



REMIX

Interreg Europe



European Union
European Regional
Development Fund

Smart and Green
Mining Regions of EU



Action Plan Castilla y León, Spain

competitividad
empresarial



Junta de
Castilla y León



Research &
innovation

Leading the European policies
towards more sustainable mining

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1. General information

Project: REMIX – Smart and Green Mining Regions of EU

Partner organisation:

Institute for Business Competitiveness of Castilla y León

Territory concerned: Castilla y León Region

Country: Spain

NUTS2 region: ES 41 Castilla y León

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2. Background and summary of REMIX findings

REMIX – Smart and Green Mining Regions of EU

As it was defined in the project's Application form, the main objective of REMIX project is to encourage resource efficient production of raw materials and environmentally and socially acceptable production of raw materials, including critical raw material. Growth and competitiveness of European industry is currently limited by the state of play in these two areas and policy instruments have been set up across Europe to address important topics.

Over the last 2 years, stakeholders of the different entities from Castilla y León participated in exchange visits to other regions and a peer review of the ecosystem in Castilla y León was done with the REMIX partners. With this background and experience, during stakeholder's meetings group, apart from other activities, we were working on formulation of an Action Plan for the Second Part of the REMIX project, in which practical measures to boost the promotion of new projects and management capabilities.

3. Policy instruments

The Action Plan aims to impact:

- Investment for Growth and Jobs programme
- European Territorial Cooperation programme
- Other regional development policy instrument

Name of the policy instrument addressed:

2014-2020 ERDF Operational Program of Castilla y León

Thematic Objective 1: Fostering of Research, Technological Development and Innovation.

Thematic Objective 6: Preserving and protecting the environment and promoting resource efficiency.

PRIORITY AXES	FINANCING	PERCENTAGE
Axis 1: To improve research, technological development and innovation	€ 183.895.194	29,24 %
Axis 2: To improve the use and quality of the ICT and the access to it	€ 49.374.272	7,85 %
Axis 3: To improve the competitiveness of the small and medium enterprises	€ 177.878.430	28,3 %
Axis 4: To encourage a low economy in carbon in all the sectors.	€ 59.292.578	9,43 %
Axis 6: To protect the environment and promote the efficiency of the resources.	€ 154.365.964	24,55 %
Axis of TECHNICAL SUPPORT	€ 4.000.000	0,64%
TOTAL	€ 628.806.438	100 %

Main objectives:

- Promote innovation to change the production model of Castilla y León
- To promote the development of the ICT aligned with the Digital Agenda for Europe
- Promote the sustainability of enterprises, especially those with a high innovative component and creation of new business
- Increase the use of renewable energy resources
- Contribute to environmental protection

TOTAL BUDGET 628,8 M€

Priority Axes managed by Institute for Business Competitiveness of Castilla y León

- Axis 1 To improve research, technological development and innovation – 184 M €
- Axis 2 Improve the use and quality of the ICT and access to it – 49,3 M €
- Axis 3 Improve the competitiveness of the SMEs – 177,8 M€

Total Budget Institute for Business Competitiveness of Castilla y León 350 M€

The main feature of policy instrument addressed:

Thematic Objective 1: Fostering of Research, Technological Development and Innovation

OE.1.1.2 Strengthening R&I institutions and creation, consolidation and improvement of the technology and scientist infrastructures

Programme	Management Entity	Budget
1-Technological Centers Research Programme	ICE	14,0 M€
2-INFRARED Programme (scientist equipment acquisition)	DG Universities & Research	12,0 M€
3-Scientific equipment for Technological Centers related to New Materials and Mineral Resources	DG Industry	6,5 M€
4-Stair for the Excellence	DG Universities & Research	16,0 M€
5-R&I Infrastructure for ITACYL	ITA	0,7 M€

PI.1.2. Promotion of Companies' investments on R&I, development of links and synergies between companies, Technological Centers and Universities, especially relating to the investment on new products and services development, technology transfer, social innovation, ecologic innovation, public service applications, demand promotion, associations and open innovation through smart specialization and support to technological and applied research, pilot lines, quick product validation actions, advanced manufacturing capacities and primary production, specially, in KETs and polyvalent technologies dissemination.

OE.1.2.1. Impulse and promotion of R&I activities by enterprises and support the creation and consolidation of innovative enterprises

6-R&D Projects (individual, collaborative, strategic, ...) - Line 4	ICE	75,4 M€
7-R&D Guarantee Fund	ICE	19,6 M€
8-Innovative Public Procurement	ICE	10,1 M€

The main emphases of the 2014-2020 ERDF Operational Program is:

- Support of entrepreneurship
- Support of innovation

Further details on the policy context and the way the action plan should contribute to improve the policy instrument:

The action plan will contribute so that the entities of the mining sector of the region understand better the policy instrument addressed and mentioned above. At the same time, it will help us to understand the mining sector, gathering its needs through the proposed subaction. All this will lead to an increase in the implementation of R&I in the mining sector and consequently a better use of funds based on the current needs of stakeholders through the implementation of lessons learned from other project partners during the first phase of the REMIX project. This could mean good practices and findings from REMIX peer reviews with other partners.

4. Regional context

Castilla y León, with 94,227 km² (Spain 505,370 km²) of surface (18.6% of the Spanish territory) is the third largest Region in Europe. It is sited in the northwest of the Iberian Peninsula and is structured in nine provinces and 2,249 city and town councils (almost 30% of the existing ones in Spain). It shares border with 9 of the 17 Spanish Regions, acting as economic, geographical and cultural nexus between them.

Rural areas of Castilla y León represent 96.11% of the total area. There are 224 municipalities (98.93%) with less than 10,000 inhabitants.

The population of Castilla y León (2,410,819 inhabitants – 2018 – 5.15% of Spain's population, being Spain the 6th most populated country in Europe) is slowly increasing demographically, with a growing elderly population.

For a better understanding of how this Action Plan will be operationalized into the better use of the funds and the increased implementation of the R&I in the mining sector, is necessary information about the region and how R&I was in mining sector before REMIX project.

The size of Castilla y León (mentioned before) and the population dispersion make difficult to approach R&I in the mining sector, especially on those rural population centers, where the mining sector is currently developing its activity. To all these difficulties, we must add that Castilla y León is among the autonomous communities of Spain with the smallest young population. In addition, as in the rest of Spain, although to a greater extent in Castilla y León due to population dispersion, the young people prefer regional capitals to live, so that in general, young people have turned their backs on Spain rural, therefore to the mining sector and with it moving away the R&I of the same.

The dispersion of the region due to its breadth leads us to distance from companies in the mining sector and therefore a difficulty for the elderly to increase their contact with Universities, Technology Centers, Foundations etc. For this reason, it is necessary to set up actions aimed at the sector (seminars, technological breakfasts, etc), to locate and to put the mining sector in contact

with the expert groups of Universities, Technology Centers, Foundations etc., facilitating in turn a transfer of technology necessary to achieve a greener and more sustainable mining adjusting to European standards.

It should be noted that thanks to the activity carried out within the framework of the REMIX project, the R&I of mining sector in the region is gaining more and more strength. It is aware of its importance, extracting information from the actions that other regions of countries participating in REMIX have implemented. Up to now we cannot compare the situation before REMIX because R&I (2014-2020 ERDF Operational Program of Castilla y León) in mining sector was not in a good position, so is difficult to quantify that with this Action Plan will be operationalized into the better uses of the funds but for sure will be operationalized into an increase of the implementation of the R&I in mining sector. On the other side, is very important to mention that since REMIX started, mining has become much higher profile in the regional priorities.

All this indicates a need to promote a package of measures that consolidate the trend through the Action Plan and ensure that the funds come to be requested by companies in the mining sector. **Therefore it is stated:**

- Seminars of Innovation in processes and product / service design
- Developing a business cluster
- Technological Breakfasts to promote R&I entities – business links in research and innovation

5. Good practices – REMIX project

Lavrion Technological and Cultural Park (LTCP), Greece – is a body of scientific research, education, business and culture. Founded in place of the old French Mining Company of Lavrion in 1992, as result of the initiative undertaken from the National Technical University of Athens. The rehabilitation plan executed, in addition to its practical significance has special scientific and educational value since it is a unique case study of an environmental rehabilitation of 25 acres, which was loaded with 150,000 tons of low sulfur content. So, what is, in fact, produced is an environment. One healthy structure, which consists of the link mechanisms, benefits and services undertaken to facilitate the creation of modern entrepreneurship; an environment that consists not only of technology transfer, interactive technological learning, business competition and profit-maximization behavior, but, also, of the social and cultural values and norms that are inextricably bound to the emerging new knowledge-based economy.

His structure is a specific model of “learn by doing”, if we think about the first action (as an example) *Seminars of Innovation in processes and product / service design* developed between the technological agents that have the technology to transfer and the companies that look to the future through the new technology, that the technological park develops, will be a good method to approach the R&I in the mining sector in Castilla y León.

LTCP aims, the same as our *2014-2020 ERDF Operational Program*, **at linking scientific and technological research conducted in Athens with the needs and interests of the business world**. That is why it will be a good example to implement in our action plan. So the methodology that the Greek partners use to bring the scientific and technological research carried out in Athens to companies, to increase R&I in mining sector (the object of our policy instruments), is one of the most important aspects that the Institute for Business and Competitiveness of Castilla y León has looking for in this REMIX´ good practice.

The improvement of our policy instruments, through the interregional exchange with Greek`s partners, is also due to finding similarities between the 2 regions. These similarities will be taken into account in the design of the Action Plan, and with more emphases if we take into account that Castilla y León has different technology parks (Valladolid – Parque Tecnológico de Boecillo, León etc) with activity in different fields of research that can respond through innovation to the needs of the mining sector challenge.

Cornwall Mining Alliance, UK – connects experts and provides the right people for mining sector. The Cornwall Mining Alliance – local knowledge, global expertise offers a range of **specialist test facilities and practical training**, as well as **research and development for the mining industry**.

“Connection” is very important for our Action Plan to see how is doing in UK and what we can apply in Castilla y León to connect Universities, Technological Centers, Foundations etc. with private companies from mining sectors and its secondary activity in order to transfer this knowledge, technology, and global expertise, as our REMIX partners.

In Castilla y León we also look for a transfer of technology developed in our centers which specializes in areas - keys of modern applied technology, such as information and electronics technology, telecommunications, robotics, technology laser, environmental technology, energy, automotive, mechanical and structural design safety and security, ecodesign, etc, can provide an important added value to companies in the sector.

Through the actions proposed for the second part of the REMIX project, we are looking for a common understanding of who need technology and who has it, as is the case of this good practice. The purpose is to achieve an impressive network of entities in Castilla y León which shows that the R&I of mining expertise is possible to increase. The difference now is that we all work in the global mining environment under an Action Plan designed to increase the R&I activities in Castilla y León.

6. Peer Review – REMIX project

Poland, Wroclaw (11–13.12.2017) - The peer review in Wroclaw hold by the Poland partner, had two important questions to keep in mind for our action plan:

- Supporting of creating cooperation between institutions involved in RIS3 implementation
- Supporting of SMEs & clusters

From the first question we understand that for improving our policy instruments is very important to take into account:

- The involvement of 3 sectors: administration, business and science. This is what we are going to do. Through Regional Technological Centers which will be in charge of its execution of the action plan (here we have the science) we hope to arrive to the main beneficiaries of the action plan which are self-employers and SME´s (here we have the business) under our coordination (administration).
- It is extremely difficult to bring together responsible actors. We have to clearly highlight to a company what the beneficial effects are – otherwise they will not get involved.
- Different sectors have different needs – there are obstacles to develop cooperation, communication is the problem. The mining sector is especially sensitive in this aspect, and we have to work with this variable.

Motivation, Networking, Complementarity, Financing, Leader, closing the gap between public institutions and SMEs were the most important aspects to take into account for our action plan from the second question of this peer review.

- Networking: using different databases and connections; communication on different levels (meetings, e-mails etc.); the “snowball” method; internationalization; we hope to arrive with our action plan to as much as possible SMS`s, we hope to achieve this with the involvement of Technological Centers in the action plan.
- Complementarity: including not only different types of institutions (business, science, local government units, business environment units) but also different businesses. We were talking about this point in the first question and without any doubt we must take it into account in our action plan.

- **Leader:** the most important role in any action; leader must have specific skills, e.g. be good at networking, have many different connections, be a good manager, a lobbyist and be able to gain trust of SMEs and public institutions and at the same time to communicate to SMEs potential benefits of action; best practice: a professional from outside the company / organization.
- **Closing the gap between public institutions and SMEs:** as public institution we must change the language used in the communication with SMEs (shorter and more substantial materials, more emphasis on benefits, less on obstacles and requirements), build trust and mutual understanding, extend network with new members.

Spain, Castilla y León, Valladolid (20 – 22.03.2018) – The peer review in Valladolid was the most important for us. Mainly because we could have a very strong participation from mining sector from Castilla y León and of course our questions, all of them were focused on improving our policy instruments.

Just to summarize (more information on PRV5_Castilla y León report) on this action plan we will accept the role of administration as catalyst. We will take advantages of trust based on already existing collaboration between Regional Technological Centers and small companies, paying attention to possible different approaches in the case of companies.

UK, Cornwall (16 – 17.05.2018) we have talked about how companies can benefit from innovation. We have found aspects related to the benefits of R&I by companies. How can SMEs collaboration to tackle large contracts was a question which make sense the combination of membership subscription and R&I projects to find alliance.

The Peer Review activity and all the analysis conducted by REMIX partners and their stakeholders, make us to find few important conclusions for our action plan:

- We have active components to achieve our objective through action plan
- We can find private initiatives between regional entities with promising signs of cooperation around mining sector
- Through R&I will became more effective integrating different activity sector when the main actors coordinate their efforts on a truly regional scale
- The entrepreneurial culture (as we have seen in this report) in Castilla y León is on the right position, comparing with other regions of Spain
- Human capital with university degree and professionals is available in Castilla y León

Informal peer review

During the first part of the projects, formal and informal meeting, peer review meetings, site visits, informal conversations have also been discussed and opinions have been exchanged regarding the opportunity in terms of increasing R&I in the mining sector.

On this context, proposals from all stakeholders (regional, national, interregional) about aspects described in the action plan have been heard. The peer review detected the necessity to increase the presence of support offers and a regular and closer contact with the local players, in a region which is one of the largest in Europe with 9 provinces and 2249 municipalities in a surface of 95.000 Km² and with 2.4 million inhabitants, a sparsely populated region, with a low level of entrepreneurial spirit.

7. Actions

The present Action Plan will contribute to **improve the implementation**, for the mining sector, of the policy instrument addressed:
2014-2020 ERDF Operational Program of Castilla y León.

Thematic Objective 1: Fostering of Research, Technological Development and Innovation.

Better implementation means to **increase R&D&i in the mining sector**. ICE firmly thinks that the best way **to increase the competitiveness and growth of companies** is to boost R&D&i.

- ICE (PP2) has own funds to finance R&D&i projects, but we have hardly ever funded any project from the mining sector.
- ICE also helps companies to apply for international R&D&i programmes (i.e EU Framework Programme, LIFE Programme, INTERREG, etc.), but in the same way, only a few proposals from Castilla y León' mining sector applied for these international funds.
- Companies from the mining sector in Castilla y León hardly ever use the services that the knowledge entities (Universities, Technological Centers, Foundations, etc.) can provide to them.

The very ambitious objective with this Action Plan is that entities from the mining sector of Castilla y León present 30 new products/processes proposals to our own R&D&i calls or to other National, International or European calls for proposals, as stated in the REMIX proposal.

This will be achieved through 4 types of actions:

- To deliver specific and requested (from the companies' side) information regarding new technologies applicable to the mining sector (seminars).
- To facilitate personal contacts between companies and knowledge entities in order to reach mutual confidence (technological breakfast).
- To deliver specific information about the funding possibilities (regional, national, European and international) for R&D&i projects in the mining sector (seminars and technological breakfast).
- To search participation opportunities in mining R&D&i proposals through the EEN-Enterprise Europe Network (seminars & technological breakfast).

This will lead to an increase in the implementation of R&I in the mining sector and consequently a better use of funds based on the current needs of stakeholders through the implementation of lessons learned from other project partners during the first phase of the REMIX project. This could mean good practices and findings from REMIX peer reviews with other partners.

The actions will be coordinated and monitored by ICE (PP2), and developed by ICE and other regional stakeholders such as Universities, Technological Centers and Foundations. Of course, companies will participate also in these actions, mainly as recipients but in some cases also as technology bidders.

Under the frame of the 2014–2020 ERDF Operational Program we will look to the promotion of new projects and management capabilities taking in consideration the following issues:

- New mining processes knowledge, best practices exchanges: technical, legal and social integration
- Green economy in mining processes: best practices, knowledge and integration possibilities in the regional mining sector
- Promoting and fostering of cross sectorial innovation and integration of different activity sector
- Promote the generation / coordination of the regional capacity building around these sectors, integration of activities
- Fostering the public-private collaboration between regional entities and national and international ones in the indicated field
- Integration of skills associated to the different sectors

From the good practices as specific elements learned that have been transferred into the definition of this action plan focuses on promoting new projects we can mention:

Lavrion Technological and Cultural Park (LTCP) - Greece:

- Special scientific and educational value
- Environment to facilitate the creation of modern entrepreneurship
- An environment that consists not only of technology transfer, interactive technological learning, business competition and profit-maximization behavior, but, also, of the social and cultural values and norms that are inextricably bound to the emerging new knowledge-based economy

Cornwall Mining Alliance – UK:

- Engage with government, industry and the community in order to build productive, sustainable partnerships and tackle some of the fundamental issues facing humankind
- Members: Mining Engineering&Surveying, Mineral Processing, Geological, Environmental&Social, Energy, Software&Digital, Research&Training, etc.
- Services similar to members

From the peer reviews as specific elements learned that have been transferred into the definition of this action focuses on promoting new projects we can mention:

Poland, Wroclaw (11 – 13.12.2017):

- The involvement of 3 sectors: administration, business and science
- Develop cooperation and communication
- Motivation, Networking, Complementarity, Financing, Leader, Closing the gap between public institutions and SMEs

Spain, Castilla y León, Valladolid (20 – 22.03.2018):

- Role of administration as catalyst
- Marketing&institutional – knowledge of the value chain, by the real society, in the raw material sector
- The real implementation of the policy
- The foundation of good collaboration has to be based on trust and communication of good practices
- Found a one word, one language that make sense and a good lobby
- Political decision
- R&I can be divided in lower or higher level
- Smaller companies are working for big companies
- Small companies can be attracted of EU projects – the problem for them is the long term of the project
- The exploitation from R&I projects is difficult for small companies because the marketing is working different sometimes and the research activity could be successful or not

UK, Cornwall (16 – 17.05.2018):

- SMEs collaboration to tackle large contracts – membership subscription and R&I projects to find alliance
- Combination of membership subscription and commercial projects to find alliance
- Local needs for raw materials
- Link to innovation centre
- Policy alongside mine development

Regions with successful R&I activity manage to attract substantial national and EU funds, spend it wisely and show results.

Stakeholders need to step up coordination and cooperation in the following areas:

- Knowledge about new technologies applicable to the mining sector to improve the competitiveness.
- Knowledge of the regional funding possibilities to develop R&D&i projects in the mining sector.
- Knowledge of the support from the Regional Government to apply to R&D&i national/European/international calls for projects. EEN services.
- Technology Transfer in mining sector
- Research and innovative activity in mining sector
- Companies' technical capacity and necessity in order to achieve a Green and smart mining through R&I projects

Example from UK and Greece provide workable models for Castilla y León. Both *Lavrion Technological and Cultural Park* and *Cornwall Mining Alliance* are two models able to connect experts and entities with technological necessity.

Taking into account the good practices and suggestions purposed in the peer review from Castilla y León made in the frame of REMIX project, with this action plan we pretend to:

- Make a better understanding of political instruments for regional companies and gathering its needs through the proposed actions
- Increase the implementation of R&I in the mining sector
- Impulse and promotion of R&I activities by enterprises
- Promotion of Companies' investments on R&I
- Better distribution of funds based on the current needs of stakeholders
- Contribute to environmental protection

Institute for Business Competitiveness of Castilla y León is working in mining areas through different initiatives such us:

- Economic Dynamization Plan of Mining Municipalities of Castilla y León 2016–2020: 81 municipalities, with actions to promote productive activity and employment for the socio-economic revitalization of the mining basins.

The Action Plan will be coordinated by the Institute for Business Competitiveness of Castilla y León and developed by the Technological Centers of the region.

7.1. Action 1 – Seminars of Innovation in processes and product / service design

During the peer reviews in Poland, Spain and UK we have verified that in general the mining sector solves the possible technical aspects between entities with confidence. Due to lack of trust, agility in the matter, ignorance, etc., it is a sector that is not very open to collaborations with the so-called knowledge entities (Technology Centers, Universities, Foundations etc.).

Our stakeholders have stated that they are unaware of the specific work groups they can turn to solve the technical aspects necessary for the development of their professional activity. Based on the good practice of Greece (LTCP) that generates the “environment to facilitate the creation of biting entrepreneurship” and the need detected, through seminars that will be developed half-yearly, we will seek to find technical needs and solutions that will lead us to a Smart and Green mining in the region.

The knowledge entities of the region will inform the companies of the mining sector in the region about innovations and improvements that they can incorporate into their production processes to optimize costs and improve their competitive position.

ICE (PP2), meanwhile, will inform and promote the funding opportunities (regional/national/European/international) the mining companies can take advantage of to develop and incorporate technologies through R&D&i projects.

Relation to REMIX learning activities

Lavrion Technological and Cultural Park (LTCP; Greece) is an example of bringing together the “knowledge group” (Technological Centers, Universities, Foundations) and companies from mining sector including groups not normally associated with mining. It encourages companies to look for special scientific and educational value. As said before: “LTCP aims, the same as our 2014-2020 ERDF Operational Program, at linking scientific and technological research conducted in Athens with the needs and interests of the business world”.

Steps and activities to implement the action

- ICE Meetings with mining entities or mining associations (looking for multiplying effect) to know their technological needs and work areas. 2 meetings/semester.
- ICE Meetings with scientific and technological entities (Universities, Technological Centers and Foundations) to match the capacities they have with the needs from the companies’ side. 3 meetings/semester.
- Design of the seminars according to the detected needs of the mining companies and to the found capacities of the knowledge entities. 1 seminar/semester.
- Execution of the Seminars (5 hours each proximately).
 - Semester 1 (7/2019-12/2019). Seminar 1 (already realized 5,5 hours): 8/10/2019 “OPORTUNIDADES DE LA ECONOMÍA CIRCULAR EN LA INDUSTRIA. UNA MIRADA A LAS MATERIAS PRIMAS” (Opportunities of the Circular Economy for the Industry. A look to Raw Materials).
 - Semester 2 (1/2020-6/2020). Tentative date: April/2020; Theme: natural stone sector.
 - Semester 3 (7/2020-12/2020). To be determinated.
 - Semester 4 (1/2021-6/2021). To be determinated.
- Feedback. ICE will advise the companies willing to carry out a R&D&i project about the regional aids the company can apply to and will help them to prepare the proposal.
- Monitoring. ICE will take into account the pre-defined indicators (see 7.3 Expected Impact)

Outputs

- Mining Companies’ profile
- Mapping of the knowledge entities’ competences
- List of attendees to each seminar

This action will be carry out with the final objective of improving the implementation of our Operational Programme, increasing mainly the number of R&D&i projects regarding mining presented to our regional calls for proposals, but also increasing the number of mining R&D&I projects presented to other external calls for proposal. So, other outputs will be:

- R&D&i Mining Proposals to regional calls.
- R&D&i Mining Proposals to external calls.

Who is involved?

The Institute for Business Competitiveness of Castilla y León is the leader of the action. The other involved partners are the Technological Centers, Universities, Foundations and companies from Castilla y León.

Costs: 21.400 €

- One person responsible for the implementation of the action. The costs related to her/his work will amount **13.000 EUR proximately** (2 years of a person with dedication of 13% of her/his worktime).
 - o Meetings with companies and knowledge entities:
5 meeting*4 hours = 20 hours/semester
 - o Design/Preparation of each seminar: 30 hours/semester
 - o Execution of each seminar: 5 hours/semester
 - o Travels (5 meetings+1 seminar; 3 hours/travel): 18 hours/semester
 - o Feedback of each seminar: 40 hours/semester
 - o Monitoring of the action: 6 hours/semester
 - o Monthly search of opportunities for mining entities to participate in European/International projects: 18 hours/semester/2 actions = 9 hours/semester
- Seminars. 1500 €/seminar (room rental, coffee, speakers, etc.)
*4 seminars = **6.000 €**.
- Travels. 100 €/travel*6 travels/semester*4 semesters = **2.400 €**

Timeframe

Each semester, ICE (PP2) will organize a seminar in different areas of our region, in order to cover the most part of Castilla y León.

Funding resources

The action will be entirely financed from the budget of the ICE (PP2). Personnel costs of a person involved at 13 % of his/her worktime in the activity will be included in the staff cost of the annual budget of the ICE (PP2).

7.2. Action 2 – Technological Breakfasts to promote R&i entities – business links in research and innovation

It must be taken into account that R&D&i is culturally very distant from the mining sector, as it is still perceived as a “laboratory” activity unrelated to the daily life of a company that develops the work, for example in the initial stage of extraction. To change this vision (even feeling), it is necessary to facilitate a kind of “informal” and “more free” networking between knowledge entities (Universities, Technological Centres, Foundations, etc.) and mining companies that assists the mutual confidence.

It is expected that there will be between them good practices exchange, short talks about R&D&i, allowing the identification of research projects that R&D&i entities can work on with mining companies from Castilla y León.

Meanwhile, if some R&D&i project or larger collaboration contract arises, ICE (PP2) will inform about the aids for each particular case.

For keeping the privacy of the projects parallel meeting with the partners of the potential R&I meeting will be maintained.

The purpose is to facilitate the transfer of technologies to companies in the mining sector that participate in the action, advising and mentoring them to incorporate innovations and improvements in their production processes, in the adoption of ICT technologies, and in the digital transformation of the same.

Relation to REMIX learning activities

Cornwall Mining Alliance from UK emphasized the importance of university – business research and innovation projects and programs. The main learning point was related with the sustainable partnerships between university (in our case we will extend to the Technological Centers & Foundations) and local businesses in the hope that ad hoc contacts will lead to new partnership and innovations.

Steps and activities to implement the action

- Design of the technological breakfast.
1 technological breakfast/semester.
- Execution of the Technological breakfast (2 hours each proximately).
 - o Semester 1 (7/2019-12/2019). 17/10/2019 (already realised)
Vigilancia Tecnológica (VT) e Inteligencia Competitiva como herramientas de competitividad e innovación (“Technological Surveillance and Competitive Intelligence as tools for innovation and competitiveness”)
 - o Semester 2 (1/2020-6/2020).
 - o Semester 3 (7/2020-12/2020).
 - o Semester 4 (1/2021-6/2021).
- Feedback. ICE will advise the companies willing to carry out a R&D&i project about the regional aids the company can apply to and will help them to prepare the proposal.
- Monitoring. ICE will take into account the pre-defined indicators (see 7.3 Expected Impact)

Outputs

- List of attendees to each technological breakfast
- List of collaborations signed

This action will be carry out with the final objective of improving the implementation of our Operational Programme, increasing mainly the number of R&D&i projects regarding mining presented to our regional calls for proposals, but also increasing the number of mining R&D&i projects presented to other external calls for proposal. So, other outputs will be:

- R&D&i Mining Proposals to regional calls.
- R&D&i Mining Proposals to external calls.

Who is involved?

Institute for Business Competitiveness of Castilla y León, Universities, Technological Centers, Foundations and companies from Castilla y León.

Costs: 9.400 €

- One person responsible for the implementation of the action. The costs related to her/his work will amount **7.000 EUR proximately** (2 years of a person with dedication of 7 % of her/his worktime):
 - o Preparation: 12 hours/semester.
 - o Execution: 2 hours/semester
 - o Travels (1 travel/semester; 3 hours travel): 3 hours/semester
 - o Feedback: 40 hours/semester
 - o Monthly search of opportunities for mining entities to participate in European/International projects. This will be done through the EEN platform (being ICE the Castilla y León node for this network), in which partner searches are published: 18 hours/semester/2 actions = 9 hours/semester
 - o Monitoring of the action: 6 hours/semester
- Technological breakfast (2 hours). 500 € (rental room, coffee, etc.)
*4 technological breakfast = **2.000 €**.
- Travels. 100 €/travel*1 travel/semester*4 semesters = **400 €**

Timeframe

Each semester, ICE (PP2) we will organize a technological breakfast in different areas of our region, in order to cover the most part of Castilla y León.

Funding resources

The action will be entirely financed from the budget of the ICE (PP2).

Personnel costs of a person involved at 7 % of his/her worktime in the activity will be included in the staff cost of the annual budget of the ICE (PP2).

7.3. Timeframe

This second part of the REMIX project will be from July 2019 until June 2021. The Institute for Business Competitiveness of Castilla y León will monitor the REMIX action plan during the progress, reviewing the actions and adapting to the mining sector needs.

7.4. Expected impact

The execution of the REMIX action plan will be assessed through the following indicators, which will be quantified by the Institute for Business Competitiveness of Castilla y León.

Seminars of Innovation in processes and product / service design

- Number of Seminars of Innovation
- People registered

Technological Breakfasts to promote R&I entities – business links in research and innovation

- Number of Technological breakfasts
- People registered

Result oriented indicators (Will be monitoring for both activities)

- Number of contractual collaborations signed between mining entities.
- Number of mining related R&D&i projects presented by regional companies to regional aids.
- M€ funded for R&D&i mining projects through regional aids.
- Number of mining related R&D&i projects presented by regional companies to national/European/international calls for proposals.
- M€ funded for R&D&i mining project through national/European/international aids.

With the execution of this Action Plan, it is expected to mobilize the regional mining sector towards R&D&i. It is expected to boost 30 innovations (new products/processes proposals) around the “Smart and Green Mining” concept, with the final objective of boosting their competitiveness, increasing the regional growth and number of jobs.



This REMIX action plan will be implemented and monitored by the Institute for Business Competitiveness of Castilla y León.

Date: 21 / 8 . 2019

Signature:

A handwritten signature in blue ink is written over a horizontal line. To the right of the signature is a circular official seal. The seal contains the coat of arms of Castilla y León and the text 'JUNTA DE CASTILLA Y LEÓN' at the top and 'INSTITUTO PARA LA COMPETITIVIDAD EMPRESARIAL DE CASTILLA Y LEÓN' at the bottom.

Mrs.: Beatriz Casado Saenz
Head of Innovation and Entrepreneurship Department
Institute for Business Competitiveness of Castilla y León