on the quality of products. This is done through farmers' markets, local festivals, as well as other events showcasing local, traditional Bulgarian agriculture.

Finally, the main obstacle identified by all three businesses was a lack of State support: there is no specific legal framework regulating small, local agricultural businesses, especially those using traditional

methods, which leads to them being disadvantaged against bigger, conventional exploitations. Additionally, the mushroom farm underlined the lack of specific government funding programmes, leading to difficulties in accessing funding.

## 4. Analysis of existing relevant programs

The purpose of this task is to demarcate the characteristics of the current programs implemented in enhancing the development of rural entrepreneurship and business development.

Although there are many programs that support entrepreneurs, we have selected the ones we were able to find the most information about. As a result, the authors of this report relied on the information provided by the official websites and if available information from the official reports on program results. Some of the participating entrepreneurs have benefited from some of the programs.

For the purposes of this report, three governmental programmes were analysed: the first one aims at financing young farmers, the second one at training farmers and rural entrepreneurs in innovative, environment-friendly practices, and the last one at training unemployed persons in skills and techniques needed to work in the rural sector, with an emphasis too on sustainable techniques.

All three programmes share a common goal of improving rural businesses, by providing them either with financing needed to expand, renovate, or innovate in their farms, or with training aimed at developing skills needed in the 21st century for agriculture, livestock farming, and forestry. Such skills include both innovative techniques using less water and energy while being more efficient than traditional techniques, as well as skills related to business management, like trainings on short supply chains.

The financing programme also aims at helping the absorption of European funds into the Bulgarian economy, redirecting them to rural businesses. However, a main drawback that was identified with this programme is that the criteria to qualify are that the farm has been running for at least 3 years, and has at least 5 employees, criteria which de facto exclude new, young farmers, and very small businesses, both groups who would greatly benefit from facilitated access to financing.

The first training programme, targeting farmers, aims at the acquisition of skills in the following fields: Plant breeding, Animal husbandry, Forestry, Food technologies, Veterinary Medicine. They are hands-on trainings, with an exchange of knowledge between rural entrepreneurs. In addition to this, another

strength of this programme is that these trainings are either very cheap, or free, thus recognizing that rural entrepreneurs often cannot afford more expensive courses.

However, the main drawback is that most of the training sessions happen in large cities, forcing the trainees to travel, often for long as they live in remote areas, and thus they often have to spend time and money to attend.

The second training programme is aimed at unemployed persons from areas with high percentages of unemployment. The purpose is to give them skills related to working in rural businesses, with an emphasis on environment-friendly techniques and technologies. This is necessary, as there is currently, in the rural field in Bulgaria, a high demand and short supply for skilled workers.

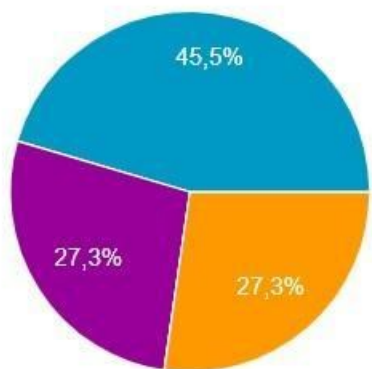
## 5. Analysis of Questionnaires Results

Questionnaires were administered via Google Module.

The analysis and results are based on a sample of 11 respondents.

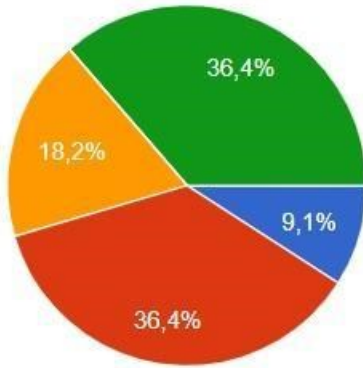
### 1. What is your level of education?

To the question "What is your level of education?" 45.5% of the respondents stated that they have a Master's of equivalent, 27.3% have a bachelor's equivalent | 27.3% have a Secondary education.



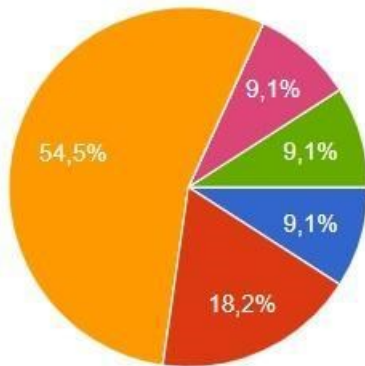
### 2. What is your professional experience as rural entrepreneur?

To the question "What is your professional experience as rural entrepreneur?", 36.4% of respondents have more than 10 years of experience, 36.4% have experience from 1 to 5 years, 18.2% have experience from 5 to 10 years and 9.1% have less than one year of experience.



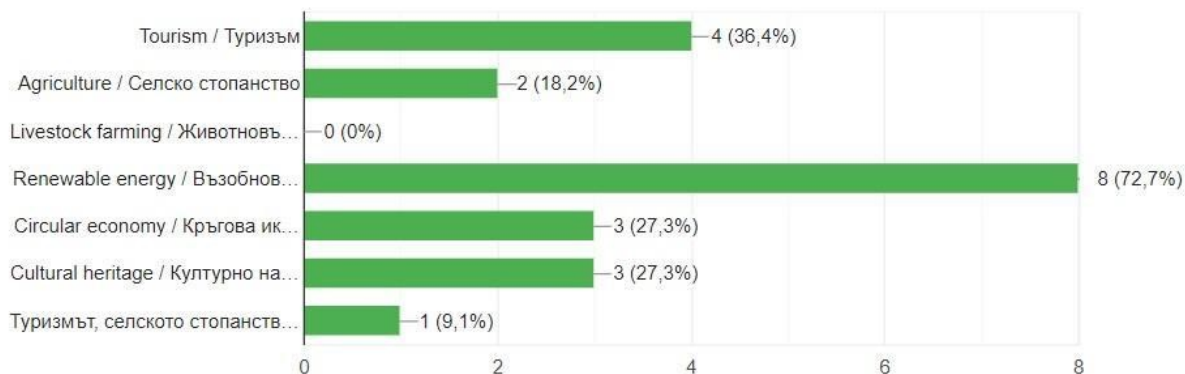
**3. Please of indicate your area of expertise**

To the question "indicate your area of expertise", the respondents indicated that 54.5% work in the field of Livestock farming, 18.2% in the field of Agriculture, and the remaining shares are equally represented as 9.1% are in the field of Tourism, 9.1% Tourism and Livestock farming, and 9.1% work simultaneously in several fields - Tourism, Livestock farming, Agriculture and Circular economy.



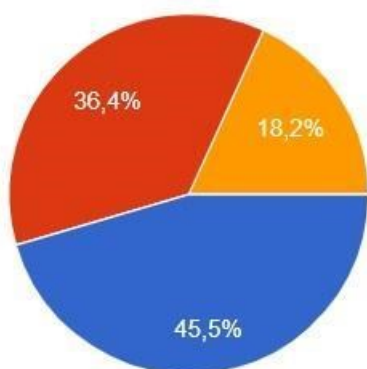
**4. In your opinion which are the main emerging and promising sectors of rural entrepreneurship?**

According to the opinion of the entrepreneurs, the most developing and promising sector is "Renewable energy" (72.7%), followed by "Tourism" (36.4%). The entrepreneurs equally evaluated the sectors "Circular economy" (27.3%) and "Cultural heritage" (27.3%), and 18.2% voted for the sector "Agriculture". Of the respondents, 9.1% answered that „tourism, agriculture and cultural heritage are part of the circular economy. Renewable energy can easily be included as a modern trend for sustainability“.



**5. What typical challenges and hinderers do you see for potential entrepreneurs when it comes to entrepreneurship skills? (please specify if it is not neither the three examples)?**

The typical challenges and hinderers that the respondents see for potential entrepreneurs when it comes to entrepreneurship skills are as it follows: 45.5% for “Human capital expertise”, 36.4% for “Socio-economic background” and 18.2% for “Knowledge gaps”.



**6. Which are the main driving factors for rural businesses success? (please specify if it is not neither the examples)?**

The entrepreneurs pointed out that the main driving factors for rural businesses success as they choose the most important is "Proper entrepreneurial skills" with 72.7%, followed by “Connection with a diverse network of stakeholders” - 54.4%, "Financial capacity" with 45.5%, "Innovation" - 27.3% and "Knowledge of legislation" - 18.2%



**7. On a scale of 1 (not important) to 5 (very important) how would you rate the importance of the listed main obstacles for the establishment of successful rural businesses?**

With respect to the main obstacles for the establishment of successful rural business, the 11 respondents share a similar point of view. In fact, none of them scored 1 “not important” any of the listed obstacles and the average score goes between 4.8 (Demographic changes) and 3.7 (Fewer educational opportunities) with a little variance.

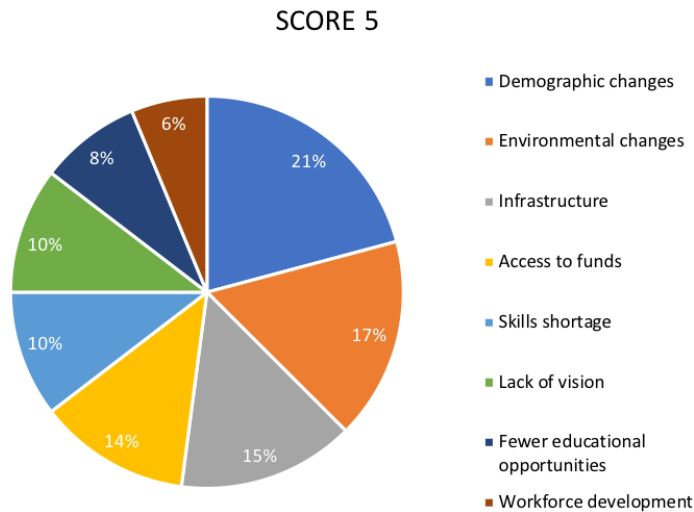
Score 2 is given only to “Fewer opportunities”, “Access to funds” and “Infrastructure”.

Demographic changes	5	5	5	5	5	3	5	5	5	5	5
Workforce development	4	5	3	4	4	3	5	3	4	5	4
Skills shortage	4	5	3	4	4	5	5	4	5	5	4
Fewer educational opportunities	3	5	4	5	2	5	3	4	3	5	2
Access to funds	4	5	5	5	3	5	5	3	3	5	2
Lack of vision	5	5	3	5	5	5	3	3	4	5	4
Infrastructure	5	5	5	5	4	4	5	2	3	5	5
Environmental changes	5	5	5	5	5	5	5	4	3	5	3

Obstacle	Average score
Demographic changes	4.8
Environmental changes	4.5
Skills shortage	4.4
Infrastructure	4.4
Lack of vision	4.3
Access to funds	4.1
Workforce development	4.0
Fewer educational opportunities	3.7

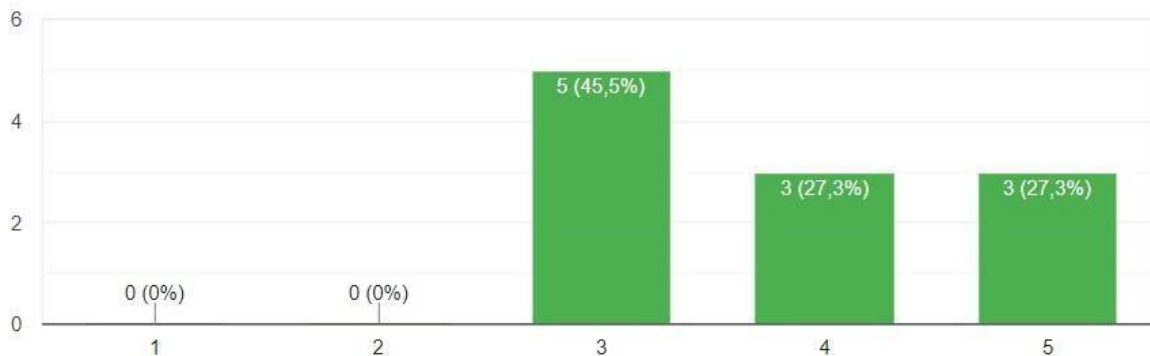
“Demographic changes” is evaluated as the most relevant, with an average score 4.8, while “Fewer educational opportunities” is the less relevant (3.7), although scoring averagely more than 3.

Analysing score 5, it emerges that the 3 most important obstacles are Demographic changes (20.8% of composition), Environmental changes (16.7% of composition) and Infrastructure (14.6% of composition). These 3 obstacles represent altogether more than 50% of Score 5 composition.



**8. In what level you agree or disagree with the following statement in your region? «Due to the growing complexities in the rural sector, rural professionals have to become more businessmen»**

45.5% of the respondents neither agree nor disagree, 27.3% agree, and 27.3% strongly agree with the following statement «Due to the growing complexities in the rural sector, rural professionals have to become more businessmen»

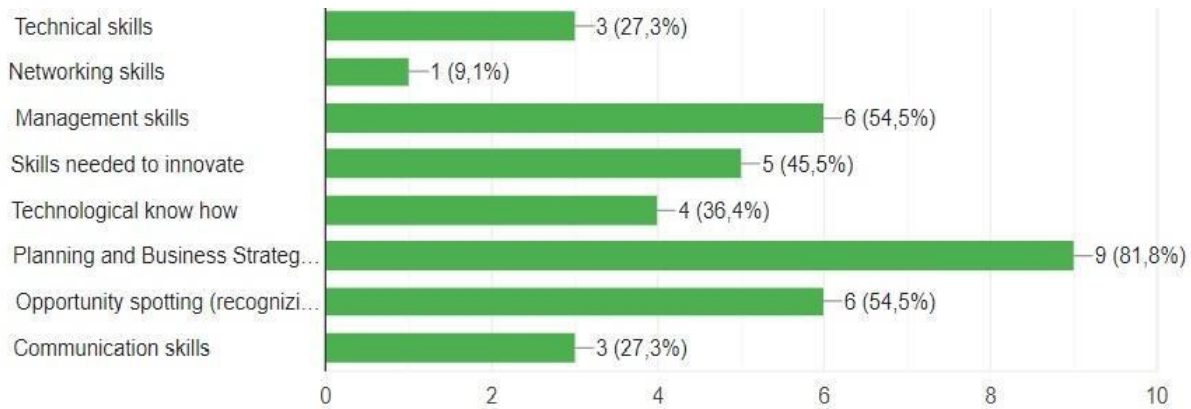


**9. In your opinion, which are the most important skills that rural entrepreneurs should have (select up to three of the following listed skills)?**

The figure shows that according to the respondents to the question "which are the most important skills that rural entrepreneurs should have", 81.8% indicated Planning and Business Strategy skills (Developing



and evaluating a business strategy), 54.5% indicated Management skills, 54.5% - Opportunity spotting (recognizing and analysing business opportunities), 45.5% indicated Skills needed to innovate, 36.4% - Technological know-how, 27.3% are for Technical skills and 27.3% for Communication skills, and only 9.1% indicated Networking skills



**10. Please briefly explain the reasons for your selections:**

Respondents stated the following reasons for choosing "Planning an Business strategy": In order for a business to grow, it must be well planned; to run a successful business you have to know how to plan the right business strategy; strategy is a key element to avoid failure and for the business to grow and develop in the long term; planning and strategy help analyze any agribusiness situation; one must have a well-balanced and realistic business plan so that one never lacks money, equipment or anything vital.

The following reasons are given for choosing "Technical skills and know-how": needed for good performance, and also compensates for the lack of manpower; many entrepreneurs work according to old methods that are no longer efficient and profitable; the modern farmer must have the know-how to be competitive and efficient.

"Management skills" is helpful: to run a successful business; for taking and evaluating decisions; for organizing, growing and developing a successful business.

The following reasons for the choice of "Opportunity spotting" are indicated: helps for the choice for the future goals; this is the most important quality for an entrepreneur, because people can be hired who have the necessary skills and be useful, or paid for consulting services or business planning, but first the entrepreneur must be able to find opportunities; the entrepreneur must have an eye for opportunities in order not to miss them - everything else can be provided through employees or subcontractors.

"Communication skills" are important for working with people.

In general, all the skills mentioned by the entrepreneurs will lead to the management of a successful business.

**11 According to your experience, for which type of the above-mentioned skills you consider that training courses would be valuable for potential rural entrepreneurs? Please fill three skills below, allocating them on by priority.**

According to the experience of the respondents to the question "for which type of the above-mentioned skills you consider that training courses would be valuable for potential rural entrepreneurs?", in the most answers and indicated in the first places is Planning and Business Strategy skills (Developing and evaluating a business strategy) with 63.64% (in 7 out of 11 answers), in second place they put Skills needed to innovate with 45.45% (in 5 out of 11 answers, with 3 first positions), and in third place in terms of importance they indicate Opportunity spotting (recognizing and analyzing business opportunities) with 45.45% (in 5 out of 11 answers, with 2 first positions).

The remaining answers are arranged as follows:

- Technological know-how with 36.36% (in 4 out of 11 answers, with 3 first positions),
- Networking skills with 27.27% (in 3 out of 11 answers, with 2 second positions),
- Management skills with 18.18 % (in 2 out of 11 answers, with 2 first positions)
- Technical skills with 18.18% (in 2 out of 11 answers, with 2 second positions).

None of the respondents indicated Communication skills as part of the three priority skills.

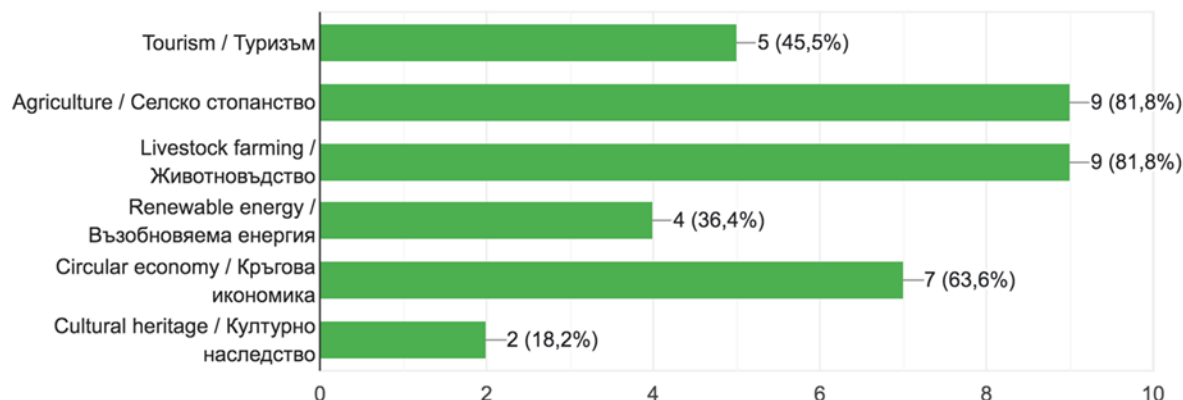
**12. In your opinion what factors would contribute most to successful business models that benefit local communities? e.g., surplus or profits are re-invested to community benefit or create a positive impact for the local economy (Open question)**

According to replies provided by stakeholders, the following are the factors that contribute the most to business models that benefit local communities:

- introduction to renewable sources
- reinvesting profits for the benefits of the community:
  - o social infrastructure in order to fight depopulation of rural areas
  - o for training and motivating young staff
  - o for education (schools, kindergartens) and health facilities
  - o for the growing of local businesses, including local emerging rural businesses
- through cooperation with university and schools for students' practices.

### 13. In which of the following sectors are these skills mostly needed?

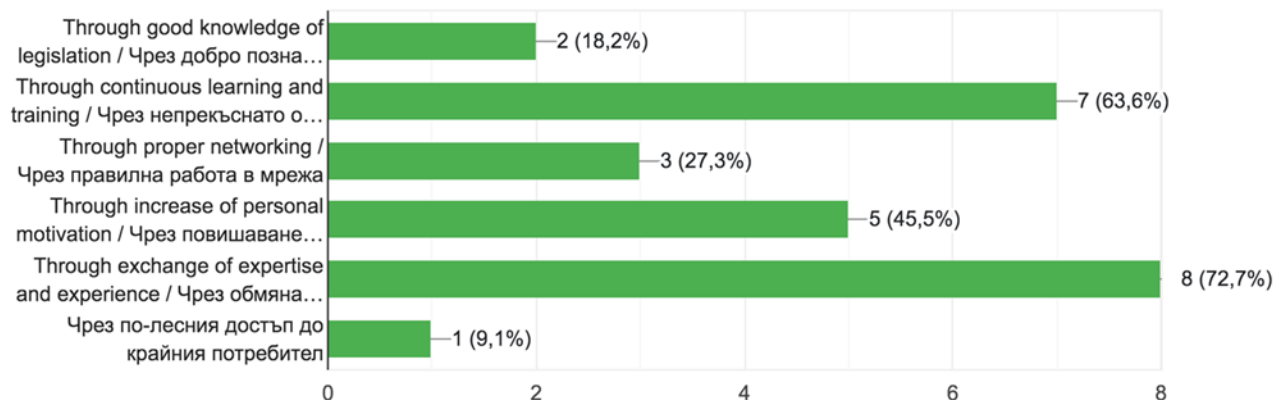
Skills are mostly needed in the following sectors:



81.8% of respondents agree on Agriculture and Livestock farming, followed by Circular economy (63.6%) and Tourism (45.5%). Renewable energy and cultural heritage are less selected sectors by respondents, respectively 36.4% and 18.2%.

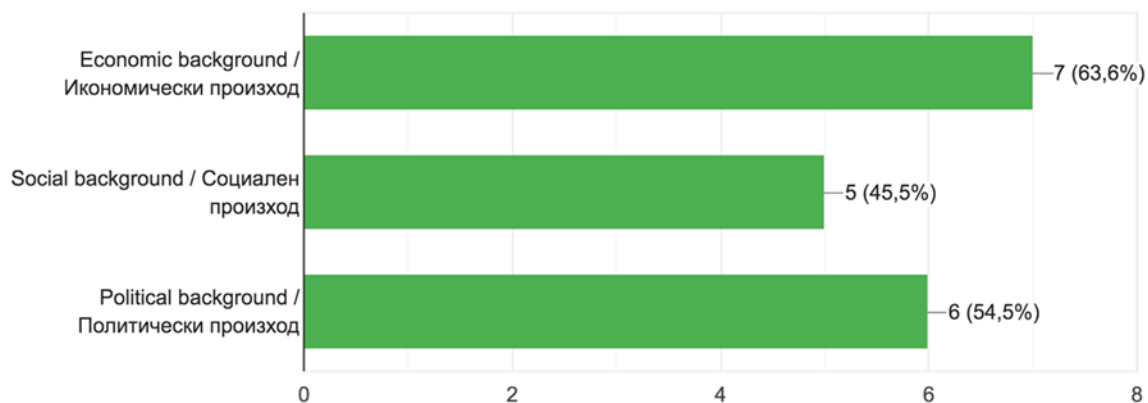
### 14. In your opinion, how could potential rural entrepreneurs be supported to recognize, realize, and start business opportunities?

72.7% of respondents agree that support to rural entrepreneurs can be provided through “Exchange of expertise and experience”, 63.6% states “Through continuous learning and training” and 45.5% agrees on “Through increase of personal motivation”. Finally, only 27.3% agrees on “Through proper networking”, 18.2% agrees on “Through good knowledge of legislation” and one respondent selected “other” and indicated “Through more affordable access to end users/Чрез по-лесния достъп до крайния потребител”.



**15. In your opinion, the main factors limiting the development of successful business models are linked with.**

Most of respondents (63.3%) stated that Economic background is the main factor limiting the development of successful business models, followed by Political background (54.5%) and Social background (45.5%).



**16. Please briefly explain your response (open question).**

The reasons for these choices are explained as follows:

- Economic:
  - o lack of financial and social motivation for the return of capable people to rural areas.
  - o lack of subsidies and financial assistance for entrepreneurs
  - o the economic issue is the hardest one to cope with, bank loans etc.
  - o financial support and finding a good market prices for the agricultural production
  - o with a good economy, the social status would increase, which would lead to the development of more entrepreneurs
- Political, related to legislation and agricultural strategy:
  - o The constant change and the lack of regulations and ordinances, which are heavy, unwieldy and unclear, hinder the development of rural areas
  - o The legislation makes the work of farmers and entrepreneurs more difficult with unnecessary bureaucracy instead of facilitating and improve it
  - o The permanent insecurity in the government leads to gaps in legislation and it is very difficult for entrepreneurs to adapt



- o The state politics are vital for agriculture. So far, we have bad national agricultural strategy.  
Politicians do not see, or do not want to see real problems
- o Agriculture in Bulgaria is a lever for filling party coffers
- Social:
  - o low standard of living of the population [in the rural areas]
  - o There is no incentive for the young capable population to return to rural areas. There are no doctor's offices, kindergartens and schools, as well as infrastructure
  - o some ethnic groups in rural areas have not been taught to work

**17. What (good) practices can you recommend for overcoming these barriers related to this? Please elaborate.**

In any case, respondents provide also some recommendations to overcome the barriers:

- Financial field: Encouraging (financially) the population to return and start their own business in rural areas
- Normative and Political field:
  - o Preparation of normative acts that are in accordance with the way of life and culture of the local population, which are understandable so that they can be imposed.
  - o Functioning prosecutor's office.
  - o Politicians must listen to the farmers problems and put end to the corruption
- Social field: Cooperating with dedicated groups of interests for better understanding and dealing with problems. A common view for local development
- Education and training field:
  - o Emphasis on education and legal motivation for work
  - o Training aimed at personal development, stimulating young entrepreneurs
  - o Proper business planning will help a lot for overcoming these barriers

**18. In your opinion what factors would contribute most to successful rural business in general? (Open question)**

Finally, respondents state that the following factors would contribute most to successful rural business in general:

- Sustainable Development:
  - o systemic (not systematic) approach to rural business,



- o defining future goals,
- o protection of the environment,
- o training next generations of entrepreneurs
- o Providing a resource through which to neutralize the impact of natural and climatic conditions
- o Using innovation, improving the economic environment and training
- Economic:
  - o Providing a resource through which to respond to changes in purchase prices and in the prices of means of production
  - o opening of more European programs
  - o Infrastructure development and free market access with simplified rules
  - o financing factors
  - o Ensuring the market / competitiveness of the final product above all else: From the farm to the table.
  - o good market
- Upskilling:
  - o finding a suitable workforce
  - o expertise
  - o Proper entrepreneurial skills
  - o Well-made business plan
  - o Right know-how
- Opportunity spotting and proper networking

## 6. Concluding Remarks & Recommendations

To successfully respond to the leading trends and challenges posed by globalization, urbanization and population ageing, and to reap the corresponding benefits of the environmental and digital transition, locally tailored policies and measures that take into account the diversity of rural areas are needed in Bulgaria, as well as their specific needs and relative strengths.

Regarding the factors that affect the efficiency of rural areas, the following have been discussed and identified in the literature: demographic problems, disturbed age structure, poor socio-economic conditions in rural areas, etc.

The population in rural areas is older than in urban areas and will slowly begin to melt away over the next decade. The population of Bulgaria as a whole is decreasing, but in rural areas this decrease is close to 1 million people compared to the beginning of the 1990s. Its density is twice lower than the national average (35.8 vs. 69.9 inhabitants per km<sup>2</sup>). Urban and rural areas register the same birth rate (about 8.7%), but the death rate among the rural population is higher - on average 16.8% compared to 12.4% for urban areas (NSI). This is due to the less favorable age structure of the rural population compared to the urban and the low relative share of people of working age. Combined with the lack of connectivity, underdeveloped infrastructure, lack of diverse employment opportunities and limited access to services, this makes rural areas less attractive to live and work in. At the same time, migration from villages to cities is deepening.

Entrepreneurs (farmers, agricultural producers, tourism sector) in rural areas do not have the financial incentive to modernize and develop their business, they barely manage to cover their production costs, and losses are not a rare phenomenon, especially in unfavorable natural and climatic conditions or in the event of a decline in sale prices. The local agribusiness management and regional development authorities have not sufficiently realized their role, which they must play in the case of the imposed decentralization in the management of the regions in our country, namely solving the problems of rural entrepreneurs and placing them before the state institutions.

The pandemic has exacerbated many of the already existing problems in rural areas and highlighted once again their vulnerability, in particular in terms of the quality and delivery of health services, education, the specific needs of the population, the resilience of distribution chains and innovation skills.

However, in recent years efforts have been made in Bulgaria to incorporate technology and innovation in rural enterprises, but there are important obstacles such as lack of knowledge and support from experts, high cost of equipment, lack of appropriate networks and resistance to change on the part of rural entrepreneurs.

Despite the difficulties encountered by entrepreneurs in Bulgaria, they do not give up, but continue to look for ways to develop their own business. Some of the entrepreneurs try to combine agriculture, animal husbandry, together with the development of rural tourism and the production of organic products. However, there are still many legal obstacles to providing accessible markets for bio-production from SMEs.

A survey was developed and disseminated to rural entrepreneurs in Bulgaria. Among the most important findings are the following:



- The respondents indicated that the main factors for rural business success are: Proper entrepreneurial skills, Connection with a diverse network of stakeholders, Financial capacity, Innovation and Knowledge of legislation.
- The respondents indicated that the main barriers for rural business success are: Demographic changes, Environmental changes, Infrastructure and access to funds.
- The respondents indicated that the most important skills that a rural entrepreneur should have are: Planning and Business Strategy skills (Developing and evaluating a business strategy), Management skills, Opportunity spotting (recognizing and analysing business opportunities) and Skills needed to innovate.

The responses of the participants regarding the factors that would contribute most to successful rural business in general were mainly oriented state assistance through coherent and stable national policy for the rural sector, the proper funding and business management by rural entrepreneurs, adequate training in innovation technologies and opportunities for networking and the incorporation of good practices and models that work in other European States with more experience and advanced know how.

Based on the findings of this report, a list of recommendations is summarized below:

1. Increasing the educational level of persons employed in the sector, including owners, managers and employees. This can be done by conducting professional training, qualification and retraining courses, introducing professional disciplines in higher and secondary schools. Increase the opportunities for continuous education of rural entrepreneurs. Education and training could be prerequisites of financial assistance by the state
2. Starting new businesses, but not only, by young farmers, thanks to financial resources that support the creation of new business
3. Investing in the sector (in new and existing enterprises) – investments in technologies that will ease the work of employees, increase productivity and product quality, and contribute to environmental protection. Investments can be grouped as follows: in innovations; in proven successful existing technologies; in environmentally-friendly technologies; technologies contributing to the more efficient use of natural resources and energy sources; technologies enabling the use of renewable natural resources; waste-minimizing technologies at farm and enterprise level from the food industry; in workshops, dairies, company stores to close the cycle from the production of primary agricultural products to their final sale in fresh and processed state; in the digitization of the sector, where applicable; in buildings, lands, animals, agricultural





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machinery, material stocks, etc.; in access to services - consulting, veterinary, selection (the process of choosing animals that meet the requirements of the breeding objective and will, in a breeding enterprise, pass particular traits onto their progeny), agronomic, financial and accounting, etc.; in associations of producers and processors; Incentivize the development of cooperatives; Incentivize the cooperation of rural cooperatives

5. An increase in the incomes of employed persons, which would improve the attractiveness of work in the agricultural sector and is also directly related to both investments in the sector and the increase in the educational level of the employed.

6. Investing in the quality of life in rural areas - providing quality healthcare, kindergartens, schools, infrastructure, the organization of cultural, entertainment and sports events, which is of particular importance for attracting young people raising their children.

7. Simplification of the legal framework regarding the establishment and operations of rural enterprises

8. Continuation and expansion of state co-financing programs that aim at increasing the rural enterprises' efficiency.

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<https://savetivzemedeliето.bg/> , Measure 4 "Investments in tangible assets"

## **Annexes**

Annex 1: Excel file with responses extracted from online questionnaire



## Annex 2: Case studies

### CASE STUDY 1

**Country:** Bulgaria

**Name of organization/business:** Biofish Trading Ltd

**Contact person and contact info:** Nikola Boyadzhiev +359885079083

**Website/link/more information:** <https://de-de.facebook.com/BoyadzhievFarm/>

**Category: Please indicate:** Agriculture

#### **1. Short Description of business model**

We are a small well-organized family farm where we combine natural resources in order to produce food with minimal impact on the surrounding environment and with maximum quality and freshness while preserving the traditions, livelihood of local population and the uniqueness of the different technologies used in production.

We produce and deliver in a small food chain (primary production – products factory – client) the following categories of goods while always organizing the processes in a fashion that allows for maximum utilization of the produced biomass and maximum benefit from the wastes:

- Cattle traditional products
- Bee products
- Fresh fish, eggs, plums and everything we achieve to grow in our farm

I am basically trying to connect the Sun, the water, earth and human into a sustainable nutritional “ecosystem”.

The harvested initial production with extraordinary qualities is being routed to a manufacturing plant specializing in traditional products which we offer and deliver to address. We also participate in different festivals where we promote our products or we are using couriers for deliveries.

#### **2. Socioeconomic background:**

Describe elements related with social/cultural/geographic origins related with the development of business model, origins.

In order to characterize the business model, first I will describe the region where production is located. My farm is situated about 40 kilometres away from Plovdiv, Bulgaria in Belovitsa village. It is a hilly area at about 400 meters altitude with a mixture of oak forests and beautiful pastures rich in a number of weeds, herbs and having a microclimate affected from the nearby dam, it has an average rainfall for the country standards with a lot of sunny days per year. Its remote location from the conventional farms allowed it to preserve its native farming techniques and resulted in the region being protected from the conventional practices. There are many areas which are protected under Natura 2000 around the farm which help for its protection from invasive practices. The region is poor populated but very rich in Thracian history, local traditions, wine production, fishing and hunting which offers an opportunity to build a sustainable business model with many different options for improvements.

### **3. Main achievements:**

e.g information on most essential qualitative and quantitative achievements

The trick here is in processing - so that the products are selected so that as many parts of the carcass as possible are used for food for people with a minimum amount of waste. The bones of the ribs are cut and a small piece of them is placed with the beef meat in a jar to gel and flavour it, to give it an exceptional commercial look. Beef fat is a cheap raw material and placing it in the traditional Bulgarian product "sazdarma" is a functional smart way to benefit the most out of it. Cattle intestines are cleaned and treated with salt to be used later to fill the sausage in them. The liver and heart go into the beef pate to give it that unique taste of liver. The bones are boiled, and a broth is produced, which is used for both pate and "sazdarma" where the meat is boiled in broth to acquire its exceptional taste. The meat from the head, rich in collagen, also goes into the pate to tighten and flavour it further. Veal belly and tongue are cleaned and autoclaved at 120 degrees for 3 hours and sold to make the spicy and oriental flavour traditional Bulgarian "Belly soup".

Each of the products is a delicacy that is not inferior in price and quality to the others but does not compete in production. Everything else is ground into a paste and used to make pet food. The minimum amount of animal waste is used to feed the catfish in the aquaculture of the dam.

### **4. Main driving factors and criteria that play significant role for achievements:**

e.g Factors acting as catalyst, instigators or motivators leading to success

The main driving factor is just one – a motivation to build a sustainable food chain for the next generations in harmony with the environment.

The first and most important part of production process is the well-educated farmer. I had to take various courses and now I am a student, learning how to produce a natural production, in order to raise a variety of species, taking care of pastures, nearby a beautiful dam surrounded by agricultural land

**5. Main challenges/obstacles limiting potential for success:**

e.g Factors that constrain or slow growth

Regarding the various regulations and rules for production, apart from the common European ones, the national legislation lags behind in this area of micro-enterprises, short supply chains and the protection of the Bulgarian taste. There is still no National Program in Bulgaria for local foods, there is no regulation of concepts and production. The overall lack of legislation in the field of local foods hinders their development because they fall into the same part of the law as conventional ones. The requirements are not adequate to the specifics of production and do not take into account local traditional practices, which leads many people to abandon this type of production. The lack of systemic (not systematic) approach to food production is extremely dangerous because food systems are linked not only to food production but also to ecological, cultural, geographical, political, economic and other systems whose understanding is fundamental for the next steps needed for their future development for the benefit of people.

**6. Level and way of local community's or other organizations engagement in business activities:**

Regional festivals and organizations are promoting the native traditions of the region, local food and beverage, cultural and historical heritage.

**7. Role of the local community and other organizations in the advancement of business models**

Due to the large part of conventional agriculture and production, the range of harvested products has narrowed and there is currently a huge demand for both exotic and traditional farm products. Due to the remoteness of the farms from the big centres, the development of modern technologies and the change in the way of life of the local population, a new direct approach to the client is needed. This is done by local community initiatives like farmers' markets, festivals and other events where there is a gathering of people, by using new information technologies, by transmitting information about products on the customer-customer line (the best advertising).

**8. Main characteristics that model good practices**

e.g (Legislation, specific knowledge, skills, background)

- Preservation and transmission of know-how to the next generation - the most important goal (in my opinion), it is to be sure, that there will be a legacy of good practices and solutions for further generations.



- To pay attention not only to the bio-chemical processes in the chain, but also to the behaviour of animals, because it may be fundamental for the future development.
- Introduction of modern technologies that will allow digitalization of tracking processes in order to better analyze and process data in a way that does not affect environment

## **CASE STUDY 2**

**Country:** Bulgaria

**Name of organization/business:** Gorunaka Complex

**Contact person and contact info:** Tsvetomir Hristov +359889597644

**Website/link/more information:** <https://www.facebook.com/kompleks.gorunaka>

**Category: Please indicate:** Agriculture

### **1. Short Description of business model**

With the depopulation of rural areas, it is necessary to build a business model that can combine several economic sectors, namely agriculture, as part of the cultural heritage combined with tourism, which aims to promote local products and attract fresh income. The Gorunaka complex is located in the mountainous region of Western Bulgaria in the village of Gorunaka, 7 km from the city of Etropole and 84 km from Sofia. The complex consists of a hotel, a restaurant and a farm. For families with children, they have numerous animations to enrich the knowledge and creativity of each child. Near the hotel there is a sheep farm, a cow farm and a horse farm.

### **2. Socioeconomic background:**

Describe elements related with social/cultural/geographic origins related with the development of business model, origins.

The growing demand for eco and organic products is turning its attention to rural areas. The use of local life and culture for work in agriculture, as well as the proper exploitation of autochthone breeds of animals and plants, highly adapted to the specific conditions of the environment create conditions for the development of a sustainable business model. Tourism adds popularization of the environment, through which, in addition to cultural values, specific products created in the region are offered, closing the production cycle to the end user. A product with high added value is created.

### **3. Main achievements:**



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e.g information on most essential qualitative and quantitative achievements

Started the establishment of a livestock farm in 2006, with the idea to keep the family lands (mainly pastures and meadows) from strong overgrowth, I created a small herd of autochthone animals - sheep, which in 2007 were included in the National Gene Fund as protected from extinction breed - West Stara Planina sheep. In 2008 I wrote a business plan for the development of the farm, by increasing the population, I protected it under Measure 112 Young Farmer, and I received funding. I bought many animals corresponding to the breed but scattered in several pieces and built a herd that can be economically sustainable. The new challenge was to establish myself on the market, I started producing cheese and a boutique product, soon selling only high value-added products from the farm. As a side income I started breeding horses of the Karakachan and Bulgarian Heavy Draft Horse breeds with which I started working in logging, gradually the breeding turned mainly into the improvement of pastures. The specific features of the region allow the breeding of only certain local breeds, which for years of national selection have adapted to the area. In 2009, under the auspices of the Executive Agency for Selection and Reproduction in Animal Husbandry, 9 farmers from the district established an association for the promotion and breeding of 3 endangered sheep breeds. From my breed we were 2 herds with a population of 380 animals, currently there are 43 herds with a population of over 5400 animals, and the association supports a total of over 14,000. In 2013 I completed the project with 860 animals and made two new M121, modernizing farm with new equipment and began to improve the pastures. In 2016, together with the regional chairmen of the consultative councils on animal husbandry, we created a branch organization (UNITED BULGARIAN BREEDERS) for the presentation of the animal husbandry sector in the Ministry of Agriculture and Food. In 2018, I defended an M4.1 project again for the modernization of the farm, which significantly improved the conditions on the farm and introduced many rational and innovative technologies.

In the future I plan to install renewable energy sources systems for electricity production, because the area is remote and there are frequent problems with electricity, and the idea is to supply electricity to the whole village.

#### **4. Main driving factors and criteria that play significant role for achievements:**

e.g Factors acting as catalyst, instigators or motivators leading to success

The main factors acting as a catalysts are the traditions and national values built by the ancestors of farmers.

#### **5. Main challenges/obstacles limiting potential for success:**

e.g Factors that constrain or slow growth

Factors limiting growth are primarily political: there is a lack of desire and will to build infrastructure to facilitate access. There is no clear development policy (there is no legislation tailored to the specifics and needs of rural areas, and where there are laws and regulations, they are not clear or not tailored to the actual creation of the product). Administrative burdens also contribute to difficult development of a good business model. Setting deadlines that are not in line with the needs and specifics of the activity creates many difficulties and limitations. Restrictions that hinder free access to markets and require a large part of the created products to be offered in the grey sector. A policy that is destructive and leads to huge economic losses in the country.

#### **6. Level and way of local community's or other organizations engagement in business activities:**

The local community and other organizations are poorly committed to creating business models and activities. Organized groups of children of different ages and classes from the Sofia region often come to visit the complex. It offers a ride on a horse-drawn cart, presentation of different types of animals (sheep, cows, bees, horses) and what products are produced from them (milk, wool, skins, honey). In addition, demonstrations of everyday life (kneading bread, spinning, weaving, etc.) are also held, as well as lectures on local costumes and customs. The purpose of the visit is to awaken children's curiosity about rural life and culture.

#### **7. Role of the local community and other organizations in the advancement of business models**

The local community plays an important role in the development of agriculture in the region, in fair competition with colleagues we have built traditions in the sale of products from the farm. We notice that the society has developed habits for buying products from the farm and every year we rely on the same consumers, which gives us security and sustainability.

#### **8. Main characteristics that model good practices**

e.g (Legislation, specific knowledge, skills, background)

In order to model good practices, you need a large set of skills and specific knowledge in the field of: economics; management; engineering knowledge in the field of mechanics and agriculture, will and a lot of self-sacrifice.

Legislation is a major problem that hinders the development of sectors.

### **CASE STUDY 3**





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**Country:** Bulgaria

**Name of organization/business:** GriKam Ltd.

**Contact person and contact info:** Lachezar Kamenov +359896843013

**Website/link/more information:** <https://www.bioway.bg/en/>

**Category: Please indicate:** Agriculture

### **1. Short Description of business model**

The model we use to develop our business is franchising. As franchisees, we offer Shiitake mushrooms, which are purchased from the franchisor Bioway Ltd., and they give us the right to use developed Japanese technology and organic production of Shiitake mushrooms.

### **2. Socioeconomic background:**

Describe elements related with social/cultural/geographic origins related with the development of business model, origins.

Our greenhouses are located in the village of Konush, which is 35 km southeast of Plovdiv and 14 northeast of Asenovgrad and is located in a beautiful valley of Western Thrace. Several Thracian mounds were found near it. The proximity to the big cities provides us with the necessary infrastructure and allows the product to reach the market quickly and cheaper. The aim is to provide the Shiitake mushroom with conditions for development and growth that are as close as possible to those in their natural environment, which is why we prefer to grow them in rural areas that are not so populated, have clean air and clean water. Strict monitoring of all stages of this process always guarantees a quality and healthy end product and a successful business model.

### **3. Main achievements:**

e.g information on most essential qualitative and quantitative achievements

We started the development of our business in 2019 and currently we have built a greenhouse, which is loaded with 80 cubic meters of wood, which are infected with Shiitake mushrooms. About 400 kg of production per month can be obtained from this greenhouse. The farm is still new. Our idea is to expand the farm and build a few more greenhouses. We chose this product because shiitake mushrooms are one of the species that actually has healing properties. We believe that our successes are yet to come.

### **4. Main driving factors and criteria that play significant role for achievements:**



e.g Factors acting as catalyst, instigators or motivators leading to success



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The Shiitake mushrooms are used for prevention and better general health. Shiitake is often called the "imperial mushroom." You can even find it under the name "mushroom of life". From a biochemical point of view, shiitake mushrooms are rich in proteins, immunostimulants and antibacterial ingredients. This over time has made them indispensable in the treatment of chronic diseases. Our goal is to create a sustainable food chain for future generations in harmony with the environment and to produce healthy and clean food. Shiitake mushrooms are one of the most popular mushrooms worldwide. They are valued for their rich taste and diverse health benefits. In recent years, they are an increasingly sought-after organic product on the Bulgarian market, as shiitake mushrooms have been used as a preventive measure for the treatment of a number of diseases in the past few years. This food belongs neither to the plant family nor to the animal family, but to its own separate group of life forms, which makes them sought after by vegetarians as well. The mushrooms reach the consumer either through direct sale from the farm or through our participation in farmers' markets. The method we produce organic shiitake mushrooms is by using the natural growing conditions based on real wood for this kind of mushroom. They are not sprayed with any preparations and are safe for both nature and people. We produce healthy and environmentally friendly food and aim to offer consumers healthy food at affordable prices.

#### **5. Main challenges/obstacles limiting potential for success:**

e.g Factors that constrain or slow growth

In Bulgaria this technology is innovative. For this reason, there is a lack of manpower, experts and training. Due to the large investments in the construction of special facilities, as well as the purchase of mycelium and special wood, one of the main obstacles is the lack of programs and projects to participate in, which makes it difficult for us financially and hinders our faster development.

#### **6. Level and way of local community's or other organizations engagement in business activities:**

The community is relatively poorly engaged, but attempts are still being made to set up special farming festivals where organic products reach the end user without resellers, thus making people aware of the new products. With each passing year, they learn to buy quality food directly from the farm, not cheap but low-quality food from large food chains. In this way, consumers and society help producers a lot.

#### **7. Role of the local community and other organizations in the advancement of business models**



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With each passing year, the consumers learn to buy quality food directly from the farm, not cheap, but low-quality food from large food chains. In this way, consumers and society help producers a lot.

#### **8. Main characteristics that model good practices**

e.g (Legislation, specific knowledge, skills, background)

- Preservation and transmission of know-how to the next generation.
- Production of quality and healthy food. The foods we eat have great effects on health and quality of life.
- Introduction of modern technologies.

## Annex 3: Programmes analysis

### TASK 3: Programme 1

Country: Bulgaria

Name of Program: **Measure 4 "Investments in tangible assets"**

Website/link/more information: <https://savetivzemedeliето.bg/%d0%bf%d1%80%d1%81%d1%80-2014-2020-2/%d0%bc%d1%8f%d1%80%d0%ba%d0%b0-4-%d0%b8%d0%bd%d0%b2%d0%b5%d1%81%d1%82%d0%b8%d1%86%d0%b8%d0%b8-%d0%b2-%d0%bc%d0%b0%d1%82%d0%b5%d1%80%d0%b8%d0%b0%d0%bb%d0%bd%d0%b8-%d0%b0%d0%ba%d1%82%d0%b8%d0%b2%d0%b8/>

Category:

- Agriculture
- Livestock farming

#### 1. Short description and objectives

Support under the measure will facilitate and encourage the entry of young people into agriculture and support the development of their farms. The possibilities provided by the measure cover needs related to support:

- the restructuring and modernization of farms in sensitive sectors with difficult access to the market,
- the achieving compliance with newly introduced Community standards applicable to the relevant farms,
- the development and expansion of farms of young farmers,
- to improve links between farmers, processors and traders and strengthen cooperation within and between sectors,
- to modernize the physical assets of enterprises processing agricultural products in order to produce new and quality products, including those related to short supply chains,



- at preventing and reducing pollution from agriculture and the implementation of good agricultural practices,
- at the restoration of the hydro melioration structure on and off farms, and increasing energies its efficiency,
- at bioenergy production and development of entrepreneurship in rural areas.

(<https://savetivzemedeliето.bg/>, Measure 4 "Investments in tangible assets")

## **2. Target groups**

Farmers

## **3. Sector(s) that this program concerns**

Agriculture and forestry; processing industry

## **4. Main Contents (Modules/Units)**

The activities under Measure 4 "Investments in tangible assets" are divided into the following sub-measures:

- Sub-measure 4.1 - "Investments in agricultural holdings". It is aimed at modernization of agricultural holdings, including restructuring and modernization of holdings in sensitive sectors with difficult access to the market and biological production through modernization of physical capital, intangible assets related to the organization and farm management, introduction of new and energy-saving technologies, improvement of pre-market preparation and storage of produce. In this way, an increase in labour productivity, quality and added value of production will be achieved.

Through the support under sub-measure 4.1, the expansion of the holdings of young agricultural producers (farmers) will be sought with the aim of ensuring sustainable development of agriculture and ensuring the change of generations in agriculture. The support under the measure will also promote cooperation between Agricultural Producers and Farmers, including by supporting producer groups and organizations with the aim of joint investments for marketing, storage.

The support is aimed at investments related to: implementation of new products, processes and technologies and improvement of available production tangible and/or intangible assets; improving cooperation with producers and processors of agricultural products; protection of environmental components, including reduction of harmful emissions and waste; improving



energy efficiency in agricultural holdings; improving working conditions; improvement of hygienic, veterinary, phytosanitary, ecological and other production conditions; improving the quality of produced agricultural products; improving the possibilities for the production of organic agricultural products.

- Sub-measure 4.2 - "Investments in processing/marketing of agricultural products". The support is aimed at modernizing the physical assets of the enterprises and agricultural producers processing agricultural products in order to produce new and quality products, including those related to short supply chains. Investment support is also aimed at more efficient use of resources and achieving EU standards in order to increase the level of value addition to agricultural products. By modernizing the assets, the introduction of new and energy-saving technologies and innovations will be achieved. Through investment support aimed at the processing of agricultural production, it will allow the provision of employment in rural areas.

The support is aimed at investments related to: processes and technologies for the production of products, including those related to short supply chains; with construction, acquisition and modernization of buildings and other real assets necessary for production and marketing; in installing new machinery and equipment to improve the production process and marketing; in assets for storage, processing, packaging, cooling, freezing and drying in order to preserve the quality of the produce and raw material; in specialized means of transport for transporting raw materials and/or finished products, including refrigerated means of transport; with the implementation of quality management systems; for energy production from renewable energy sources for own consumption; to achieve compliance with Community standards, including treatment facilities.

*(<https://savetivzemedeliето.bg/> , Measure 4 "Investments in tangible assets")*

## **5. Type of involvement**

Local involvement of main actors and authorities.

## **6. Description of advantages and disadvantages**

By supporting the development of the holdings of young farmers, the change of generations in agriculture will be facilitated. There is potential for a significant increase in the number of organic operators and the size of areas and numbers of animals in a control system, as well as an increase in the species diversity of organically grown crops and farm animals. Measure 4 "Investment in tangible assets " should also have

its impact on restoring, protecting and strengthening ecosystems dependent on agriculture and forestry, including promoting resource efficiency and supporting the transition to low-carbon and climate change-resilient climate economy in agriculture, food sector and forest sector. (<https://savetivzemedeliето.bg/>, Measure 4 "Investments in tangible assets")

In order to improve the process of absorption of European funds, it is necessary to include a financial criterion under sub-measures 4.1 and 4.2, which measures the ratio of investments - income of the applicants and determines their ability to implement a certain volume of investment.

The new evaluation criteria under sub-measure 4.1 of the 2014-2020 RDP give preference to farms with at least a three-year history and an average registered staff, during this period, of at least 5 people (as this number will be preserved with the implementation of project investments) and projects in which more than 65% of the eligible investment costs are related to the construction or renovation of buildings, premises and other immovable property or facilities, equipment and machinery, other than agricultural machinery. Thus, conditions are created in which real needy farmers in the sensitive sectors have a smaller chance, at the benefit of large farmers who have had hired labour over the years.

According to sub-measure 4.2 of the PRDP 2014-2020, questions arise regarding the sustainability of the projects of newly established companies and the sustainable development of the priority sectors under the sub-measure. In the conditions of low complacency with raw materials of national origin for the eligible sectors under sub-measure 4.2 the risk of low competitiveness and inefficient functioning of newly created companies is high. It is necessary to expand the criteria for the priority of the sectors under sub-measure 4.2 in the direction of proving the potential for sustainable development - raw material base, market positions, financial stability and economic efficiency. (*Synthesized Report 10 Years of Cap in Bulgaria, Institute of Agricultural Economics, Agricultural Academy, June, 2017*)

## **7. Impact**

### **Sub-measure 4.1 "Investments in agricultural holdings"**

The implementation of the sub-measure started in 2015, with the first intake period defined even before the official approval of the 2014-2020 RDP. The second reception of applications for assistance was held in 2016. In 2020, a third admission was carried out electronically, through the ISUN 2020 system, which is targeted at farmers in the "Livestock" sector under sub-measure 4.1 "Investments in agricultural holdings". Six hundred eighty-nine (689) project proposals have been received, with a stated amount of grant-in-aid 157,540,890.41 BGN (80,549,396.94 EUR), with a certain admission budget of 58,674,000 BGN (29,999,546.81 EUR). As of the end of 2020, the projects submitted within the framework of the third



reception are in the procedure under review and evaluation. In 2020, 6 support contracts were concluded, worth 2,920,579.77 BGN (1,493,269.07 EUR) and are payments made in the amount of 90,323,428 BGN (46,181,646.15 EUR).

For the entire period of application of sub-measure 4.1 until the end of 2020, a total of 1,346 farmers were concluded the financial assistance contract, with a value of approved public expenditure in the amount of 706 065,909.54 BGN (361,005,851.02 EUR). The total paid public funds amount to 480,430,511 BGN (245,640,276.83 EUR).

#### **Sub-measure 4.2 "Investments in processing/marketing of agricultural products"**

Under the measure, two receptions of applications for assistance were carried out (2015 and 2018), in within the framework of which 1,135 project proposals, with a total value of the requested subsidy in the amount of 1,454,868,092.10 BGN. As of 31.12.2020, there were 367 concluded contracts, with a total amount of the agreed subsidy of 453,491,212.76 BGN. Of these, 22 were agreed upon in 2020 project, with a total subsidy amount of 30,334,974.67 BGN.

During the period of application of the measure, the total funds disbursed under it amounted to 209,837,408 BGN, and in 2020 payments were made in the amount of 65,415,551 BGN. By applying selection criteria, the aid is aimed at processing raw materials from the sensitive sectors ("Livestock", "Fruits and vegetables" and "Essential-oil crops"), organic production, additional employment, Northwest region and regions with natural and others Limits. Nearly 72% of the approved projects include investments for the introduction of new and energy-saving technologies and innovations in the processing industry. In the field of processing of biological raw materials and production of biological products, 68 projects have been agreed. Seventy-eight (78) contracts for financial assistance were concluded for project proposals providing for cooperation or integration between farmers and processing industry enterprises. (*ANNUAL REPORT ON THE STATE AND DEVELOPMENT OF AGRICULTURE - AGRICULTURAL REPORT 2021, Ministry of Agriculture, Food and Forestry*).

#### **8. Engagement of local communities**

Young farmers, agricultural producers and small and medium-sized farms.

### **TASK 3: Programme 2**

Country: Bulgaria





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Name of Program: **Rural Development Program 2014-2020 European Agricultural Fund for Rural Development: Europe invests in rural areas - Measure 1: "Knowledge transfer and awareness-raising actions"**

Website: <https://www.mzh.government.bg/bg/politiki-i-programi/programi-za-finansirane/programa-za-razvitie-na-selskite-rayoni/>

Category:

- Livestock farming
- Agriculture
- Other: Training

#### **1. Short description and objectives**

- First objective: increasing the knowledge and improving the skills of agricultural and forestry farmers and the persons employed in their farms by achieving an appropriate level of technical and economic training;
- Second objective: increasing the capacity for access and exchange of knowledge and information in the field of agriculture and forestry, and with the acquired knowledge and skills, farmers and foresters will be able to increase their competitiveness and resource efficiency;
- Third objective: to improve the environmental performance of their farms, while contributing to the sustainable economy of rural areas.

#### **2. Target groups**

Agricultural and forest owners and the persons employed in their farms

#### **3. Sector(s) that this program concerns**

Plant breeding, Animal husbandry, Forestry, Food technologies, Veterinary Medicine

#### **4. Main Contents (Modules/Units)**

The objectives of Measure 1 "Knowledge transfer and awareness actions" will be achieved by implementing its sub-measures:

##### **Sub measure 1.1. Vocational training and skills acquisition;**

The sub-measure supports the organization and holding of training courses and seminars in the field of agriculture and forestry.

Training courses are special classes with a developed curriculum to achieve specific training goals for eligible target groups.

Seminars are thematic meetings where specific topics are considered and discussed:

- acquiring legal capacity to work with agricultural and forestry machinery;
- short supply chains;
- creating groups and organizations of producers;
- main risks in agriculture, methods for prevention and risk management;
- factors of soil erosion and methods of prevention;
- European and national requirements legislation on water consumption in agriculture, water management research in hydro meliorations, water measuring facilities;
- protection and strengthening of the biological diversity, including environmental species and habitat requirements, dependent on agriculture and forestry practices;
- reasonable use of natural resources, Natura 2000 management principles, high nature value agriculture;
- introducing technology and specialized tillage/stubble equipment with purpose of hummus preservation;
- management of degraded agricultural lands through biological reclamation with grasses characteristic of the area kinds; and others.

Beneficiaries of the sub-measure are organizations that provide knowledge transfer through training courses and seminars, Higher Education Institutions, Vocational Education Institutions, vocational training centres can apply for assistance in organizing courses and seminars.

### **Sub measure 1.2. Demonstration activities and awareness actions;**

Demonstration activities are hands-on classes on a certain topic with the aim of acquiring information and familiarization in real practical conditions, with a priority of the topics related to:

- the presentation of water-saving and energy saving irrigation techniques and technologies, loss reduction methods of water;
- performance of water-saving and energy saving irrigation techniques and technologies, loss reduction methods of water;
- the presentation of energy-efficient production techniques and technologies and methods for reducing energy costs in agriculture;
- presentation of technologies and techniques in forestry; and others.



Beneficiaries of the sub-measure are organizations, which provide knowledge transfer through demonstration activities. Organizations must conduct research or educational activities in the field of agriculture or forestry agriculture, or in the field of food technologies. They must have their own demo objects of the type of study-experiential fields, research-experiential fields, teaching or research laboratories.

**Sub measure 1.3. Short-term exchange of experience in the management of agricultural and forestry holdings and visits to agricultural and forestry holdings. Farm visit activities prioritize topics related to exchange of experience in:**

- using irrigation equipment and technologies with low water consumption;
- the use of energy-efficient agricultural machinery and technologies for tillage and harvesting;
- technologies, techniques and equipment to improve the storage and application of manure and the introduction of low-carbon practices for the processing of manure, for example composting, processing into biogas in anaerobic conditions; exchange of experience in organic farming; and others.

Beneficiaries of the sub-measure are organizations that provide knowledge transfer through training courses and seminars, Higher Education Institutions, Vocational Education Institutions, vocational training centres can apply for assistance in organizing courses and seminars.

**5. Type of involvement**

Organizations involved in the project are vocational education institutions and/or higher education institutions accredited under the Law on higher education and have up-to-date training accreditations in at least one of the professional directions "Plant breeding", "Plant protection", "Livestock", "Veterinary Medicine", "Forestry", "Food Technology", "Biotechnologies".

**6. Description of advantages and disadvantages**

The advantage is mainly in providing free or cheaper training to farmers. The main drawback can be the inconveniences associated with taking time and traveling from distant settlements of the farmers to conduct the trainings, as well as the travel costs, since the centres for conducting them are located in only a few large cities of the country.

**7. Impact**



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Financial assistance is provided for conducting courses for trainings and seminars presented by Higher Education Institutions, Vocational Education Institutions, vocational training centres and scientific institutes and experimental stations in the field of agriculture and the forests. The first intake under the sub-measure started in 2019 and ended in 2020. 79 were submitted applications, with a value of the requested subsidy BGN 38,605,496 public funds. By the end of 2020 projects are under evaluation. As of 30.06.2021, 41 contracts for financial assistance were concluded under sub-measure 1.1, with a total value of 12,156,377 BGN, for which payments have not been made.

## **8. Engagement of local communities**

The Centre for Additional Training at the Agricultural University - Plovdiv is one of the main ones that have engaged in training in the directions of the project.

## **TASK 3: Programme 3**

Country: Bulgaria

Name of Program: **Workforce Development Project**

Website: <https://www.az.government.bg/pages/proekt-razvitie-na-rabotnata-sila/>

Category:

- Direct involvement of stakeholders
- Other: Training

### **1. Short description and objectives**

The purpose of the Workforce Development Project is to develop human capital to meet the needs of the economy and to be able to quickly adapt to changes in labour demand caused by new technologies and structural changes.

### **2. Target groups**

In order to increase the supply of labour force, the work with the labour potential will continue - by activating the inactive persons and anticipatory training of the labour force.

### **3. Sector(s) that this program concerns**

Training is related to:

- Improving the prospects for sustainable employment through professional training of people in a disadvantaged position on the labour market;



- activation of the inactive persons and anticipatory training of the workforce to meet the increasing demand of the economy and its more successful adaptation to the external and internal challenges of the country's development;
- reducing youth unemployment as well as among other vulnerable groups;
- acquisition of competences that will support the professional realization of the trained persons;
- introduction of modern forms and methods for training and qualification of personnel in various economic spheres, based on knowledge, innovations and modern technologies;
- creation of mechanisms for lasting partnerships between educational institutions and businesses;
- support for the unemployed for active behaviour in the labour market;
- gaining professional experience through an internship in a real work environment;
- development of interaction between institutions and social partnership.

#### **4. Main Contents (Modules/Units)**

The project provides training and employment opportunities for unemployed persons from municipalities with an unemployment rate higher than the national average for a nine-month period in 2019, according to data from the Employment Agency. In implementation of the EU Council Recommendation on the integration of the long-term unemployed into the labour market, one of the main tasks of the project is to help limit long-term unemployment.

#### **5. Type of involvement**

Project "Development of the workforce" will cover representatives of groups disadvantaged in the labour market, with an emphasis on long-term unemployed persons, persons without professional qualifications, unemployed youth up to 29 years old, incl. young people who are neither in education nor in employment (NEET's), the unemployed over the age of 50 and inactive persons willing to work, including discouraged persons. 1,060 unemployed persons registered in the "Labour Bureau" directorates on the territory of 31 municipalities will be included in the project implementation activities.

#### **6. Description of advantages and disadvantages**

The long-term unemployed are mainly persons with low education and no qualifications, unemployed over 50 years of age with low education and loss of work habits, unemployed of Roma origin without qualifications and with low education, people with disabilities, etc. Work is needed to integrate them into the labour market by assessing their individual capabilities and overcoming obstacles to employment through activation, motivation for active behaviour in the labour market, training, including literacy;

removal of barriers to active job search caused by poverty, poor health and poor living conditions; taking into account the strong intergenerational continuity of social and economic living conditions. The difference in the level of knowledge and skills between the most highly qualified and the least qualified personnel is increasing. An increasing number of activities will be automated.

The impact is twofold: an increase in the demand for highly skilled workers and other workers with the appropriate skills, combined with a noticeable reduction in job opportunities for workers who do not possess the appropriate skills.

Despite the positive trend of reducing unemployment in the country, the problem with the qualification of the available personnel is becoming more and more serious. The phenomenon "there are no jobs for people because there are no qualified people for the jobs" is getting stronger every year. New technologies, robotization, increased requirements of employers, new professions and the opening of the labour market confront the society with the question of the qualification of personnel so that the expectations of the labour market and the expectations of the individual match.

## **7. Impact**

At the end of the Project, the following results were achieved:

- 1,060 persons involved in training to acquire a professional qualification;
- 540 persons included in training on key competencies;
- 42 persons from those included in professional training, employed full-time for a period of 3 months in subsidized jobs in the professions in which they were trained within the Project;
- 382 persons included in professional training with guaranteed minimum 3 months of full-time employment in the professions in which they were trained within the Project.

## **8. Engagement of local communities**

Educational institutions are various centres for continuing education in the country.