

## Peer Review – REMIX Valladolid, 20 March 2018

Castilla y León is the 3rd largest Region in Europe, 18,6% of the Spanish territory and the most populated city is Valladolid (301,876 inhabitants). Castilla y León is considered a "more developed" region, with a GDP per capita above the 90% of the European average. GDP (in PPS) (2015): 59,910 M€. GDP (in PPS per cápita) (2015): 24,300 €.

From the economical point of view Castilla y León specialization pattern components are:

### 1. Economic specialization pattern

- Food and agriculture industry
- Automobile industry. Components, and Equipment
- Health care and quality life
- Tourism, Heritage and Spanish Language
- Energy and Industrial Environment
- Habitat

### 2. Scientific specialization pattern

- Medicine
- Agriculture, Biology and Veterinary Sciences
- Chemistry and Material Sciences
- Earth and Environmental Sciences
- Engineering

### 3. Technological specialization pattern

- Advanced Materials
- ICT
- Biotechnology
- Advanced Processes and Manufacturing

Related with the mineral sector, Castilla y León has a very favorable and interesting mining potential:

- Wide geographical spread
- Wide geological diversity

The mineral production in Castilla y León in 2015 was 314 M€, which is approximately 0,7% of regional GDP (3<sup>rd</sup> national position with 12% of mining GDP, behind Andalucía and Cataluña), with 3715 direct jobs in 2015.

According with the "Operational program in the framework of the objective for investment and employment growth" the financial assignation of the 2014-2020 FEDER Operational Program of Castilla y León amounts to 314.403.219,40 € in terms of public financing and 628.806.439 € of total cost to which are added 15.000.0000 € of the contribution of Castilla y León to the SME initiative.

The 20<sup>th</sup> of March was celebrated in Castilla y León the peer review meeting where it had an opportunity for a mutual learning and knowledge dissemination. The peer review exercise allows reviewed region to examine our RIS3 strategy from the perspectives of other regions with an ultimate goal to improve our policymaking, employ best practices and follow verified standards in the R&I policy area. The outcomes of this peer review was used to prove Castilla y León's R&I policy.

In order to organize the peer review section were prepared some documents. The documents were necessary to have a better understanding of the mining sector and R&I situation in Castilla y León and at the same time to focus the participants on our topic interest. Our main features of the policy instrument (objectives, characteristics, priority or measure concerned) is fostering of R&I and innovation.

The documents that were sent to all the partners of the project, contain informations related with:

### **RIS3**

#### **Peer Review Questions**

#### **ERDF Operational Programme of Castilla y León**

#### **Entrepreneurship, Innovation and Freelancers Strategy of Castilla y León**

#### **Status report Castilla y León**

- Economic Structure
- Mineral sector
- Strategy of Mineral Resources in Castilla y León 2017-2020
- ERDF Operational Programme of Castilla y León 2014 – 2020
- REMIX Addressed Policy Instrument
- REMIX Stakeholder Group
- Contributing to the RIS 3 Objectives

During the meeting we had the following presentations in order to have an explanation of some documents which were sent before the meeting and give the assistants the possibility to make their questions and make clarifications:

- a) Beatriz Casado Sáenz – Head of Innovation and Entrepreneurship Department, Institute For Business Competitiveness of Castilla Y León (ICE), Castilla y León Government – *Castilla y León Entrepreneurship & Innovation*
- b) Ramón Cabrera – SIEMCALSA - Overview of the current mining activity in Castilla y León
- c) Santiago Cuesta López – General Director of the International Center for Advanced Materials and Raw Materials of Castilla y León (ICAMCYL) – *Clustering REMIX-MIREU*
- d) Ramón Cabrera – SIEMCALSA – *Overview of the current mining activity in Castilla y León*
- e) Institute For Business Competitiveness of Castilla y León (ICE), Castilla y León Government
- f) Cupa Group – María Pérez Ameneiro – *The value and sustainability of natural slate*
- g) Berkeley Minera España S.L. – Francisco Bellon and Lucía García Hernandez – *Research and Sustainable Development in Mining Projects. Case of Study: Retortillo Project*
- h) IGME – Virginia Rodríguez Gómez – *Mining-environmental Planning and Circular Economy in the framework of Sustainable Mining*
- i) PROMETIA – María Tripijana Serrano – *The importance of clustering for R&I*

Finishing the presentations and having a better understanding about mining sector in Castilla y León, were remembered the peer review questions. All partners and stakeholders were asked to decide in which group they prefer to be part of. The main issues of the groups were:

- 1. Feedback to the Castilla y León aids to promote R&I (particularly thinking in the mining sector)**
- 2. Knowledge transfer: Collaboration between Companies – Universities – Technological Centers**
- 3. Structures to facilitate sector R&I / R&I in the mining sector**
- 4. Sustainability (environmental, economic and social)**

Because the number of interested people on R&I in the mining sector was too small, finally was decided to join the group (**R&I in the mining sector**) with the fourth one (**Structures to facilitate sector R&I**) because many of the subjects were in general terms similar.

### ***1. Feedback to the Castilla y León aids to promote R&D (particularly thinking in the mining sector)***

It was necessary to select the most important policy suggested, focused on the necessity of public awareness:

- **Marketing & institutional** - knowledge of the value chain, by the real society, in the raw material sector.
- The **real implementation of the policy**. It was mentioned positively the new technological centre promoted by Santiago – so is important to have an implementation in different levels.
- Pressure of **adequate indicator**. The necessity to adapt the indicators to the mining sector. Is not exactly the policy instrument but is collateral with them.

The more relevant issues that were discussed were:

- Sustainability
- The recognition and awareness are necessary
- How to reach the necessity of R&I at high level positions. Important point in raw materials is the European positioning, it is really challenging

The conversation was also held around the aspects:

- Now the only added value is to sell the basic product; it is necessary to implement at regional level more steps of the value chain. More added value, not only the extraction, necessity to link the added value to the territory were raw materials are extracted.
- Talking among the main actors involved in the matter is essential to achieve what is planned. So we are also in the Communication subject.
- Positive way to do is important because with this spirit is possible to have good results and implement adequate policy.
- R&I and business are talking very different language. The point is how to transfer the thoughts from R&I to business and maybe the best way is through marketing.
- The dimension is also important in this point.
- In general terms the mining companies are a social problems, especially if the communication is not adequate.
- R&I and environmental exploitation could be a start point to have a different response from the social point of view.

**Question:** How to sell the regional aids in order to promote R&I?

## ***2. Knowledge transfer: Collaboration between Companies – Universities – Technological Centres***

### ***Knowledge transfer: Collaboration between Companies – Universities – Technological Centres***

The most important issue in Knowledge transfer is how to start a collaboration and how to keep it alive.

The discussion was around the subjects:

- The importance of picking the good ones and supporting them in order to compete (not “coffee for all”, but smart specialization).
- But at the same time it is important to nurture locally all possibly interesting initiatives (so the choice is pretty difficult).
- Different governance in regions across Europe
- Need for institution to “care” and support the transfer relationships, which otherwise risk to not happen.

The foundation of good collaboration has to be based on:

**Trust:** based on already existing contacts is easier for small companies, if we consider that the big companies are not competing for research because in general terms they collaborate.

**Role of administration as catalyst:** As trust is necessary, making network to start working together could be an important step. The need to make the first contacts may be solved through clusters, hubs, etc., and hence the need for support by the public administration. Depending on the region, differences in the governance of this subject were found. It seems that there are a lot of institutions and sometimes it is hard to know but at the same time it is interesting that there are.

Pay attention to possible different approaches: in the case of companies, size is important. The smaller ones have more difficulties to collaborate in H2020, but it's easier at regional level. SMEs don't have the research culture, and most of them don't have a department or even employees to be involved in a research project. On the other side, Research & Technology Organisations (including universities) are more interested in bigger projects than those that can be faced by SMEs.

**Projects:** It seems that it is not clear if H2020 projects solve problems more reason to think in this way if we take into account that the success rate is very low. Smallest projects can be more focused. This kind of projects must be financed by Regional Government. In general, the university is interested in big projects as H2020 projects because they provide more money and at the same time a kind of “stability” for some years. But companies need to solve and focus their research in “present situation” and not in basic research, so they prefer smaller projects with fast results even the amount of money is not so interesting as a big project.

**University:** offer to be a link to the Society. They have difficulties in contact with the companies because they are not interested in basic research and as we said previously the finality, the interests of a collaboration between universities and companies are completely different.

**Communication of good practices** is another important subject to discuss, as it may help some newcomers to “break the ice”, by showing the good aspects and results. We can say that is a transversal aspect for each point.

**Research:** if we want to raise the technology level the fundamental research is mandatory.

**Question:** How to start the cooperation and to keep it alive?

### *3. Structures to facilitate sector R&I / R&I in the mining sector*

On this table it discussed about experience in R&I on different size of the companies. One of the comments and experience was that are two levels of R&I. The lower level is related with the local aspects, working directly with the local companies and policy interacting between them.

Then, it discussed about how to improve European production in raw materials. A public organization acting at national level or regional level to put efforts and dedication in the mining sector in European Union to avoid the results of the project to be exploited by Chinese companies can be a solution for that.

Clustering is one of the idea to facilitate the R&I finding a one word, one language that make sense.

We have to think also in the political decision. Who supports and how the R&I in mining sector.

One of the most important aspects is not yet achieved. In many strategies has to be defined exactly how much money is given for what purpose. The budget is a political decision taken by the government especially in terms of ideology. This aspect is a social challenge that makes difficult to change policies.

What can be done in this industry to take profit?. The R&I is independent of the political ideology.

A good lobby is another aspect to take into account. With the clustering industry it can get enough power. But if we look the amount of money in H2020 designated to raw materials, this is a small amount compared to the other challenges like climate, traffic, automotive, energy, the chemistry sector, etc.

**Trust** – Companies in the mining sector do not take advantage of the existing financing for R&I projects in most of the cases because they do not trust on it.

The social problem or impact is another reason to take into account in order to start or not an R&I project.

**Size:** Being small company could be a positive point of view in accordance to have the initiative and carry out an R&I project. In general terms the mining sector develops its activity in rural areas and, if is developed by too big companies, is not affordable.

Mining in this way is a subject to analyse by global condition and the investments can be attractive by achieving results but the market is growing. If we want to introduce or attract R&I is just a matter to select in a proper field, as New Technologies. Most of the investments are global and in many cases they have original local practices where they employ local people.

Even if the budget comes from national level the companies must apply with European rules in order not to destroy the competitiveness. But coming from the region level is easier than coming from national level.

R&I can be divided in lower or higher level. In Portugal for example, the mining companies are in fact production companies. They sell to make profit and all other issues are secondary for them. Involving mining companies in H2020 or any R&I project is extremely difficult first of all because they are taking time. All this take from production time because is necessary to assign people to European projects with a constant dedication if we want to have good results. But in some cases mining companies need R&I. They have negotiated with the directors of the minings who is in contact with the local government, let them know that they need to solve specific problem at the mine. Some problems are related with the minerals, others with computation of production. They have negotiated packages getting money to be paid for royalties, or to be used for contracting people,

for example in the case of Portuguese stakeholder for geological services, reporting at the end the results that they get. For R&I there must be financial for mining sector.

How can it be approached in Spain? In national level is possible to have this kind of projects, solving directly the problem, which in fact is what they need. The R&I gives the core business increasing the value of the project. But during a meeting with Spanish stakeholders, they have stated that if they have a problem they solve it asking one each other instead of starting with the university an R&I project, as the results are obtained normally faster. Mining is a very traditional sector, therefore this make it even difficult compared with the other sectors involvement of the R&I.

It also has to take care of the start-ups, the smaller companies which in certain way are working for big companies.

But it seems that mining sector is changing, looking for new technology and also for R&I projects although it will take time. It must be done step by step. It is a lot of space for R&I in small companies. For example the recycling process will became more important in a future.

In Spain are companies doing R&I with public money.

It seems that in some cases the results of a H2020 project can be exploited, and in another cases it cannot be done, because it is being done doing by Chinese companies.

In Germany there are also small companies attracted of H2020 project, some being already partners, but the problem is the long term of the project and that the exploitation is impossible because the marketing is working different sometimes, and the research activity could be successful or not.

**Advices:**

- Two level for financing R&I project
- Direct negotiation between the company and local government
- Distribution by grant

**Question:** How can be R&I promoted in mining sector?

#### **4. Sustainability (environmental, economic and social)**

The policy suggestion was focused in transparency, communication, involvement of stakeholders, and supervision of the operation.

##### **Lesson:**

- Working with local people is inevitable
- To take precaution along the life of the mine from the very beginning of the mining project
- To make rehabilitation in a way to generate benefits for the local people, for the local community after the end of exploitation

**Transparency** - The lack of trust between the people and how the mining exploitation is done remain on top of the agenda throughout the world in general and in our region in particular. In some situations the sector is leading to more controversy – proper transparency can be uncomfortable. An idea is to focus on how to make transparency an integral and routine feature in regional government and company how has the exploitation of the mining. These reports must have a technical reason and be properly communicated to the people how live where the mining activity takes place.

**Communication** - as we said in Transparency point communication the real situation to the community is very important if it wants to coexist and get the maximum performance to the each situation. This is still challenging because sometimes the information is not in the public domain. But as we can see by the time is has become a reality and it can find companies which are taking the initiative to publish their own data online.

**Involvement of stakeholders** – local community - is very important in any sector but particularly in this one. Stakeholders are central to discussions surrounding new laws and regulations, and have helped to coordinate and shepherd legislation through. The stakeholders can give not only knowledge to the sector but at the same time can be able to push to outreach activities, pursue government action with recommendations, target reforms, and continue to carry out the operations events.

**Supervision of the operation** – to be sure that the whole operation is made according the laws, with the environmental aspects, etc. Ensure continued operations of production shifts through execution of the production plan and schedules. It is also important to ensure adherence to correct safety and operating procedures and compliance with appropriated regional and state laws and regulations. Environmental aspects and the exploitation according with the license obtained is also important to supervise during the exploitation and recuperation of the area.

**Question:** How to make mining acceptable and useful for people? (Benefits)