



RATIO PROJECT PGI00020

REGIONAL ACTIONS TO INNOVATE OPERATIONAL PROGRAMMES

MARZO 2018

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1. GENERAL INFORMATION



1. General information

1.1. RATIO PGI00020. Regional Action To Innovate Operational Programmes

Brief summary:

MOTIVE & TRANSFER:

RATIO (Regional Actions To Innovate Operational programmes), has focused its activities on how to make innovation a reality in rural areas, and find the way to improve the implementation of regional development policies and programmes (Investment for Growth and Jobs) that support the delivery of innovation by key players in the areas of Smart Specialization.

RATIO created effective exchange of experiences in supporting cluster cooperation, international alliances and networks. This exchange of experiences among regional partners (9 project partners, representing 8 EU region), was followed by the transfer of the lesson learnt to the regional programmes. The project contributed to reinforce the innovation culture in the region boosting innovative ecosystems where actors, regional and local authorities and innovation partners, together with stakeholders: associations, academia, regional governments..., can worked together in the Action Plan to reach the needed policy change for the consolidation of innovative companies in non-metropolitan areas.

APPROACH:

Ratio understands the importance of the learning outcomes that need to be more effectively transferred and embedded in each partner region to lead to policy change, as well as put more emphasis on the demand (SMEs) side to clearly identify the real needs of potential end users.

Partner organisation:

LP: FAMCP. Federación Aragonesa de Municipios Comarcas y Provincias.
PP5: CEOE Aragón.

Other partner organisations involved (if relevant):

Country: Spain

NUTS2 region: ES24. Aragón

Contact person:

Jose Luis Latorre Martinez | jllatorre74@gmail.com | +(34) 650924486
Romina Magni De Antonio | rmagni@famcp.org | (34) 976203107
Jorge Alonso Vallejo | joalonso@ceoe-aragon.es | (34) 976460066

1.2. Policy Context

The Policy Instrument addressed:

The Action Plan aims to impact: Investment for Growth and Job

Name of the Policy instrument addressed: ERDF Regional Operational Programme ROP. Priority Axis 1.b (1.2.1) Boost and promotion of research and Innovation activities leading by companies and support of the creation and consolidation of innovative companies.

The priority axis of the ROP of Aragón addresses the Europe 2020 objectives, particularly emphasizing Research development and innovation area, where Aragón has a “follower” position due to its low investment in this priority field representing the 0,9% of the regional GDP against the 2% of the EU27. Although the efforts in RDI are mainly done by the private sector, the participation, promotion and facilitator role from the regional public services is needed.

More than 80% of the ERDF budget in Aragon is addressed to supporting innovation and I+D, the digital agenda, the competitiveness of SMEs and the change to a low carbon economy. In this sense, the RIS3 for Aragón has as main objective the consolidation of a

medium and long term sustainable system of growth strengthening the stakeholders of the innovation system, reinforcing their networking skills, increasing SMEs participation in RDI and boosting the innovation skills of the regional society. The necessity to reinforce the innovation culture in the region gives a main role to the technological and scientific policy during the period. Although Aragón region has made very important efforts in boosting and reinforcing the innovation policy, it is the 5th region in Spain in innovation, there are still many efforts to do, especially according to the regional interest of not losing population in the very extensive territory that Aragón covers (10% approx. of Spain). Due to this big extension, an important part of the region has a strong rural character with a low grade of innovation, that can only be combated with the promotion and implementation of a suitable policy of innovation that could allow the implementation of this regional approach not only in the big cities, where facilities are still ready but also in the rural areas in order to implement the smart specialization strategy (through more synergies between R&D centers and SMEs, promoting investment in product, services & technology transfer, stimulating networking, clusters and open innovation).

One of the main objectives of RATIO was to analyze how these innovative companies, big or small can implant their activities in these rural areas and to promote the regional and local public authorities in charge of the innovation delivery and with the capacity building to make rural areas the head location for this kind of companies. RATIO focused in rural and sparsely areas to complement these fixed intervention with the design and implementation of an Action Plan , concrete actions, new policies approaches based in the exchange of Good Practices and lessons learnt from the cooperation between the partner regions during 2 years . Moreover, Aragon partners together with stakeholders and experts, identified necessities in the SWOT report, and with the use of the Innovation Health Check for measuring innovation in SMEs. 36 SMEs at rural area participated in the survey, this was another input to reach the conclusions of the Characteristics of the Innovative process of the Aragonese SMEs in the rural area. As a result, this Action Plan prepared in close cooperation with the responsible body.



SURVEY to innovative SMEs at rural areas done in Phase 1 of Ratio Project.

The results of this survey is a deep study of the situation of the innovation process in rural SMEs. It uses some of the data already compiled in the inventory of innovative SMEs across project partner regions, performed by region partners during the first semester of the project. The current survey gives a wider framework of current situation in Aragon.

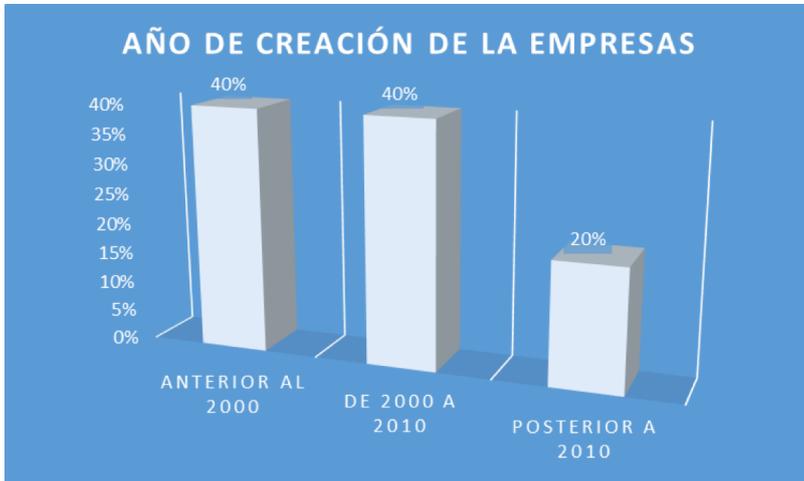
Innovative rural companies that have participated in the process (NEW SURVEW developed).

<https://goo.gl/forms/imvRuQ4U9nn00kTW2>

1.3. Characteristics of the innovation in rural SMEs in Aragon

The previous work to arrive at the Action Plan, supposes 3 parts:

1. The diagnosis of Aragon in innovation.
2. The surveys of 30 companies with conclusions on barriers.
3. Ratio Action Plan: includes the four actions of the Action Plan.

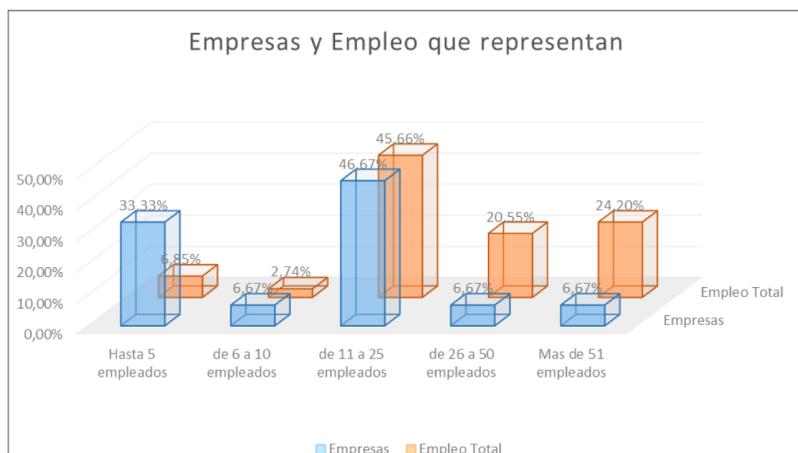
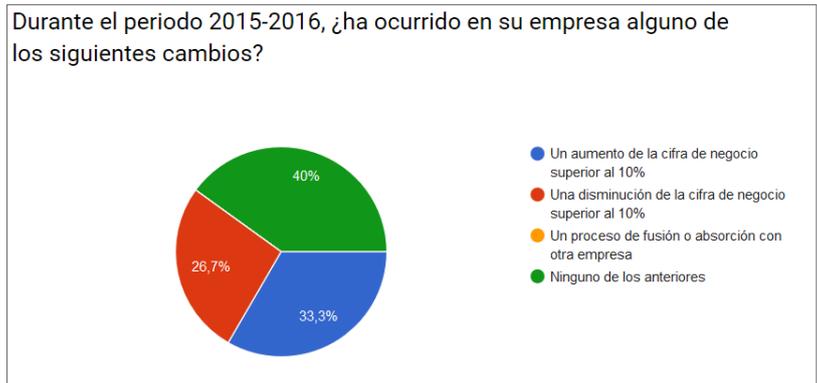


Antiquity/Age of the companies in the sample.

Almost 80% of the companies that have participated in the work/survey have more than 10 years old, that is: they are fully established in their markets.

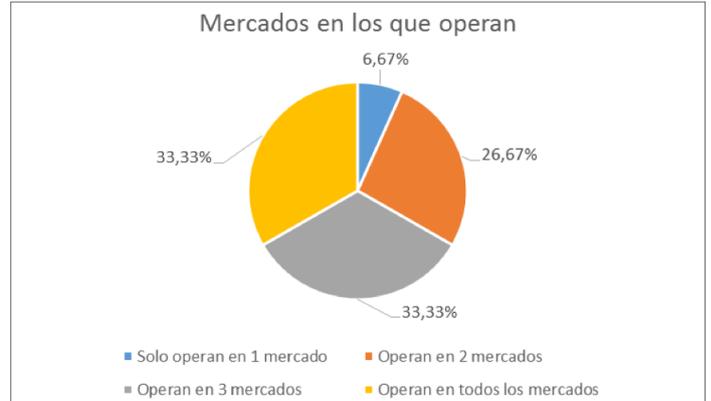
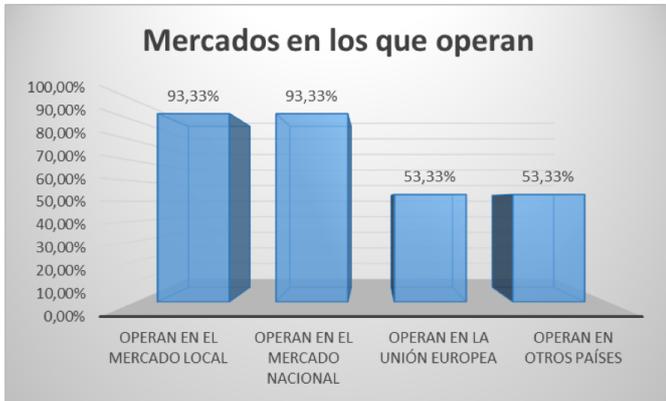
Recent evolution of the companies in the sample.

Most of the companies do not specify if in the last two years they have increased their sales or have decreased



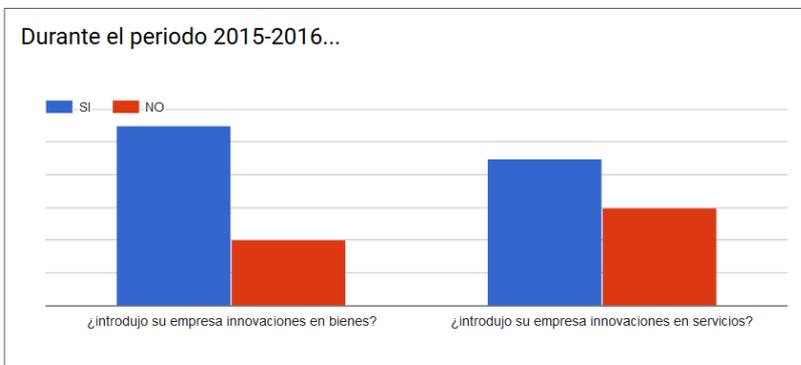
Business / employment relationship

Almost 50% of the companies in the sample are in the middle range of 11 to 25 employees and represent close to 50% of employment. On the other hand, 13% of companies represent 46% of employment.



Internationalization of the companies in the sample

The exporting companies represents the 66.67% of the sample. A percentage higher than the average of the Aragonese companies. Virtually all of them operate nationwide. It is noted that in companies denominated as “innovative” internationalization is a common factor.



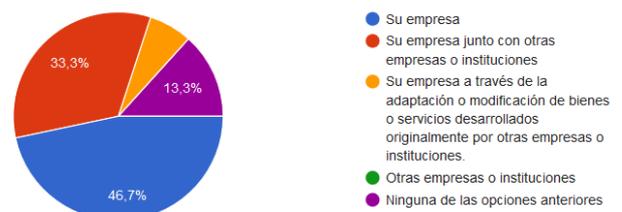
Innovation in the companies surveys

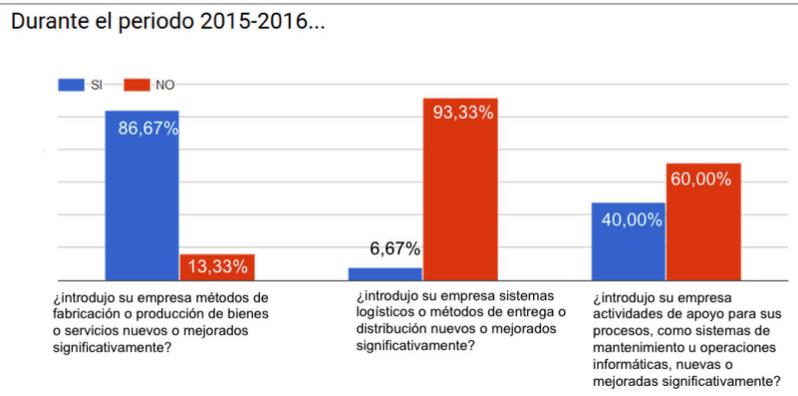
More than 70% of companies recognize having introduced innovations in goods and 60% in services. It is a clear example of innovative companies, above the rate of innovation in the new business projects of the last two years in Aragon, which stands at 25% of projects considered innovative (GEM Report).

Innovation in the companies:

The processes of innovation in companies are carried out unilaterally (BLUE) most of the time. Innovations are not entrusted to third companies or institutions completely, although if done jointly in more than 30% of cases (RED).

¿Quién ha desarrollado estas innovaciones de productos?



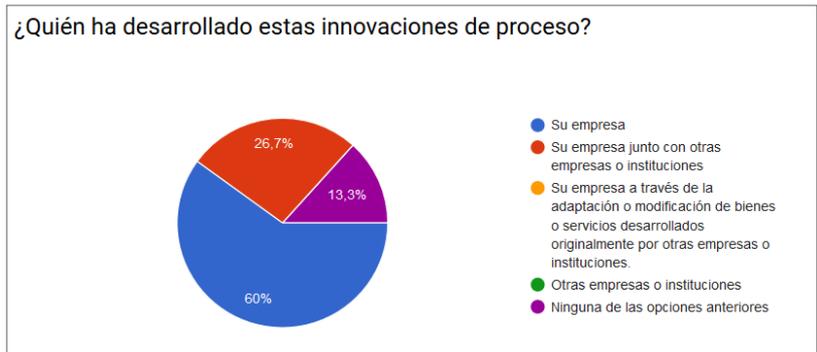


Innovation in processes in the companies:

The improvement in manufacturing methods or production is a common feature in the day to day of companies, in a continuous process of adaptation to market and customer requirements.

Innovation in processes in companies: WHO? He has developed these innovations in process:

In the case of processes, the individual performance of the company in its improvement is more clear (60%), which seems reasonable given that they are more difficult to externalize tasks.



Valore de 1 a 5 la importancia de estos factores como **facilitadores de la innovación** en su empresa (1 nada relevante - 5 muy importante)

FACILITATORS of INNOVATION	Promedio	Valor más repetido
Acceso a fondos externos para financiar la innovación	4,3	5
Conocer otras experiencias de innovación en empresas similares	3,8	3
Existencia de una cultura y tradición innovadora en la empresa	4,4	5
Conocimiento de los posibles riesgos	3,5	3
Relación con instituciones tecnológicas, científicas y empresariales	3,8	3
Posibilidad de acometer proyectos de innovación en cooperación con otras empresas	3,7	4
Contar con un equipo humano de alto nivel técnico	4,7	5
Influencia del entorno	3,6	4

Facilitators of innovation in the companies : Having a human team of high technical level

Together with the existence of culture of innovation in the company and provision of external financing are the three aspects considered most relevant to promote the innovation of companies, among those proposed in the survey.

Barriers to innovation in the companies:

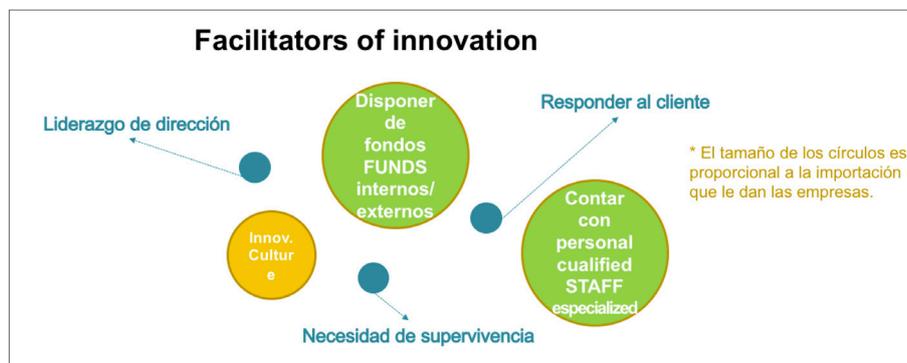
The lack of qualified personnel, together with the lack of economic resources, both internal and external, are the brakes/barriers that are considered most important among those proposed..

Valore de 1 a 5 la importancia de estos factores como **frenos** que dificultan la innovación en su empresa. (1 nada relevante - 5 muy importante)

BARRIERS to innovation	Promedio	Valor más repetido
Falta de fondos en la empresa	4,3	5
Falta de financiación de fuentes exteriores a la empresa	4,1	5
La innovación tiene un coste demasiado elevado	3,7	4
Falta de personal cualificado	4,7	5
Falta de información sobre tecnología	3,7	3
Dificultades para encontrar socios de cooperación para la innovación	3,7	3
Mercado dominado por empresas establecidas que dificultan las innovaciones	3,6	4
Incertidumbre respecto a la demanda de los bienes y servicios innovadores	3,3	3
Para mi empresa, no es necesario innovar, la experiencias anteriores así lo aconsejan	1,7	1
Para mi empresa no es necesario innovar, porque no hay demanda de innovaciones en el mercado	1,8	1

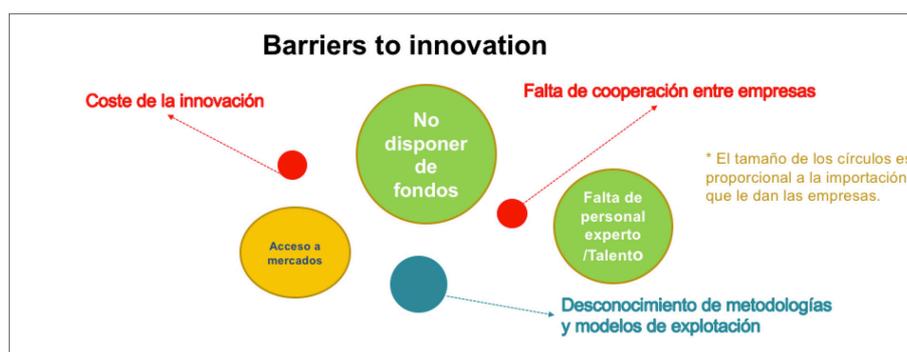
Spontaneous innovation facilitators:

When aspects that can be considered as facilitators of innovation are not proposed, the companies (included in the survey/sample), in a non-suggested way, make their observations explicit, repeating the results that appeared in the proposed options, but in this case, the disposition of resources economics exceeds the culture of the company.



Barriers to spontaneous innovation:

On this occasion, there are two aspects that are not valued only in the table of proposed indicators, but which are mentioned significantly spontaneously. We refer to the difficulty of accessing markets and also ignorance of methodologies and models for exploiting innovations.



Study conclusions

PROFILE OF INNOVATION IN THE RURAL ENVIRONMENT

General profile of rural enterprise innovation

Have the SMEs innovated more?

In the last 5 years increase the companies declare to have made some kind of innovation, the percentage is increased by the obligation of the crisis

Characteristics of innovation

It is incremental innovation, NOT RADICAL OR DISRUPTIVE

The largest percentage that are considered rural innovators are Micropymes

- The most innovative industrial subsectors are energy and agro-food.
- The type of innovation is in products and processes, that is to say technological innovation and it highlights the expenditure in acquisition of machinery and equipment.
- In innovative companies have increased investment in R & D.
- In 80% the innovation is mainly done alone
- 40% of companies that innovate indicate that they do it continuously.



Characteristics of innovation

- Innovation increases as size increases as its age decreases and its export activity increases.
- The number of innovative companies that access legal innovation protection systems is reduced by 30%, and it is mainly through trademarks and / or commercial names, followed by patents and / or utility models, because they find them to be expensive and difficult processes.



Ways of financing innovation:

Own funds	75%
Subsidies - public credits to r & d	30%
Banking	10%
Alliances with enterprises or organizations	5%

WHY RURAL SMES INNOVATE?

Causes?

- Higher Quality
- Replacement of outdated products and processes
- Greater capacity to produce goods or provide services
- Greater range

GIVE LESS IMPORTANCE TO INNOVATE

- Reduction of labor costs
- Reduction of energy use per unit produced
- Reduction of environmental impact



The economic motivation of increasing market share or better positioning through offering better range/products, predominates against cost factors or environmental motivations

BENEFITS PERCEIVED BY INNOVATION IN THE RURAL ENVIRONMENT

PERCEIVED BENEFITS

Increase in market share

Improvement in relations with customers and / or suppliers

Increase in infrastructure and technology used

Improvement of personnel skills, abilities and competences

CONTRADICTION

Differentiating between innovative companies, **the willingness to innovate is high in innovative ones** and very low in non-innovative ones. Although both consider innovation as an element of competitiveness, which makes it necessary to articulate measures that encourage non-innovators to carry out innovative activities



JUSTIFICATIONS TO THE CONTRADICTION

- The age of the companies is high and they are not willing to innovate despite the fact that they consider it important
- The advantage of innovating does not compensate the investment
- The markets are not competitive because they are regional and with little exit abroad
- Companies do not have the financial capacity to pay for innovation

BARRIERS PERCEIVED TO INNOVATION IN THE RURAL ENVIRONMENT

Innovative companies

The main barrier is the lack of support from the administration.

Non-innovative companies

Lack of external financing

Non-innovative companies consider a greater lack of internal financing than innovative companies

There is no need for innovation in the markets that operate

Non-innovative companies value more obstacles to innovation than innovative ones, highlighting economic barriers, lack of public actions and lack of resources.



EXTERNAL

Economic:

- Too high costs
- High economic risk

From the market:

- Markets dominated by established companies
- Lack of demand for innovations

Public administrations:

- Lack of public support
- Insufficient flexibility of rules and regulations
- Absence of mediators / transfer

Other:

No need for innovations in the markets

INTERNAL

Of resources:

- Lack of internal financing
- Lack of external financing
- Lack of qualified personnel

Of knowledge:

- Lack of information about technology
- Lack of information about markets
- Lack of cooperation in innovation

Appropriability:

- Difficulty to protect innovations, High risk of imitation

The organisation:

- Rigidity in organizational practices

Study conclusions



1. Need to introduce segmentation (innovative and non-innovative companies) to public policy initiatives that foster innovation
2. Creation of networks of companies interested in innovating. Reinforcing the interrelations between the agents of innovation (technological centers, universities, technological parks). Greater capacity for innovation is related to the frequency, quality and intensity of the interaction with the innovation ecosystem.
3. Cultural transformation of propensity to change is needed as a generalized attitude and in particular on innovation.
4. Increase public support for innovation not only in products and processes, but in commercial innovation, management and above all in the preparation of innovative projects.
5. Promote other formulas for private financing of innovation other than banking.
6. Generate effective mediators in innovation that increase the perception of the relationship between the different agents of innovation
7. Enhance the dissemination and transfer of results, as well as resources linked to innovation

2. RATIO GOOD PRACTICES **SELECTED IN ARAGÓN REGION** **AND LESSONS LEARNT**



2. Good practices selected

This action plan was based largely on the reflection on the information gathered through the various activities carried out in phase 1 of the RATIO project, which allowed the structuring of important lessons and recommendations, as presented below.

Learning with the partners and Interreg good practices:

The analysis of the 19 Good practices selected through RATIO in the field of innovation, allowed an important process of learning, namely with the partners, the Study visits, translated into relevant lessons and recommendations to be inserted in the action plan.

1. Creativity applied to innovation through improvement of human resources capacities in SMEs (IT) > <http://bit.ly/creativity-in-smes>

Innovative training sessions aimed to the improvement of the creative processes as instrument necessary to guarantee the innovation process and growth for SME.

2. Innovation vouchers of Usti Region (CZ) > <http://bit.ly/innovation-vouchers-cz>

The "Innovation Vouchers of Usti Region" support the cooperation among businessses of the Usti Region and research organizations in the Czech Republic.

3. Call for proposals – Support to the competitive repositioning of local entrepreneurial systems (IT) > <http://bit.ly/call-for-proposals-it>

Raising the competitiveness of the regional economic system is an horizontal objective.

4. Innovation Bond (PL) > <http://bit.ly/innovation-bond>

The Innovation bond is a scheme of small grants to implement small proinnovative projects in SMEs.

5. AT Empreende – Territorial Action Plan for the Entrepreneurship promotion in Alto Tamega (PT) > <http://bit.ly/at-emprende>

The Intermunicipal Community of Alto Tâmega (CIMAT) constituted in 2013 has defined the development strategies for the Alto Tâmega Region.

6. LEOs – Local Enterprise Offices (IE) > <http://bit.ly/leos-ie>

The Local Enterprise Office is the First Stop Shop for anyone seeking information & support on growing or starting a business in Ireland.



7. Enterprise Centres (Ecentres) (IE) > <http://bit.ly/enterprise-centres>

The Enterprise Centres initiative is a network of Community Enterprise Centres that were established by Cork County Council.

And, of course, to capitalize and exploit what already has been done and in order not to lose it, the Spanish good practices:

8. How to set up a Technology Park-Tech Parks > <http://bit.ly/tech-parks-setup>

9. AgrifoodEntrepreneurship Programa Programme > <http://bit.ly/agrifood-entrepreneurship>

10. Conectaragon / Todos - Broadband for all > <http://bit.ly/conectaragon>

3. THE ACTION PLAN



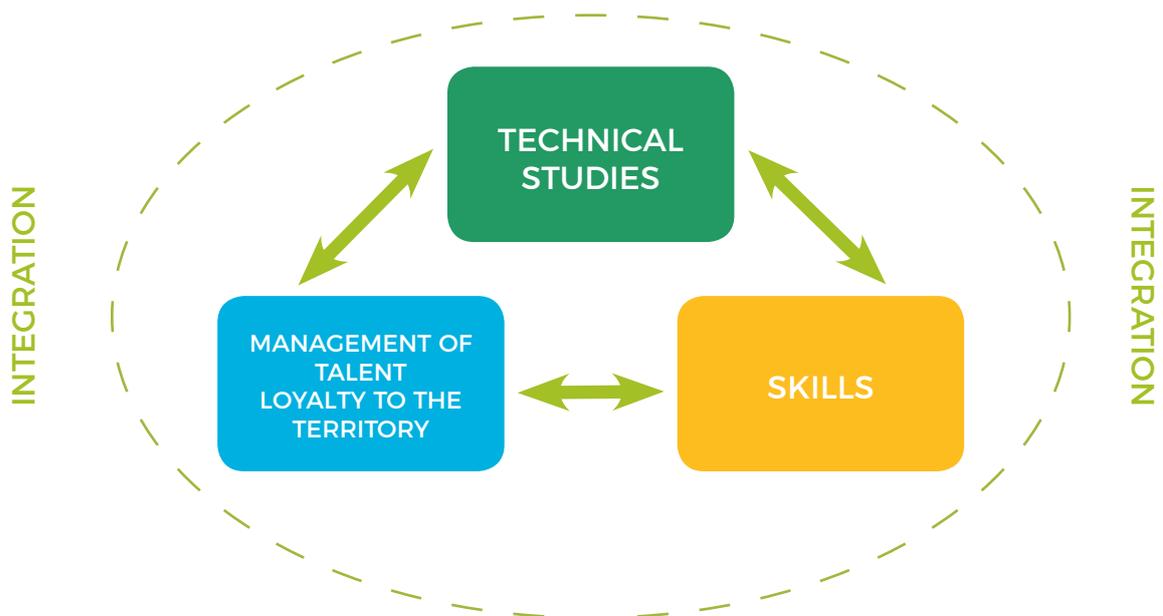
3. The Action Plan

This Action Plan consists of the following actions:



3.1. ACTION 1: TALENT

The background



Lessons learnt lessons good practices detected during the project:

1. Creativity applied to innovation through improvement of human resources capacities in SMEs (Italy, Anci Lazio) > <http://bit.ly/creativity-in-smes>

This Good practice CeFAS was presented by experts, during the Study visit in Viterbo (Italy- Anci Lazio). The main objective is to Innovate in products, process and services through Training, Coaching and Business Process Engineering. How: through an improvement of production processes; through a lean manufacturing approach and through the redesign of business processes especially those related to marketing and sales. This GPs supposed a complete involvement of human resources. Only a true and strong motivational drive and a sense of membership in the Organization (SME) manages to align the interests of the individual with those of the SME. It thus aims to ensure that there is full involvement and identification of the staff with the company's Vision and, therefore, the total involvement of the individual to the achievement of organizational goals. CeFAS has worked on the styles and behavioral dynamics in order to enhance the ability of each participant to be able to create their own personal vision, identify their strengths and recognize their weaknesses, analyze the "Comfort Zone" and strengthen its "decision-making" ability, analyzing "where you are" and deciding "where you want to be", strengthening the view creativity as the ability to get out of the common experience and habitual thought patterns to generate alternative and original ideas (Problem Solving).

In Aragón Action plan, the action proposed combined training innovative supply in line with the reality of the rural area, to generate policies of rapprochement and cooperation with SMEs.

The action

PROFESSIONAL TRAINING: line up the training supply in agreement with each area reality and generate policies of rapprochement and cooperation with the companies.

In each area of influence, a reflection process about the adaptation of the formative supply in professional training and line up with the future market trends and the ones of the companies in their area of influence. It is fundamental to make an investment effort to encourage the development of Intermediate and Superior degrees adapted to the needs of the area.

Generation and diffusion of mechanisms that allow young people that do not have the possibility of studying vocational training and that by lack of demand in the area, they are taught in other places.

To promote the generation of associate professors and visitants in the professional training centres by company professionals of its influence area in such a way that it will help to increase the relationships between the companies and professional training centres.

Online professional training: promote the possibility of realizing online Intermediate or Superior Vocational Training Cycles which have transverse demand, as the development of computer applications which are useful for the companies and have high employability.

EMPLOYEE WORKSHOPS: are practical training mechanisms of people with low employability, that in the employee workshop are qualified in a practical manner.

Employee workshops are temporary projects in which learning and qualification are mixed with productive work in public interest or social activities which allow the insertion through the professionalization and experience of the participants. They are offered to unemployed young people with more than 25, which are registered on the regional employment service (INAEM office), and which fulfil the requirements enter the project.

Duration and incentives:

- Minimum: 6 months.
- Maximum: a year.
- Learning and qualification in alternation with productive work.

TRAINING WITH EMPLOYMENT ENGAGEMENT

Promoted by the regional employment service (INAEM), the beneficiaries of the grants are companies or entities from the Aragon region that will acquire a compromise of hiring the trained workers and the authorised training entities and/or the entities that are enrolled before the date of the call.

This compromise includes the obligation to hire at least 60% of the trained students in the next 6 months after the end of the course.

The contract will be preferably unlimited or, at least, 6 months in case of being full-time contract and at least 9 months in case of part-time contract.

It can be developed by one company or by some.



TRAINING FOR ACTIVE PEOPLE

Training plays a crucial role in the company's development. It must be promoted, give a presence and promote the participation of active people in training in different areas: technical, skills, personal, languages...

That, through applied training training + Consultancy, it teaches entrepreneur skills in management, logistics, production, marketing, sales, finances, HH.RR., innovation...

WORK SUPPLY DEVELOPMENT

Give presence to the job offers, use job portals, LinkedIn, social media that allow to identify opportunities to people that live outside the influence area, people who were born or have links with the influence area or even attract foreign people.

Integration of the people in the environment. It is necessary to try for integration, meet them, realize a reception plan or even to study the possibility of creating a service in order to look for a job for the couple.

Centralization of job supply and demand.



GENERATE TALENT ECOSYSTEMS

The organizations that interact in a territory must help to change the unrealized talents in realized talents from a personal, social and professional view. This is the role of an ecosystem talent.

4 challenges must be solved: identify, cultivate, express and recognize/reward the talents. These are challenges that must be worked on along the lifetime, not only while they are in the educative system.

Besides, a talent ecosystem must deal with the 4 previously named challenges for all the talent types (cultural, artistic, entrepreneurial, scientist, social, political, sports...) encouraging the diversity and acting over all the talent levels.

The talent ecosystem is divided in three subsystems:

1. The talent development system (education and training): that develops the talent supply.
2. Intermediation and placement (job search): that links supply and demand.
3. Put in value (sectors and professional areas): that represents the professional demand.

Depending on the territory, the three talent subsystems, intermediation and put in value can contribute in a higher or lower weight to transform all the people latent potentialities in realized talents.

The **talent development** system groups all the educative and training activities that offer along a lifetime, starting from our sociocultural basis (that is to say, the social principal characteristics and the dominant cultural features from Aragonese population).

The **intermediation and placement** system help to connect the talent supply and demand. We have two elements: the regional employment service (INAEM) and the private job agents (TEAs, job portals...).

In the **put in value** system we have those professional developing channels that represents clear opportunities as the entrepreneurial talent, the company talent, the scientist talent, civic talent, women talent, digital talent, senior talent or political talent.

Players involved

- Regional Government: it has the education competences
- Government: areas and Councils: to define the training demands.
- Companies and trade unions: to introduce the actions.

Timeframe

2 Years



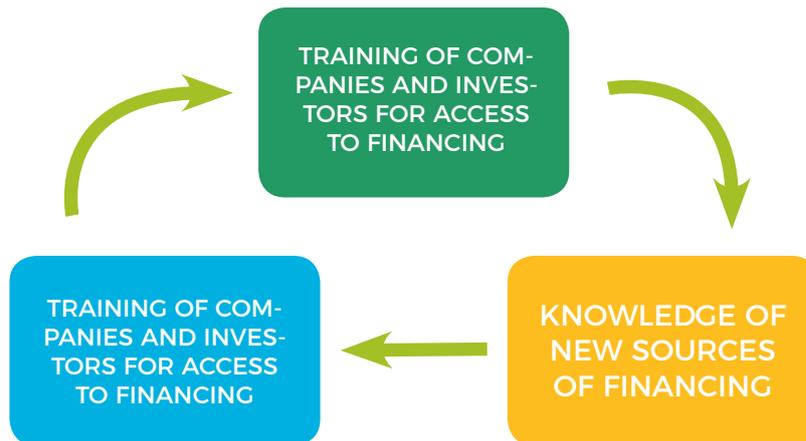
Costs

2 Million Euro

- Vocational training
- Employee workshops
- Training with employment commitment/engagement.
- Training Plans by areas for active people
- Put in value and diffusion of the job supply.
- Generate talent ecosystem.

3.2. ACTION 2: FINANCING

The background



Characteristics of SMEs innovation in the rural environment

Financial sources of innovation:

Own funds	75%
Subsidies - public credits to r & d	30%
Banking	10%
Alliances with enterprises or organizations	5%

Lessons learnt lessons good practices detected during the project:

1. *Innovation Vouchers of Usti Region (CZ)* > <http://bit.ly/innovation-vouchers-cz>

This GP supports cooperation among businesses of the Usti Region and research organizations in the Czech Republic. It's been a GP proved, and Aragon stakeholders took reference of it as good practice for projects that are in the field of product innovation, (smaller part is related to process innovation in companies and the smallest part of the projects is in service). Financial support motivates companies to establish contacts with research organizations. The aim of the program is the first mutual acquaintance eventually growing into a lasting partnership. Innovation voucher is a one-off grant which can receive a business entity for the acquisition of services provided by a research organization. Companies can leverage the knowledge or

capacity they themselves do not have, and thus upgrade their products, processes or services.

Innovation vouchers improve the competitiveness of enterprises of the Usti Region. They simultaneously support collaboration of the research sphere with the application area. The knowledge gained through the voucher will be used for innovation in products, processes or services.

Knowledge provider can be any research organization in the Czech Republic. An applicant for a voucher and the recipient can be any individual businessman that has employees or company. Ratio partners ranked this Gp as one of the most voted during phase 1.

2. *Call for proposals - Support to the competitive repositioning of local entrepreneurial systems. Lazio Region (IT)* > <http://bit.ly/call-for-proposals-it>

This GP was presented during RATIO Study Visit in Viterbo, describing a bottom-up approach to support the competitiveness repositioning of regional entrepreneurial systems. Working on a bottom-up process to bring out from the territory the real needs of the different production systems to implement policy instruments targeted. In that sense Aragon partners, tried to remark the needs of the rural companies, and how to promote efficiently financing activities and provide a framework for action-oriented projects, for this sector. The example of Lazio Region ERDF Management body launching a call for proposals for the presentation of “horizontal projects” was to give the possibility to let start a process in the territory able to produce complex proposals aimed to the competitive repositioning with an high level of scientific and technological contents.

The involved actors were the enterprises and their aggregations, Universities, Research Centers, Public bodies and other stakeholders. The evaluation of the complex projects has been realized by Lazio Region assisted by a mix of experts. Proposals for competitive repositioning strategies have been validated, by the point of view economic and market impact, with the scientific support of the London Business School. The complex set of different competitive repositioning strategies selected, was the basis of targeted calls for “vertical projects” that will enable companies and research organizations to submit funding requests for the implementation of research projects, innovation, investments, efficiency and internationalization in line with the approved strategies. Aragon region should combine this bottom up approach to succeed in innovative projects (real needs based) together with financing mechanism.

3. *Innovation Bond. Malopolska Region (PL)* > <http://bit.ly/innovation-bond>

This Gp was presented by MISTIA partner from Malopolska region, during learning phase in which experts presented different system of Voucher /Bond of innovation for SMEs. This particularly consists in a scheme of small grants to implement small pro innovative projects in SMEs.

The objective is to strengthen the propensity of companies to conduct business innovation by reducing the barriers and reducing the costs of innovation. The number of innovative SMEs in rural areas compared to metropolitan area of Krakow is limited. So the structural challenge is to help to innovate in micro & SMEs in general and to expand it to those in rural areas. Innovation Bond is implemented in a relatively fast and simple procedure under ROP and is seen by entrepreneurs as a useful and practical pro-innovative instrument for micro and small companies, also in rural areas: It is easy to access, it's construction enforces cooperation between enterprises-beneficiaries and universities or other R&D organizations – they are the only eligible providers of services financed by Innovative Bond, and it has practical focus as beneficiary has the obligation to implement the innovation to the market.

The action

DIFFUSION AND VISIBILITY OF NEW WAYS OF FINANCING:

- In the rural Aragonese SMEs the financial management efficiency and, in particular, about the financial resources in innovation is not complete as in an efficiency context we should assume that the rural companies are aware of all the possible financing alternatives and that the financiers select efficiently the activities with higher potential. These two premises are not fulfilled or not at least in a desirable way.
- In this sense, it is necessary to compile the main public and private financing sources for the companies in Aragón, detailing the most relevant technical and financial matters of each one of them; as to develop a process of order of those financing sources that facilitate to the company a fast and intuitive location of the funding sources most appropriate for his Project.
- It is critical to spread the traditional and new mechanisms in time of access of project funding:



- Investment with own capital
- Friends, family and pools.
- Public funding
- National nature funding
- International nature funding
- Investors clubs
- Innovation public bought
- Crowdfunding
- Business Angels
- Financial institutions
- Participatory budgets/guarantees
- Venture capital
- Family Office
- Incorporation of corporative partners

TRAINING TO NEGOTIATE WITH INVESTORS

- It is important to develop a first phase of awareness to break myths about investments as they can be mechanisms since co-investments by the cohabitants, the integration in business groups and venture capital.
- Professional services are needed in order to elaborate company's sales memorandum, business plans.
- It is necessary to have a minimum idea of legal processes, compromises and working mechanisms in the management boards.
- It is also important the search of Smart money, that is that besides financing, also strategic vision, contacts with clients, technical knowledge and other capacities are contributed.
- In order to assess the investment opportunities, investors can use the same instruments as the networks and venture capital funds managers, but in general they prefer to trust their own criteria and experience, as in the relationship and negotiation established to study the project.
- Consciously or unconsciously, investors check multiple aspects of an investment opportunity.

GENERATION OF INVESTORS' CLUBS

It is critical the generation of investor culture in an ecosystem. Due to the usual nature of the rural areas which is individualist, it must be developed mechanisms of co-investment between some people, in order to acquire a cooperative culture... and solidary with the environment.

PREPARATION FOR THE NEGOTIATION WITH INVESTORS

It is crucial to help and assess in the process of sensitization for the search of investors, which it implies, the game rules..

It is also important the creation of sale memorandum, where the investor can know the business he is going to invest and the support in the legal process. Overall it is very important to define three points:

- How much money is going to be invested
- Which percentage of the shares I give up
- What is going to be done with that money

In the practice, before the negotiation with a Company the most probable situation that the investor may face is the following:

- Ignorance of key variables: for instance, potential incomes.
- Doubts about key variables
- Different degree of information between entrepreneur and investor about the project
- Necessity of hedging of possible clash of interests.
- When an investor goes to negotiate with the objective of closing an investment operation, he has previously "parameterise" the different elements over which they must make a deal. The analysed parameters are:
 - The volume of the investment which is willing to realize
 - The approximation of the value of the company/Project
 - The degree of agreement/disagreement with the business plan
 - The maximum and minimum property sharing

Expectations about return and disinvestment.



CREATION OF PUBLIC ASSISTANTS WHO ACT AS INNOVATION AGENTS

Players involved

Regional Development Agency: define and start up the plan

Timeframe

1 Year

Costs

500.000 Euros

- Diffusion and visibility of new ways of financing
- Training to negotiate with investors
- Generation of investors' clubs
- Preparation for the negotiation with investors
- Creation of public assistants who act as innovation agents



3.3. ACTION 3: STRATEGY AND BUSINESS MANAGEMENT

The background



Characteristics of SMEs innovation in the rural environment

Lessons learnt lessons good practices detected during the project:

1. *Competitiveness, Innovation, Technological transferring, Investments, SMEs (Anci Lazio, IT)* > <http://bit.ly/call-for-proposals-it>

This GP was taken as well, as a best example of the approach used in the practice which highlights the merits of bottom-up strategy building to provide a framework for action-oriented projects, anchored in regional needs and influenced by input from triple-helix actors. This approach provides interesting insights to managing authorities considering changes in programming as a means to better support business cooperation programme. (boost cooperation with tech centres and university).

2. *Creativity applied to innovation through improvement of human resources capacities in SMEs (Anci Lazio, IT)* > <http://bit.ly/creativity-in-smes>

As mentioned before, this GP from Anci Lazio partner, was highly considered in Ratio, due to the innovative training sessions aimed to the improvement of the creative processes as instrument necessary to guarantee the innovation and growth for SME. Training together with improvement of production processes; through a lean manufacturing approach and through the redesign of business processes. With and active and complete involvement of human resources.

Drawing from the premise that a company is formed by their personnel and that a bad team destroys a good idea and a good team success with a bad idea, it is about developing an action that improves the internal management of a company.

The action

BUSINESS COOPERATION PROGRAMME

- To be an innovative Company it is necessary to be an open company, that means that the managers foster to be a firm opened to cooperation-collaboration in different areas.
- Business cooperation: an example is the program Empresa plus from The Instituto Aragonés de Fomento that looks for the cooperation between different companies.
- Cooperation with technological centres: with the aim of developing a technological plan for the Company regarding innovation in process, products, technological vigilance.
- Cooperation with Universities: it is the moment to give an opportunity and stop talking about proximity and distance.
- Encourage the competence (frienemies): to cooperate with our rivals (if possible). Example: I am a hotel property and the hotel in front of me. What can we do in order that our potential clients do not choose another place?
- International cooperation: exports committee, grouped participation in exhibitions.

GENERATION REPLACEMENT PROGRAMME

- During the next ten years the 75% of the Aragonese familiar companies will face for the first time the succession process.
- Only 30% of familiar companies reach the second generation and barely 10%, the third.
- We must develop mechanisms that support the companies that are going to face this challenge, valuing:
 - Alternatives to the management replacement: there exists familiar replacement? External? Management buyout (MBO). Bought by part of the managers or workers?
 - Start-up the process, legal and emotional issues, communication.

INNOVATION PROCESSES

- The innovative capacity of an organization is linked to its culture, training and abilities of its personnel, to the capacity of assuming risks. A key aspect is to understand the difference between the R&D process and the innovation process.
- An important role is to define, even though it is partial-time, the role of innovation manager, who usually need training.
- To define the innovative organizations, it is very important to observe the patterns used in the world such as flat organization charts, participative process, continuous improving mechanisms, the meritocracy is awarded and the goal achieving and not spending hours at work, transparency and respect.

CONTINUOUS IMPROVING-EFQM MODEL

- When we speak about EFQM, we relate to the quality model defined by the foundation with the same name. Precisely, it is the European Foundation for Quality Management, a non-profit organization located in Brussels which has more than 500 partners in more than 55 countries.
- This foundation defines the Quality and Excellence EFQM model as a way for self-assessment and determination of continuous improving process in business environment as private as public.
- The Excellence EFQM Model helps the organizations to establish a management model which allows to know itself better to evolve, in a continuous way, through the business excellence. It is a flexible model that can be applied either small as great

companies from public or private sector.

- The EFQM Model is a dynamic model where innovation and learning potentiate the facilitator agents' work, which analyses the way that organization realizes the key activities, giving place to a results' improvement.
- The systematic and periodic use of the Model allows the establishment of improvement plans based in objective facts and the achievement of a common view about the goals to reach and the tools to use.

COMPANY'S WEIGHT

- The weight of the Aragonese company and, more concretely, the fragmentation and excessive weight of the SMEs in the business structure is one of the greatest weaknesses of the Aragonese economy. It has been proved that the company's productivity, innovation and internationalization are positively correlated with the weight.
- From a technical point of view, the recommendations are to increase the weight of manufacturing and, in general, the one of high added value that make innovation profitable and give place to goods and services more attractive for the market, specially the foreign markets. Public resources should be moved in order that the companies can be dedicated to innovation and exports.
- We must encourage innovation ecosystems (providers, companies, clients, technological centres, financial institutions, universities) as a favourable environment for cooperation and take advantage of intangibles like knowledge or reputation.

Players involved

- Regional Development Agency: define and start up the plan
- Companies: Awareness

Timeframe

1 Year

Costs

500.000 Euros:

- Business cooperation programme
- Generation replacement programme
- Innovation processes
- Continuous improvement- EFQM Model
- Company's weight

3.4. ACTION 4: ENTREPRENEURSHIP CORPORATE

The background



Characteristics of SMEs innovation in the rural environment

Lessons learnt lessons good practices detected during the project:

1. *TECH PARKS ES* > <http://bit.ly/agrifood-entrepreneurship>

Rural areas have development needs usually not addressed by technological solutions. The terms “technology” and “innovation” may not often be associated with rural areas. There are not institutions devoted to providing these solutions indeed. Technology should be purchased to ordinary providers (standard solutions/tools), and it is not easy to find tailor made technology developments fitted to their needs. Usually innovation in rural areas is looked for out of the traditional activities; instead of innovate in those traditional activities, SMEs look for innovation doing new work. Let’s improve that framework. The institution in charge is the ITAINNOVA, the Technological Institute of Aragon, a public funded Technological Centre, which serves the innovation needs of rural area. (both stakeholders involved in RATIO project).



2. Agrifood Entrepreneurship Programa Programme > <http://bit.ly/agrifood-entrepreneurship>

The R.D. Agency of the Government of Aragón, the Business incubators network, R&D centre field of agri-food & association of agri-food industries set up a program to support new entrepreneur projects in agrifood sector. The methodology is a mix between technical learning in agrifood industries + Entrepreneurship learning + Consultancy in agrifood with mentors that works in the sector who can help in the projects to develop the Plan. The final goal is to increase the number of SMEs that incorporate innovation in their strategies.

3. Conectaragon / Todos - Broadband for all > <http://bit.ly/conectaragon>

Vital to overcome the barriers of SMEs at rural zones.

4. AT EMPREENDE - Territorial Action Plan for the Entrepreneurship Promotion in Alto Tâmega. By Municipality de Vila Pouca de Aguiar (PT) > <http://bit.ly/at-emprende>

This GP promotes a Space network, through the mobilization of a few local and regional entities and coordination of the activities in order to ensure and international support systematic and strategic direction of the entrepreneurship (involving the planning of prospection services, information, formalization of the business idea, defining the enterprise/project, project financing, innovation and technology transfer, incubation and business hosting) . Addresses the existing difficulties in the Alto Tâmega region, especially taking into consideration the reality of depopulation (same situation as Aragón) , low qualification skills and poor living conditions.

The actions proposed follows models of business accelerators and network of business incubators, entrepreneurship attitude and intra entrepreneurship to impulse innovative SMEs at rural zones.

The action

CREATION OF A NETWORK OF RURAL BUSINESS INCUBATORS:

A business incubator is a physical place specially designed to take in start-up companies where entrepreneurs can arrange an installations and services with lower prices than the ones of the market.

A network must be developed in order to work in a coordinated way between the rural incubators, take advantage of common tools, mentoring models and entrepreneur growth.

OBJECTIVES

- Facilitate the apparition of new entrepreneurs by means of technical assessment and the availability of the services of the Institutions involved in the project. In fact, to favour the Companies' birth and its future projection over the socioeconomic network.
- Favour the creation of workstations that end up creating companies and their future projection on the socioeconomic network.
- Diversify the local productive structure, favouring the installation of innovative companies.
- Create an ideal means in price and services conditions that allows the business initiatives to develop their business plan with the aim of being capable of compete and act in the market after a limited time.
- Contribute to the revitalization of the incubator's area

CREATION OF CORPORATIVE BUSINESS ACCELERATORS

- It has been a trend in the accelerators' world during the last years. The propagation of these type of initiatives is due to the success and efficiency demonstrated in the transformation of start-ups in companies or what they contribute to the companies in terms of innovation, business view and talent.
- This new agent in the business ecosystem is due to the desire of the companies to "belong to the market being profitable all the time" for that aim it is necessary to recreate and innovate. It is a solution to be bigger and flexible at the same time.



- The company must continue managing the current business and, at the same time, let that the new projects detect business opportunities that allow it to guarantee the company survival in the mid/long term. If it is done correctly, the Company will have a business model to manage and that supports the organization and another business model (or some) that can drive the company in the future. And to generate these new business model is where business accelerators appear.

MODELS OF BUSINESS ACCELERATORS:

- **Closed:** it is done 100% inside the company. In this format, the start-up is owned by the company, which remains more than 50%. They are owners of the property rights and the products and services developed on it and they offer additional incentives for their employees.
- **Hybrid:** it is an internal and external model. In this model challenges are faced, problems that the Company must solve, and they invite start-ups outside the Company. In these cases, they work with a participation per equity of 5-10% of the undertaking they are supporting.
- **Cluster:** usually linked to a same industrial area or cluster, the companies are associated to support projects. All the companies participate in the accelerator funding, which makes scouting and looks for start-ups to go solving problems or validate opportunities in this industrial sector. The return, in this case, is linked to process learning, technology, make scouting and, finally, solve the specific problem.

DIFFUSION OF THE ENTREPRENEUR ATTITUDE

- The role of the entrepreneurs inside the company must be revolutionary, but not only for the ideas and Projects that they promote. But they need a breeding ground favourable to transformation and introducing those start-up mentality changes many companies. The companies must take advantage of the internal talent.
- The intra-entrepreneurship has an opportunity cost: the innovation is costly if it fails, but also if it success; the advantage in the second case is that the investment is recovered in the long-term and it creates a new income source. The key is to favour a risk culture, lose the fear to fail, to experiment and launch prototypes.
- It is necessary to promote the difference. We must create it and encourage it because the homogeneity and agreement stop the apparition of intra-entrepreneurship. The management systems and assessment must reward to those that question the status quo. There must be recompenses for those who generates the new ideas.

INTRAENTREPRENEURSHIP

- Besides, the start-ups business accelerators are a good opportunity to encourage the internal entrepreneurship, promoting an open process to capture ideas and the possibility to Access to a physical space, formation and temporal dedication to develop the project and implement flexible methodologies to innovate.
- For that, it is necessary to generate a space (besides physical) and provide the necessary tools, correctly structured to carry the internal start-up to the market the way an external start-up would do, but with the knowledge of an established company. The start-ups business companies and intra-entrepreneurship are excellent tools to explode the internal knowledge of the companies, generating new valuable proposals in the market.
- The real reward for the Company, besides the possible benefit in the image, is in the strategic capacity of staying ahead of the competence and, at least, on a pair of the trends in the market.

Players involved

- Regional Development Agency: define and start up the plan
- Councils, Comarcas and provincial Deputations: execution of the plan
- Companies: Awareness

Timeframe

1 Year

Costs

1.500.000 Euros

- Creation of a network of rural incubators
- Creation of corporative business accelerators
- Diffusion of the entrepreneur attitude
- Intra-entrepreneurship



Date: 7/03/2018

Signature:

MARTIN NICOLAS BATALLER
Secretario General FAMCP

JORGE ALONSO VALLEJO
Director del Departamento de
Relaciones Internacionales de
CEOE Aragón



4. ENDORSEMENT



Letter of support from the relevant organisation responsible for policy

For Structural Funds programmes (i.e. Investment for Growth and Jobs and European Territorial Cooperation programmes), the relevant organisation responsible for policy may differ from country to country. Detailed references are provided on the 'In my country' pages on the programme website www.interregeurope.eu

Project acronym	RATIO
Project title	Regional Actions To Innovate Operational Programmes
Name of the organisation (original) including department (if relevant)	Departamento de Economía y Empleo, Gobierno de Aragón
Name of the organisation (English) including department (if relevant)	Department of Economy and Employment, Regional Government of Aragón
Name of the policy instrument addressed (original)	FEDER Programa operativo para Aragón Objetivo Temático 1.b (1.2.1) Impulso y promoción de actividades de I+D lideradas por las empresas y apoyo a la creación y consolidación de empresas innovadoras
Name of the policy instrument addressed (English)	ERDF Regional Operative Programme (ROP) Priority axis 1.B (1.2.1), Boost and promotion of research and innovation activities leading by companies and support of the creation and consolidation of innovative companies
Name of partner(s) concerned in the application form (English)	ARAGONESE FEDERATION OF MUNICIPALITIES, REGIONS AND PROVINCES (FAMCP) and, BUSINESS CONFEDERATION OF ARAGON (CREA)

We hereby confirm:

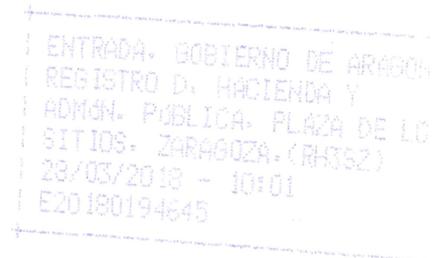
- that we were informed about the preparation of the above-mentioned project,
- that the topic tackled by this project is in line with our organisation's policy,
- that we acknowledge the participation of the above-mentioned partner(s) in the project,
- that we will engage with the stakeholder group and welcome opportunities for exchanging experiences with other institutions in Europe,
- that we will consider possibilities for implementation of the action plan through our policy instrument.

Name of signatory	Francisco Bono Ríos
Position of signatory	Regional Minister of Economy and Employment, of the Regional Government of Aragón
Date	11th June 2015
Signature and institution stamp (if exists)	

**Dirección General de Presupuestos, Financiación y Tesorería del
Gobierno de Aragón**

Director General de Presupuestos Financiación y Tesorería:

Jefe de Servicios de Fondos Europeos:



Edificio Plaza los Sitios
Plaza de los Sitios, 7, 4ª planta – 50001 ZARAGOZA
50071 Zaragoza

Adjuntamos:

1. Características del proceso innovador de las Pymes aragonés en el ámbito rural. Encuesta a empresas. Conclusiones del estudio.
2. Plan de Acción: Ejes y acciones



28 de marzo de 2018





During phase 1, the Department of Budgets, Financing of Regional Government of Aragon were member and participated in most of the stakeholder group meetings, always being informed in face to face meeting when we developed the action plan. The action plan was presented at Regional Government: General Directorate of Budgets, Financing and Treasury. Directorate of Budgets Financing and Treasury, Service of European Funds the 28th March 2018.

Others Aragonese institutions were part of Stakeholder meeting, during the learning phase as:

Institutions which encourage business improvements and innovation in Aragón



Att Romina Magni De Antonio
FAMCP – CEOE. RATIO Project
C/Mayor 40.2 -3
50001 Spain

Zaragoza, 02.10.2018

RATIO Project: Regional Actions To Innovate Operational programmes.

Letter of Support

D. Manuel Galochino Moreno, General Manager of budgets, financing and treasury – Government of Aragon-, hereby express their support of proposal RATIO project PGI00020-

The project addresses its activities on how to make innovation a reality in rural areas and find a way to improve the implementation of regional development policies and programmes that support the delivery of innovation by key players.

During the learning process phase 1, Aragon Partners, CEOE Aragon and FAMCP presented to regional government the Action Plan, under the Policy addressed: ERDF, Priority Axis 1.b (1.2.1) boost and promotion of research and innovation activities leading by companies and support of the creation and consolidation of innovative companies.

Our engagement in RATIO will be in one or more of the following activities:

- Subscribing to the RATIO second phase, to monitor the action proposed.
- Joining the RATIO Action Community.
- Take into consideration RATIO Action Plan, conclusions, and results as input data, .
- Participating in RATIO events

Yours Faithfully

GENERAL MANAGER OF BUDGETS,
FINANCING AND TREASURY

D. Manuel Galochino Moreno



STEPS Foreseen to implement the actions

- Make it a priority for the actual Aragón Government. Present, the A.P to other relevant work group, such us: Commissioner for the fight against depopulation.

Contacts with:

Instituto Aragonés de Fomento
Economic Council and Social Forum.

- The three business confederations of Aragon (ZGZ, Huesca and Teruel) FAMCP and CEOE will carry out a methodology so that each region will be able to draw up its own innovation control panel in SME in each region.
- It is proposed to each region the implementation of the action plan and the actions that allow to increase the innovation in rural SME.
- The impact of each action is measured in terms of increasing innovation and it is correction.
- There is a relevant fact to highlight and that is that next spring there will be regional elections. so, RATIO will spread the plan among all the political parties. In some case, action might be rescheduled.

INDICATORS TO MEASURE THE EVOLUTION OF THE ACTION PLAN

Action 1: TALENT PEOPLE INNOVATION

- Number of training actions in innovation in the rural environment
- Number of Companies trained in Innovation
- Number of people engaged in Innovation in the rural environment

* Source of Information: Contact with Local Entities and Counties “Comarcas” - Regional Development Agency



Action 2: FINANCING. INVESTMENT & BUSINESS DIMENSION

- Number of companies formed to be able to be invested
- Number of trained Investors
- Number of formalized operations

* Source of information - Financial entities + Counties

Action 3: BUSINESS STRATEGIC MANAGEMENT

- Number of business cooperation projects in Innovation
- Continuous improvement: Number of companies that have implemented the EFQM model
- Generational Relay Program: Number of companies advised in generational change

* Source: Regional development agency. Aragon Government

Action 4: ENTREPRENEURSHIP

- Number of business owners / Number of municipalities
- Rate of rural entrepreneurship
- Number of events for the dissemination of the enterprise

* Source: GEM Report, Fundación Emperender en Aragón

RATIO



Interreg Europe

