

Comparative study of the state-of-art



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1. Introduction

INTEGRURAL is a project for rural resilience. We want to support small farmers and micro-entrepreneurs of remote areas of Europe to access training for innovation and strategic thinking to combine agriculture and heritage management. We are cultural entrepreneurs, universities, rural municipalities, social labs, digital experts, and researchers from Portugal, Spain, France, Italy, and Greece. Our aim is to facilitate local development and international opportunities.

We focus on cluster development at local level, adopting the engagement of communities, entrepreneurs, local authorities and experts.

2. The partners

Municipality of Farkadona

Location: Region of Thessaly - District of Trikala - Central Greece

The Municipality of Farkadona is an area of 13.396 inhabitants in Western Thessaly, consisting mainly of small towns and villages. The natural environment is mainly plain, low-height mountains, small forests, several rivers. It contains a rich cultural heritage (byzantine /other monuments, ancient cities, living heritage and cherished traditions).

Economy consists of agriculture & livestock (significant), commerce, some industries.

The Municipal Authority's Main Goals include the creation of a brand name for the region, to fight unemployment (mostly on youths), poverty, ageing of population, to provide: public health & wellbeing, social facilities & care, high-level services, infrastructures & quality of life, networking to the local stakeholders, to preserve cultural and environmental heritage, vulnerable social groups, to promote production of high-quality products, new technologies, energy saving, specialized knowledge

to encourage: youth entrepreneurship, investments, extraversion of local economy, to protect territory from natural disasters, given that it is a high-flood

risk area, to combine agriculture, heritage, environment, human skills, capacity building.

Time Heritage

Location: Municipality of Papagou-Holargos, Region of Attica

Time Heritage is a Greek SME based in Athens, Attica, working on Cultural Heritage management. We collaborate with several municipalities, museums and other cultural organizations. Among our activities count digitization and digital enhancement of cultural heritage, innovative interdisciplinary actions for protection of monuments, interpretation-valorization of heritage for the development of rural areas. Our focus is in raising awareness on the potential of tangible and intangible heritage for job creations, development of alternative tourism, sustainable economy and resilience of rural areas. We have designed and implemented projects such as “MoCaCu: Portable Unit for the characterization, conservation, digitization and documentation of movable cultural heritage artifacts in remote areas of Greece” (funded by Swiss Federal Office for Culture and the University of the Peloponnese) and “DEN-CuPID: Digital Educational Networks for Cultural Projects’ Implementation and Direction” (Erasmus+, KA2, 2016-2018).

Polygonal

Location: Cori di Latina, Italy

Polygonal 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. It is in charge of the local public library, a point of contact with different target groups.

UTAD

Location: Villa Real, Dour Region, Portugal

UTAD is an internationally competitive research-led university whose operation is based on high-level research. The UTAD is recognized for the quality of teaching (125 position in European rankings), research and excellent eco-campus in Vila Real (Portugal). As one of the 10 leading universities in Portugal, the UTAD offers study and research opportunities in five faculties (schools). In the international

rankings, the University of Trás-os-Montes is among the top 800 universities and is ranked the tenth best university in Portugal. Today UTAD is widely recognized as a significant reference in the Portuguese university system. The University of Trás-os-Montes and Alto Douro, based in Vila Real (1 hour from Porto in the North Inland of Portugal), is an institution of high level oriented towards the creation and dissemination of culture, knowledge and science by merging teaching, scientific research and experimental development. Within the current framework of innovation, the Schools and Research Centres develop scientific activity that seeks to deepen knowledge and develop technology capable of addressing issues of global, national or regional scope. UTAD's mission is teaching, research and extension. UTAD is also member of different international networks. In terms of international projects, UTAD has participated in a large variety of national and international projects, regularly as the leading partner.

Verdemente Asociación

Location: Sierra de Fuentes, Cáceres, Spain

Verdemente is a non-profit non-governmental organisation based in Sierra de Fuentes, a small village (2000 inhabitants aprox.) nearby the world heritage city of Cáceres. It develops projects in the convergence of culture and nature, organizing music festivals and collaborating in ecoagricultural projects.

VerdeMente is leading the efforts for setting up a Learning Villages International Network for sharing principles and opportunities to improve citizenship and quality of life in threatened and fragile depopulated villages.

Ruralidade Verde

Location: Vila Marim, Vila Real, Portugal, North Region

Ruralidade Verde collaborates with the municipal parish of Vila Marim (1500 inhabitants) which provides the focus area for this project, a peri-urban and rural environment: small peri-urban parish, with 5 very rural villages.

Ruralidade Verde (RV) is a spin-off enterprise of University of Trás-os-Montes and Alto Douro (UTAD) on the area of agricultural and farming services. We have a special focus on increasing the capacity of innovation, generation and transfer of technical and scientific knowledge from the Universities and research centers to farmers, colleagues and students, in order to promote rural development. RV works as a field lab committed to sustainable rural development. To achieve this, we promote services such as: consultancy in several areas (animal nutrition and feeding, pasture management etc.) directly to farmers and/or farmers technicians,

we promote courses/seminars/lectures of dissemination of results and knowledge, practical demonstrations, amongst others. Ruralidade Verde also promotes and is a partner in several research projects, always aiming at knowledge dissemination and extension services to promote rural development.

IADT

Location : Clermont-Ferrand et Massif central

The Auvergne-Rhône-Alpes Institute of Territorial Development was created in 2013 at the joint initiative of local authorities and higher education and research institutions in Clermont-Ferrand.

This structure now brings together several higher education actors: Clermont Auvergne University, VetAgro Sup school and regularly collaborates with the AgroParisTech school or the École Nationale Supérieure d'Architecture de Clermont-Ferrand. The governance is backed by a Public Interest Grouping that brings together the first two establishments and the Auvergne-Rhône-Alpes Region, the Clermont-Auvergne metropolis as well as the Departmental Councils of the Allier and Puy-de-Dôme. This GIP status makes it possible to effectively manage and organize the cooperation of the public institutions involved, higher education institutions working in the fields of territorial engineering and local authorities.

The objectives of this project are, on the one hand, to pool resources and educational means within a "common house" of training, welcoming more than 200 students in professional bachelor's or master's degrees, from various disciplinary fields (architecture and planning, public law, economics, geography and planning, environment, management) and preparing for the various professions of sustainable development of territories. On the other hand, and in parallel, the aim is to develop an interface designed in close relation with the questions and projects of local authorities and socio-economic actors. This dynamic tool is based on a continuous training activity, but also a strategic animation function, research-action-training with the territories of the Region and the Massif Central, dissemination/valorization of scientific work as well as the organization of meetings associating scientists, elected officials, socio-professionals and citizens.

3. Main rationale of INTEGRURAL

During the last three decades, the agricultural and livestock sector, following the Common Agricultural Policy (CAP), has been progressively adapting to a productivist model characterised by intensive mechanisation and industrialisation

of agricultural processes, a strong intensification of production, a decrease in human work, concentration of production units and specialisation. These are factors which have had multiple effects such as the loss of habitats and biodiversity, the deterioration and acidification of soils and the increased pollution of productive ecosystems. Other circumstances with complex economic and social roots have been the depopulation of rural areas (lack of industrial and service development policies), dependence on other economic sectors, the loss of weight of agriculture in the economy and the generalised disaffection of the sector on the part of the young population.

Urged by climate change impacts and EU agrarian policies reform, a new post-productivist scenario, oriented towards the sustainable development of the agricultural sector, is characterised by the productive diversification of farms, the concern for territorial balance and a greater environmental commitment that favours new production and market niches such as organic farming, the commitment to quality production, direct sales to consumers, local trade or synergies with other economic sectors, which are changing the conventional model inherited from agricultural industrialisation.

One out of three EU farm managers has followed either a basic or full agricultural training course; half of this group completed a full cycle of agricultural training. However, the majority of farm managers (68.2%) learned their profession through practical experience only. It is important to take into account that 31% of farmers in Europe is represented by people who are +65, and 50% by people who are between 25 and 65 years old. This poses important generational questions in terms of competence transfer and fragmentation in terms of networking. In general, the problem has been to see rural areas as "passive" in comparison to urban areas seen as "active".

The project will introduce **small rural producers** to strategic training and to experiment new approaches through a living lab methodology. It focuses on the creation of small-scale rural clusters for mutual and peer-to-peer acquisition of competences, for transferring strategic thinking skills and for favouring networking in order to build up strong inter-related communities and start up branding attempts in the areas involved.

For the realization of the project's aims, transnational cooperation is the most important factor. **European rurality is multifaceted, while the challenges which European rural localities have to face are to a large extent common and have to be addressed transnationally.** Transnational cooperation can help to overcome the barriers of rural areas as knowledge and innovation flows and lead to creative exchange of experiences, achievements and good practices in order to link agricultural production to other productive activities and value generators, such as cultural or alternative tourism, e-marketing etc.

In this transnational context, knowledge transfer and feedback can function both vertically and horizontally: from the partners of this project to the trainees, among the partners, among the trainees, from the participants who will be trained as trainers to their local audiences (creation of clusters), and, more importantly, among the clusters of the “virtual hub”.

3.1 The scope of INTEGRURAL project

INTEGRURAL project aim is to practically tackle a number of issues in terms of innovation in rural areas of Europe suffering from depopulation and under-development processes.

Our approach does not aim to be comprehensive, but very result-oriented and as much narrowed down to the current needs and issues that entrepreneurs and employees in rural areas face to harness innovation. 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 focused on innovation skills in rural areas.

The project's thematic scope encompasses a number of areas:

1. Competences up-skilling & innovative training for cluster management
2. Local branding and networking for sustainable local development (e.g. social ecomarkets ,
3. Strategic thinking training
4. Interdependence of primary sector production and cultural heritage for creation of integrated added value

We are generally inspired by a living lab approach on rural areas.

Given this introduction, it is important to define each main research area to guide readers and practitioners in what we concretely want to research and explore.

3.2 GDPs and evolution of rural sector and of secondary sector

A renewed analysis of European rural areas implies a review of spatial definitions, a detailed measurement of socioeconomic dynamics, and the design of different models for accompanying and supporting initiatives.

In fact, the question of the definition and contours of rural areas is important, because there is no point in identifying general trends corresponding to averages, which are hardly to be found at the local level, but above all lead to a poor appreciation of the dynamics at work. A more inclusive definition emphasizes the notion of low-density areas at the European level. From this division, it can be seen that regions of low or very low density (less than 50 inhabitants/km²) cover vast territories. For example, in France, these areas cover more than nine-tenths of the country and account for approximately 35% of the population and 21% of jobs at the workplace. In Spain, rural areas cover 80% of the Spanish territory, but only 20% of the Spanish population lives there and six out of ten farmers are going to retire in the current decade.

In Europe, three main geographical axes are easily recognizable: that of the northern countries from Iceland, the British Isles (Scotland outside the Glasgow Depression, Wales, Ireland) and Scandinavia (particularly Norway, Sweden and Finland), passing through the great plains of northern Europe (Mecklenburg, Mazuria, the Baltic States). A second scarf stretches from the French Champagne-Ardenne to the south of Spain and Portugal, touching the archetypal Massif Central, the Pyrenees, the Castilles or the Extremadura, or, more detached, part of the Alps (southern French, eastern Swiss or Italian Piedmont) or the Apennines, Corsica and eastern Sardinia. Finally, a last axis of diffuse settlement stands out in the East, from the Balkan mountains (Greece, Bulgaria, Romania) to western Hungary and Slovenia-Croatia.

An examination of current demographic dynamics confirms the territorial "reversal" of sparsely populated areas. Indeed, a majority of these areas are experiencing growth, both in the north (British Isles, Scandinavia more recently) and in the southern regions (center and south of the Massif Central, Alps and Mediterranean islands, heart of Castile). However, the trends remain recessive in German Mecklenburg, in the Baltic States, in the central part of the Iberian Peninsula or in some Balkan massifs. The upturn is largely due to the new attractiveness of Scandinavia, Scotland, the French Massif Central, the Southern Alps, the Mediterranean islands and central Spain. On the other hand, these migratory gains are attenuated by the birth deficit that still characterizes certain depopulated and aged regions (northern Germany, southeastern Finland and the Baltic States, the Massif Central and the western Iberian highlands, and the Balkans). Only Iceland, Ireland and most of the Scandinavian periphery have surplus natural balances.

The attractiveness of migration affects peri-urban areas but also certain "remote" rural areas, despite the sharp slowdown observed since the 2008 crisis. This favorable migratory balance is both the result of fewer people leaving the countryside and, above all, of the installation of new inhabitants with diverse sociological profiles, attracted both by economic factors (lower land prices or access to housing) and by the positive imagination generated by the quality of life in these rural areas. In addition, these migratory flows are the source of the job creation associated with the new residential demand.

It is true that this rural population remains older and less qualified, with "popular" socio-professional categories over-represented (farmers, workers, employees), sometimes due to the arrival of new residents in precarious situations. But emerging trends also include flows of managers and intermediate professions, as well as an increase in the proportion of people with a bachelor's degree and higher education graduates. There is even talk of forms of rural "gentrification". In addition, this growth, which is achieved by welcoming people who work in the city - and therefore live in the suburbs - seems to have its limits (mobility, land artificialisation, excessive costs of services, etc.) and is being questioned by European public policies.

Rurality is not necessarily synonymous with poverty and economic recession. Some sparsely populated areas have an average GDP per capita close to or higher than the European average (Scandinavia, northern Spain, Austria, etc.), even if classic gradients appear between the richer western part and the more disadvantaged eastern peripheries. Through the diversity of their forms of use (housing, agriculture, forestry, mining, "natural" goods, etc.), low-density areas provide multiple functions and uses that sometimes lead to competition and conflicts of use, but also often to complementarity and synergies around a welcome multi-functionality. Today's "sparsely populated" society is often diversified: with a few exceptions, farmers are in the minority and social categories such as workers or retirees are strongly represented. In addition, the populations are mobile and of diverse origins; this results in different visions of space but also, as we have just seen, a decompartmentalization of territories, similarities in daily practices and aspirations (particularly a rise in the values of heritage and nature), even if the ways of living still remain original.

The productive function is marked by a decline in agricultural land and employment without a significant drop in production -due to technological advances-, a redeployment and specificities of certain businesses (crafts, small-scale industry, tourism), a gradual tertiarization of employment, and a strengthening of the residential economy associated with attractiveness and local demand, with little or no exposure to globalization. In France, the productive sphere (agriculture, construction, industry) accounts for about 35% of jobs in

sparsely populated areas and even a little more than half of jobs in very sparsely populated municipalities. Agriculture, forestry and fishing remain essential activities, especially in the eastern (Romania, Hungary, Poland, etc.) and southern EU member states. The record for total gross value added in 2018 is held by Thessaly (11.9%), but other regions or Greek islands have high rates, as in Spain-Portugal (Castilla-La Mancha, Extremadura, Alentejo), France (Burgundy, Champagne-Ardenne, Massif Central), southern Italy. In France, despite its decline (still - 4 to -5% between 2010 and 2015), agricultural employment accounts for 30% in very sparsely populated municipalities. The agricultural sphere, which includes jobs on farms but also in the agri-food industry and related services, plays a decisive role in certain areas.

Often associated with construction, industry (often two jobs out of ten) is well represented in sparsely populated areas. In addition to local traditions and the remarkable resilience of specialized "clusters," composed mainly of small and medium-sized enterprises that maintain numerous relationships and complementarities among themselves, it benefits from a "deconcentration" movement from urban centers to the peri-urban and/or accessible rural areas, as well as from an entrepreneurial dynamism supported by external contributions and forms of social innovation. In a large part of rural areas, the productive economy is becoming complementary to the residential economy, and "productive-residential systems" are thus emerging, sometimes integrated into globalization and well connected to urban areas.

However, low density is often characterized by the small size of the local economy, the leakage of added value to other areas and strong pressure on resources (agricultural, land, minerals, energy, biodiversity, etc.). Actors are hesitating between the paths of long, undifferentiated channels and those of diversification or specification. In this context, recent trends confirm the establishment of production platforms (agricultural, mining, energy, forestry) and the redeployment of certain industries or mining activities taking advantage of the establishment of "transport corridors" and the digital revolution; the reorientation of the CAP towards the second pillar and the environmental dimension goes hand in hand with the reconstruction of local markets and an entrepreneurial dynamism (creation of very small businesses) supported by external contributions, including those of the "diasporas" (the "natives" who have migrated abroad) Among the emerging trends, we can also mention the appearance of new agricultural systems (more economical and productive for international markets or targeting "niches" under official signs of quality and origin and using short circuits) and industrial systems (proximity circuits), while we are witnessing the development of cultural or nature tourism, recreational activities, and theme parks. Nevertheless, it should be noted that the new populations sometimes have difficulty integrating into the

countryside, which offers few jobs, where the municipalities have few resources, and where the supply of housing is, all in all, limited.

This brief statistical analysis confirms that there are margins for economic growth in sparsely populated areas, especially if one invests in brainpower and engineering, just as much as in the metropolitan cores where investments (in human, financial or technological capital) are increasingly expensive. Other more general and "territorial" conclusions can be drawn from these initial empirical readings. First, it should be emphasized that the opposition between territories, between metropolises and rural areas, is sterile, even counterproductive, at a time when demographic and economic dynamics show the extent of interdependencies, city-country relations, and network logics (including between companies, between principals and subcontractors, between scientific laboratories and industrial partners, etc.). It is important to identify productive and territorial complementarities and to consider how to maintain and support them. New urban-rural alliances must be thought out, without forgetting the network of small and medium-sized cities, by seeking the added value of cooperation and reciprocity, not only through the implementation of a renewed dialogue on common plans, but also with strategic pacts, new forms of governance and inclusive participatory approaches, and co-financing.

Secondly, rural areas are "development poles" provided that they are put "in capacity" and their growth, particularly demographic growth, is managed sustainably. This is a major challenge for territorial cohesion.

While the countryside has undergone profound demographic and economic changes over the last twenty years, the challenge is to examine rural areas in the light of the major social debates (transitions and climate emergency, citizens' aspirations, the role of public action, etc.) and as reservoirs of potential, capable of both capturing flows (of tourism, companies and households) and activating specific "territorial resources. This trajectory assumes new forms of cooperation/coordination with the support of public policies and the accompaniment of local initiatives. Such a "positive" vision must of course be qualified according to the geographical contexts and the successes of many campaigns must not overshadow much more "everyday" concerns (organization of mobility, maintenance of services to the population, facilitation of economic activities, preservation of the environment, spatial planning and issues of planning, urbanism or water management...) and the fragile situation of "hyper-rural" areas where the feeling of abandonment is growing and where it is therefore necessary to be attentive to the expectations of the inhabitants in order to be able, collectively, to take a step aside to think, decide and do things differently.

3.3 Access to funding

The Framework of European Policies and Projects of 2014-2020 gave access to a large number of consortia to funds that foster entrepreneurship and resilience, improve well-being, and sustain economic recovery and job creation. Many projects that were implemented under the auspices of funded programmes like the LEADER, LEADER/CLLD, INTERREG AND MED PROGRAMMES, ERASMUS+, HORIZON 2020, were dedicated to innovation and rural development, promoted the territorial cooperation, fostered community-led local development. Most of these funded programmes have already created a new strategy for the following period. The new ELARD's will replace the LEADER/CLLD and one coordinating EU body will simplify all the bureaucracy procedures. The new Interreg programme will upgrade the territorial development and promote macro-regional and sea-basin policies. Moreover, ERASMUS PEOPLE is the descendent of Erasmus+ and HORIZON EUROPE's main goal will be sustainability and environment.

Beside the EU funded programmes, we should also take into serious consideration the high value of the several Networks that take action. Each network gives the opportunity to partners to communicate, exchange ideas, problems and opportunities, meet new challenges, transfer different policies and get feedback from policy-makers. European network for rural development (ENRD), European Entrepreneurship Education Network, Ruritage, European CultRural Routes, Unesco Creative Cities Network, Europa Nostra Awards.

Finally, we should also refer to the national funding authorities where applicants should also search for a suitable call. In Greece, the ESPA programmes are the most popular at the national level.

Greece

In Greece, policies and funding instruments for the rural sector are mostly regulated and proclaimed by the Ministry of Rural Development and Food (<http://www.agrotikianaptixi.gr/el>) They abide to the usual 7-years' cycle of the National Strategic Framework Programme. Its programmes are discerned in Sectoral Programmes (of which one is dedicated to Rural Development), Regional Programmes (funds allocated to each region for all sectors, among which is also rural development, cultural heritage, employment etc) and finally Territorial Cooperation programmes (most notably INTERREG, ADRION, BSB NEIGHBORHOOD ETC) that do not usually include rural sector, but do include the environment, which is closely linked to depopulated, rural areas

(<https://www.espa.gr/en/Pages/staticOperationalProgrammes.aspx>)

Apart from the actual funding of rural entrepreneurship, the above mentioned programmes, particularly the regional ones, improve infrastructure regarding energy provision and consumption, urban regeneration in small towns and cities, childcare and healthcare etc.

A large part of EU funding passes from the National Strategic Framework Programme to the Greek Banks, which develop funding programmes for rural entrepreneurs (contracted rural production, micro-loans etc). It has to be stressed, however, that both solutions have their pros and cons. NSFP programmes require quite a lot of paperwork with a quite uncertain payment deadline (usually there are delays). Bank loans, on the other hand, are always burdened with some interest, however little.

Following the European Green Deal, stress has been put on innovative strategies such as “from the farm to the plate”, and “biodiversity”. the https://www.ypaithros.gr/eyfyis-georgia-akou-kalliergeia-sou-meros-2o-kleidi-neo-eyropaiko-politiko-xrimatodotiko-plaisio/?cli_action=1645034376.159 Finally, programmes such as CLLD/Leader are also extant in Greece, aiming at the cultural regeneration, touristic infrastructures, digitization of rural assets, and other small-scale interventions improving life in the countryside.

Italy

To block the marginalization of interior areas, the "National Strategy for Internal Areas" (acronym: “[SNAI](#)”) was developed, one of the pillars of the regional cohesion policy, coordinated by the Agency for Territorial Cohesion, with the cooperation of Regions and Municipalities. The Agency - which aims to promote the economic and social development of the territories through the planning, coordination of interventions and implementation of projects, in order to eliminate territorial inequalities - represents the executive agency of the Ministry for the South and Territorial Cohesion.

The commitment to inland areas is part of the National Recovery and Resilience Plan (acronym: PNRR), with an estimated expenditure of 825 million euros aimed at strengthening social services and infrastructures, especially in those areas without proximity health services. To the resources allocated, 300 million euros are added as "Complementary Fund to improve accessibility and road safety" used for the improvement and maintenance of the road network in the internal areas of the country, as established by the Ministry of Infrastructure and Sustainable Mobility. In addition, the funds, 310 million euros, are already

allocated in 2020 for the internal areas in accordance with the provisions of Law no. 126/2020, on "Urgent measures to support and revive the economy".

Through an integrated public policy approach, SNAI has planned its interventions - for an amount equal to 1 billion and 179 million euros, of which 720 million from European Structural Funds and the complementary ones from the state budget for 72 remote area units, including 1,060 municipalities where there are approximately 2 million inhabitants. The measures have the objective of increasing the quantity and quality of essential services, such as education, health and mobility, by promoting specific development for the enhancement of the entire chain of cultural heritage of internal areas, considered one of the key territorial dimensions of cohesion policy. This is to improve the quality of life of people, against an intensive development model and through the increase in well-being with targeted social and job development inclusion actions, counteracting the gradual but progressive demographic decrease. Overall, public policies aim to enhance the endogenous resources of the territories, thus enhancing the supply chain of natural and cultural resources of the internal local realities.

Internal areas are classified according to the distance and distribution of services through the territory - weaker areas are the ones further from those areas that guarantee school, health and rail transport services, with the remaining municipalities divided into four categories, according to degree of accessibility to essential services: peri-urban areas, intermediate areas, peripheral areas and ultra-peripheral areas. It is clear that every development project - from environmental protection to the enhancement of cultural heritage, from the enhancement of agro-food systems to the enhancement of renewable energy supply chains, to crafts - has as its objective the increase of the attractiveness of the territories, which inevitably rests on the availability, or not, of the services present in the areas.

In general, the funding expenditure for interior areas is still limited and this occurs in other development sectors as well. In fact, the Territorial Cohesion Agency has published a series of data concerning the certified expenditure of this resource, which shows that Italy has used about 27% of these funds. In some sectors, the percentage of expenditure of the funds is higher, such as the "youth employment initiative" programme which has already used almost 43% of the available funds or the "Initiative for small and medium-sized enterprises" which is close to 32% use of European resources. Overall, at the end of 2020 € 12.1 billion (58%) of the 20.9 billion of funds allocated to Italy for the entire 2014-2020 period were used. And if it is true that the next 3 years can be used to spend the other 9 billion, it is also true that Italy does not stand out for its ability to take advantage of EU funding ([Sole 24 ore](#)).

Portugal

The 2013-2020 Rural Development Plan (PDR2020), managed by the Ministry of Agriculture, holds a large part of the policy measures related to agriculture, forestry and rural development and is currently in the final phase of implementation. The PDR includes measures in the areas of innovation and knowledge, competitiveness and organization of production, environment, efficiency in the use of resources and climate, local development (LEADER), technical assistance, exceptional temporary support for farmers and SMEs affected by the COVID-19 crisis. According to the PDR 2020 report, approximately 308000 projects were approved, representing 4,345,848 thousand euros of public expenditure, that is, 100% of the programmed allocation for the period 2014-2020. Of this amount, 654,449 thousand euros refer to fully concretised projects. At the end of 2020, payments to PDR2020 beneficiaries amounted to 3,204,595 thousand euros in public expenditure, corresponding to an overall execution rate of 76% (above the European Union average, the same report states). The execution by intervention areas (measured by the Fund) is 53% for A1 "Innovation and knowledge", 65% for A2 "Competitiveness and organization of production", 89% for A3 "Environment, efficiency in the use of resources and climate " and 35% for the A4 "Local development" (PDR 2014-2020 (2021) (Annual Execution Report, 2020, p. 40).

The Recovery and Resilience Plan (PRR) is a nationwide program that seeks to respond to the social and economic problems arising from the pandemic crisis. The plan is deemed to "implement a set of reforms and investments aimed at boosting the country on the path of recovery, sustained economic growth and convergence with Europe over the next decade, guided by a concept of sustainability inspired by the Sustainable Development Goals (SDG) of the United Nations" (<https://recuperarportugal.gov.pt/plano-de-recuperacao-e-resiliencia>). The execution period runs until the end of 2026. It involves three dimensions: resilience, climate transition and digital transition.

Within the Resilience dimension, nine components are defined: National Health Service, Housing, Social Responses, Capitalization and Business Innovation, Qualifications and Competences, Infrastructure, Forests and Water Management. Most of these components will also have an effect on low density regions. However, given the financing made available for agriculture and rural territories, the components Capitalization and Innovation (93 M euros) and Forests stand out. The amount for Capitalization and Innovation is divided into three subprojects: (i) 36 million euros for renovation/requalification of 24 centers of the innovation network, training actions, and infrastructure and equipment investments; (ii) 45 million euros to support 100 research, development and innovation (R&D+i)

projects that respond to the initiatives/challenges identified in the Ministry of Agriculture's "Earth Future" Agenda. The final beneficiaries are partnerships that may include companies, higher education and/or technological or research institutions and centers of competence; (iii) 12 million euros are devoted to finance five structuring projects for the digital transformation of the Ministry of Agriculture (<https://recuperarportugal.gov.pt/2021/10/18/prr-inovar-na-agricultura>). IFAP is the intermediary beneficiary responsible for execution.

The forest component, involving the transformation of the landscape of vulnerable forest territories, the Land Registry and Land Use Monitoring System, the Fuel Management Strips - Primary Network, Means of preventing and fighting rural fires and the Program MAIS Floresta involves a 615 M euros financing (<https://recuperarportugal.gov.pt/2021/10/18/prr-inovar-na-agricultura>).

The PEPAC - Strategic Plan for PAC 2023-2027, which will replace the PDR, is in the process of public consultation (2nd wide consultation). This strategic plan will combine the CAP support instruments financed by the EAGF - direct payments and sectoral interventions, and by the EAFRD - rural development interventions. It includes, within the 1st pillar of the CAP, the axes Income and Sustainability (domains A.1 Income and Resilience, A.2 Equity, A.3 Sustainability (eco-regime) - estimated financing of 3487 M euros; Integrated Sectoral Approach (National programs to support the fruit and vegetables, beekeeping and viticulture sectors) with an estimated funding of 500 M euros. Within the 2nd pillar of the CAP, the axes that are included are: (1) rural development (domains C.1 Environmental and climate management, C.2 Investment and rejuvenation, C.3 Sustainability of rural areas, C.4 Risk and organization of production and C.5 Knowledge) with an estimated financing of 780 M euros, 727 M euros, 462.5 M euros, 121 M euros and 43 M euros, respectively; (2) integrated territorial approach (Integrated Rural Development, Action Programs in Sensitive Areas and Sustainable Collective Irrigation domains), estimated financing of 150 M euros, 61 M euros and 100 M euros, respectively; (3) Azores rural development; (4) Madeira rural development (Arquitetura do Plano Estratégico da PAC PEPAC (2021), Conselho de Acompanhamento de Revisão da Política Agrícola Comum (PAC).

Spain

The "Plan for the Recovery, Transformation and Resilience of the Spanish Economy", inspired by the Agenda for Change, the 2030 Agenda and the Sustainable Development Goals is focused on developing the second major modernisation of the Spanish economy, because it takes as its main axes "green" investment and the digital transformation of various sectors, including the agri-food sector. These European funds will mobilise hundreds of million of euros over

the next three years (2021-2023), which represents 50% of the resources available to Spain from the Next Generation EU (EU Recovery Plan). As the fight against depopulation is a priority, actions will begin in towns with less than 5,000 inhabitants.

Almost 103 thousand million euros are allocated to support investments in precision agriculture, energy efficiency and circular economy in the agricultural and livestock sector. About EUR 12,600,000 are intended to finance projects in the field of animal and plant health that strengthen training and biosecurity systems in plant nurseries and centres for cleaning and disinfection of land animal transport vehicles.

Producers of certain propagating plants who invest in nursery protection facilities against insect vectors of the most important quarantine pests in terms of their economic impact on agricultural production (*Xylella fastidiosa*, *Bursaphelenchus xilophilus*, HLB or citrus greening, and grapevine *Flavescence dorée*) will be eligible candidates to these funds. The installation of thermotherapy treatment equipment in vine nurseries will also be encouraged. (Moncloa, 2021)

In 2020, national organisations of farmers' associations and cooperatives protested about a 10% loss in the level of CAP funding, and there has been a growing protest in the last years from farmers and some politicians about the undervaluation of production in the production chain and the overvaluation of intermediation. (Faes, 2020)

For the whole financial framework 2021-2027, the expenditure ceiling for heading 3 ("Natural resources and environment") is fixed at EUR 400,996 million in current prices that will be managed through FEAGA and FEADER programmes. (FEAGA, 2021)

Besides cap funding, rural development is mainly implemented through Local Action Groups that manage LEADER funds for productive and non-productive projects following Community-led local development (CLLD) guidelines and principles.

Faes, I. (2020) "El recorte del fondo agrícola europeo amenaza las ayudas de todo un año para España". *El Economista.es*. Retrieved on 12/05/2020 <<https://www.eleconomista.es/economia/noticias/10682738/07/20/El-recorte-del-fondo-agricola-europeo-amenaza-las-ayudas-de-todo-un-ano-para-Espana.html>>

FEAGA (2021) "Objetivos básicos de la PAC". Retrieved on 12/05/2020 <<https://www.fega.gob.es/es/financiacion-pac/la-pac-y-los-fondos-agricolas>>

Moncloa, La (2021) “Reparto territorial de Fondos para la Transformación Ambiental y Digitalización del Sector Agroalimentario”. Retrieved on 11/05/2021 <<https://www.lamoncloa.gob.es/consejodeministros/Paginas/enlaces/191021-enlace-agricultura.asp>

France

1/ At the European level, the first actions in favour of rural areas date back to the establishment of the CAP in the early 1960s, and then with the generalisation of aid to farmers in less-favoured areas (notably the ICHN) in the 1970s. In 1999, a framework for action (or Rural Development Regulation - RDR) was defined for rural development. It sets out some twenty measures, four of which are aimed at supporting less-favoured areas from an agricultural point of view, while the other 18 concern the modernisation of farms and the development of rural areas. These measures are financed by Community funds, in particular the European Agricultural Fund for Rural Development (EAFRD, since 2007) as well as by the structural funds, which feed the European cohesion policy (European Fund for Rural Development - ERDF - and European Social Fund - ESF). At the same time, the structural funds have also made it possible to correct inequalities in regional development. While they are not targeted at fragile rural areas, they have strong implications for these areas and their economic development, including by improving their accessibility through sustainable transport infrastructure or information and communication technologies. Since 2007, the axis called "regional competitiveness and employment" brings together the funding previously allocated under Objectives 2 and 3, which is now accessible to all the territories of the Member States. This evolution therefore leads to a lesser targeting of fragile rural areas.

The implementation of the European Agricultural Fund for Rural Development (EAFRD) for the 2014-2020 programming period is under the responsibility of the Regions, which have become the managing authorities. There are 27 regional rural development programmes (PDRR) in France. The version (v10) of the National Framework for EAFRD programming 2014-2020 was adopted by the European Commission on 28 June 2021. It introduces modifications concerning the commitment periods for agri-environmental and climatic measures (MAEC) and organic farming (AB) aid.

The National Rural Network (NRN) is an essential component of the rural development policy (second pillar of the CAP). The purpose of the NRN is to contribute to reflections, exchanges and debates on the challenges of rural territories and on the political axes useful for the development of these territories. To do so, its action plan includes different intervention components: LEADER animation, PEI-agri animation, PDRR animation and transversal actions.

The National Rural Network launches a call for collective mobilisation projects for rural development (MCDR). In 2018, 21 laureates were selected for a new 3-year period, with themes extended to forestry and wood trades development, development of services to the population, LEADER local development strategies and territorial cooperation, youth, gender equality in rural areas, energy transition and adaptation to climate change or access to training and information.

2/ At the French level, two types of development logic coexist in favour of rural areas

- a fiscal and financial logic associated with intervention zones such as 'rural revitalisation zones' (ZRR) corresponding to the most fragile territories defined by their low population density and either a decline in their total population or their active population, or a high proportion of agricultural jobs;
- a project-based approach based on decentralisation, the participation of local players and the emergence of new territories, such as the Pays - which have become Pôles d'Equilibre Territoriaux et Ruraux (PETR) - and the Parcs Naturels Régionaux. The Regions - and to a lesser extent the Departments - have thus become key players in policies to support rural territories through contractualisation and access to subsidies for municipalities or project territories, as well as in the management of European funds with, for example, the selection of LEADER territories;

The most depopulated rural areas are therefore less targeted, especially as since 1995, public policies have been very concerned with institutional aspects, from the Chevènement law of 1999 to the MAPTAM law of 2014 and the NOTRe law of 2015. At most, the creation of the rural excellence clusters in 2006 targeted territories located in the ZRR and which could apply for this national call for projects to enhance their specific assets. More recently, governments have paid particular attention to sustainable mobility and to digital infrastructure and mobile telephone facilities (agreement with operators signed on 11 January 2018 to "generalise quality mobile coverage for all French people"), access to healthcare and the fight against medical deserts (establishment of multi-professional health centres, for example; teleconsultations accessible to all); more generally, access to tertiary facilities is at the heart of the measures, in particular with the creation of "public service centres", which will become "France Services" from 2019 and will host administrations and State operators (La Poste, Pôle emploi, Caisse nationale des allocations familiales (National Family Allowances Fund), Caisse nationale d'assurance maladie (National Health Insurance Fund) In the long term, every French person should be able to access a France Services in less than 30 minutes, a common house offering a new range of cultural, social, economic and educational services. In January 2022, more than 2050 centres were certified. Lastly, support

for local development includes assistance for the creation and transfer of businesses.

In 2016, the State proposed to group together the measures and funding through Rurality Contracts, signed for 6 years with the inter-municipalities or PETRs. More than 450 contracts have been signed since then. At the same time, other measures are being implemented, such as the "Action Cœur de Ville" plan, which concerns intermediate towns or cities that receive financial support for their town centre redevelopment projects, to benefit the attractiveness of the area and its inhabitants.

Since 1 January 2020, the National Agency for Territorial Cohesion (ANCT) has been the new French public body in charge of territorial development and planning. It works with rural areas through the coordination of the Rural Agenda, which is the Government's roadmap for rural areas, and the deployment of rurality contracts. Its recent action is based on new programmes, co-constructed with local actors. These include :

- the "Small towns of tomorrow" scheme, which aims to improve the living conditions of the inhabitants of large villages and small urban units (less than 20,000 inhabitants) and to deploy projects over the period 2020-2026, notably with funding for local engineering; This same desire to deploy human resources for local coordination is found specifically in mountainous areas (Plan Avenir Montagnes); similarly, in 2021, the Volontariat Territoriale en Administration (VTA) was launched to help rural areas to develop their development projects (hiring of a young graduate for an engineering mission of 12 to 18 months). 800 volunteers are expected by 2022.

- The Small Towns of Tomorrow programme is integrated into the Contracts for Recovery and Ecological Transition (CRTE), which were born out of the consequences of the health crisis and will be deployed in 2021; signed for six years, these CRTEs constitute the new unique framework for relations between the State and local authorities. It aims in particular to initiate their ecological transition, in terms of energy renovation, biodiversity or economic and social development;

- The government is also supporting several initiatives aimed at encouraging the maintenance or installation of bars, cafés, restaurants and shops in villages; similarly, the dynamics of third places are accelerating. Coworking spaces, fablabs, hackerspaces, repair'cafés, digital libraries and local factories, co-creation and knowledge sharing are shaping new economic and social dynamics. The State has been supporting this dynamic since 2019 with its "New places, new links" programme. A network of 300 territory factories and 100 proximity factories is planned to support the creation of activities, cooperation between actors and local

development. On the educational front, "connected campuses" are also being set up to provide young people in rural areas with a user-friendly workspace for distance learning in higher education.

- Supported by the Ministry of Agriculture, the Territorial Food Projects (PAT) have the threefold objective of maintaining local agricultural production, promoting short circuits and nutritional quality in public collective restaurants. The PATs concern an increasing number of rural areas, which are very interested in the partnership logic that underlies them: from the preservation of agricultural land to the equipment of artisanal product processing tools, via the acquisition of a refrigerated van, each local authority chooses its action levers to support its local agriculture and encourage the consumption of local products. 350 PATs have thus been created.

3.4 Access to markets

Eating habits are changing and more and more consumers are changing their ways of consuming, particularly for reasons of health, well-being and also for ecological reasons. The dominance of the food industry and long supply chains is fading and giving way to other, more local markets and more sustainable and responsible food. Consumers are increasingly wary of what they eat and pay attention to details that they did not care about before (origin, quality, etc.).

We observe also a growing awareness of the impact that food consumption can have on climate change. The issue of product provenance is much more integrated in consumers' minds, whether for reasons of traceability (consumers want to know where their food comes from and how it was produced), for ecological reasons (to avoid consuming products that have travelled around the world before being consumed), or for economic and social reasons (to favour the development of the local economy and links between consumers and farmers, rather than that of transnational subsidiaries of the agri-food industry).

Food resilience is defined as 'the capacity of a food system and its various components to ensure the availability of adequate, accessible and sufficient food for all, in a context of varied and unpredictable disruptions' (Les Greniers d'Abondance, Arthur Grimonpont, 2019). In order to adapt to various changes (climatic, sanitary, demographic, etc.) and to 'ensure the availability of adapted food, accessible and in sufficient quantity for all', rural territories are seeking to be more autonomous. These territorial food strategies therefore attempt to address a range of issues in different ways. Among these, we can mention the creation of a local economy through the development of local agriculture, the

limitation of negative effects on the environment by fighting against food waste, the promotion of food security for people in precarious situations by putting an end to their stigmatisation and for all consumers by reducing the prices of local products. Finally, we find the issue of agricultural land with the protection of agricultural plots and the promotion of cultural and gastronomic heritage.

The current health crisis linked to Covid-19 accentuates this phenomenon of food resilience and changes in consumption. States are putting in place periods of confinement, where travel is limited. The closure of out-of-home catering establishments (collective and commercial catering) and open-air markets has led to a lack of outlets for farmers, who are finding it difficult to sell their produce. Various initiatives are being put in place to help farmers, and consumers are changing their consumption habits to turn to local products.

From the European Union, the Sustainable Development Goals (SDG) are being implemented in laws that will change the way of producing and waste managing (i.e., organic waste in compost) that will impact in employment in green and circular economy.

This desire for local products is thus raised by several actors, public or private, such as farmers, consumers, shopkeepers or local authorities, etc. Short and local circuits meet the expectations of these different actors. They allow farmers to secure their economic model, to be paid at their fair value, and to have a better recognition of their profession. For consumers, short and local circuits ensure the origin and quality of their products, they allow them to establish social links with farmers and to know the conditions of production and breeding, a relationship of trust being established. Finally, short and local circuits have an impact on the territories: they favour the local economy, job creation, the social and solidarity economy and social links.

But finally, how can we define short and local circuits? Direct circuits (or direct sales) are a system where the functions of production, wholesale distribution and retailing are carried out by the same agent. In the 2000s, the term short circuit was clarified: "The short circuit can include direct sales (zero intermediaries) and indirect sales (one intermediary)" (PRALY, CHAZOULE, DELFOSSE, MUNDLER, 2014). The notion of proximity circuit integrates a spatial dimension, for example less than 80 or 100 km between production and sale (CHAFFOTE and CHIFFOLEAU, 2007).

Finally, we can say that three main dimensions define short and proximity circuits:

- the geographical and spatial dimension (in relation to the distance covered by the products between the producer and the consumer) ;
- the economic and functional dimension (which explains the path of the products between the producer and the consumers, via possible intermediaries);
- the social and relational dimension (bringing together producers and consumers)

Short and proximity circuits are first and foremost networks that enable the development of local products. They are alternatives to the conventional food supply model. We can mention the various marks of attachment of products to a territory (PGI, PDO, etc.) which contribute to the development of short circuits even if these products are mainly intended for long circuits. Or direct sales, the creation of producers' associations, and organisations set up by consumers (AMAP, etc.), which constitute a relational and spatial dimension of food circuits.

The implementation of a territorial food strategy must be accompanied by specific governance. Indeed, food is a cross-cutting issue. The term "food governance" does not have an official definition. Project territories are a relevant scale for carrying out this strategy, which requires the mobilisation of a diversity of actors whose representation changes from one food council to another. According to Wiskerke's diagram (2009), three poles of actors are needed in a food governance council - the market, civil society and government. The member actors are usually already involved in food and local development.

3.5 Education (previous, ongoing, future)

The EU defines VET as: "Vocational education and training (VET) responds to the needs of the economy, but also provides learners with skills important for personal development and active citizenship.", and further, distinguishes between I- and C-VET, whereby I-Vet is to be understood as an education that "takes place either in a school-based environment (mainly in the classroom) or in a work-based setting, such as training centres and companies. I-VET is usually carried out at upper secondary level and post-secondary level before students begin working life." On the other hand, "C-VET takes place after initial education and training or after beginning working life. It aims to upgrade knowledge, to help citizens to acquire new skills and to retrain and further personal and professional development. It is largely work-based with the majority of learning taking place in the workplace". (*EU policy in the field of vocational education and training*, https://ec.europa.eu/education/policies/eu-policy-in-the-field-of-vocational-education-and-training-vet_en)

In 2019, 2.3 % of pupils in lower secondary education in the EU Member States followed vocational programmes, with this share reaching 48.4 % for upper secondary education and 94.5 % for post-secondary non-tertiary education.

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Vocational_education_and_training_statistics

More recent data for Nuts 2:
<https://ec.europa.eu/eurostat/databrowser/view/tgs00109/default/table?lang=en>

Considering that the majority of farm managers (68.2%) learned their profession through practical experience only and that 31% of farmers in Europe is represented by people who are +65, and 50% by people who are between 25 and 65 years old, INTEGRURAL project wants to provide local producers, mainly small farmers and microentrepreneurs, with strategic training, experimenting through a living lab methodology towards (a) the creation of small-scale rural clusters to favor mutual and peer-to-peer acquisition of competences between older and younger producers in small rural areas, (b) development of strategic thinking skills, and (c) development of networking-oriented approaches in order to build up strong interrelated communities and start up branding attempts in the areas involved in the project.

The project will introduce small rural producers to strategic training and to experiment new approaches through a living lab methodology. It focuses on the creation of small-scale rural clusters for mutual and peer-to-peer acquisition of competences, for transferring strategic thinking skills and for favouring networking in order to build up strong inter-related communities and start up branding attempts in the areas involved. In this respect an effort will be made to introduce relatively new and eco-friendly notions and practices, such as production with immediate diffusion into consumer markets and the Slowfood movement. It will thus:

- Develop a rural living lab framework for local rural communities' capacity building connecting them to the wider world, focusing on the interrelation between heritage and sustainable development. Such a framework will be essential to detect the different tiers that intervene in a cluster and then develop a specific set of indicators and actions.

- Develop relevant training material for local rural 'hubbers' (educators) who will have to work as community facilitators. They will be trained in the projects' training-of-trainers events.

A blended-learning approach combined with local action through a living lab methodology will make the virtual hub a sort of digital rural incubator. This can lead to a more integrated and sustainable development of these localities, far beyond simple "growth" exigencies of modern economies.

3.6 Collaboration and collective action

Within the European Union, rural development programmes (RDP) are mainly financed by the European Agricultural Fund for Rural Development (EAFRD) and at least 5% of RDP funding must go to actions based on the LEADER method of community-led local development. LEADER presupposes a "bottom-up" approach, bringing together public authorities, farmers, rural businesses, actors from various sectors and local organisations aiming to set up Local Action Groups (LAGs) (European Commission, *Rural development*. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/rural-development_pt#leader 2021). According to this transversal and multisectoral approach, inter-territorial cooperation and networking are key components of the promotion of the much needed "social capital" (Putnam, R., 2000, *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.) to drive the valorisation of rural areas. However, in addition to the collaboration induced by European Union policies and other formal mechanisms of local organisation and citizen participation, rural development may also rely on traditional collective processes and on already existing dynamics of the communities (as in the case of the commons). This type of shared land resources is still present in many European contexts, especially in mountain areas, which encompasses ancestral forms of communal governance of resources, often at the margins of state and market policy guidelines (Bogataj, N. 2017, »The commons, European heritage of the local collective action«. *Sapere l'Europa, Sapere d'Europa*, 4, 335-346).

3.7 Social economy applied to rural markets

Social economy actors usually are cooperatives, SMEs and NGOs focusing on production, research, adding value to rural products through ICTs and complementary activities such as education or hospitality, promoting local markets, consumer groups of local, biological rural products. They build networks to work in collaborative projects or share scale economies. In this sense, the integral cooperative model is particularly interesting (Decrecimiento, 2010) as it

aims to bring together all the basic elements of an economic system such as production, consumption, financing and its own social currency and to integrate all the sectors of activity necessary to gain autonomy and resilience.

In Spain, consumption groups are a good resource for little agri-food business, but they are reduced in summer due to the holidays season, when gardens are at their maximum productivity. Rural markets, mostly in summer are an option that can complement other cultural, educational and leisure activities. Good examples are BBBParty (<https://www.ecolatras.es/detalle/bbbparty-muestra-social-xi>) or Slowfood convivia events as the Disco Sopa (<https://www.slowfood.com/es/el-dia-mundial-de-la-disco-sopa-de-2021-continua-en-digital/>).

In the new EU 2030 framework, they are called to work closely with local and national administrations and increase their internationalization creating synergies like the ones fostered by Erasmus+ Strategic Partnerships as INTEGRURAL.

Rural markets are also essential for the Farm to Fork Strategy that is at the heart of the European Green Deal, aiming to make food systems fair, healthy and environmentally-friendly.

3.8 Green and Circular economy

Socio-economic enhancement, innovation, entrepreneurship and sustainable development are inevitably associated with the capacity to organise rural areas in the light of green and circular economy principles. The concept of green economy gained notoriety after 2009 with the publication, by the United Nations, of the document *A Global Green New Deal*. According to this policy report, the green economy involves, above all, the reduction of carbon dependency and a more efficient use of resources through “efficient buildings, renewable energy, sustainable transport, sustainable agriculture, freshwater, and ecological infrastructure”, and “materials efficiency, energy efficiency (other than buildings), and waste management” (United Nations Environment Programme [UNEP], 2009, pp. 19-27). In addition to its clear ecological vocation, the green economy also presupposes guidelines for the judicious promotion of innovation and technological development, economic competitiveness, and social justice.

The circular economy is one of the major components of the green economy, since it allows the reduction of waste, consumption of resources, and ecological impacts of economic activities. To this end, it presupposes extending the cycle of use of the most diverse everyday products through reuse, sharing,

repair and recycling. Within the European Union, the assumptions of the green and circular economy are politically enshrined in the so-called *European Green Deal*, which presents as a main goal the climate neutrality by 2050 (European Commission, 2021).

European Commission (2021). *A European green deal*. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

UNEP (2009). *Global green new deal: Policy brief*. march 2009. https://wedocs.unep.org/bitstream/handle/20.500.11822/7903/A_Global_Green_New_Deal_Policy_Brief.pdf?sequence=3&isAllowed=

[org/bitstream/handle/20.500.11822/7903/A_Global_Green_New_Deal_Policy_Brief.pdf?sequence=3&isAllowed=](https://wedocs.unep.org/bitstream/handle/20.500.11822/7903/A_Global_Green_New_Deal_Policy_Brief.pdf?sequence=3&isAllowed=)

3.9 Degree of integration of sustainability policies.

As early as 1997, the EU set in its core treaty the requirement of integrating environmental protection into the Union's policies so that sustainable development could be promoted. As a cornerstone of the EU's future policies, integration was to summon areas and sectors which had been often treated disjointedly, like agriculture, energy, research and innovation, transport, economic planning, employment, cohesion, and so forth (ec.europa.eu/environment/integration/integration.htm).

Sustainability is not achieved solely through policies. It is carried out at a larger societal levels where citizen's choices and structural policy frames converge. The policy level is key to set the necessary conditions for changes in thinking, economy, production and consumption. Embracing the UN's SDG's reveals a political intention by the UE to foster transition towards sustainability. Moreover, the EU's policy is backed up by technical inputs and data thought to support sustainable development - an example of such can be found in the devices existing within the Eurostat to monitor sustainable development (e.g. Report on Sustainable Development).

Sustainable policies are meant to trigger action frames, being the latter capable of tackling a varied set of ecologically damaging practices. The EU's Green Deal vows to operationalize measures to deter climate change and environmental degradation and constitutes an example of the efforts to consolidate socio-economic intervention devices that allow an integrated (environmental, social and economic) innovative action. However, the challenges posed by the EU's strategy to address sustainable development goals face numerous obstacles, either related to a mismatching between the member states' actual dispositions and the EU

Commissions' ambitions, particularly regarding the agricultural sector (Pe'er et al, 2020).

Integration of environmental policies within larger socio-economic policies design requires, in the perspective of the latest EU's strategy, the acceleration of digital transition, presiding at the very heart of the process matters of social (in)justice and risks of exclusion of groups and territories more deprived of human capital. Besides the difficulties presented by the long lasting issues related to cohesion within the EU (that hinder the reach of technological advances) the EU's strategy of developing further integrated sustainability policies is challenged by the need to construct tools and to stimulate processes of participation. Such an enterprise is set as a key dimension in the enacting of policies, programmes and intervention devices more sensitive to the local actors, scales and specificities, in line with place-based policy framing and action - an endeavour the current EU cohesion policy frame is set to address (Morrisson & Doussineau, 2019).

Morisson, A. and Doussineau, M. (2019) 'Regional innovation governance and place-based policies: design, implementation and implications', *Regional Studies, Regional Science*, 6(1), pp. 101-116. doi: 10.1080/21681376.2019.1578257.

Pe'er, G. et al. (2020) 'Action needed for the EU Common Agricultural Policy to address sustainability challenges', *People and Nature*, 2(2), pp. 305-316. doi: 10.1002/pan3.10080.

3.10 Digitisation processes

The European Commission published the Communication on the Long-Term Vision for Rural Areas (LTVRA) up to 2040. The Vision identifies areas of action towards stronger, connected, resilient and prosperous rural areas and communities. The Vision proposes a Rural Pact and a Rural Action Plan, to help rural communities and businesses reach their full potential in the coming decades. The EU Rural Action Plan will be articulated around four flagship initiatives:

- Creating an innovation ecosystem
- Boosting sustainable transport links and digitalisation
- Increasing environmental, climatic and social resilience
- Supporting economic diversification

Digitisation has a prominent role in the future of rural areas, as a mega trend already affecting agriculture, forestry and the life of rural citizens across Europe. The second flagship initiative focuses on sustainable digitisation. It puts forward an integrated set of actions to boost the sustainable digital transformation of rural areas, by closing the digital gap, encouraging the use of digital

technologies, providing the digital skills needed to make the most out of them, and measuring progress through indicators - the Digital Rural Index.

Smart agriculture is already on the table and it aims at fostering innovation, both technological and social, in the way agricultural production is designed and implemented. Practice already shows that areas which trusted their generation of young, trained (not necessarily in agricultural jobs, but also in technical and scientific fields) and digitally literate people succeeded in making a difference by investing on traditional or innovative products.

3.11 Intergenerational processes

Intergenerational practices are still the core of knowledge transfer between generations in EU farming - as the documents of Common Agricultural Policy (2020) depict, almost 70% of farmers learn only by practice, and 31% of all the farmers are +65; 50% are 35+, 6% are <35. This brings to a situation where generational knowledge transfer is at risk. Innovation is a matter of also attracting new energies in the rural areas and link together different resources, assets and innovation points.

In fact, intergenerational renewal is crucial to guarantee resilience of EU farming systems, however the combination of different factors might be at the basis for structural weakness of the sector. For example, the mix of hard work, the risk of low remuneration, the climate change elements, social acceptance and generational expectations, administrative burdens and digital remoteness of rural areas of Europe sort of create a picture of unattractiveness by younger generations.

The family-based system is absolutely dominant in Europe - Eurostat (2018) affirmed that 96.2% of farms in Europe are run by families. Such a system has certainly advantages, such as labour flexibility and strong identity shaping orientation, at the same time it highly discourages anyone who would like to enter the system and who much follow the mainstream career path and work-life preferences. What is more, the absence of flexibility, also due to problems in legislations, put a hard toll on those who do not want to renounce to holidays and out-of-work periods. The problem with digital connection pushes, then, younger generations away.

For these reasons, it is possible to state that intergenerational practices are not something that it is based on spontaneous and fragmented will of local and regional governments, but it should be looked as a system approach, where education and policies go together. From one side, the need for “making up with the digital divide” can surely be the basis, with new technologies and training approaches. From the other side, rural planning, environmental permits, land market policies and fiscal regulations are part of regional/national policies that have to be stimulated by a shared and harmonised perspective at EU level.

Intergenerational viability highly depends on the attractiveness which is crafted of the rural areas - quality of life, economic dynamicity, infrastructure, social services and overall sense of belonging.

ENRD (2019). The European Agricultural Fund for Rural Development Youth and generational renewal. Retrieved from https://enrd.ec.europa.eu/sites/default/files/enrd_publications/projects-brochure_08_youth_en_web.pdf

Sure-Farm (2019). Intergenerational Renewal in EU-farming systems. What can policy do? Retrieved from <https://www.surefarmproject.eu/wordpress/wp-content/uploads/2019/09/D3.3-Policy-Brief-Intergenerational-Renewal-edited.pdf>

3.12 Cultural heritage integration with a special focus on rural patrimony

Rural areas are usually bearers of a strong living heritage and contain several assets of tangible cultural heritage. Although the former are usually integrated in people's everyday lives, they are often not valorised to the point of becoming poles of attraction for the development of heritage tourism. As for the latter, the lack of funding often condemns them to disregard by the state authorities, whereas the local authorities often undertake partial restoration and enhancement efforts which, however, rarely goes up to the point of turning them into living hubs of culture for locals and visitors alike. These issues have been stated in detail in a past Erasmus+ project, *Digital Educational Network for Cultural Projects' Implementation and Direction (DEN-CuPID)*, which aimed at offering practical advice and a sense of project management for heritage assets to employees of local authorities and to civil society organizations (www.den-cupid.eu).

However, rural cultural heritage, if approached from a holistic point of view, offers a substratum for multiple activities that can contribute to the valorisation of the countryside and to rural resilience. The approach can be variable:

a) *Cultural heritage assets and Green, historic and agro-tourism.*

Low-scale, nature-oriented tourism focuses often on trails blending points of natural beauty and importance with historic buildings, monuments and even with living heritage practises, thus offering a number of "experiences" to visitors. Historic houses can be transformed into agrotouristic or boutique hotels or even eco-museums (e.g. <http://www.kouritonhouse.gr/frameset.htm>). Bridges, fortresses, churches etc can be incorporated into cultural routes, which, particularly if enhanced through digital media, can entice and facilitate people to visit, thus gaining a fairly good grip of a place's historic past. Rural archaeological

sites, sometimes not even fenced, can also be enhanced to become visitors' attractions through a proper interpretation narrative available in printed leaflets and mobile apps. (Ducros, H., "Confronting sustainable development in two rural heritage valorisation cases", *Journal of Sustainable Tourism*, 25.3, 2017 <https://doi.org/10.1080/09669582.2016.1206552>)

b) *Living heritage and modern creative and cultural industries.*

Against this tangible background one can also enhance the living heritage traditions. Folk music and dances are not only practised for purposes of local festivals, but can be developed into modern Cultural Industries' events (through mingling with new forms of artistic expression). Traditional products and gastronomy have a vast range of possible applications in modern life, from local branding of products that can be marketable elsewhere, even abroad, to development of local markets, restaurants and street food festivals, which can attract visitors.

c) *Development of micro-entrepreneurship based on arts and crafts.*

Finally, traditional arts and crafts can now be fused with modern ideas and creations and lead to successful micro-entrepreneurship (and beyond!). The decade that we are living in constitutes the crucial period for building rural resilience and sustainability and integrating cultural heritage in all its forms in the effort of reviving rural areas will attract both funds and academic research and mentoring. (European Commission, Report of the EYCH 2018 conference "Innovation and Cultural Heritage" <https://ec.europa.eu/info/sites/default/files/conferences/ki-02-18-531-en-n.pdf>)

4 The methodology of INTEGRURAL

4.1 Desk Research

This point depicts the different contexts faced by each project partner with up-to-date information related to partners' local regions, legislation, social contexts and cases. It allows comparing different responses to similar challenges, to generate some conclusions out of these comparisons and from the analysis of other international comparative reports.

Desk research has focused on defining aggregated elements in the rural sector, economic growth and main trends, focusing on employability and current innovations as well as main innovation barriers referring to the rural areas in your region/area.

Beyond International, EU, National and Regional reports and articles, a constant search of social networks warrants an updated info of the latest news and social movements.

Desk and field research are iterative. Interviews may give hints to important programmes or reports, while desk research enriches questionnaires and insights.

4.2 Field Research

4.2.1 Methodology of field research

INTEGRURAL Partners research teams have searched for good practices cases in the agricultural and livestock sector and have queried about their relationships with innovation, tourism and cultural heritage. This has been accomplished through qualitative and quantitative methodologies, a questionnaire and a number of in-depth interviews to relevant key informants and good practices cases.

In addition, research teams have done research visits, fieldwork, met with experts, attended to conferences, seminars and workshops to have the most updated info in their regional and national contexts.

Long-term participant observation has been possible in some cases due to the close links between the partners and the selected case studies.

4.2.2 Definition of the quali-quantitative questionnaire

A Likert-scale questionnaire containing different subjects and questions have been designed in English, translated into each partner's language and passed to managers of good practices cases in every country. Questions are related to how innovation is implemented in the organization, how it supports the region's tourism and cultural heritage promotion and what challenges they face in the future.

In-Depth interviews have been taken with most relevant key actors to deepen in some of the most important questions, having expert opinions from their experiences as a database of fundamental questions.

This questionnaire and the In-Depth interviews detect some important trends and gaps that help us direct, design and justify the learning program.

4.3 Innovation in rural areas

INTEGRURAL means to investigate in rural areas through the lenses of innovation - not simply a concept related to technological change of businesses and networks, but a qualitative change in terms of relations, and enhancement of the potential expressed by an area. In this sense, we do not investigate innovation in absolute means, but innovation as a progressive layering of possibilities, connections, social and technical changes that improve the overall quality of life and economy of a certain area.

To do this, our analytical lenses have focused on the following themes, based on the concept of “regional competencies” by the International Labour Organisation, according to which there is a strong relation between individual skills and the overall outcome in terms of aggregated innovation.

Digital learning, cluster management, strategic thinking, cross-sectoral skills are all elements related to innovation and sustainable development.

4.3.1 Competences up-skilling & innovative training for cluster management

The increased interest of society towards clusters is due to a number of reasons, the most important among which are:

- The participants in a given cluster can increase their productivity through their increased availability for access to production factors, such as human capital, information technologies, etc.;
- The cluster participants themselves have the economic benefit of attracting new participants, and they also facilitate the increase of their competitiveness;
- The presence of clusters formed by firms in a given region makes the planning of specific economic activities easier to accomplish, as well as more accurate predictions with regard to company behaviour.

4.3.2 Local branding and networking for sustainable local development (e.g. social ecomarkets)

This investigation area refers to the endogenous development of explored areas, and in particular it encompasses action initiatives associated with the relationships of action initiatives for sustainable local development refer to the relationships of organizations, industries, commerce, society and educational and scientific institutions. Such connections can be featured in slow food fairs, rural ecomarkets, social rural cooperatives and forums, collaborations between universities/VET

schools and traditional farms. The presence and the thriving of such possibilities enhances the possibilities for a territory of sharing of resources, promoting positive changes and transformations in the territories.

4.3.3 Strategic thinking training.

Strategic thinking skills include:

- **Analytical skills:** To ideate a strategy that helps your organization reach its objectives, you must be capable of analyzing a variety of inputs—from financial statements and KPIs, to market conditions, emerging business trends, and internal resource allocation. This initial analysis is crucial to creating a strategy that aligns with the current reality facing your organization, particularly long-term one (<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12525-Long-term-vision-for-rural-areas>).
- **Communication skills:** Putting a strategy into place for your company, regardless of its size, requires solid communication skills. The ability to communicate complex ideas, collaborate with internal and external stakeholders, build consensus, and ensure everyone is aligned and working toward shared goals are all central to strategic thinking.
- **Problem-solving skills:** Strategic planning is often used to solve problems or address challenges, such as missed financial targets, inefficient workflows, or an emerging competitor. Implementing a strategy that addresses the central challenge you face requires you to first understand the problem and its potential solutions. From there, you can craft a strategy that solves it.
- **Planning and management skills:** Strategy isn't just about thinking of a solution—it involves implementation, too. Once data has been analyzed, the problem is understood, and a solution has been identified, you need strong planning and management skills to bring everything together.

4.3.4 Interdependence of primary sector production and cultural heritage for creation of integrated added value.

Whereas Cultural Heritage and agricultural production are not related at first sight, nor are they managed in the same way and by the same authorities, their co-examination when thinking about branding of an area is very important. Agricultural activities, if following less mechanized, more “traditional” patterns, and particularly the processing of products of agriculture or animal husbandry, can be part of what we call “intangible” or “living” cultural heritage, as they reflect traditions, tastes and practices of the past. Continuing or reviving these traditions

can create an “identity” for a particular rural community, which brings it out of the undifferentiated and often dull (for the visitors) “countryside”. Tangible cultural heritage, on the other hand, i.e. monuments, archaeological sites, historic landscapes etc., are by definitions things that visitors look for in every place they visit. An orchestrated combination of the two, tangible and intangible heritage, adds considerably to the valorization of a rural place, thus creating opportunities for the locals: agricultural products’ manufactures, open labs for cooking or processing of agricultural products, agro tourism, alternative touristic activities (tour guiding, cycling tours, horse riding, etc.) can lead to the development of low-scale, sustainable tourism and can definitely put the area in the map as far as visitors are concerned. Even if the conditions are not ripe yet for actual touristic activities, the branding on agricultural products with a visual identity that refers to the area’s cultural heritage is definitely an asset for the marketing of the products.

5. Results

5.1 Desk research results

Portugal - Trás-os-Montes e Alto Douro

Over the last half century there has been a progressive abandonment of the land, mainly by small farmers who’s production was partly directed to the market. The Portuguese countryside suffered a massive loss of population to the cities, mainly those closer to the seashore. Nevertheless, some productive sectors (e.g. wine, milk, olive oil, fruit) have resisted and have shown some prosperity, benefiting from the incorporation of innovations and important financial support (investment and production subsidies). Here, the larger and more professionalised farmers stand out, relying on a more commercial and mechanised agriculture, in many cases strongly dependent on large irrigation projects. Outside this market agriculture there are only a few small farmers who practice part-time and/or subsistence agriculture (Instituto Nacional de Estatística [INE], 2020). Whether in the framework of market agriculture, or in the context of a more traditional agriculture, many local products were valued through certifications (e.g. DOP, IGP, ETG): cheese, meat, smoked meat, fruits, wines, among others (Direção-Geral da Agricultura e Desenvolvimento Rural [DGADR], 2021). Alongside these reconfigurations in the agricultural sector, the Portuguese countryside has shown an increasing multifunctionality, with the articulation and complementarity of agro-livestock farming with other economic activities, such as hunting & fishing, beekeeping, forestry and, above all, tourism (Fernandes & Alves, 2015; Pereiro,

2018). The significant infrastructural improvements in most rural areas (e.g. accessibility, communications, basic services) have contributed to this. The rural multifunctionality, often associated with innovative and entrepreneurial projects, has been led in many cases by relatively young people, some of them neo-rurals (Dal Bello, Sacramento, & Marques, 2021). Many of these people have technical-professional or higher education backgrounds and have successfully invested in well-planned agricultural and small tourism ventures, having taken advantage of the existing financial incentives. The inland universities (UTAD, UBI and UE) have played a decisive role in this (still small) demographic and economic “rejuvenation” of the rural contexts, providing academic training and technical and scientific support in areas such as agronomy, oenology, forestry, zootechnics and tourism.

The barriers to innovation in the Trás-os-Montes and Alto Douro region are relatively similar to those existing in most rural milieus in the Portuguese inland. These barriers tend to be associated with the specificities of the territorial contexts, the productive and organisational structures, and the commercial circuits (Costa, 2014). The “scarcity of time and money” to promote innovation, the excessive bureaucracy and the “inadequacy of the public incentives available vis-à-vis the projects presented” pose significant constraints as many (potential) entrepreneurs have noted (Madureira, Gamito, Ferreira & Portela, 2013, p. 158). Regarding more specifically the valorisation and innovation (within the scope of more traditional local products), which are particularly relevant in the Trás-os-Montes and Alto Douro region (Cristóvão, Tibério & Abreu, 2008), several barriers related to training and skills gaps also stand out, namely the difficulties of social reproduction of traditional knowledge and the absence of consistent strategies to innovate in a sustained manner based on this knowledge. Given the generality of the barriers to rural innovation, Madureira et al. (2013, p. 160) propose to intensify individual and collective learning, knowledge sharing, networking and cooperation, and the development of an effective innovation culture.

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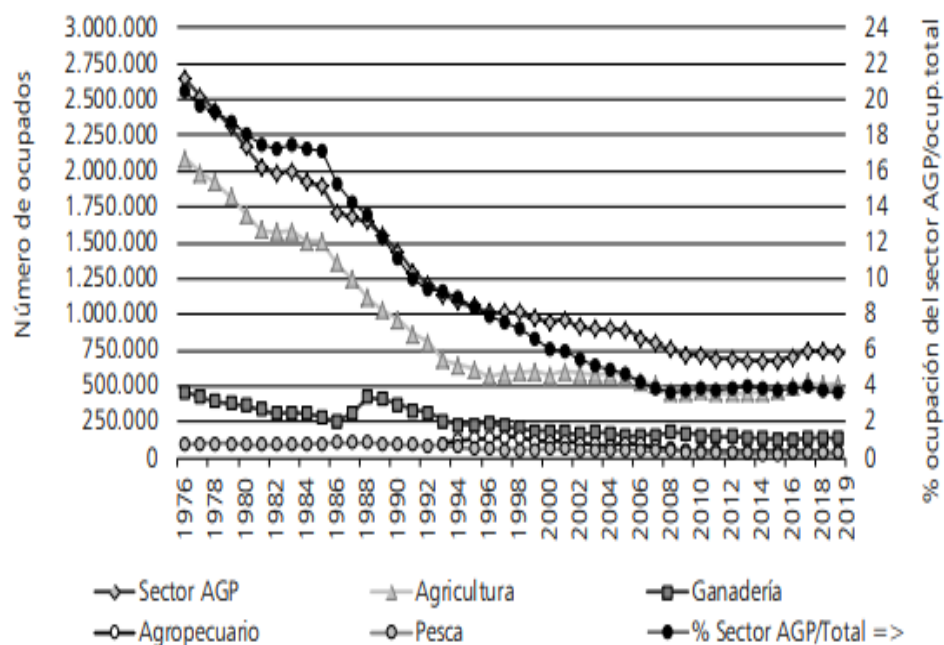
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Spain - Extremadura

The primary sector in Spain, is an axe for the sustainability of the rural environment, which accounts for more than 80% of the territory's surface area, and for the defence of the environment. It varies between 2,5-3,5% of Spanish GDP but considering the contribution of the food industry and all the other sectors involved in the agricultural and food production chain and the share of the food industry in it would suppose a 8.4% of GDP. As technological innovation advances it employs less and less workers although there is a treshhold in which it seems to remain stable (6% of total occupied population in Spain).

OCUPACIÓN EN EL SECTOR AGRARIO (ABSOLUTOS Y PORCENTAJES), POR SUBSECTORES (1976-2019)



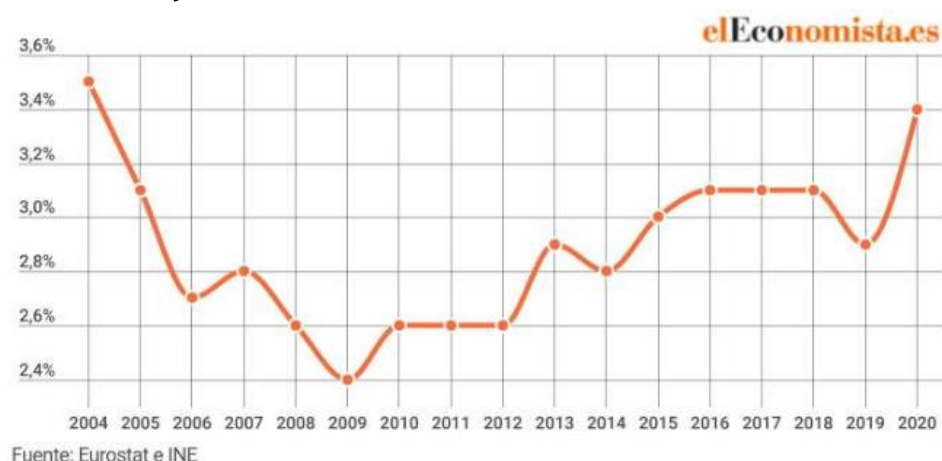
Source: Garrido and Chuliá, 2020 from National Statistic Institute data.

<https://www.funcas.es/wp-content/uploads/2020/09/Luis-Garrido-y-Elisa-Chuli%C3%A1.pdf>

During the pandemic crisis, in the year 2020, while in Spain the GDP has shinken a 11%, traditionally decreasing sectors as agriculture and livestock have increased its share up to 4,7% (Nieves, V. El Economista, 05/03/2021). There are some clear reasons for this growth, among the most significant are the interruption of the established supply channels, the increase of inner national food consumption.

<https://www.eleconomista.es/economia/noticias/11087261/03/21/Espana-sector-a-sector-la-agricultura-se-hace-fuerte-en-la-crisis-y-alcanza-su-mayor-peso-en-el-PIB-en-15-anos.html>

Table 1. Primary Sector GDP Evolution



Source: Eurostat and Statistics National Institute

In Extremadura, winter and spring cereals (rice) suffer big variations from year to year. In 2017-2018, the total production in weight increased 124% up to the 828,111 tons, meaning a 95% growth of the regional average output (3851kg/hectare). Corn regional average output increased up to 13860 kg/hectare. (<https://www.unex.es/conoce-la-uex/centros/eia/archivos/iag/2018/2018-02-las-macromagnitudes-agrarias.pdf>)

In Spain, as a worldwide trend, private investment funds have increased their interest in agriculture and bought thousands of hectares of land.

In 2021, Badajoz (Extremadura, Spain) has host the 7th Intervegas National Network meeting, that foster developing the path of the State Pact for Food Sovereignty, Environmental Education and Territorial Sustainability (Granada, 2015), the EU Biodiversity Strategy for 2030 and the EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil' in order to build a full, inclusive society, through fair actions and in defense of the common good, i.e. food sovereignty supported by the defense of soils, biodiversity and water resources as concepts of the first order that intertwine health and an ecological and human economy as emergencies in the face of climate change.

This platform is working on the creation of a map of fertile soils in Extremadura, on the regulation of the presence on Social Networks of clean, good and fair products (capitalizing Extremadura's Slowfood previous projects) and in the mapping of good educational practices for sustainable development in Extremadura.

"Despite its importance, the agribusiness in Extremadura suffers several chronic problems, some of them related to the lack of developed innovative activity which is still significantly low. In this sense, public administrations have a

special interest in encouraging scientific and technological research. However, despite the actions already carried out there remains scope for improvement, especially sharing their knowledge and communicating with the main actors of innovation (the companies), with the objective to ascertain which public actions are specially demanded attending to the obstacles perceived in order to increase the innovative activity” (Corchuelo and Ferreiro Soane, 193) .

Internationalization and related competences to it are one of the main barriers to innovation. International networking is proof to be an impacting factor on innovation. English level among entrepreneurs and managers is poor.

In a 2015 report on perceived barriers to innovation, the most considered were:

- Lack of support from the administration
- Lack of external funding
- High costs
- Lack of internal funding
- High economic risk

These barriers highlight a concrete perspective of innovation, narrowing the term and hiding aspects of innovation that our project INTEGRURAL highlights.

Sources:

Corchuelo Martínez-Azúa, B. ; Ferreiro Seoane , F. (2019). Agri-food industry in Extremadura: obstacles to innovation, willingness to innovate, and demanded public actions. *Investigaciones Regionales - Journal of Regional Research*, 45, 181-199.

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https://intervegas.org/vii-encuentro-estatal-intervegas-badajoz_2021/

France - Massif central

In France, agriculture now employs only a small minority of the working population (2.5%) and INSEE lists only 5 employment areas out of 304 (Mauriac, Saint-Flour, Epernay, Pauillac, Morvan) with a marked over-representation of agricultural occupations, which nevertheless rarely represent more than 15% of total employment. However, agriculture is a structurally space-consuming activity with 28 million hectares of utilised agricultural area. This UAA is shrinking under

the effect of land selection (abandonment of slopes in the mountains, for example) and the consumption of space by urbanisation and infrastructures, but agriculture still makes use of half of the country's surface area and has a strong impact on the landscape. Moreover, farms have grown considerably and have increased from an average of 28.4 ha in 1988 to 55 ha in 2010 (latest census), with the Ministry reporting an average area of over 65 ha today.

If we consider the agriculture of the massif from the point of view of its overall dynamics and its capacity to create wealth, added value and employment, we obtain a geography that goes beyond the classic location of the major production systems. We can thus distinguish the most intensive regions and/or those most involved in quality procedures, the former because they provide large volumes and support an entire sector (but subject to competition from more competitive regions) and an entire territory, the latter because of their capacity to generate more added value (13 PDO cheeses, PDO wines, red labels/IGP in meat in the north of the Massif and in the south-west, chestnuts from the Ardèche, fin gras from the Mézenc, sweet onions from the Cévennes, etc.). There is also peri-urban agriculture, more oriented towards short circuits, forms of diversification (agri-tourism) but also areas in decline where little is produced, where the sectors are dwindling and where the question of opening up the areas may arise. This is typically the case of the Mediterranean fringe of the massif, despite the presence of some quality production.

Barriers for the rural areas are:

- Challenge of a more territorial approach to agriculture and promote the development of "liveable" and sustainable territories (jobs, services, etc.)
- Improving relations between agricultural actors and territorial development actors; challenge of a better "integration" of actions, public policies and training (in network)
- Issues of succession: the Massif Central has an insufficient renewal of its farmers, with only one installation for every 2 to 3 departures. In 2015, more than 20% of farm managers were over 60 years old and 31% were between 51 and 59 years old. Some areas of the Massif are particularly affected by the ageing of their farmers and the lack of successors, and without strong collective actions, despite the many existing support tools, family farming is threatened.
- Issues of the search for added value and proximity in agriculture
- Issues of preservation of resources, including land

Italy

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 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 at very advantageous conditions regarding training, entrepreneurship, land recover and tax exemption. ISMEA is the institute mainly responsible for the implementation of the Ministry guidelines and deployment.

In 2018, the 14,5% youth between 18-24 years old dropped out from school - substantially, more than 120 thousand students 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 about 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).

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Smart AgriFood, 2019

Greece - AREA of investigation

In Greece, livestock contributes barely 30% of total agricultural production, utilizing 3 million tons of grain, 2.5 million tons of maize and 2 million tons of hay, processing about 8 million acres of land and utilizing mountainous, semi-mountainous and barren areas of our country. The gradual structural transformation of the Greek economy is reflected also in the reduction of the share of the agricultural sector from 4.9% in 1995 to 3.7% in 2017.

The Municipality of Farkadona, our study region, is one of the four municipalities of the Prefecture of Trikala, in the region of Thessaly. According to the census of 2011, the municipality had a population of 15,881 in an area of 368,684 acres. Unfortunately, recent measurements show a decrease in population that remains to be proven with the upcoming census (13,396 is the population based on which the city councilors were determined in 2019).

The area is mainly lowland-semi-mountainous with a purely agricultural character. The Municipality of Farkadona has a total arable land amounting to 132,842 acres and most of it belongs to the fertile plain crossed by the river Pinios. The main cultivation of the area is cotton where for the year 2007 it covers an area of 61,016 acres. So it is obvious that cotton is a crop of great importance for the Municipality of Farkadona as it is directly linked to its growth and development, being a major source of income and employment. On the other hand, there are some negative points which do not allow for stronger growth, such as: lot fragmentation of the land and also small size of the acres, variety panspermia which is an obstacle to standardization, the over-pumping and high concentrations of nitrates in groundwater and the high production costs due to the agricultural inputs (pesticides, fertilizers). Livestock is the second productive part of the primary sector, it dominates in the mountainous areas but with a significant number in the lowlands. One of the main livestock activities is cattle breeding where for the year 2007 in the municipal pastures of the Municipality of Farkadona 7,230 cattle were raised. The limited slaughterhouse infrastructure is an obstacle to the circulation of meat inside and outside the country. The lack of standardization and labeling of local meat makes it impossible to differentiate the product, although consumers prefer it as the area is known for the quality of the meat and the ecological way of its production. Other weak points are the absence of processing units and the lack of basic infrastructure in most livestock farms

(electricity, temporary constructions, etc.). The distribution takes place directly through butchers-retailers.

There doesn't exist any research specifically for this area, but also for Greece in general. It is generally reported that digital media is not used in rural areas because it lacks the necessary familiarity. So, while many tools have been developed by the university faculties and private companies, it has not been possible to make them the property of the farmers. As the Deputy Minister of Rural Development stated, in a very large part, the primary sector operates in terms of the past because there are no digital skills in the vast majority of Greek farmers. A private Informatics and Technology company, which has developed a large-scale Internet of Things infrastructure, installing thousands of wireless sensors, which we designed and manufactured, on agricultural land, they test their apps in various areas, both in Greece and abroad. Their case studies are included 2 in Larissa (for cotton: <https://www.neuropublic.gr/en/case-studies/larissa-cotton/> and tomato: <https://www.neuropublic.gr/en/case-studies/larissa-industrial-tomato/>).

Sources:

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Neuropublic, <https://www.neuropublic.gr/en/>

5.2 Field research results

PORTUGAL

Our analysis draws from 26 structured interviews collected with the help of Psychology students of the University of Trás-os-Montes and Alto Douro. The selected entrepreneurs either work alone or are responsible for micro-size enterprises in the agricultural sector in rural Portugal. The interviews, after having been transcribed, were the starting point for the analysis developed below.

We noticed that these rural entrepreneurs contribute to the development of their region due to their pluri-activity: they create new products and new services associated with new markets; they look out for ways to reduce costs based on technological improvements; they are rebuilding agriculture not only at the basis, but in regional terms; they invest in rural economy as a whole; and they establish commercial, social and institutional networks which connect rural and adjacent urban areas (Kageyama, 2004).

Most of the entrepreneurs interviewed are simultaneously the company's management and workforce. They are multi-functional, hence contributing to keep

their companies alive. Their income, however, is low, so they can hardly invest in its development and growth.

A main problem is their decentralized location, in other words, they are distant from urban centres and resources. Thus, they have to pay a higher price for their supplies as well as for the delivery of their services or the transportation of their finished products. The low population density provokes more difficulties when it comes to finding final consumers, but also in finding skilled labour force.

Despite the negative aspects of working in rural Portugal, there are many advantages to be pointed out, namely: variety of tasks along the year as agricultural activities are seasonal; being your own boss; lifelong learning; the possibility to work in a peaceful, natural and unpolluted environment; challenging yourself and be proud of yourself because you are capable to overcome a never-ending series of difficulties; work in or near the place where you were born or where you have spent the best part of your life; start up something completely new in another environment; continue a family tradition and family business; safeguard traditions; improve production methods; innovate in a sustainable way; promote the region you live in, the endogenous resources; connect with people; be an active member of the local community that strives for integration; and the possibility to being sustainable, taking up your social responsibility, creating a quality product/service. It was very clear that the positive aspects of working in agriculture in micro companies in rural Portugal outnumbered the hardships and, thus, the overall feeling of satisfaction related to working in this area outweighed the discomforts.

Most entrepreneurs have an idea of what sustainability stands for, despite not knowing the 17 sustainable development goals (SDG). Certainly, the environmental pillar of the sustainable development concept is being reinforced with actions like investing in solar energy, using less or no chemical fertilisers, re-using resources/materials and changing petrol cars with electric models. It was really interesting to notice that these micro-entrepreneurs contribute to pave the way to sustainable development. Interviewee E18 gave this example: "In my restaurant the lighting is obtained from solar panels and the heating is provided by wood scraps, obtained from the forest, which are not being used for other purposes and would simply rot if they are not used". Interviewee E20 expressed his willingness to upgrade his business this way: "We can always improve, for example, we can improve production, we can improve the use of water, try to reduce the volume of water spent on disinfecting the wine vats. There are always ways to improve and try to do better". Interviewee E25 explained how this attitude will change the near future: "I believe that most businesses will focus on being profitable and will try to reduce costs as much as possible and, at the same time, reduce their impact on the environment, as sustainability is increasingly a concern for all of us and I think that each of us will contribute in a positive way".

Our interviewees have shown more examples of incremental innovation (which implies small continuous improvements in products or product lines) and we also noticed that new or improved products were the result of creative and

innovative combinations of the trio product, marketing and processes (Madureira, 2014).

With regard to the balance between tradition and innovation, the following approach prevailed: you have to respect your local identity, but, meanwhile, you have to innovate as, otherwise, there will be no progress. In other words, the vision of Faria (2008), tradition and innovation are complementary, finds many followers. Interviewee E05, the owner of a farm, consciously chose to maintain the identity of the house that he adapted for staying overnight, and had to find out that not all customers accept this vision: “When tourists arrive and think they are coming for something different, more modern, with a spa, swimming pool, gym and they see that we don't have it, because we try to maintain the traditional characteristics of the house, sometimes they get frustrated and start looking for another place to stay”. Interviewee E25 said that the main ambition of his farm is that his clients “learn everything, how things used to be, how the land was cultivated, what the customs and traditions were. So that the visitors will leave here instructed and eager to return”. The olive oil producer E02 expressed it in an historic perspective: “Olive oil has been produced for thousands of years, and production techniques have always been innovating and improving, and I don't think we are going to stop here. The world is increasingly more technological. Through innovation we can have better quality, better quality control and more hygiene”.

Especially the younger entrepreneurs have noticed that the best way to show their products without travel expenses is through digital marketing. Investing in social media, and sometimes in online selling platforms, has increased their opportunities to sell the product/service they created in rural Portugal. Only some of them invest in more complex software packages, upgrade mechanical processes or buy new high-tech instruments. In other words, the interviewed entrepreneurs understand perfectly well the importance of the internet to bolster their sales and product placement. The majority of them use Facebook or websites to let the world know what they offer. Instagram is less used. An almost insignificant number opened an online shop and/or now accept payments via MBWay (a Portuguese smartphone app that allows payments for services and goods, bank withdrawals and money transfers). We also noticed that the internet is not only used for selling, but also to strengthen consumer confidence and even interpersonal relations; and, also, to share information and knowledge.

Regarding the way entrepreneurs build their capabilities, most of the interviewees depend on informal self-study and research, especially through observing and talking with their peers; so, they have learned a lot on the job. As the technological revolution advances at such a high speed, the acquisition and updating of technological skills should become an individual and collective priority. The intensification of learning and training is needed to guarantee that also these rural micro companies can take part in all the societal changes that lay ahead. More investment in technological skills will be required in the near future.

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SPAIN

Metaphors and concepts involve principles and methodology. In this sense, we have found interesting words as “mycelium” or “landscape” that serve themselves as powerful tropes for expressing hubs or networks based on common ideas.

From in-depth interviews to four good practices cases and structured likert scale questionnaires to 5, we have gained relevant knowledge to understand the basis of their success.

Our cases take the legal form of cooperative (2), NGOs (2), SMEs (2) and work in the field of livestock, agri-food production, transformation and distribution, being (environmental) education and international project management transversal activities to all of them.

Our good practices cases share some common interesting points:

- They are led by entrepreneurs fully passionate about their projects and completely engaged with them.
- Integrating levels of the value chain and complementary products/services are also common traits in their processes.
- A social global vision serves as a guideline for these projects.
- Long-term vision and the consciousness of taking a role in the Green Deal and caring about the soil and the territory lead their actions.
- Lifelong learning, education, research, and innovation are common to all projects.
- All of them hold formally or informally, a gender balance, and women are well represented in responsibility posts.

- They dwell into the past and into the future. They care for tradition, cultural heritage, and learning from the elders.
- They are up to date and constantly share news on their activity, having an advantage for anticipating new economic and legal frameworks
- In fact, it is their involvement in European, national or regional projects what sustains a good share of their activity -more than the production itself.
- Networking and alliances are also keystones of their development. Almost all have developed projects in association with a University.
- Involvement with the local community is also a must for them. Normally through Open Days to show their activity.
- Intergenerationality is important in their actions, elders and children are among the public, volunteers, and counselors of the organizations.

FRANCE

From a dozen responses to the online questionnaire and a dozen qualitative interviews with project leaders, we can highlight the following main ideas:

1. Most of the respondents who have carried out an entrepreneurial project have not called on a partner. It would therefore perhaps be interesting to develop information on this subject so that the actors feel more supported and monitored in their innovations. However, more than half of the people stated that diversifying their activities required specific skills, which clearly shows that in some cases it is complex to carry out a project, especially without outside help. Respondents confirm the need to increase the skills of project leaders; 70% of responses show the need to have initial technical and financial skills, but also to acquire new knowledge through continuous training (83%). Similarly, experimentation (85%), feedback (84%) or exchanges between local professionals through networks (76%) are required by entrepreneurs, even though there is little recourse to online training or "teleworking". In rural areas, a necessary hybridization of knowledge is thus emerging: local knowledge, which is strongly present in "traditional" systems, is being replaced by the rapid and massive dissemination of new "external" technical and scientific knowledge, through various channels of information dissemination and popularization. However, from the 1970s onwards, this 'productivist model' began to be discussed, and knowledge built through action, for example by enterprising 'neo-rurals', and through the rediscovery of local knowledge, contributed to a new form of hybridisation in a period of transition.

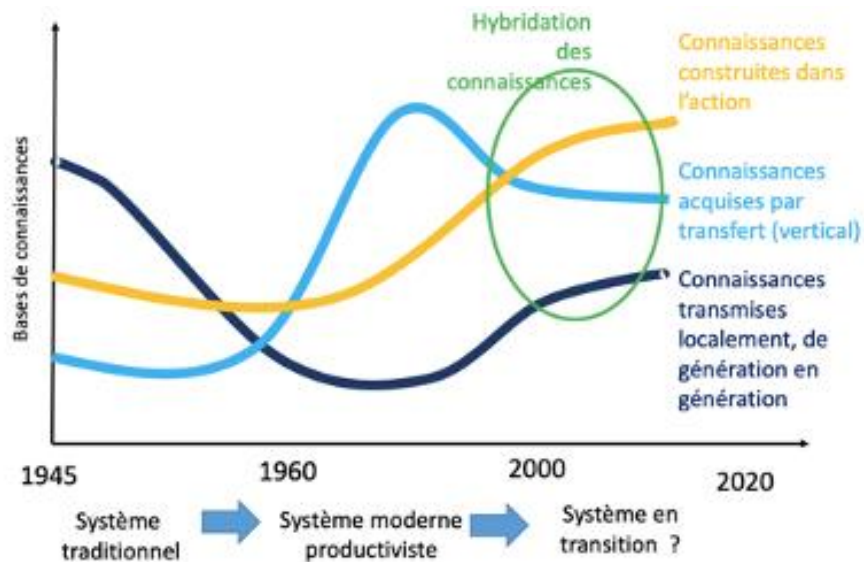


Fig. : Competence hybridization model (modified by L. Rieutort from P. A. Landel)

2. The dynamics of collective networks are fundamental in rural areas. 85% of the interviewees emphasise that these local relationships are essential and already in place for their business; they take the form of promotions (on the website and more widely) or even joint sales of products or services; $\frac{3}{4}$ of the respondents agree that they should broaden their partnerships, including to promote the area in which they are located, even though they acknowledge that they sometimes lack suitable communication tools or events (e.g. fairs) to enable this promotion. Not all of them seem to want to engage in certification processes.

The birth of a project is rarely an isolated act in a territory. The majority of initiatives are part of solid cooperation networks that have been able to provide information, support, evaluation and validation, without detracting from the originality of the project. The emergence and implementation of projects have often benefited from the support of real social or institutional capital.

3. Partnerships between private, associative and public actors (state and especially local authorities) are extremely strong (more than 80%), even if we note that a minority of the individuals interviewed are not in contact with institutional actors, which raises the question of the isolation of certain entrepreneurs. We also observe that, alongside private initiatives, several projects emanate from a municipality or association, sometimes closely associated (collaboration, partnership, delegation of activity). When the municipalities are the project leaders, it may be the mayor and part of his team who are the main initiators and managers; in other situations, the municipalities try to share the project with the population through joint meetings.

In the majority of projects, the project leader is not a native of the area, which does not mean that he or she has no link with the territory (frequent stays, involvement during professional mobility, emigration and then return to the country, etc.) and that he or she will not seek to establish an "alliance" with locally rooted actors.

"In rural areas like ours, you have to be outside the local issues to be able to carry out projects of this scale. You can't get bogged down in relationships that can be affinities or conflicts. However, I had to explain that I was from a rural background, and to prove myself, I got out my rubber boots...". (cited by Jacques Palard)

In the suggestions for improvement, we can observe three types of answers:

- People who want the creation of new things; what is already present is not enough for them, the demand is oriented around new development projects and/or clusters of activities;
- People who want more cooperation (collective work, common political will) and a new place in the decision-making process:
 - Some actors do not manage to make themselves heard and the decisions taken seem a bit distant for them
 - It is necessary to bring decisions closer to the territory by giving the different actors a voice
- Unification of projects and objectives, collective work where everyone can act:
 - The actors want to federate, because they are more powerful when there are several of them, they carry more weight;
 - This brings us closer to a global vision of the territory, making it possible to increase its attractiveness through collaborative projects.

4. What types and what degree of innovation?

What does innovation mean? A new product or service, a new process or both? On the service side, the projects observed all lead to the satisfaction of locally felt needs.

Innovation in services most often goes hand in hand with innovation in processes, in this case through the implementation of local democracy and governance mechanisms that deliberately call upon the participation of the population and collective intelligence. The founding of an association can be conceived in a concomitant and complementary way to the development of the project.

The way in which a new association is created is not unrelated to the local culture, i.e. to the territorial "matrix" of the social model, within which the capacity for mobilisation and action is forged and maintained.

Each achievement is unique. Indeed, the innovation process is also a process of individuation, linked to the forms of coordination and networking of actors in the geographical contexts, which are themselves specific and differentiated.

5. Among the difficulties encountered by the project leaders, the following should be noted

- Their level of qualification and training;
- Difficulty in finding land or premises that are suitable - and up to standard - for the planned activity
- A lack of legal and accounting skills, even if the support structures are known (local authorities, consular chambers in particular)
- Difficulty in understanding the different project support organisations and their role;
- For some entrepreneurs, the feeling of having been misunderstood in relation to their atypical project, hence a lack of support... but is support always desired?

6. The study of innovative local projects shows the importance of :

- Facilitate meetings with new actors and set up communication spaces (social networks, emails, trade fairs and events, newspapers, parties) and meeting places to strengthen networks and exchange practices
- Promote the amenities of the rural environment: setting and quality of life, diversified local resources; the image of "Nature" can be applied to many sectors of activity; possibility of balancing professional and social life, place of teleworking
- Propose a qualitative global "offer": discovery of the territory, networking, training and financing, presentation of business models balanced according to the types of entrepreneurs; cross the question of land, housing and the place of activity and share a prospective vision and a dynamic of projects around the reception and attractiveness
- Better involve the new generations who have a different vision and can bring an innovative approach; need for recognition and integration into peer networks; work on the transmission of knowledge; avenues such as the pooling and cooperation of knowledge;
- Work on the "natives" of the territory, especially young people, and on secondary residents.
- Strengthen proximity with the territories in order to put projects in touch with each other, to collect needs, to take stock of services, land or premises (+ prices), to take over activities and therefore to work on the overall offer and the conditions of reception
- Facilitate the networking of creators (meeting places + communication) and the emergence of potential activities specific to the territory (prospective and territorial approach).

GREECE

4.1 First of all, we tried to include both the interviews and the questionnaires in the area of our main area. The municipality of Farkadona may be primarily a rural area, but the city of Farkadona also covers a number of administrative needs, in addition to education and health. In this context, we tried to cover a wide range of small and medium-sized enterprises, mainly in terms of questionnaires. We also contacted an entrepreneur outside the area, whose case we consider to be of particular interest as an example of good practice.

4.2 The situation of innovative SMEs in the agricultural and cultural sectors in the rural environment is examined, with emphasis on understanding their vision, practices and needs, thereby attaining a set of “best practices” to act as role models for other aspiring entrepreneurs. Conclusions are based on 4 in-depth and 7 web based - structured interviews among entrepreneurs and business managers in the region of Thessaly involved in the agrarian (livestock production), cultural tourism, artisanal and consulting sectors. In spite of the small sample size there emerges a common pattern regarding the state of the art of smes and rural entrepreneurship, sustainability, business growth and innovation potential in excluded rural regions such as Farkadona.

1. On a macro-economic level, the principal problem confronting such micro-businesses arises from the constantly changing legal / fiscal / tax environment, which leads to investment instability, as well as the overlapping and complex legal framework. This cannot be solved on a local level, what is required is stable governmental policy and communication / feedback to SMEs of the impact of governmental / EU policies on the business environment (open loop - constant communication via intermediary professional / consultancy organizations).
2. Accessibility to information / need for Networking: There is a lack of guidance and professional advice to entrepreneurs and start-ups in rural areas on both the local and the national level -advice on structural -legal framework, how to get access to credit - financial support, technical advise, environmental issues, how to promote export capabilities, marketing skills, access to digital technology. The feeling is, as one interviewee said, is that “In rural areas entrepreneurs are more cut-off from knowledge centres”, and this needs to be changed. As another interviewee said, “we are on our own”. There needs to be a linkage to specialist companies specializing on advise provision, linkage to other companies in the area via hubs to disseminate information, linkage to governmental bodies / learning centres and professional associations, as well as creation of associations/ co ops for knowledge transfer and best practice transfer.

3. Innovation and Competence training - digital skills, digital marketing etc: The majority of SMEs (5 out of 7) agree that specific technical skills are fundamental when hiring personnel, as well as continuous training, understanding ongoing changes and using marketing to understand their customer profile. However few experiment with new things, opt for smart solutions or on-line training of their workforce and often they do not seem to place enough emphasis on developing their website. As a consequence digital skills, though requisite, are often neglected. Thus there emerges an urgent need for further skill development in their field, constant training (perhaps on-line), developing apprenticeships in the locality, promoting digital technologies via distance skill enhancement as well as digital marketing (web-based / e-shops / social media platforms). As one respondent stated, “we don’t hold officially recognized diplomas”(pastry producer), “there is a lack of training opportunities / apprenticeship opportunities in the area for individuals who want to learn the trade of traditional costume production, there is a need to create an association / co-operative of tailors / costume producers so that the skill is passed from one generation down to the next”, perhaps even to develop a network of producers where each workshop produces different elements of the costume. Hence the need to develop an apprenticeship artisanal school in the region”.

With the enhancement of the digital economy and the impact of COVID there is already arising a need to adapt to distance- working and a new hybrid model of work - “flexi- working”, where people will be able to live in Farkadona and work in Athens or at least Larissa/Trikala. This will create new opportunities, home will include the office” and perhaps the degree of rural emigration will be reduced or stabilized.

4. Promotion of the Region / Branding and Cultural Heritage: Not enough is done to promote the region of Farkadona on a cultural and economic basis, as evidenced by the fact that less than half of the entrepreneurs participate in networks or associations to promote their territory, very few have brochures and promotional material available and few have developed the company in such a way that it acquires quality certification. Additionally only a minority combine their sales policy with other companies to cross-sell products, and few participate in rural associations / markets. Overall it seems that very little is done to promote cultural heritage in the region (collaboration with local admins to promote heritage and cultural products, special discounts for visitors to local museums, participation in local networks to promote cultural heritage of region). On this evidence, much needs to be done to bring the smes of Thessaly and Farkadona together, via networking and knowledge dissemination as well as by developing an independent regional umbrella association, in order to brand and promote the region, develop new products, create synergies, adopt cross-selling capabilities and put “Farkadona” on the map.

5. New Sustainable Economy - Ecological Branding / Awareness raising : There is an obvious need to raise the level of ecological consciousness of both business leaders and the public towards a more eco-friendly and bio-diverse - sustainable economy. Regarding professionals, they need to put an “eco” brand to their product, thereby acquiring added value/niche product positioning, by communicating the “eco-friendly” / organic / ecologically sustainable method of production. By promoting a cyclical economy this will raise public awareness of the benefits of such products and have a knock-on effect for higher sales.

At the same time the public needs to be made aware of the short and long term benefits of purchasing bio-friendly products (such as meat from free-grazing cattle). As one of the interviewees stated, “the meat from our free-grazing cattle goes to Athens and the main urban centres, as the local community are not aware of the health benefits of such meat and are not willing to pay a premium price”. From this it is evident that there needs to develop an ongoing communication campaign to raise awareness among the local population of the health and environmental benefits of eco-friendly products. The use of professional bodies and organizations to aid smes in this quest will be essential for the long term development of the region.

Overall, Farkadona and Thesally face common issues with other 'excluded' agrarian regions of the Mediterranean. However the lack of economic opportunities in the region, combined with the low educational level of the workforce, the sense of isolation and inaccessibility to centres of knowledge and information, the absence of networking and professional organizations , and the lack of cultural heritage promotion so that it becomes a vehicle for economic advancement of the region, make the task all the more difficult and urgent. Development and growth will only come by using the know-how and expertise of innovative smes which will serve as 'best practice' examples to aspiring start ups.

ITALY

We have interviewed 15 rural entrepreneurs from Latina and southern Rome area - we have met during regional and local organic farming fairs and other networking events, such as conferences, or by physically visiting the different places. The profile of the interviewed entrepreneurs is the following - with less than 10 employees, management and workforce levels are joint, deep focus on the product development and more limited time invested in the branding and marketing. Another shared element is the lack of clear digital strategies in terms of online presence and measurement of effects.

Specifically, interviewees are into wine production, honey collection and transformation, vegetable transformation, eco-tourism, and enhancement of traditional products.

Almost all the interviewees have expressed lack of informational material in terms of branding and presentation of their territories, and current difficulties in promoting cultural events to engage a broader audience in trying their products. In fact, different ones (10) lack tourism information in their venues, as well as they do not hold any specific agreements with cultural institutions at local level. What is more, all of them have digital pages, but they do not know anything regarding the data and how to interpret visits and stats.

Some of them have a rather generic understanding of digital tools and they would like to know more.

Being the majority micro-businesses, the family dimension is crucial and the transfer of expertise is rather mechanical. Also, the selection of personnel is normally based on personal contacts or word-of-mouth. Training is done only with what the laws require - a few ones have been the exceptions. E-learning is never seen as an opportunity for training, so more has to be done in terms of digital penetration and, above all, in terms of acquiring a life long-learning sort of mindset.

Overall, the variety of products and the richness in quality provide stable wages for rural workers as well as an overall fragility in terms of evolving the work or transforming it in more equitable life solutions.

6. Conclusions

We can highlight some headnotes or relevant issues in the comparative analysis:

Individualism, cooperativism and networking

In France, most of the respondents who have carried out an entrepreneurial project have not called on a partner. In Italy, Portugal and Greece we find Individual entrepreneurs or family businesses where management and workforce levels are joint. In Portugal, the selected entrepreneurs either work alone or are responsible for micro-size enterprises in the agricultural sector in rural areas.

Only in Spain (Extremadura), we have found strong supporters of cooperatives among our good practices cases, modernizing this classical 20th century economic models in new forms as the integral cooperatives that aim to bring together all the basic elements of an economic system such as production, consumption, financing and its own social currency and to integrate all the sectors of activity necessary to gain autonomy and resilience (Decrecimiento, 2010).

Another Spanish classical cooperative have created a Foundation to lead and manage educational, research and social projects.

I come from the field of rural development in the Local Action Group and I have realized that one of the great tools that rural areas can have to fight against depopulation is the social economy and agri-food cooperatives. It seems to me that there is a very strong commitment. If we are talking about globalisation and a struggle between two great economic leaders, Europe has to go for something very “sui generis” and very differentiating, and agri-food activities could be one of the best assets to play this globalisation game. It seems to me to be fundamental now. At a global level, cooperatives and the agri-food sector have a lot to say, and at a local level there is no better tool to fight against depopulation than cooperative activity and the value of agriculture. (MA, Spain)

Networking is perceived as essential in all cases and developed in many ways, specially in France, where the birth of a project is rarely an isolated act in a territory. The majority of initiatives are part of solid cooperation networks that have been able to provide information, support, evaluation and validation, without detracting from the originality of the project. In Spain, networks are being created (clusters, operational groups) to change the national and regional legislation in order to give opportunities to little, artisan producers and eco farmers.

Legal and administrative environment

In Greece entrepreneurs and micro-businesses face constantly changing legal, fiscal, tax environment, which leads to investment instability, as well as the overlapping and complex legal framework.

In Spain, almost all SME subcontract a management company to do their accounting and legal annual procedures. One of the Spanish entrepreneurs (an NGO working in R&D projects) tried to do it by themselves suffering during two years of late payment penalties. They have taken online courses on accounting and learn that even if a consultancy may handle accounts and legal procedures, accounting skills are needed among the entrepreneur's skills.

Human Resources

As we have stated, with the exception of cooperatives, one or two multifaceted persons are the promedium size of the studied cases. In Italy, our sample shows that the selection of personnel is normally based on personal contacts or word-of-mouth. In Greece, few opt for on-line training of their workforce or themselves.

Innovation

Although research and development in products are behind of some of our innovative good practices examples, at these levels, in Portugal we have reported examples of incremental innovation (which implies small continuous improvements

in products or product lines) resulting of creative and innovative combinations of the trio product, marketing and processes

In France, the emphasis of innovation is placed in pocesses, through the implementation of local democracy and governance mechanisms that deliberately call upon the participation of the population and collective intelligence. However, the innovation process is also a process of individuation, linked to the forms of coordination and networking of actors in the geographical contexts, which are themselves specific and differentiated.

Innovation can also be based in adding value through cultural assets. In this sense links with cultural heritage are one of the weakest points of the majority of our interviewees.

Education and life-long learning

In Italy, among our rural entrepreneurs training is done only with what the laws require - a few ones have been the exceptions. E-learning is never seen as an opportunity for training, so more has to be done in terms of digital penetration and, above all, in terms of acquiring a life long-learning sort of mindset.

Our good practices cases shows that Lifelong learning, education, research, and innovation are common to all sucessful projects. Entrepreneurs assume that their activity when registered, analyzed and protocolyzed serves perfectly to offer presential and/or online courses and workshops. To receive and to offer life-long learning is an attitude and a strategy from the start.

Traditional knowledge and cultural heritage

A balance between safeguarding heritage and innovate in process and products is also a concern in some of our entrepreneurs. After decades of sustainability unawareness some of them discover than to be sustainable “is to do as our grandparents did”. The powerful engine of identity works territorially in France but fails in other countries (Spain, Greece), where the reference is the municipality and local authorities use to compete more than to collaborate.

The peripheral condition seems to impact rural areas entrepreneurship negatively in most of the studied countries but in France, where public-private partnerships are well established and national programmes reach peripheral areas through regional administrations. The small size and regional identity serves in the studied regions of the Massif Central as the Lozere, as a territorial “matrix” and a powerful engine of identity, networking and partnership. Its an inspiring scenario where majors tend to be entrepreneurs and entrepreneurs are participants of policy making.

To reach this scenario there is a longer way for some regions than for others. Administrative complexity, high taxes, insufficient support are burdens felt

by most of our interviewees, no matter the country. In these contexts, passion, multifaceted labour, hard work, the love for tradition, the added value of quality of life little villages are the basements of rural entrepreneurship.

Digital tools and competences may be good resources to overcome peripheral isolation, although they are underused by entrepreneurs. Having so reduced local markets, for rural entrepreneurship, digital competences are even more important.

While cooperativism is strong and modernizing in some regions like Spanish Extremadura, family or individual projects are much more common in the other studied regions. In all cases, networking in all its expressions are most valued and a solid strategy of most of our good practices cases. Regional, national or international projects and partnerships, operational groups, rural markets, clusters, festivals and musical events, etc. are all fruitful expressions of networking. Strategical alliances -as with universities or research centers- are fostered by the programmes and calls.

Integrural's research has shown common and specific weaknesses and challenges as well as inspiring models on how to handle with them and incorporate strategic principles and guidelines. Now we can proceed to transfer knowledge and connect complementary and synergy expertises.

7. INTEGRURAL Good Practices Cases' Stories

FRANCE

Hyelzas village

Website : <https://www.fedou.com>



On the high karstic plateaus of the southern Massif Central, overlooking the Jonte gorges and close to the major tourist site of Aven Armand, the small village of Hyelzas (60 inhabitants) is a good example of a collective dynamic of rural development in a very low density area. Progressively and under the impulse of the Pratlong family, the village has acquired

- A museum of rural life, the Ferme Caussenarde d'Autrefois; this is one of the first private ecomuseums in France: the concept imagined by Armand and Marie Pratlong as early as 1969 and which will see the light of day in 1973 is innovative. It is part of a global dynamic of the territory accompanied by the Cultural Association of Méjean;
- A small dairy that processes the sheep's milk of a dozen producers (about 850,000 litres collected) and employs about twenty people, with a wide range of cheeses (raw milk and custom maturing), from pressed to soft cheeses (Meule, Tommes, Soureliettes, Pérail, Brique, Fédou, Cardabelle, Titounet, Brousse...) under a collective brand (De Lozère). The cheese dairy has a shop selling local products (including charcuterie). More recently, an ice-cream making workshop "Armand et Marie" has been added;
- Tourist accommodation.

Moulin de la Borie

Website : <https://moulindelaborie.com>



Initiated by the inhabitants and farmers of the Méjean Causse, the project to create a local milling industry has come to fruition with the support of the municipality and numerous financial and technical partners.

On the Méjean causse, the windmill of La Borie, in Hures-la-Parade (270 inhabitants - 88.9 km²) has been running again since 2017. And it welcomes visitors who come to observe it grinding grain, accompanied by a tourist guide.

While cereal and flour production collapsed after the war (there are currently only five ruined mills left in the region), from 2010 onwards the inhabitants mobilised around this built heritage with the idea of developing a local micro-processing industry, "from wheat to bread". "The town council considered that this project was useful for the area in terms of economic development, tourism and the promotion of heritage. It therefore decided to get involved. It wasn't easy because the municipality had to invest, but the gamble has paid off," says the mayor of Hures-la-Parade, André Baret.

In addition to the local elected officials, the inhabitants and the farmers, accompanied by the Fédération des centres d'Initiatives pour valoriser l'agriculture et le milieu rural Languedoc-Roussillon (Civam regional federation), other technical and financial partners became involved in 2012, in particular the Lozère department, the Occitanie region, the Cévennes National Park, the Daniel and Nina Carasso foundation, and the Fondation du Patrimoine, which launched a subscription. At the time, the commune called on the Causses Cévennes territorial association, which has now become the Sud Lozère rural territorial balance centre. "They had contacts with the region, so they put together the applications for subsidies because we didn't have the skills or the means in-house," recalls the mayor of Hures-la-Parade.

In 2014, the association Farine du Méjean was created to bring together the players in the sector. The farmers in the area are gradually increasing the areas dedicated to cereal farming: wheat, rye, buckwheat or spelt, "ancient" or modern varieties, organic or conventional. Bread-making trials are being conducted and the first products are being sold at the end of 2016 in four bakeries involved. They are labelled La Méjeannette, a range of local flours and breads. At the same time, the restoration of the mill supported by the municipality was completed at the end of 2017 and a miller set up shop there straight away. The only departure from tradition is that the mill is equipped with an engine to maintain production in the event of a lack of wind.

In this isolated rural area, this project has created a new dynamic in the area, strengthened the links between farmers and inhabitants and improved the biodiversity of the land. The project cost the municipality 350,000 euros, thanks to 80% subsidies. However, this investment should be repaid in ten to twelve years by the rent received from the milling activity. Two jobs have been created: a miller and a tourist guide, and new inhabitants have settled in. Others are expected to follow the second part of the project, which is due to start in 2020: the renovation and transformation of the former miller's house into an exhibition centre on milling and the region, and a flour storage area.

The sector in figures: 50 tonnes of flour produced by the mill since 2017, 100 tonnes of cereals harvested, 80 hectares sown, 25 farmers, 13 bakeries and 11 shops

The alternator in Sauxillanges

Website : <http://www.alternateur63.fr>



Located about fifteen kilometres from Issoire (14,700 inhabitants), in the Puy-de-Dôme, Sauxillanges (1,256 inhabitants) has always been a commercial town. Its population has increased by almost 150 inhabitants since 1999. But according to the mayor, Vincent Challet, "elected officials and residents are very worried about the future, especially since the installation of a medium-sized store on the outskirts. We fear that our shops will close or move to the outskirts and that we will gradually become a dormitory village. Added to this fear is the natural ageing of the population, a quarter of which is now aged 60 and over, with a sharp increase forecast for 2020. These developments have prompted the municipality to initiate a revitalisation process by involving the inhabitants in the development of the project.

At the same time, several residents have joined forces to open a grocery shop offering local products in the village centre, after the last such shop closed in June 2016. "We conducted a survey among residents and producers and then set up an association called the Alternateur," explains Astrid, an innkeeper.

The call for mobilisation exceeded all expectations. In a short space of time, the Alternateur has managed to bring together 250 members, including 70 volunteers ready to give their time to run a "citizen and solidarity shop".

There are nearly 250 items, supplied by thirty local producers. Many of them are offered in bulk. Only bread, coffee, tea and meat are missing. "So as not to

compete with the shops already in place in the town", explains Astrid. The same concern for fairness prevails in setting prices. "We only take a 25% margin. The rest goes to the producers. "It is also a way of lowering prices.

In terms of organisation, the Alternateurs have nothing to envy the most professional traders. Twelve committees have been created, corresponding to specific tasks: health control, stock management, communication, etc. "55 volunteers have been trained. We ask each one to work at least four hours a month.

The customers are also there. "We were hoping for at least €3,000 in turnover per month to be able to pay the charges and especially the rent. In the end, that's what we did in a week!

The Alternateur is also a friendly place. A small room, next to the grocery shop, is used to set up various workshops. Here again, cooperation and imagination prevail. "Everyone can propose activities," says Astrid. Ideas for services or activities are chalked on two large blackboards, one of which is visible from the outside.

Les Cheires test orchard

Website : <https://ressources.terredeliens.org/recolte/mise-en-place-d-un-espace-test-arboricole-aux-cheires-63>



The Veyre valley is a historic arboriculture area in the Auvergne. Located near Clermont-Ferrand, the pressure on land is twofold. As the arboriculturists leave, the land is coveted both by a strong urban expansion and by intensive cereal crops. Aware of the stakes, the elected representatives and local actors wish to

encourage the installation of new farmers in order to preserve and develop the local arboriculture.

The demand for organic fruit is growing and motivates the development of organic arboriculture.

One difficulty remains to make the departure of an arboriculturist and the installation of a project leader coincide, partly because there are few of them. The idea then emerged to set up a test orchard.

An agricultural test area (ETA) is a reversible system of access to land for a project leader (tester) that allows him or her to test the farming profession in real conditions with a minimum of risk. It consists of an incubator function, which gives the tester a legal status, a nursery function, which provides the tester with agricultural equipment and land, and a support function to help him or her develop the activity by relying on support structures or the knowledge of other farmers. These three functions are brought together by a coordination function, as it is important to ensure the cohesion and coherence of all the actors.

"Ilots paysans" is the association that provides the leadership as well as part of the nursery and support functions for the testers on the Les Cheires site. Two project leaders, or testers, are accompanied on the Les Cheires test orchard. The profiles of the testers vary, but they are generally asked to have some knowledge and to have matured their project.

In 2017, "Terre de Liens" acquired 6 hectares of orchards, which will host an agricultural test area and will be managed by "Ilots paysans".

The principle of a test area is to allow project leaders to test the profession of farmer in real conditions, to experiment with the feasibility of their project and to prepare for their future installation. Thanks to this new system applied to the orchard, the idea is:

- To give ourselves the means to attract young arboriculturists (and future candidates for installation) in the region;
- In the event that an orchard becomes available in the area, to be able to react quickly and to be able to propose a candidate buyer;
- In the event that a candidate does not find an orchard to take over, an installation on land requiring the planting of trees could be envisaged with a test phase in Les Cheires while waiting for the newly planted orchard to become productive.

Several actors are involved in the testing of project leaders: land associations, the community of communes, neighbouring farmers, cooperative of activities and jobs, project leaders, inhabitants, environmental associations (biodiversity monitoring)

In Livradois-Forez, an inter-communal market garden farm

Website : <https://app.cagette.net/lafermeduchandalon> and <https://www.cctdm.fr/foret-agriculture>



The community of communes Thiers Dore et Montagne has created an inter-communal farm to host organic market garden production in a short circuit. In 2017, three market gardeners set up there. The dynamics of a well-established local agricultural network was an asset.

Within the Livradois-Forez regional nature park, the community of municipalities of Thiers Dore et Montagne (30 municipalities, nearly 40,000 inhabitants) is faced with a declining and insufficiently diversified agricultural activity. In this rural and mountainous area, beef cattle production is in the majority and there are few market gardening activities within a 20 km radius. The community must accompany the change in the agricultural world," says Jean-François Delaire, the elected official in charge of the environment, agriculture and forestry. The conventional model is no longer satisfactory in terms of environmental impact, profitability, quality and working methods. The community of municipalities has a role to play in meeting the demand for healthy, quality products.

Supported by the Livradois-Forez agricultural network, the community of municipalities carried out an agricultural land analysis in 2010, which revealed the existence of wasteland as well as opportunities for land restructuring and agricultural diversification. The community of communes owned 3.5 hectares of fallow land, acquired as part of the construction of the retirement home, suitable for market gardening (organic farming was not included in the call for projects). Clearing, irrigation and the construction of a 200 m² farm building enabled the

community of communes to create a real facility for market garden production: in 2017, the inter-communal farm was set up, for a total budget of €200,006.59 excluding tax.

The community of communes now had to find the right candidates to delegate the management of this "turnkey" farm to them, via a rural lease with a 9-year environmental clause. A dozen or so market gardeners responded to the call for applications launched in 2014 by the community of communes. In the end, the choice fell on three young farmers with no agricultural background. "We chose motivated and experienced profiles that met our requirements: organic production and a commitment to local distribution", emphasises the elected representative. In 2017, the market gardeners started as individual farms, accompanied by the Chamber of Agriculture. A few months later, they formed a joint farming group (Gaec), the Chandalon farm (63250 Arconsat). Most of the production is sold directly on two markets and in organic shops in the area. The intercommunal farm also supplies certain schools.

GREECE

Highlighting: During our field research we found that the degree of development of entrepreneurship of small and medium enterprises varies depending on the region and business culture. Thus, in some cases the standard development model may not be followed, but the initiative and the way they evolve are interesting. With these facts in mind, in the control area (Municipality of Farkadona) we found that there is no entrepreneurship culture in small and medium enterprises, so we present 1 company from the area and 2, with a different way of development, outside the area.

Karagouniko Artisanal Costume Workshop - Faneromeni, Municipality of Farkadona

Facebook: <https://www.facebook.com/karagkounikoergastirio/>



Bearing in mind the low level of enterprise development associated with cultural heritage promotion in the region of Farkadona, the case of the Karagouniko artisanal traditional workshop was selected as a best case example, as it is one of the few SMEs promoting cultural heritage of the region and also due to its extroversion and export orientation.

The specific SME is a family-run business employing 1 full time and 3 seasonal employees. It has been running since 2009 and focuses on the production / shaping of traditional costumes of the “Karagounides” (meaning: Wearers of Black Capes), who are thenative inhabitants of the Thessaly plain region. The costumes are worn on formal events such as weddings, christening as well as for folk festivals, and are custom made. They are sold not only in Greece but also abroad to Karagounides associations worldwide.

The workshop has also begun making costumes of other regions as well.

The owner is also associated with the folklore association of Trikala “The Theristades”, (<https://www.facebook.com/groups/423226701217424>).

The association promotes the Karagounis culture and traditional costumes of the region, disseminating it beyond the region of Farkadona as well as abroad.

The SME operates primarily via word of mouth in conjunction with its Facebook page.

In their words:

“Our aim is saving and transmitting the cultural tradition of the Karagounides’ culture and its transmission to the younger generation so that they can identify themselves with it. The success of the enterprise is due to the quality of the costumes, which are immaculately made. We have been asked to make some changes to costumes to save on costs, however we have not complied as for us profit is not the sole motive “.

Ecomuseum Iria Village Project





Eco museum Iria serves as a best-practice example on many levels. Apart from promoting local culture and tradition, portraying local architecture, small-scale production methods, bio-diversity, local gastronomy, and providing an experiential eco-touristic experience, it promotes small scale primary production, adds added-value to the primary products by making them into branded PGI products, and shifts tourist flows to the cut off agrarian region which in turn strengthens the local economy and links it to the local community

Ecomuseum Iria is a developing agrarian-based eco-touristic enterprise initiated in 2012. It is located in the village of Iria, 25kms from the former capital of Greece, Nafplion in Peloponnesus.

The owner Vassiliki Giona is an archaeologist, who has decided to develop her family fields and farm building with mill. The enterprise comprises arable land, on which wheat and artichokes are organically farmed, a mill and an old residential building. All constitute part of the cultural heritage of the area, given that 85% of artichokes in Greece are grown in Iria and the surrounding area. The Iria artichoke is a hallmark product of the region, having been cultivated since

1947, and in 2018 was granted Protected Geographical Indication status. The mill itself represents part of the agro- industrial heritage of the area.

The strategy regarding the ecomuseum is as follows:

- arable land / Fields: Organic farming of wheat (among them, old Greek traditional varieties) and artichoke - limited production - transforming in exquisite branded taste products - Conservation and promotion of biodiversity
- Residence / House: Maintenance of the building highlighting not only items but also local stories about customs and history - promotion of cultural heritage tangible intangible
- Mill ill: Building restoration and restoration of the mechanical equipment to make it functional again - promotion of cultural heritage, tangible and intangible
- Sustain local development: Connection with local enterprises aiming to an agritourist model

Both the mill and residence, in conjunction with the fields, will serve as experiential locations highlighting not only traditional architecture and eco-friendly production-methods, but showcasing also local artifacts as well as providing a narrative for local stories about the customs and history of the place.

In addition to providing a holistic experience to visitors (there are guided tours of the farm and buildings, as well as a gastronomic experience where the in the farm-produced products are served in the residence using traditional tableware, thereby provide a unique in-situ experience), the products also appear on the menu of the local tavernas (restaurants) of the village, thereby involving the local community and extending the economic benefits of the SME to the surrounding area.

The owner Vassiliki Giona is an active member of several projects, dealing with tangible and intangible heritage like: ISTORIMA, funded by “Stavros Niarchos Foundation” for the creation of large archive of Greek stories, ANTHI TIS PETRAS for the preservation of Greek traditional architecture, PELITI for the preservation of Greek traditional seeds.

In their words:

“My objective was to cultivate the artichoke, to cook it and serve it in my grandmother’s farm in the traditional way she used to do it; further, to link the cultivation process with the history of the region, to turn the farm into a venue for education and create (cultural) awareness for the children. My plans are also to have a small shop selling branded

artichoke-based products. Last but not least, I want to promote experiential agrotourism, whereby visitors visit the fields and the farm”.

Aroma Evrou

Website: <https://aromaevrou.com/>

Facebook: <https://www.facebook.com/aromaticplants.evros>

Instagram: https://www.instagram.com/aroma_evrou/



Although not in the vicinity of Farkadona, Aroma Evrou has been selected as a best practice example as it is one of the most developed SME's visited, running successfully for over three years.

Aroma Evrou is a Social Cooperative Enterprise and Artisanal SME established in 2018 located in the prefecture of Evros, in the far northeastern part of Greece next to the Turkish / Bugarian border, specializing in the biological cultivation and production of lavender products including lavender tea, lavender oil, lavender water and lavender pouch. The product range is due to be extended in the future as the company is planning to produce lavender-based personal care cosmetic products for men and women.

The company is a vertical unit, and in addition to having its own cultivation and production facilities, also processes the lavender flower from other local producers. The company sells to both the local market as well as abroad, having

commenced exports to Holland. The company employs 15 full time and 15 seasonal workers.

The success of the company is based on the high level of expertise and good level of co-operation among the scientific personnel. The president and founder of the company is a former cultivator with first hand experience of agricultural production, whilst the team comprises graduate geonists, economists and specialists in their field. The president sought advice from the university and used his former experience to set up the lavender fragrance company.

The SME received no funding from any state body or European program, the whole project was self-financed. Aroma Evrou is not part of any network of producers, as in the words of the Managing Director “there is not enough trust yet to start networking”. The company is currently co-operating with consultants so as to take advantage of the various European - sponsored projects on offer to help with its funding / further knowledge acquisition.

The company uses traditional marketing tools to promote its products (brochures, advertising leaflets) as well as the internet (digital marketing / videos / social media). In addition it is running a campaign to educate primary and secondary school children of the health benefits of lavender products, as their use and benefits are largely unknown. The objective is to educate future prospective users from a young age as well as encourage them to communicate the health benefits to their nearest of kin, ie family members and friends.

The company uses smart technology in the cultivation process, including smart meters for measuring the levels of precipitation on the fields (as this affects the crop quality) as well as aerial photography via drones to monitor pesticides / fertilizers / diseases.

Additionally Aroma Evrou is developing its facilities as an agro-touristic venture, inviting schools, tourists and the local community to experience firsthand the entire production process from lavender collection to product manufacture as a guided tour. In this way a holistic experiential experience will be provided, engaging the local community in the process. Future plans are to purchase some dilapidated buildings in the village, renovate and restore them, so that they can be used as guest houses for tourists. The objective is to conduct tour guides as well as sample the products in situ.



The founder on a TV interview in local channel of Orestiada

In their words:

"The participation in a network is essential for the further development of the company"

"You have to listen to the consumer and society constantly in order to be accepted."

ITALY

Slow Food Youth Network - Lazio

Slow Food Youth Network is a global organisation of Slow Food that gathers young rural entrepreneurs. In Lazio region, it is a lively network that fuses tasting moments with strategic moments of learning, discussion and networking.



In their words:

“Youth means to give a new perspective in the rural world, discovering with new eyes what we have inherited”

“Everyday efforts, struggle, experimentation is nothing without a network you believe in”.



Tenute Filippi

This is the success story of a young person, Matteo, who has decided to create his own rural firm focused only on organic agriculture, combining grapes cultivation and rotation of crops. He has completed his studies in oenology and has involved his family in land work as well, successfully employing locals in the work. Plus, his determination has led him to enhance native grape varieties and make them accessible to a younger generation.



In their words:

“Nowadays we have organic certification, but we want to aim for more, and fully apply biodynamic methods, and we will consider our mission accomplished once we have our own winery to show our wine and to taste our territory. It will take some time, so far we are receiving very good feedback. We are coming there!”

Wild Hogs Cori

A non-formal group of adults is restoring the mountain areas of Cori to favour downhill, an extreme sport for the lovers of the mountains and of the bikes. Basically, the group has decided to restore the areas involuntary basis, preserving the forests, restoring the routes and encouraging an incoming process of mountain tourists.

In their words:

“Where there is a bike trail there is a good community taking care of the forest”





PORTUGAL

Vinilourenço, Lda (Wine production)

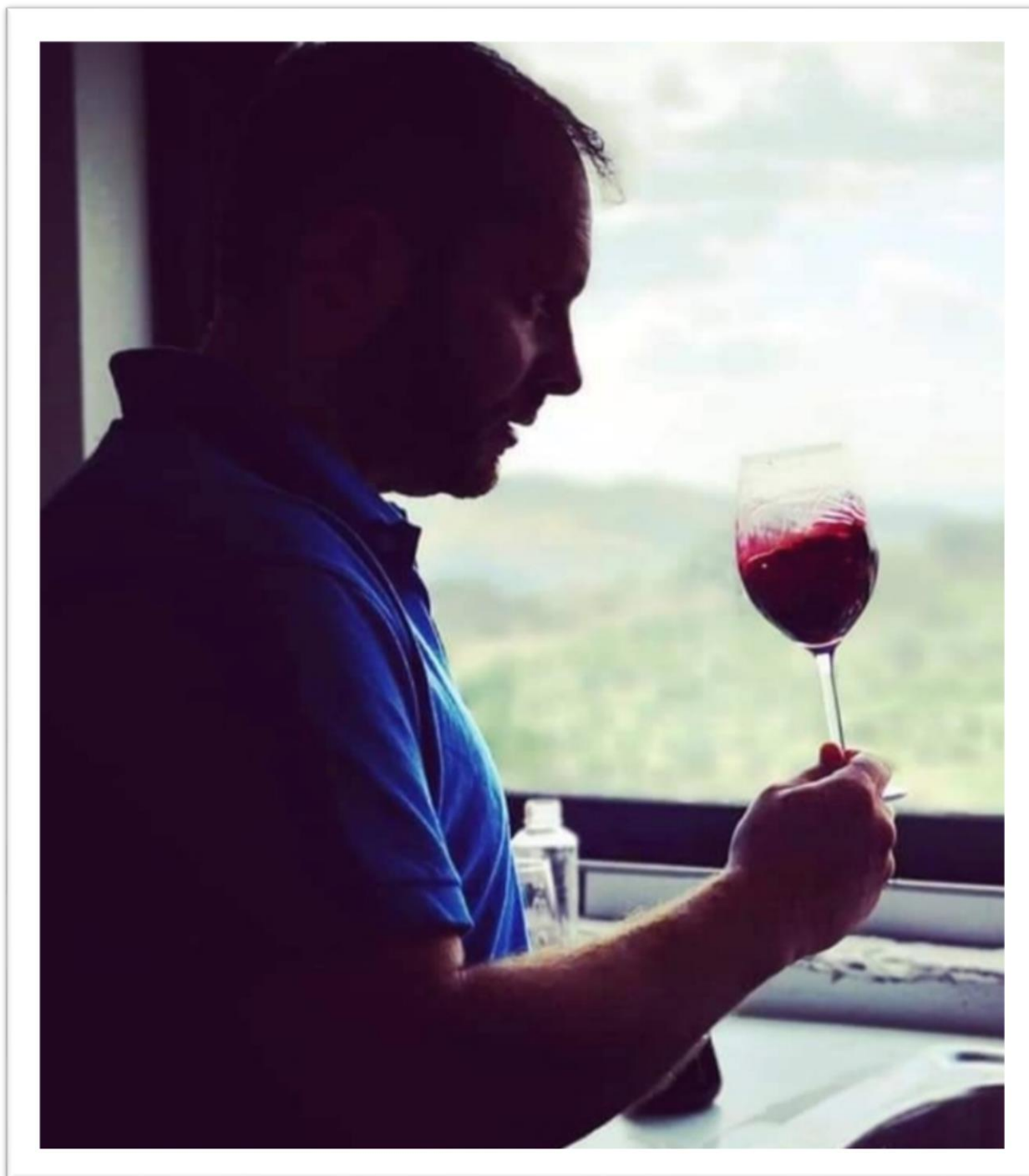


Figure 1 Businessman Jorge Lourenço tasting one of his wines

Website of the company:

<https://vinilourenco.com/>

Facebook:

<https://www.facebook.com/VinilourencoLda>

Instagram:

<https://www.instagram.com/vinilourencovinhos/>

Jorge Miguel da Graça Lourenço is an entrepreneur, who has his wine company based in a small village in the mountainous interior of the country, more specifically in the parish of Poço do Canto, municipality of Meda, district of Guarda. The wines of this wine company present an excellent relation between quality and price.

In their words:

“ViniLourenço is a company that tries its best to implement the Sustainable Development Goals of the United Nations’ Organisation (UNO). We believe that sustainability is something of extreme importance, therefore we have already put into practice some sustainable solutions. An example of this was the investment we made by acquiring solar panels (for self-consumption of the electricity produced) and two electric cars (to minimise environmental pollution). We have also replaced the so-called common light bulbs with highly energy-efficient LED lighting. Moreover we have changed the packaging of our products: at this stage we have reduced 25% of the plastic used.”

“In our company we prefer face-to-face communication, since it provides greater proximity between employer and employee. But sometimes it is impossible to establish this type of contact. When it is necessary to advance and expedite a certain situation that requires a quick response, contact is established through the fastest and most effective means of communication, i.e., phone/mobile phone/social media.”

“For a good result it is necessary for the whole team to unite and fight for the same objective, because only if the company's workers are successful, will the company be successful and vice versa.”

**Company in her own name, Ana Elisa Azevedo Fernandes Machado
(Blueberry production)**



Figura 2 *Ana Elisa Azevedo Fernandes Machado*

E-mail of the entrepreneur: aeafmachado@gmail.com

The activity of this part-time producer focuses on growing and selling blueberries. The company arose from the availability of a large plot of land and the desire to make it profitable, but also from the opportunity to attract state support and subsidies. In Ribeira do Neiva, municipality of Vila Verde (district of Braga), this micro-entrepreneur opts for integrated production, respecting good agricultural practises, through the exercise of a set of strict rules under a certified protocol (Global G.A.P.), and pursuing the focus of increasingly sustainable agricultural practises.

In their words:

“My farm still uses some more traditional and innocuous methods, such as the grazing of sheep in the plantation, in order to control the advance of weeds next to the blueberry trees, and also the greening (grass) of the areas that separate the different plantation lines, to avoid excessive soil erosion. It is my aim, in the short or medium term, to convert my project into a totally organic farm, but embracing technology. Because, really, the future of agriculture is scientific, high-precision and simultaneously extremely sustainable as, otherwise, humans will end up here and there will be no future for us.”

“A high level of resilience, searching for support and partnership networks, a lot of dynamism and a positive spirit are my mottos. And to avoid problems, it is important to know the specific sector in which one intends to operate, the main markets and the vicissitudes of the geographical area, not only in terms of climate, soil and biodiversity, but also in terms of what the local population is like and what the social and labour needs are of the place where the farm is located.”

Beirais do Alvão (3 Lodging units in isolated mountain village)



Figure 1 Interior of one of the houses available for accommodation



Figure 2 Exterior of one of the houses available for accommodation

E-mail: info@beiraisdoalvao.pt

Website: <https://beiraisdoalvao.pt/>

Júlia Maria Rodrigues Gomes is a micro-entrepreneur, based in a mountainous rural environment, more specifically in the village of Arnal, belonging to the parish of Vila Marim, municipality of Vila Real. She transformed 3 country houses into modern and comfortable lodging units, for unforgettable, unique and sustainable stays. In addition, the company provides visits to the village of Arnal and the Alvão Natural Park. This entrepreneur shows a great appreciation for the village and, in general, for the rural environment. She wants to make known this beautiful area, both at a landscape and historical level.

In their words:

“As for the marketing strategy, much of it still is in a traditional way by people passing the message mouth-by-mouth to each other and it works. At a digital level, I only use Booking and a website as I am not a fan of social media.”

“As the company was born in 2020, with the pandemic situation, I had to reinforce all the care at the cleaning level so that the clients would feel safe and without fear of staying. On the other hand, the pandemic came to show people the importance of rural areas and a greater appreciation by people for them. People saw that it is really different to be in a city or to be in a rural area.”

SPAIN

Holistic Funghi. Much more than mushrooms

Website: <https://holisticfungi.com/>

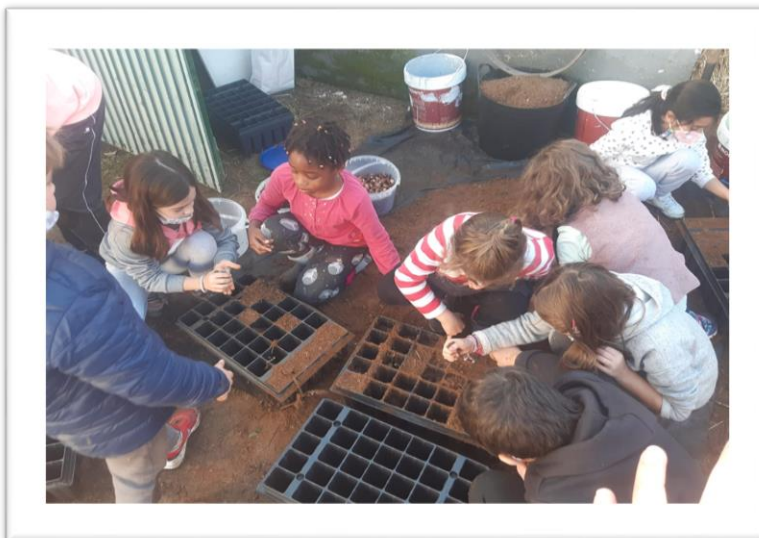


Image 1. Planting seeds for micorizing cork trees. Open door Day,



Image 2. Straw, vegetables and mushrooms.

A poster for a mushroom cultivation workshop. The background is a close-up of several large, white, button-shaped mushrooms growing on a dark, textured surface. At the top, there are logos for the Diputación Provincial de Cáceres and a circular logo. The text on the poster includes:

En colaboración con la Diputación Provincial de Cáceres

Holistic Fungi presenta:

Info e inscripciones:
holisticfungi@gmail.com
634 491 622

**Sábado 29 de enero
Domingo 30 de enero
de 11:00h a 17:00h
(domingo hasta las 14)**

**Jornada de cultivo de
hongos en troncos**

Calle Isabel La Católica nº5,
Sierra De Fuentes

**PLAZAS
LIMITADAS**



Image 4. Explaining compost

Holistic Fungi is a green and circular economy project that seeks to have a positive impact on climate change, in other words, it is an initiative that basically fights against global warming, applying the principles of the green and circular economy in practice: the recovery of coffee grounds from bars and restaurants, at the moment, in Cáceres, or the use of tree pruning responds to these principles, i.e., it recovers this waste that would have another destination, in the case of coffee, a landfill with consequent CO2 emissions into the air for treatment... The waste from pruning, which if not destined for the processes that HF implements, would end up drying in a chimney, and again, CO2 emissions, because this waste is used to produce fungi, or rather, mushrooms, so we are also trying to have an impact on food, on people's nutrition; mushrooms have nutritional and medicinal properties that have been studied and there is a certain cultivable variety, but as always the large distribution limits the number of varieties of mushrooms to a fairly small number of mushrooms.

So with this project they also want to have an impact on people's nutrition and finally this is also a local economic initiative, in the sense that the distribution of the product itself, of the mushroom, is destined for the local market, there is no projection of producing for export, but rather, like the mycelium, to expand little by little, but betting on the local. I have to say that this is also a sustainability aspect of the project, but it is also a part of the project, which is associated with research - for example into new species or the conservation of native species - and also an initiative to educate and raise awareness about climate change, and about the contribution that mushroom cultivation, mushroom conservation and mushroom consumption can make to the fight against climate change.

In their words:

“like the mycelium, to expand little by little, but betting on the local. I have to say that this is also a sustainability aspect of the project, but it is also a part of the project, which is associated with research - for example into new species or the conservation of native species - and also an initiative to educate and raise awareness about climate change, and about the contribution that mushroom cultivation, mushroom conservation and mushroom consumption can make to the fight against climate change”.

“the sharing of knowledge is also a principle of Open Source, let's say it can also be more commonly identified, the issue of sharing data basically, of researching and educating on the results of research so that there can be progress”

Cooprado Cooperative and Foundation. Social Economy against rural depopulation.

Website: <https://fundacion.cooprado.es/>

Fundacion Cooprado was founded in 2018 with the aim of promoting collaboration, cooperation, innovation and social integration in agricultural and rural production. The Fundacion places great interest in children's non-formal education, organizing programmes for the children to learn to observe the natural environment, understand resilience and develop cooperation mentality.

Referenced Programmes and Networks that they have participated in or are aware of are:

- Erasmus+ (KA2 actions)
- Programme of Talent and Innovation (Regional)
- Common Agricultural Policy
- Green Deal
- Corporate Social Responsibility Label
- Bequal Label





In their words:

“An Erasmus+ project is related to the development of a specific module to support livestock activities in the prevention of fires which is tremendously innovative at a global level, where livestock farmers are taught to perform these ecosystem services and to diversify their activity a little towards this environmental part”

“I come from the field of rural development in the Local Action Group and I have realised that one of the great tools that rural areas can have to fight against depopulation is the social economy and agri-food cooperatives.”

“At the global level, cooperatives and the agri-food sector have a lot to say, and at the local level there is no better tool to fight depopulation than cooperative activity and the value of agriculture.”

Actyva Integral Cooperative. Three cooperatives along the sheep's value chain (Merineando, Dehesa Lana y BBBFarming)

Website & Social Networks

<http://www.bbbfarming.net/>, <https://dehesalana.com/>

<https://www.caceresparacomerselo.es/>,
<https://www.facebook.com/merineando/>

Actyva Integral Cooperative is formed by 500 associate, most of them “consumer associates” and 12 “worker associates”. In the sheep coop there are three workers and 8 volunteers.

The three cooperatives most directly associated with primary production would be, as far as livestock farming is concerned, "Merineando", that manages a black Merino herd of about 100 mothers in the olive groves and pastures of Dehesa, "Dehesa Lana" managing the marketing of the wool from this herd together with other Actyva's herds and the marketing of the lambs, of the meat, is actually done by "Cáceres para comérselo", which are also divisions of Actyva. The innovation, research and development part would involve BBBFarming (Big Brother Biofarming).

Referenced Programmes and Networks that they have participated in or are aware of are:

- Erasmus+ (KA2 actions)
- Operative groups
- Ecological production label
- **European Innovation Partnership (EIP-Agri)**
- Edible Organic Europe
- Union of Solidarity Trade Co-operatives (in project)





FORMACIÓN EN www.integraldehesa.net

GESTIÓN INTEGRAL DE LA DEHESA

HACIA LA SUSTENTABILIDAD ECONÓMICA, SOCIAL Y AMBIENTAL





**18 de octubre de 2021
a 4 de abril de 2022**

Más información
e inscripciones:











#bioseguridad #pastoreoracional #gestiónforestal #gestióncinegética
 #innovación #rentabilidad #regeneración



In their words:

“we have an operative group for the regeneration of the Dehesa in which the same grazing planning model that we use in Merideando is being implemented in seven other farms, either belonging to local councils or to foundations, entities that have aims that go beyond economic activity.”

“with Portugal we have a closer relationship, in fact we share projects with Portugal, Freixo do Meio are partners of Actyva, which allows us to operate in social currency between Freixo do Meio and Actyva and Cáceres para comérselo, BBBFarming, etc. There is a circular exchange of goods and services.”