rural+

Co-funded by the
Erasmus+ Programme
of the European Union

TABLE OF CONTENTS

Introduction

Rural + project aims to work on **the development of soft and digital skills among workers in rural areas of Europe.** This is particularly an urgent topic due to the spread lack of more complex competencies, not technical, but rather focussed on the ability to cope with change, team-work and digital-related tasks.

It is important to sum up three of the biggest findings elaborated by [Employment, Social Affairs & Inclusion Directorate](#) of the European Commission:

- **One out of five Europeans struggle with basic skills like reading and writing;**
- **Many Europeans cannot find a job** due to the fact **they do not have the right skills** or their profiles do not match their talents (reaching 30% among the ones with higher education patterns);
- **Up to 40% of employers cannot find people with the right skills to fill their vacancies** – right mind-set, competence set, and preparation.

What is more, digital access in rural areas is even more complicated, and one out of three workers do not interact with digital technologies, requiring an approach which is not just about skills, but about the mindset ([CLRA](#), 2017).

In this sense, rural areas (which account the 50% of European Union's territory) face even more challenges than urban ones. [A synthetic document](#) from the European Parliament defines a number of issues, particularly on education and on digital capability – **"the lack of adequate competence to use ICT is becoming increasingly not just a problem of the entity affecting their ability to find a better job, but also (if it occurs commonly) is a factor in the development of the region or country's potential"** ([Kos-Łabędowicz](#), 2017).

VET digital and soft competencies in rural areas

Our aim is to practically tackle a number of issues in terms of soft skills and digital literacy. As such, our educational starting point refers to the [ILO (International Labour Organisation) innovation](#) framework which defines the following set of core competencies in rural areas:
• basic/fundamental - literacy, using numbers, using technology;
• conceptual/thinking - collecting and organising information, problem-solving;
• learning-to-learn - thinking creatively, systems thinking;
• people-related skills - communication and teamwork skills.
In VET training, we have defined from the other side the so-called **"three advantages", namely: business etiquette, learning to learn and professional digital literacy**.

Our approach does not aim to be comprehensive, but very result-oriented and as much as narrowed down to the current needs and issues that entrepreneurs and employees in rural areas face. This is also reflected in the educational approach that we have adopted. In fact, part of our prior research is related to the VET system in each country focussed on soft skills in rural areas.

We are inspired by understanding the current gaps, educational and innovation barriers with the focus on soft/digital skills and then define the training methodology to be delivered by VET trainers/facilitators. Given this introduction, it is important to define the methodology behind our work and the educational analysis done, to make ILO framework interact with the three-advantage tier.

The partnership

Polygonal (Italy) is a non-profit organisation based in Cori, a small village in the rural surroundings of Rome. It caters for local community needs with particular focus on digital education for social inclusion. It works on active citizenship and on grassroots courses for rural revitalisation processes. Its team is mainly constituted by EU project manager specialists, photographers, IT specialists whose goal is to deliver the widest social impact through the involvement of different stakeholders and target groups. It manages the EU municipal info centre.

Mixt Source Management SRL (Romania) is a small company from the town of Călărași, the central town of Călărași County - the main implementation stage of the Romanian part of the project. The company provides training services for the development of personal abilities of employable persons. The company also provides consultancy services for other companies as well as for public authorities. It also provides IT services for companies and individuals, by developing e-learning platforms and apps, websites as well as other services.

The Calarasi County Branch of the Romanian Commune Association (Romania) based in the commune Stefan cel Mare, was established in 2001 and the mission of this branch is to achieve a closer union between the communes in Calarasi County in the context of local autonomy. ACoR Călărași involves itself in the following activities:

1. It actively participates in the improvement of the legislative framework that concerns the communes through its constant partnership with the county and central public administration.

2. It Implements strategies and programs to stimulate social and economic development of the rural environment, and reduce the gap with cities.

3. It is engaged in mobilizing activities with the aim of providing the local government with efficiency and dynamism, as well as attracting investments by creating viable partnerships between the local public administration, civil society and the business community.

STANDO LTD (Cyprus) is a research and educational organisation based in Cyprus, dedicated to the advancement of research and innovation. It is a VET accredited Centre whose strength primarily lies in our highly qualified team and its extended network of international partners. It actively participates in the planning and implementation of national and international projects, aiming at providing innovative solutions that facilitate the development of people and the cohesion of societies. Since 2016 it has provided a series of professional and academic trainings under the scope of Erasmus+ KA1 and KA2, as well as courses, seminars and consulting services to various target groups (students, youths, teachers, policy makers, parents, adults), learners and staff of Vocational Education and Training (VET) providers and Adult Centres.

PREVIFORM, LDA. is a Portuguese "VET" and adult training provider established in 2005, accredited by the government of the Portuguese Republic, and whose website is https://www.previform.pt/ Its mission is to give attention to innovative training methods by providing the appropriate skills required for qualified professionals, developed mechanisms which facilitate

and promote the transaction between training and the labor market, provided trainees with solid socio-cultural, scientific and technological training; and validation and assessing the learning outcomes, so provides vocational training at various European levels II, III, V. PREVIFORM has a range of experience in the area of adult training in almost all modalities, as well as vast experience in providing consulting in areas that specialize in Occupational Safety, Food Safety, and Hygiene field. Also, PREVIFORM has successfully worked for more than 10 years in different EU co-funded projects, including Erasmus+, in order to build and develop innovative training, thus constituting an experienced work team.

The methodology for the framework construction

Our work is defined along the following main steps:

DESK RESEARCH
It depicts the different situations faced by each project partner with up-to-date information related to:
1. Country reports on rural economy;
2. Educational barriers in rural areas;
2. VET country report on rural qualifications.

FIELD RESEARCH
1. Definition of the main working framework with generic competence outlines;
2. Definition of the competence statements according to the soft skills gap detected;
3. Operationalisation of the competencies both from the entrepreneur and employee side;
4. Definition of a quali-quantitative questionnaire;
5. Collection and analysis of the results and re-description of the competencies according to the EQF – as we are focussing on basic competencies, we will hold only level 1 of capacities.
Our research has as bottom line 20 entrepreneurs and 20 employees in the rural sector

Context and Scope

As partnership, we have exclusively focused on:
- Rural areas. To define a rural area we have defined it through the peripheral analysis done by ESPON (2020): " Inner peripheral areas can be (a) enclaves of low economic potential, (b) areas with poor access to services of general interest or (c) areas experiencing a lack of relational proximity"
- SMEs in the rural sector, meaning primary sector businesses (crops, basic product transformation, wine and olive oil production). We have interviewed small and micro-businesses, but not simple rural retailers (like small shops etc.), because they are not directly involved in VET rural patterns of education. Plus, we have involved also rural development agencies, associations of producers, educational VET trainers.

Our interviewees are:
- Entrepreneurs;
- Staff of the business/training centres/relevant rural NGOs of producers and innovation hubs;
- Adults and young adults (recently graduated who are already in the working environment);
- Interns in the rural businesses.

The relative heterogeneity of the interviewees has been justified in a way that we have managed to depict a wide range of elements, opinions, requests and perspectives on the main three compence areas investigated by this research.

Our topic areas of investigation are (§ cfr. par.7):
- Professional digital literacy;
- Permanent training of the staff;
- Business ethics and etiquette.

Our research has mainly investigated soft and digital skills, hence we have not analysed the preparation in terms of hard-core technical skills as it goes beyond the scopes of this research.

Plus, our research underlies an overall simplification: we define each investigated area as homogeneous and interviewees are considered as similar. In our case, gender and other social-economic factors have been embedded in the investigation itself in order to balance and render fewer biases in the elaboration phase.

How to use the Rural + results

As understood, we mainly target two main groups, namely: **employers (or entrepreneurs) and employees.**
In this way, we will have a double view on the expectation in terms of soft/digital skills, both from the side of the enterprise and from the side of the job-seeker, creating a sound training basis for the development of the following educational material.

The main elements developed per each macro-competence (business etiquette, learning to learn and digital professional literacy) are connected to:
- **The expectations in terms of competencies from the entrepreneurs' point of view;**
- **The lack of competencies registered among employees in our field research.**

Therefore, **the framework educational pattern is mainly aimed at detecting which competencies can be practically needed from businesses to favour workers' up-re-skilling**. In other words, our approach aims at favouring the employability of future/actual workers in the rural sector through the valorisation of soft and digital skills.

In this sense, the material is aimed at transferring them to the final target group – rural workers and entrepreneurs, both potential and actual ones – through hands-on material and an e-learning platform.

Our lenses look at the current existing gaps between perceptions of entrepreneurs/workers and reflect on the innovation gap - in this way it can be a valuable indicator for VET trainers to enhance the competence development of rural and remote European areas in soft skills and in digital training on a number of elements:
- Set up personalised training lessons and cross-check them with learning objectives;
- Find already made materials complementary to own training courses;
- Assess which specific soft skills are specifically needed/expected by entrepreneurs.

A. DESK RESEARCH

1. Country reports on rural economy

CYPRUS

The rural sector

In 1960, Cyprus gained its independence. At that period of time and after, the agricultural sector started experiencing serious decline, negatively affecting the economy of the country, especially in 1974 with the Tukinsh invasion which led to the diminishing of the land of the country. Therefore, large numbers of Greek-Cypriot farmers experienced displacement, since they were forced to move to the Greek-Cypriot part of the island as refugees in their own country, experiencing at the same time great loss of the most fertile parts of the land. The spiraling growth of tourism in the country after the invasion totally changed the picture of the economy of the country, since Cyprus investments focused on tourism, resulting in the accelerated decline of the agriculture sector.

Comparing the agriculture sector which was an important sector in 1960 in the economy of the country, contributing to the Gross Domestic Product (GDP) with over 17% and 33% to gainful employment, in 2004 the numbers have fallen to 3,7% and 7% respectively. But still, agriculture remains a very important sector to the economy of the country because a large portion of the population that lives in rural areas works in that sector and thus supply food, also through exportations a large amount of foreign exchange is earned; it supplies raw materials that can be used for manufacturing and contributes to the maintenance of the rural environment (Markou, 2006). In 2010, 38 860 agricultural holdings were operating in Cyprus, with 6 340 farms ceasing their activities (- 14 %) over the inter-census period, as 45 200 farms were reported in 2003 (Eurostats, 2010).

In fact, taking into account the above indices, the agricultural sector in Cyprus never actually recovered from the Turkish invasion and occupation and developments (i.e. and rapid rise of tourism). Therefore, although some policies and incentives have been implemented since 1974, the decline of agriculture in Cyprus continued. This was unavoidable not only due to the aforementioned external factors but also due to persistent structural barriers in the sector itself such as, shortage of water, excessive land fragmentation, as well as small holdings and other sectors of the economy competing for land and labor (Markou, 2006).

The government of Cyprus recognises that the successful diversification of the rural economy requires the adoption of an integrated and multi-sector approach. In formulating the country's rural development policy, the following issues have been taken into consideration: encouraging diversification and improving infrastructure; maintaining viable communities while preserving their culture and traditions; and increasing the quality of life by preserving the environment (Theophanous, G., 2000).

Main educational barriers in rural areas

Research suggests that there are demographic (being a woman, being over 45, having young children and living in a rural area,) as well as socioeconomic barriers (low level of initial education, being out of education for a longer period of time, being weakly attached to the labor market and being a manual worker to participation in education) to education in Cyprus. (Weedon, 2012).

Moreover, family is very important in CYpriot society. Cypriots are highly devoted to their families, especially when they have kids. Then when they grow older they consider themselves as being too 'old' to be interested in educational opportunities (Mastroyiannakis and Mestheneos, 2004).

Furthermore, usually educational seminars are not funded and attendees have to pay themselves, which means that people experiencing financial difficulties will most probably not be able to afford it and miss many learning opportunities.(Zarifis, 2016). Furthermore, the number of programmes offered by Adult Education Centres in Cyprus is very limited in both urban and rural areas.

Additionally, although educational efforts are made, there is still lack of political will and the social care agenda does not have education in rural areas as a priority, which gradually creates an increasing deficit in policy. As a result, the population in rural areas loses their motivation, become more vulnerable but most importantly are deprived of their benefit to have access to education. (Findsen & Formosa, 2015).

Moreover, extension services and training must be made more widely and frequently available to the farming community, and local farmers must be kept up to date with information on their activities and trade, in tune with new and evolving technologies and skills leading to the quality improvement of their products (Markou, 2006).

VET for rural and existing opportunities

The HRDA (Human Resource Development Authority) in Cyprus offers the following training activities: (a) a scheme to improve employability of people in urban and rural areas. It aims at improving the employability of the unemployed by offering opportunities for participation in training activities and work experience, (b) training programmes for upgrading the skills of people in urban and rural areas. They cover important horizontal and job-specific skills, which will help people to return to productive employment.

As part of the afternoon and evening classes at technical schools, the Directorate of Secondary Technical and Vocational Education of the MoEC(Ministry of Education
and Culture) offers one-year programmes leading to the award of a certificate.
One of the objectives of these programmes is to offer continuing education and training to people to help them maintain their position to the labour market,
in areas where there is a shortage of skilled workers. Therefore, these programmes help to meet the workforce needs of the economy, both in terms of quality and quantity.

There are 400 adult education centres, in both urban and rural areas of the government-controlled area of Cyprus. They are run by the Directorate of
Primary Education (33) of the MoEC and offer courses in about 100 different subjects every year, including computers, foreign languages, Greek for
foreigners, accounting, public relations, woodcarving, knitting/weaving, pottery, car mechanics, gardening, building, etc.

The Foundation for the management of the European lifelong learning programmes is the body which manages education programmes and promotes the goals and the EU education and training policies in Cyprus. The Foundation uses funds obtained from the European Commission to subsidise educational institutions and organisations active in this field, as well as teachers, students, educators, trainers and trainees.

The MoA (Ministry of Agriculture) is responsible for the training of farmers in the Department of Agriculture's training centres. It organises in agricultural training centres courses for farmers, in handicrafts such as basket-making, embroidery, weaving, etc. Apprenticeship schemes are also organised in a range of subjects. The MoA is also responsible for the training of foresters and forestry graduates provided by the Forestry college.

ITALY

The rural sector

The rural sector in Italy accounts for €59.3 billion, 2.1% GDP In 2019, the production level has decreased by 1.3%, due to climate change conditions (Sole24ore). What it is impacting, it is the progressive decline of the productivity rate due to structural difficulties related to new required competencies (digital & production re-organisation) & contraction of the employed (Crea.gov, 2018).

Such a reorganisation can be seen in the increase of strategic and technological investment in new rural sectors (biofuel) and in the so-called agriculture 4.0. Italy presents the highest number of rural start-ups in Europe, but with the a very low average level of capitalisation – they are 18% of the European market. They are characterised either by e-commerce, big data analysis, tracking, IoT (Internet of things) etc. (Smart AgriFood, 2019).

Plus, agriculture is currently under major changes regarding cultural and circular economy hybridisation – tourism and sustainable tendencies are creating new and fast-growing markets. A very interesting about agriculture is that in 2019, Italy has the highest amount of young people employed in the rural sector – around 33% of <40 year-old people are into the sector and 8% of the total of SMEs are led by them (ISMEA, 2018).

What is more, the Ministry for Agriculture (MIPAAF) has a specific youth line which supports young people in accessing very advantageous conditions regarding training, entrepreneurship, land recovery and tax exemption. ISMEA is the institute mainly responsible for the implementation of the Ministry guidelines and deployment.

Main educational barriers in rural areas

In 2018, the 14,5% youth between 18-24 years old have dropped out from school – substantially, more than 120 thousand students have abandoned it before time (Eurostat, 2018). Plus, adding training and higher education dropout reaches 598 thousand students (Eurostat, 2018).

Poor quality of education is confirmed by PISA data (Invalsi, 2019) as heavy problems are encountered in English, mathematics and Italian, and only 3,5% of GDP expenditure on education (Open Polis, 2018). Across OECD countries, the rural gap in educational expectations, is one of the highest in Italy, together with Hungary, Portugal, the Slovak Republic and Turkey. One of the main gaps regards a holistic approach, like key public sectors, innovation businesses and education (Basile, 2020).

In fact, as it is apparent, discussing education as such does not depict the real issues of rural areas where a number of elements come together, from youth depopulation, progression bio-physical depletion, lack of a uniform and unified vision on rural areas development. Indeed, Rural Strategic Plans are not enough – in 2015 and on, young farmers have expressed the need of up-re-skilling in strategic areas like marketing, English foreign language, technological skills and management skills (Ecorys, 2015).

VET for rural and existing opportunities

In general, VET education specifically aimed at the primary sector is financed through a mix of national, regional and private funds, delivered by non-profits, foundations, VET schools and accredited training centres.

A crucial role within VET relates to apprenticeship deeply reviewed by the "Jobs Act" in 2015, defined as "a permanent employment contract for youth training and employment".

Finally, with Law 107/2015, known as *La Buona Scuola*, and the alternation of school-work has become a structural element of the Italian school system. VET opportunities are mostly related to training offered by the VET schools, either of the 4th and 5th level of education and by organisations cooperating with trade and/or labour unions (e.g Coldiretti – farmers and more in general agriculture based businesses association). In *La Buona Scuola* there is also a specific line for interior and geographically deprived areas to tackle fragmentation and lack of opportunities.

Two are the main platforms where to browse:

- **VET schools** (private-equal)=> portal **Scuola in Chiaro** renders very clearly and through a geo-mapped system all the training offers available, projects, profiles, requirements per any school in Italy.
- the INAPP Map of all the **VET qualifications existing in Italy** per region, job, etc.

In Lazio region area we distinguish:

- **AIAB (Associazione italiana agricoltura biologica):** Italian association of Organic producers;
- **Aisfor:** Training provider releasing training in the field of agriculture (including business development, cattle health and wellbeing, rural business acceleration, supply chain integration and development, raw material processing);
- **Ass.For.Seo:** Among the courses released by this training provider there are specific paths for agriculture based businesses (development and management) and some specific for rural development.
- **e-lab:** MOOC released by Lazio regional Government
- **Capitale Lavoro:** it gives support to welfare offices and public employment offices, delivering specific courses for rural development in the metropolitan area of Rome
- **Cia (Confederazione italiana agricoltori) Lazio:** The Italian confederation of farmers offers training and compulsory training/certification (IAP Farmer manager professionals) to adults/young adults
- **For.agri:** private fund for lifelong learning training in agriculture (especially focus in Social farming)
- **#impresaduepuntoterra:** Training project promoted by Coldiretti (farmer trade/labour union)to train young entrepreneurs/wannabe entrepreneurs in the rural sector.
- **Ufficio ministeriale Promozione per l'Imprenditorialità Giovanile in Agricoltura (exOiga)**: (Young entrepreneurship in agriculture promotion office of the Ministry of Labour) seminars and trainings to boost entrepreneurship in agriculture
- **Agriform:** bilateral organisation for VET training in agriculture

- **Case dell'agricoltura della Regione Lazio:** (House of the farmer of Lazio Region) Hubs for meeting and training among entrepreneurs of the rural sector and wannabe entrepreneurs.
- **Emagister:** It is a web portal gathering training opportunities in the agriculture sector
- **SlowFood Educa:** The portal of SlowFood association it is aimed at delivering training to youth, adults and young adults in the field of gastronomy and agriculture

ROMANIA

The rural sector

The agricultural sector and the rural economy, in general, continue to have substantial growth potential, still insufficiently exploited. Agriculture generated 30,897.7 million lei gross value added (GVA), representing 6.0% of total GVA. The evolution of the GVA distribution by activity sectors reveals the continuous decrease of the share of agriculture (6.4% of the total GVA in 2010; 6.0% in 2012) in favor of the secondary sectors (42.1% in 2010; 42.3% in 2012) and tertiary (51.5% in 2010; 51.7% in 2012).

Although this phenomenon reflects a process of approximation of the structure of the Romanian economy to that existing in the rest of the MS, the share of the agricultural sector still remains over three times higher than in the EU27 (1.7% in 2012).

The analysis of micro-enterprises in rural areas highlights their low capacity to meet the need to provide jobs for the rural population. Small-scale business development is recognized as the most important source of jobs / income in rural space, both for already developed and developing economies. Of the active SMEs with a non-agricultural profile at national level, only 18.1% were active in rural areas in 2011. In 2011, the density of SMEs per 1000 inhabitants at national level was 23.66, well above that recorded in rural areas, of 9.64 SMEs per 1000 inhabitants (Solidar, 2015).

SMEs' access to finance remains problematic. From a territorial point of view, financial services are generally less accessible to enterprises in rural areas and the agricultural sector, with high credit costs (high interest rates charged by commercial banks in granting loans, fees and commissions for the various services provided by banks).

Main educational barriers in rural areas

The level of education of the rural population has improved, but at a slow pace. The following aspects are relevant in this respect:
Regarding the dropout rate in rural areas, it decreased moderately at all levels of education, but in relation to the urban area it remains higher, especially in post-secondary education (15.2% in rural areas compared to 5.9 % in urban at the level of the school year 2011/2012).

In the last decade, the number of agricultural high schools has registered, a downward trend simultaneously with the decrease of the number of graduates (from 2511 in 2005 to 2328 in 2011); The low attractiveness of the agricultural sector, as well as the decrease in the number of graduates of agricultural schools are factors that have contributed to the decrease in the level of training of managers of agricultural holdings. lower place in the EU27 (1.3% of the rural population in 2010 and 1.6% in 2011 compared to the EU27 - 9.1% in 2010 and 8.9% in 2011).

VET for rural and existing opportunities

Romanian VET offers diverse paths for learners. It comprises professional and technological programmes, regularly updated to combat low participation in lifelong learning and early leaving from education and training.

As many EU countries, Romania has an ageing population. This has an impact on VET, with an 8.5% decrease in the number of VET upper secondary schools since 2012/13. Efforts are being made to increase student participation, enable access to VET, and improve its quality and its relevance to the labour market.

Recent system developments include the introduction of a dual VET form: it complements the work-based learning tradition in school-based programmes and aims at making VET a more attractive option for learners, while adapting training better to employer needs.

PORTUGAL

The rural sector

Agriculture is a multifunctional sector par excellence, with a progressive awareness of the public nature of many of the goods and services it provides: from nature conservation and rural improvement to the provision of leisure and tourism services, through the preservation of regional products, with a view to quality and maintenance of cultural diversity.

The development of the agricultural sector is thus imposed not only from a productive perspective but also from a social and heritage perspective. However, over several decades, agriculture in Portugal has been considered a mostly traditional activity and with few technological advances.

It remained to be recognized that the basis of the agricultural problem in Portugal resided primarily in the productive structures of the sector, which, based on traditional agriculture, generated very low levels of productivity. Furthermore, Portuguese agriculture was also unable to implement a competitive strategy, leading to greater self-sufficiency in agricultural products or an improvement in its agricultural trade balance (Baptista, 2006).

However, this reality has undergone changes over the last few decades, where Portuguese rural spaces have been affected by the integrated and territorial vision of development, which aims to explore places and landscapes by agriculture and its farmers, as well as new activities and arrangements organizational aspects of workers in this sector. In this way, through the adoption and investment in new technologies in all areas of the sector, namely in irrigation, in soil mobilization, in fighting pests and diseases, and in fertilization, they have allowed an increase in productivity and more efficient use of improving the competitiveness of farms. Technological advances have also made it possible to respond to market and productivity requirements, with research being a key point in its development. The technologies used in Portuguese agriculture are equivalent to what is best and most innovative in the world. Currently, Portuguese agriculture is more innovative, more professional, more productive, and more market-oriented. Even so, it is increasingly essential to rejuvenate the agricultural fabric, since more than half of Portuguese farmers are over 65 years old. In this way, means and conditions must be created for young people to enter the sector.

The agricultural sector is part of the agri-food industry, which also includes the food sector. This industry has a fundamental weight in the national economy, helping to increase the country's GDP as well as contributing to the reduction of unemployment in the agricultural area. In 2015, Portugal was the 41st world exporter in the agri-food industry, where the main products exported were olive oil, tomatoes, and wines. The agricultural sector exports to 153 foreign markets out of a total of 179 foreign markets that are the target of exports from the Portuguese agri-food industry. Thus, the agricultural sector exports 6.76% of total national exports, being the main external customers for agricultural products Spain, Brazil, France, Italy, and Angola. According to data from 2015, the agricultural sector comprises 35 thousand companies, of which 85% are micro-enterprises and 15% are SMEs. Between 2000 and 2016, agricultural production increased by around 300 million euros, with vegetable production prevailing over animal production, namely the production of fruits, vegetables and vegetables, and wine. In animal production, milk production, beef production, and pork production stand out. Foreign investment in the agricultural sector has grown steadily over the past few years, as is the example of *Fairfruit*, *Driscoll´s*, *Maravilha Farms*, among many others (INE, 2012; Henriques,

2017). The bet on the development of its own brands, as well as the increase in the incorporation of added value to agricultural products, are also factors of structural importance in this sector. In this way, the sector should continue to strengthen its exports and presence in both domestic and foreign markets, asserting itself for the quality and difference of its products.

Main educational barriers in rural areas

Over several decades, Portugal experienced several phases of change in terms of agriculture and, consequently, of rural areas.

Until the 90s, we experienced very difficult years in rural areas where there was a large agricultural abandonment in Portugal, with several causes of that abandonment, namely social and economic causes. The demographic regression and the consequent devitalization of the regions due, in part, to the aging of the population and the exodus of young people, and also to the underutilization of social facilities that caused the population reduction in small rural settlements to values below their viability limit. Thus, the majority of young farmers abandoned the agricultural activity due to the non-viability of the farms due to the low productivity of the work, mainly in the small farms, by the rugged topography of the land, by the traditional agricultural systems that are economically unfeasible in most cases, due to the lack of technical support. and / or because they were enticed by much more attractive salaries in the tertiary sector. This reality worsened even more, due to the fact that small local economies, predominantly agricultural, were affected not only by the exodus of young people but also by the general exodus of populations, which caused a loss of social and economic dynamism in the areas rural areas. The concentration of populations in large urban centers aggravated the social and economic problems that already existed and increased the abandonment of traditional economically marginal but environmentally sustainable agricultural systems, which proved to be negative for nature conservation (Baptista, 2006; Carmo, 2010).

Although innovation developed in rural areas has been neglected over the years by innovation policies and measures, as it is generally associated with territories where small businesses predominate and where low-tech innovation prevails, there is detected that the innovation developed by the organizations implanted in the Portuguese rural areas is fundamental for its development and valorization. In this way, a change in agriculture has started over 30 years in relation to its integration process in Europe, which has led to the creation of infrastructure, other plantations, and new agricultural equipment. However, the reason for the great transformation in the agricultural sector was Training. Technology has completely transformed agriculture and, consequently, rural areas, since everything has become technological and computerized where obtaining qualifications has become essential. New farmers have more training, in addition to being more informed, they are also more dynamic, managing to take greater advantage of new technologies. It is well known that there has been a very strong structural adjustment in the agricultural sector and that it has changed the profile of Portuguese agriculture. Thus, greater respect for the environment was developed, with less mobilization of the soil and the correct use of natural resources. The new generation of farmers has been creating startups and venturing into new agricultural products, betting on exports. New farmers have a business approach, with benefits in terms of risk reduction, that is, they get more profits if they sell the processed products giving them added value (Carmo, 2010; INE, 2012; Costa, 2016). Products originating in Portugal, with good taste, quality, and food safety are gaining, day after day, greater space in foreign markets.

VET for rural and existing opportunities

The agricultural sector and rural areas have been neglected for several years, but fortunately, this is a distant reality. Portuguese government officials are increasingly betting on the development of the sector and in rural areas through various means, namely, through training, investments, and financing to individuals that present projects that show growth potential, wealth generation, employment, and export. In this way, the new conception of rural development is based on the perspective of the diverse functions of agriculture/forestry and of rural territories, and that diversification of uses and functions means that the relations with the urban are more and more relevant (Dragoi & Balgar, 2013; Brouder *et al.*, 2014). With the various programs like as the Community Initiative Program LEADER (Portuguese acronym for Link between Actions for the Development of Rural Economy), LEADER II, the FEADER (Portuguese acronym for European Agricultural Fund for Rural Development) have been created fundamental goals for the Portuguese rural area (increase in competitiveness of agriculture and forestry; improvement of the environment and rural landscape; promotion of quality of life in rural areas and diversification of the economic activity in the set of rural spaces), has coming to institutionalize rural development as an integrated political dimension and the quality of life and rural economic diversification (Covas & Covas, 2013).

Agriculture has enormous potential, being a very important economic fabric for Portugal, not only in terms of guarantees of subsistence and job creation but above all in terms of exports. Effectively, the agricultural sector as a rapid growth phenomenon and are one of the complementary ways that are intended to be encouraged aiming to stimulate and revitalize rural territories through a broad set of instruments beyond the agricultural/rural sector, which translate a certain convergence at the level of the strategic vision of development centered in the relevance of the territorial dimension.

In this way, over the years, Portugal has developed alternative practices that potential both the agricultural sector and rural areas, with Innovation being the keyword for this development. Innovation in rural areas can thus be defined as an approach or a technique, new in its context or in its configuration, aimed at strengthening the capacity of local organizations to face the serious development challenges in agriculture and food security (InterAction, 2012). Social innovation has also become increasingly important in rural areas, as it includes improvements in the provision of services and / or in responding to emerging social needs, related to the development of rural communities and their health and well-being . The new policies developed for rural areas have led to a paradigm shift through which new approaches, such as economies of scope, diversification, creation of added value and communication and organization technologies, are becoming increasingly important compared to more conventional approaches. , such as economies of scale, specialization, labor productivity or industrial technologies (Madureira *et al.*, 2013a; Freire, D., 2017). Thus, for example, economies of scale are reinforced by economies of scope; specialization is giving way to diversification; the creation of added value is more important than labor productivity; new technologies appear in the areas of the environment and energy; improvements in the organization and the entry of new markets through new forms of distribution and marketing; and yet,

communication and knowledge are of particular importance. There are also major improvements in the training and quality of life of rural populations, as well as the resurgence of natural and cultural resources, the revaluation of local products and the emergence of new types of tourism. It is thus possible to say that innovation in rural areas can involve (Madureira *et al.*, 2013a; Madureira *et al.*, 2013b):

• Economies of scale / specialization: to reach a critical dimension, mainly through sectoral networks and regional clusters.

• Economies of scope / diversification: expanding the range of products and services both through the introduction of new products and services through the establishment of cross-sectoral networks, and through the interaction between, producers and service providers and consumers.

• Modernization / new technologies: replacing outdated products and processes, improving their quality, flexibility and production capacity, and providing goods and services, reducing production / supply costs.

• Environmental and energy technologies: environmental management, minimizing environmental impacts, improving health and safety, reducing energy costs, renewable energy, planting for biomass, reusing forest by-products.

• Organization: improving the efficiency of the organization and work processes.

• Distribution and marketing: enter new markets and / or increase market share and new sales and marketing channels.

• Communication and knowledge: improving communication within the organization as well as with other companies, establishing partnerships with universities and research laboratories, local communication and learning networks, specialized knowledge networks.

• Capacity building of the rural population and improvement of the quality of life: establishment of partnerships, local action groups, local development associations, social services, proximity cultural services, training in rural development.

• Valorization of natural, cultural and tourism resources: protected areas, interpretation centers, nature tourism, observation of fauna, flora, hunting, fishing, harvesting of forest products, bed & breakfast accommodation, rural tourism, village tourism, recovery heritage, cultural dynamism (music, theater, literature).

• Valorization of local products: gastronomy, traditional agricultural products, products of origin and protected geographical location, centers for dissemination, development and demonstration of the horticultural sector, ecological olive groves, artisanal products.

Thus, VET Training in Portugal offers immense training offers in the agricultural sector, more specifically directed to the rural area. Some examples of these Training Courses in Portugal are:

Agricultural operator

Agricultural production technician

Agricultural Machinery Operator

Production technician Equine

Agricultural Management

Wine production technician

Technician of distribution and commercialization of agricultural products

organic farming

Management of agricultural companies

Agricultural investment analysis planning

Introduction to citrus production courses.
Animal production
Forest management
Forest management and ecology

B. FIELD RESEARCH

The Rural+ framework

---

1. The general educational framework

As a starting point, we have adopted in a simplified way the [Regional Model Competency Framework](#) by the International Labour Organisation (ILO) and re-adapted to the aims of the project as the following.

We have cross-fertilised the ILO soft skills set of competencies with a three-tiered macro-competence classification, as stated in section 4 of the present paper (§p.4).

ILO competence framework – v1	Macro-competence skills for rural training
basic/fundamental - literacy, using numbers, using technology;	Professional digital literacy
conceptual/thinking - collecting and organising information, problem-solving;	Learning to learn
learning-to-learn - thinking creatively, systems thinking;	Learning to learn
people-related skills - communication and teamwork skills.	Business etiquette

As two concepts from the ILO framework are contiguous in terms also of our working scope, we have merged the two complementary parts that constitute learning to learn macro-competence:

ILO competence framework – v2	Macro-competence skills for rural training
basic/fundamental - literacy, using numbers, using technology;	Professional digital literacy
collecting and organising information creatively for problem-solving and learning enhancement	Learning to learn
• people-related skills - communication and teamwork skills.	Business etiquette

2. A first definition of the three macro-competences

In this section, we have detected the clearest definitions of the macro-competencies, so that it is possible to operationalise them in a set of measurable questions.

Business etiquette

The statement of business etiquette in Rural+ project is defined as the sum of two main elements – code work and team-work competencies.

Code work (business etiquette)
"Business etiquette is a set of manners that is accepted or required in a profession. Often upheld by custom, it is enforced by the members of an organization. Those who violate business etiquette are considered offensive. The penalty for such behaviour frequently lies in the disapproval of other organization members The process of working collaboratively with a group of people in order to achieve a goal". (GCF Global).

Team work
"Teamwork is often a crucial part of a business, as it is often necessary for colleagues to work well together, trying their best in any circumstance. Teamwork means that people will try to cooperate, using their individual skills and providing constructive feedback, despite any personal conflict between individuals". (Business Global Dictionary)

"Working with a group of people to achieve a shared goal or outcome in an effective way

- *Listening to other members of the team*
- *Taking everyone's ideas on board, not just your own*
- *Working for the good of the group as a whole*
- *Having a say and sharing responsibility"*

(Youth employment)

Learning to learn

Problem solving

"Problem solving is the act of defining a problem; determining the cause of the problem; identifying, prioritizing, and selecting alternatives for a solution; and implementing a solution."
(ASQ, 2019)
"Collaborative problem solving competency is the capacity of an individual to effectively engage in a process whereby two or more agents attempt to solve a problem by sharing the understanding and effort required to come to a solution and pooling their knowledge, skills and efforts to reach that solution".
(OECD, 2015)

Learning to learn

"[…] as the general capability based on knowledge, experience, values, dispositions which a person has developed through engagement with educational practices". (CoE, 1997)

"This competence makes people aware of how and why they acquire, process and memorise different types of knowledge. In this way, they are in a position to choose the learning method and environment that suits them best and to continue to adapt them as necessary". (Eurydice, 2002)

<u>Digital Literacy</u>

"The ability to use digital technology, communication tools or networks to locate, evaluate, use and create information. The ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers.
A person's ability to perform tasks effectively in a digital environment… Literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environments".
(DigitalLiteracy.us)

3. Structure and Content of the Framework

Each competence is depicted:

- macro-competence area
- macro-competence statement (there can be more than one)
- macro-competence learning outcome divided into (according to EQF)
- Knowledge
- Skills
- Responsibility and Autonomy

This is the graphic outcome of each competence

Competence area	Competence statement	Rural+ learning outcome		
		Knowledge	Skills	Resp/Autonomy
e.g. Business etiquette				

4. Operationalisation of the detected competences

To operationalise the competencies, we look at the bits of each competence, taking care of distinguishing knowledge, skills and attitudes.

According to the general methodology explain in par.4 in points 3) and 4):

a. Each project partner is required to firstly write a list of questions that are expected to be done in each learning competence area, describing precisely what employers should expect from the workers. Each partner has involved VET educators, experts and specialists of rural settings.

Participatory work is deemed as fundamental to make questions and inquiry as the most realistic as possible.

b. **All questions are measurable along a knowledge/skills scale, defined through a likert scale (1 to 5).**

c. A digital format of the questionnaire has finally been released and translated in a definitive form to reach 40 VET trainers/learners/entrepreneurs and employees operating in rural areas.

d. The main lead research partner has gathered the three main gaps in each country and through qualitative analysis has rendered a provisional synthetic description of the competencies to be proofread by the rest of the partners and by a pool of VET trainers/facilitators.

5. Reflection on the method used

As our analysis focuses on the critical points regarding the definitions of detected competencies, we have looked at the answers which scored the lowest total grades given by the interviewees *within* the same pool of interviewees per country in order to have at least a clearer perception in each of them.

Secondly, we have compared the different answers given by each country poll of interviewees and relate their statements to the desk research. After that, we have synthetised the competencies readapting them to the format provided by the ILO framework and structuring them along the European Qualification Framework.

6. The results

#1 Business etiquette main gaps detected

	Cyprus	Italy	Portugal	Romania
#1	The online presence of workers is fundamental to promote our business (social media behaviour, email typing) or to hire someone	The approach of workers with different targets among our customers is everything	Sharing responsibilities and solving problems autonomously among workers in teams is fundamental	The online presence of workers is fundamental to promote our business (social media behaviour, email typing) or to hire someone
#2	Any of my employees is fully aware of the business code of conduct	The online presence of workers is fundamental to promote our business (social media behaviour, email typing) or to hire someone	The online presence of workers is fundamental to promote our business (social media behaviour, email typing) or to hire someone	Violation of business code of conduct/working language can lead to employee dismissal
#3	Violation of business code of conduct/working language can lead to employee dismissal	Feedback requests are welcome by all the workers in the business as part of the permanent learning process	Positive, direct and respectful communication among working teams is fundamental	Feedback requests are welcome by all the workers in the business as part of the permanent learning process

Competence statement

The ability of employees/employers to represent their business offline and online through a proactive behaviour and language, sharing good team work abilities, stimulating the openness of working environments. The ability to improve business conduct according to customers' feedback.

#2 Permanent training main gaps detected

2 Learning to learn	Specific technical skills are fundamental when hiring someone	There is enough time to train workers/We have a clear training system in our company	There is enough time to train workers/We have a clear training system in our company	We assess learning needs regularly every year
	We assess learning needs regularly every year	The usage of online educational systems to train workers is important because it cuts training time	The usage of online educational systems to train workers is important because it cuts training time	There is enough time to train workers/We have a clear training system in our company
	Continuous training and specific workshops are fundamental for the workers in our company	HR department in our company facilitates training needs	We assess learning needs regularly every year	HR department in our company facilitates training needs

The ability of employees/employers to assess their working gaps/issues in efficient and lean ways, tackling them through a collaborative approach to set training schemes and standardised ways to enhance competences, measuring the different outcomes and improving business practices.

#3 Professional digital literacy main gaps detected

3 Professional digital literacy	Workers in our company are expected to be competent in using Internet-related skills	Workers in our company have to be proficient in using specific business-related tools	When hiring someone, it is important to ask about the digital skills doesn't matter which role is the person applying for	Workers in our company are aware of the cloud-based technologies/digital management systems
	Chat interfaces (like WhatsApp, Telegram, Skype etc.) are expected to be known by workers to facilitate internal communication	In our companies there are training opportunities to get better in digital tools	Chat interfaces (like WhatsApp, Telegram, Skype etc.) are expected to be known by workers to facilitate internal communication	In our companies there are training opportunities to get better in digital tools
	Workers in our company are expected to be competent in using Internet-related skills	When hiring someone, it is important to ask about the digital skills doesn't matter which role is the person applying for	Workers in our company are aware of the cloud-based technologies/digital management systems	Chat channels are normally used for marketing purposes by any of the company

Competence statement

The ability of employees/employers to use and evaluate the impact of digital tools on their company in each department/activity, the capability of embedding mobile chats and communication apps to improve information/task sharing and micro e-commerce practices to favour better product branding and tackling innovation gaps.

THE FRAMEWORK

Competence Area	#1 Business etiquette
Competence Statement	The ability of employees/employers to represent their business offline and online through a proactive behaviour and language, sharing good team work abilities, stimulating the openness of working environments. The ability to improve business conduct according to customers' feedback.
Knowledge	1.1 Identify main strategies to map business values/feedback as a practice within a business 1.2 List online business etiquette on social media rules 1.3 Label the main elements for an updated LinkedIn page 1.4 List the main elements of a non-violent online content (gender, anti-discriminatory etc.) 1.5 Learn online community management on Facebook/Instagram 1.6 Recognise different customer targets and their preferences 1.7 List basic rules of negotiation with customers
Skills	1.8 Being able to interact with different customers 1.9 Being able to apply basic negotiation rules during commercial phases 1.10 Being able to write simple social media posts 1.11 Apply basic community management techniques 1.12 Being able to create a basic online business presence strategy/business conduct 1.13 Being able to set up a simple feedback strategy to improve work
Responsibility and Autonomy	1.14 Being open to different customers and focus on business goals, separating wants from needs 1.15 Define online presence as a crucial tool for soft promotion of the business and for self-branding

Competence Area	#2 Permanent training (Learning How to Learn)
Competence Statement	The ability of employees/employers to assess their working gaps/issues in efficient and lean ways, tackling them through a collaborative approach to set training schemes and standardised ways to enhance competences, measuring the different outcomes and improving business practices also employing digital tools.
Knowledge	2.1 Identify and describe competencies, knowledge, skills and qualifications required by a particular activity or career 2.2 Define how to write learning goals as a concrete way to improve one's business 2.3 Identify and describe strategies to assess learning needs and main barriers in permanent learning 2.4 Identify and describe the most adequate personal learning strategies and time allocation 2.5 Identify the benefits/cons of e-learning and the main existing platforms and tools (open badges, quizzes, etc.)
Skills	2.6 Deploy effective time management strategies to improve learning time 2.7 To be able to define a job description or a training request within a business 2.8 To be able to access e-learning, creating a user, navigating through the different options 2.9 To be able to apply different learning assessment strategies to have as final outcome the learning need statements 2.10 To be able to apply different learning strategy according to the assessment to reach own learning goals
Responsibility and Autonomy	2.11 To show motivation and confidence to continue and succeed in lifelong learning. 2.12 Presenting a problem-solving attitude to support one's own learning process and the individual's ability to remove obstacles and manage change 2.13 Manifest the desire to exploit learning experience.

Competence Area	#3 Professional digital literacy
Competence Statement	The ability of employees/employers to use and evaluate the impact of digital tools on their company in each department/activity, the capability of embedding mobile chats and communication apps to improve information/task sharing and micro e-commerce practices to favour better product branding and tackling innovation gaps.
Knowledge	3.1 Identify and describe common digital tools (such as communication and e-commerce apps) 3.2 Describe the benefits of digital technology for each company department/activity 3.3 Recognise common uses of digital tools in the workplace. 3.4 Explain how instant messaging and Webcam communication works.
Skills	3.5 Demonstrate basic understanding of how digital tools, apps are used 3.6 Demonstrate the ability to save/download and attach/upload files 3.7 Communicate effectively in social media/ communication apps 3.8 Use search technologies effectively 3.9 Organise and manage digital information 3.10 Demonstrate the ability to use e-commerce apps effectively
Responsibility and Autonomy	3.11 Be a discerning consumer of digital content 3.12 Critically evaluate and analyse information and its source (relevance and credibility)

THE SYLLABUS

HOW TO SET A WORKING CONDUCT IN A BUSINESS
- values & engagement of workers
- online ethical rules

HOW TO IDENTIFY DIFFERENT CUSTOMERS
- Business customers and targets
- negotiation tips & steps

HOW TO IMPROVE PERSONAL ONLINE PRESENCE
- Relevant social media etiquette
- Good tips to update social presence

SOCIAL MEDIA MANAGEMENT
- Community management
- Business presence on social media
- How to respond to customers online

HOW TO SET FEEDBACK PROCESSES IN A BUSINESS
- Strategies for feedback
- How to embed feedback processes in a small business
- How to enhance feedback

ASSESS & MAP LEARNING NEEDS

- how to practically write a learning goal
- how to identify main learning needs of workers
- main strategies in a business to check worker's needs

HOW TO IMPROVE LEARNING EXPERIENCE

- main learning strategies
- how to retain learning contents
- the main learning barriers and how to counter them

HOW TO IMPROVE TIME MANAGEMENT IN LEARNING

- define main pros/cons in permanent learning
- how to plan own time and use it for learning
- how to learn from any experience you have

HOW TO MEASURE TRAINING EFFECTIVENESS IN A BUSINESS

- main strategies to check work improvement after a training
- Kirkpatrick evaluation model
- main permanent training indicators to apply to assess efficacy of a training

HOW TO EFFECTIVELY USE E-LEARNING IN A BUSINESS

- main existing e-learning platforms
- Moodle: how to install it and main features
- Wordpress: main elements for e-learning
- how to use WhatsApp and Telegram for learning
- How to integrate e-learning as a practice in a rural business

HOW TO EFFICIENTLY USE THE INTERNET
- Google SERP
- Google SEO
- Keywords for business
- Business online presence: definitions & tips

SMART WORK STRATEGIES
- How to plan a smart work strategy in a business: steps
- Examples of smart work

CLOUD:
- Main cloud advantages
- Practical tips how to assess cloud needs of a rural business
- How to integrate cloud technology in a rural business

HOW TO USE COMMUNICATION CHANNELS FOR BUSINESS
- Emails
- WhatsApp
- Telegram
- Zoom/Skype/

E-COMMERCE
- How to plan an e-commerce
- How to set up an e-commerce: platforms and digital payments
- Security of payments (SSL certificates)
- How to promote an e-commerce

GDPR 4 RURAL
- What GDPR is
- DPO: roles
- How to plan a GDPR plan for a business: basic steps

LINKS & RESOURCES

Agensir, 2019. "Lavoro: Coldiretti, "è l'agricoltura a trainare la crescita dell'occupazione". Preoccupazione per i danni del maltempo. Retrieved from https://www.agensir.it/quotidiano/2019/6/13/lavoro-coldiretti-e-lagricoltura-a-trainare-la-crescita-delloccupazione-preoccupazione-per-i-danni-del-maltempo/

Baptista, F. O., 2006. O rural depois da agricultura, in FONSECA M. L. (coord.), *Desenvolvimento e território: espaços rurais pós-agrícolas e novos lugares de turismo e lazer*, Centro de Estudos Geográficos, Lisboa, 85-105 pp.

Brouder, P., Karlsson, S., Lundmark, L., Almsted Å., (2014), Beyond Post-Productivism: From Rural Policy Discourse To Rural Diversity, *European Countryside*, vol. 6, no. 4, 297-306 pp.

Carmo, R. M., 2010. A agricultura familiar em Portugal: rupturas e continuidades. *Revista de Economia e Sociologia Rural*, São Paulo, vol. 48, nº 01, p. 9-22.

Costa, T., 2016. Estamos a fazer história. Ser agricultor em Portugal já dá prestígio, in *Diário de Notícias*, Lisboa.

Covas, A., Covas, M., 2013. A construção social dos territórios-rede da 2ª ruralidade–dos territórios-zona aos territórios-rede–construir um território de múltiplas ruralidades, *Revista de Geografia e Ordenamento do Território*, no. 3, 43-66 pp.

CEDEFOP, 2019.Vocational education and training in Europe: Romania. Retrieved from https://www.cedefop.europa.eu/files/4171_en.pdf

Dragoi, A., Balgar, C., 2013. Common Agricultural Policy – the main driver of sustainable rural development in European Union, Global Economic Observer, vol. 1, no. 2, 34-42 pp.

Eurostats, 2010. Agricultural census in Cyprus. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Agricultural_census_in_Cyprus&oldid=148933#Main_statistical_findings

Findsen, B. & Formosa, M. 2015. International Perspectives on Older Adult Education: Research, Policies and Practice. Springer: Switzerland.

Freire, D., 2017. Agricultura em Portugal, mil anos de História, in *Blogue ATS* Grupo de Investigação Ambiente, Território e Sociedade do ICS-ULisboa.

Henriques, L. C., 2017. Indicadores Positivos na Agricultura Portuguesa, in *Portugalglobal*, nº99, 64 pp.

INE – Instituto Nacional de Estatística, 2012. Censos 2011, Lisboa.

InterAction, 2012. Best Practices & Innovations Initiative Building Local Organizational Capacity for Agriculture & Rural.

Istat, 2018. Andamento economia dell'agricoltura. Retrieved from https://www.istat.it/it/files/2019/05/Andamento-economia-agricola-2018.pdf

Markou, M. 2006. Agricultural Situation Report Cyprus. Market and Trade Policies for Mediterranean Agriculture (MEDFROL): The case of fruit/vegetable and olive oil. 51. Retrieved from https://www.researchgate.net/publication/257680418_Agricultural_Situation_Report_Cyprus

Mastroyiannakis, T., & Mestheneos, L. 2004. Actual trends in senior citizens' education . Athens: Pan European Forum for Education of the Elderly.

Madureira L., Gamito T. M., Ferreira D., Portela, J. (2013a). Inovação em Portugal Rural – Detetar, Medir e Valorizar, Princípia Editora, Lda, 1ª ed., 202 pp.

Madureira L., Gamito T. M., Ferreira D., Oliveira, I. (2013b). Innovation inputs and processes: the reality out of the box in the Portuguese rural areas, in *Noronha, T. e Gomes, J.* (eds*.), Innovation for Sustainability and Networks*. University of Algarve Book Series, Faro.

Ministry of Agriculture and Rural Development, 2013. General description of the current economic situation. Retrieved from
http://www.madr.ro/docs/dezvoltare-
rurala/Descrierea_generala_a_situatiei_economice_actuale_4_11_2013.pdf

Osservatori Digital Innovation, 2019. Smart AgriFood: Boom dell'Agricoltura 4.0. Retrieved from https://www.osservatori.net/it_it/osservatori/comunicati-stampa/smart-agrifood-boom-agricoltura-4.0

Theophanous, G. 2000. Organic Farming in Cyprus. FAO:https://www.organic-world.net/fileadmin/documents/country_information/ARCHIVE/cyprus-2000-organic-europe.pdf

Weedon, E. 2012. Lifelong Learning in Europe: Equity and Efficiency in the Balance (eds Riddell, Sheila, Markowitsch, Jorg). Bristol: The Policy Press.

ANNEX I

EU

Section 1
Main facts and figures on rural economy and employment

Try to define aggregated elements in the rural sector, economic growth and main trends, focusing on employability and current innovations.
In 2016 the EU-28 population came to 510.3 million inhabitants, leading to an increase of roughly 0.3% per year since 2000, with79.5% living in the EU-15 and 20.5% in the EU-N13. Its GDP per capita is lower than in other areas compared to the average and it varies by country – in 2014 it stood at 72% of the overall EU average, compared with 88% in intermediate areas and 121% in urban areas. The GDP per capita in predominantly rural regions of Bulgaria, Romania and Latvia was below 40% of the EU-28 average during the period 2011-2013, whereas in the Netherlands it was 113%. Due to the fact that the rural sector occupies vast land areas, its economic growth is centred on the industries that make good use of that land such as the primary sector.   The primary sector (agriculture, forestry and fishery) represented1.5% of GVA in the EU-28 in 2016.This proportion has remained roughly stable since 2008. In rural areas, the primary sector contributed 4.2% of total GVA2. It is more important in the rural areas of the EU-N13 (7.1%) than in the EU-15 (3.7%). In Bulgaria, Estonia, Lithuania, and Latvia the primary sector still represents around 10% or more of total GVA in rural areas, followed by Romania, Hungary and Greece (between 8 and 10%). By contrast, in Belgium, Germany and Ireland the primary sector accounts for less than 3% of the total GVA in rural areas   Within its Strategy for agricultural research and innovation, the European Commission has identified 5 priority areas for research and innovation: 1. **resource management** – notably soil, water, nutrients and genetic resources;   2. **healthier plants and animals** – involving research on tools to prevent and control plants and diseases;   3. **integrated ecological approaches** – for example, research into better use of ecosystem services instead of external inputs and developing specific farming systems such as organic and mixed farming systems;   4. **new openings for rural growth** – involving the deployment of new business models, circular value chains and digital transformation to sustain and boost rural economies;   5. **enhancing the human and social capital and rural areas** through innovation networks, advisory services and demonstration sites in rural areas.   As a result, new employability opportunities will arise in the up-and-coming areas of the rural areas, opportunities such as: - Specialized resource engineers that would ensure that the communities and the businesses would have full and sustainable use of the available rural resources;   - Hydroponic or permaculture - oriented businesses which will push to the maximum the productivity, health but also the sustainability of the crops;   - Organic businesses - which will satisfy the new trends in public alimentation;   - Human resource development companies centered on highly specialized rural/type jobs.
Sources: Paper wrote by Allan Mathews, Trinity College - Rural Development in the European Union: Issues and Objectives –   https://www.tcd.ie/Economics/staff/amtthews/FoodPolicy/CourseMaterials/Readings/Matthews%20Rural%20Development%20in%20the%20EU.pdf   Rural areas and the primary sector in the EU – European Commission   https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/eu-rural-areas-primary-sector_en.pdf

Briefing from the European Parliament regarding the EU Agricultural research and Innovation https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/630358/EPRS_BRI(2019)630358_EN.pdf

Main existing reports on the VET sector	
Name of the report	Empowering adults through upskilling and reskilling pathways
Short description	A statistical report with country factsheets regarding the training and re-training of adults (including VET) This study is the first volume of Cedefop research on empowering adults through upskilling and reskilling pathways.
Link	https://www.cedefop.europa.eu/files/3081_en.pdf
Name of the report	On the way to 2020: data for vocational education and training policies
Short description	This report, presents a set of 36 indicators to quantify some key aspects of VET and lifelong learning.
Link	**https://www.cedefop.europa.eu/files/5576_en.pdf**
Name of the report	Cedefop (2017). Cedefop European public opinion survey on vocational education and training. Luxembourg: Publications Office. Cedefop research paper; No 62.
Short description	Statistical report regarding the perceptions and realities of the VET across the European Union
Link	**https://www.feani.org/sites/default/files/CEDEFOB%20Study%20on%20VET.pdf**

Main educational barriers referring to the rural areas in your country.
The education levels across Europe differ from country to country as well as by regions. Although there are exceptions, the main rule that could apply is the one that says that the country who is willing to spend more money on education (infrastructure and educators) has the most educated people. This also applies in the rural areas in the EU where, according to the education map of the regions, it shows that western countries, who traditionally have the most GDP per capita, achieve a higher education level than the eastern countries. Other factors are as well to be counted when trying to identify educational barriers, factors like geographical barriers and a lack of career role models and highly-skilled jobs in their home villages, may also constitute educational barriers. Also, the fact that labour markets in rural areas tend to require less sophisticated skills determine a lack of drive in the need to acquire higher education degrees. Moreover, the levels of educational attainment are typically lower among parents of children in rural areas, which can influence the nature of their involvement in school matters and, further on, their children's career aspirations. Even when they are prepared to undertake further studies, rural students face particular barriers to fulfil their dreams and aspirations such as long commute distances or the need to migrate to larger municipalities for educational purposes. Another important barrier is the lack of qualified personnel for designing and implementing of strategies for school-based career counselling and provision of community-based resources, little knowledge of innovative models and a lack of awareness and support in the local community regarding education. Another important barrier is the environment of the learner, his closest five most influencing people who usually have the same low aspirations and drive for education and do not challenge the learner for improving himself.
Sources: LEARNING IN RURAL SCHOOLS: INSIGHTS FROM PISA, TALIS AND THE LITERATURE OECD Education Working Paper No. 196 By Alfonso Echazarra, OECD; and Thomas Radinger, OECD

Section 2

Main facts on Vocational Education Training sector in your country with focus on the rural sector

Main educational paths/opportunities related to the VET sector with reference to the rural sector.
In this part, we will focus on the main qualifications and professional outcomes of the VET sector, with focus only on primary sector-related jobs.

With regards to the paths and opportunities for the VET in rural areas, they are given by the activities usually made within the rural areas. These educational paths and, subsequently, career opportunities include two main types:
 	
  - One type of VET jobs will serve the needs of the people of the community and will include mainly qualifications which maintain the welfare of the private persons and their livelihood. Such qualifications include bakers, electricians, construction workers, livestock keepers (veterinarians as well as other specialists), plant specialists, social workers, etc. They are mainly self-employed of working in small, specialized, companies within the community they serve
  - The other type serve the companies that typically operate in the rural areas, such as the ones in the primary sector (agriculture, fisheries, wineries, livestock breeding, etc.) or in other types of companies which can benefit from the rural area. This type of VET worker is usually more specialized than the "community VET" due to the need to resolve more complex challenges. They are employed by the companies in which they work and share the responsibility of the main product of the company with other types of labourers. Even though they work in the rural area, they can live in the urban area as well.

Sources: **European qualifications framework: Initial vocational education and training: focus on qualifications at levels 3 and 4**

CYPRUS

VET SECTOR

Main existing reports on the VET sector	
Name of the report	**Vocational Education and Training in Cyprus: Short description**
Short description	Cyprus, a country with limited natural resources, has always relied on its human resources to achieve a competitive advantage in an era of globalisation, technological advances and demographic changes. The education and training system is vital in providing Cyprus with people who have the necessary knowledge, skills and attitudes and are able to respond flexibly and efficiently To the challenges of the 21st century. To continue to fulfil the expectations of the Cypriot economy and society, the education and training system, including VET, is undergoing essential reforms.
Link	**https://www.cedefop.europa.eu/files/4118_en.pdf**
Name of the report	**The Referencing of the Cyprus Qualifications Framework to the European Qualifications Framework for Life Long Learning**
Short description	The report outlines the referencing process of the Cyprus Qualifications Framework (CyQF) to the European Qualifications Framework (EQF) and the Qualifications Framework of the European Higher Education Area (GF/EHEHA) and its application to a system of awards in education and training. It provides a conceptual and institutionalbackground that led to the setting up of a European Qualifications Framework and the Qualifications Framework of the European Higher Education Area and how the Cyprus Qualifications Framework which like the EQF, is also based on an eight level system, can be referenced to the EQF and the QF-EHEA.
Link	**http://www.cyqf.gov.cy/archeia/dimosiefseis/cyqf-referencing-report.pdf**
Name of the report	**National Strategy for Lifelong Learning 2014-2020 Republic of Cyprus**
Short description	This report presents the strategy of the Republic of Cyprus for LLL for the period 2014-2020. The Strategy covers the development of all kinds of learning (formal, non-formal and informal). The report was prepared by the Directorate General for European Programmes, Coordination and Development (DG EPCD) in collaboration with the Ministry of Education and Culture (MOEC), the Ministry of Labour, Welfare and Social Insurance (MLWSI), the Human Resource Development Authority (HRDA) and the Productivity Centre (CPC). The Strategy was sent to the involved social partners for comments and their views have been incorporated in it. The Council of Ministers approved the Strategy in its meeting held on 18.06.2014
Link	**http://www.dgepcd.gov.cy/dgepcd/dgepcd.nsf/499A1CB95 981643FC2257C7D00486172/$file/National%20%20Lifelong**

	%20Learning%20Strategy%20in%20English%20(Summary).pdf

MAP OF THE VET SECTOR

Title	Cyprus Productivity Centre
Link	http://www.mlsi.gov.cy/mlsi/kepa/kepa_new.nsf/kepa39_en/kepa39_en?OpenDocument

FREE ONLINE RESOURCES FOR VET TRAINING (IN ENGLISH)

Theme	Women Entrepreneurs in Rural Tourism
Source course	Cyprus Sustainable Tourism Initiative
Link	https://csti-cyprus.org/?page_id=69

ITALY

VET SECTOR

Main existing reports on the VET sector	
Name of the report	**Vocational education and training in Europe: Italy 2018**
Short description	Vocational Education Training analysis of the Italian VET system
Link	https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational_Education_Training_Europe_Italy_2018_Cedefop_ReferNet.pdf
Name of the report	**Spotlight on VET Italy**
Short description	Vocational Education Training analysis of the Italian VET system
Link	https://www.refernet.de/dokumente/pdf/2017_SP_IT.pdf
Name of the report	Strategy for Inner Areas Italy
Short description	A strategy focused on 'place-based approach' which brings together different sectors and levels of government, including education, to fight depopulation.
Link	https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_it.pdf

MAP OF THE VET SECTOR

Title	**Atlante del lavoro e delle occupazioni (Map of labour, market and employment in the VET sector)**
Link	https://atlantelavoro.inapp.org/atlante_repertori.php

FREE ONLINE RESOURCES FOR VET TRAINING (IN ITALIAN)

Theme	Mathematical knowledge
Source course	Ministry of Education
Link	https://learn.eduopen.org/course/index.php
Theme	Digital education
Source course	Lacerba.io – online digital school
Link	https://lacerba.io/corsi-online-gratis
Theme	English language, management
Source course	Oggi WeSchool
Link	https://library.weschool.com/
Theme	Different themes
Source course	Progetto Trio (web VET learning Tuscany region)
Link	https://www.progettotrio.it/
Theme	Digital economy and others
Source	Energia Digitale
Link	http://www.energiadigitale.com/

ROMANIA

Main existing reports on the VET sector	
Name of the report	**Vocational education and training in Europe: Romania 2019**
Short description	**Vocational Education Training analysis of the Romanian VET system**
Link	**https://www.cedefop.europa.eu/files/4171_en.pdf**
Name of the report	**Spotlight on VET Romania**
Short description	**Vocational Education Training analysis of the Romanian VET system**
Link	**https://www.cedefop.europa.eu/files/8128_en.pdf**

MAP OF THE VET SECTOR

Title	National Centre for Technical and Vocational Education and Training Development
Link	**www.tvet.ro**

FREE ONLINE RESOURCES FOR VET TRAINING (IN ROMANIAN)

Theme	Different themes
Source course	**Ministry of Education and Research**
Link	**https://digital.educred.ro/home**
Theme	**Different themes**
Source course	**World Vision Romania Foundation and Vodafone Romania Foundation**
Link	**https://www.scoaladinvaliza.ro/**
Theme	**Different themes**
Source course	**Orange Foundation**
Link	**https://www.digitaliada.ro/**

PORTUGAL

VET SECTOR

Main existing reports on the VET sector – MONTHLY STATISTICAL PUBLICATIONS	
Name of the report	**Monthly Employment Market Information**
Short description	These reports contain information on the job market at the national level with a regional breakdown (North, Center, LVT, Alentejo, Algarve, Azores, and Madeira). There are monthly reports from the year 2003 to the present year 2020.
Name of the report	**Monthly Employment Market Statistics**
Short description	These reports contain statistical data referring to the job market at a national level with a regional breakdown (North, Center, LVT, Alentejo, Algarve, Azores, and Madeira). There are monthly reports from the year 2003 to the present year 2020.
Name of the report	**Monthly Employment Center Statistics**
Short description	These reports contain statistical data referring to the Employment Centers and Services of the Mainland and the Autonomous Regions of the Azores and Madeira. There are monthly reports from the year 2003 to the present year 2020.
Name of the report	**Summary of the Execution of Employment and Vocational Training Programs and Measures**
Short description	This summary discloses information regarding the operational activity of the IEFP (VET), namely the implementation of the Active Measures under its responsibility. There are summaries from 2005 to 2012, as of 2013 this publication was included in a new document designed that "Report on Physical and Financial Execution".
Link to access all documents	https://www.iefp.pt/estatisticas

Main existing reports on the VET sector – ANNUAL STATISTICAL PUBLICATIONS	
Name of the report	**Monthly Employment Market Information**
Short description	This Report gathers information, at the national level with the exception of the islands of Madeira and the Azores, on the demand and supply of employment and its consequent adjustment. There are reports from 1999 to 2017.
Name of the report	**Physical and Financial Execution Report**
Short description	This Report gathers information, at the national level with the exception of the islands of Madeira and the Azores, on the demand and supply of employment and its consequent adjustment. There are reports from 2001 to 2004.
Name of the report	**Foreign Citizens Annual Report**
Short description	This Report gathers information on the demand and job offer by foreign citizens residing in Portugal. There are reports from 2015 to 2018.
Name of the report	**Analysis of the Temporary Work Sector**
Short description	This Report brings together the main indicators of the temporary work sector at national level. There are reports from 2010 to 2017.
Link to access all documents	https://www.iefp.pt/estatisticas

MAP OF THE VET SECTOR

Title	IEFP, Instituto do Emprego e Formação Profissional (Map of Employment, VET Training, and Financial Support)
Link	https://www.iefp.pt/home

FREE ONLINE RESOURCES FOR VET TRAINING (IN PORTUGAL)

Themes	Different themes (e.g. Social Media; Interpersonal Communication and Assertiveness; Environment, Safety, Hygiene and Health at Work; Nutrition and Dietetics)
Source course	"Zona Verde" – Training and Consulting
Link	https://www.zonaverde.pt/site/lp/formacao-financiada-online/?gclid=Cj0KCQjw6uT4BRD5ARIsADwJQ18376QdT34CHOslr2KrZRSfU4hlcL9N7fcJtH8hEDPdIqOcgbPG1ecaAgbPEALw_wcB
Themes	Different themes (e.g. English; Make-up; Personal marketing; Business Pedagogy)
Source course	"Certificado"
Link	https://certificadocursosonline.com/
Theme	Different themes (e.g. Administration; Environmental; Animations and Design; Architecture and Engineering; Crafts; Biomedicine; Sales; Psychology)
Source course	"Cursos iPED"
Link	https://www.iped.com.br/cursos-gratis
Theme	Different themes (e.g. Tourism; Agriculture; Arts; Marketing and Sales; Computing)
Source course	"FBV cursos"
Link	https://www.fbvcursos.com/cursos