

Interview: Cristina OyÃ³n, Head of Strategic Initiatives, SPRI, Spain



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The head of strategic initiatives at the Basque Business Development Agency talks about the region's strong commitment to developing its biosciences sector, the cluster strategy the region has implemented in order to spur development, and what still needs to be done for Basque country to become known as a global hub for biotech.

The Basque Government has clearly shown a strong commitment to developing its biosciences sector with, for example, the implementation of a specific biosciences policy known as BioBasque 2010. Could you please share with our audience the key points of this initiative?

The effective development of biosciences in the Basque country started with the design and implementation of the BioBasque 2010 Strategy. This strategy was the first specific strategy for biosciences in Spain and has been praised for its design, which is adapted to the characteristics and needs of the Basque country. It has been used as a reference for other regions and countries and has achieved tangible results in terms of economic activity, start-ups and job creation, scientific productivity (publications and patents), talent attraction, recovery and retention, industrial diversification and international positioning (known as BioRegion since 2005).

The key point of the initiative has been the strong political support that involves an array of stakeholders working together around a networking and cooperation philosophy. This collaborative functioning is fostered by the BioBasque Agency, the instrument created by the Basque regional government to implement the BioBasque 2010 strategy. It is also a one-stop shop for information and a catalyst for the improvement of the framework where the biosciences sector is growing.

The role of the BioBasque Agency has been to facilitate the emergence of the Basque bioregion, being its mission to align all horizontal public instruments for business promotion (R&D programs, entrepreneurial support, venture capital, and talent attraction programs) towards the specific aim of the creation of the Basque Biocluster.

The main tasks of the agency include, among others, coordination of actors involved in biosciences, including research organizations, Innovation System, and public administration; advice for the Basque Government on questions related to biosciences; advice on the allocation of funds; orientation of existing business diversifying towards the biosciences; internal and external marketing of bioscience activities (business, scientific) within BioBasque; and supra-regional cooperation.

Why was this a "first of its kind" in Spain?

Actually, Biobasque was the first strategy specifically designed by a regional government in Spain to promote life sciences in Spain. No other regional government had before designed a similar public strategy showing such a big commitment towards life sciences. The Basque Government was a pioneer among other regions of Spain in building a public strategy to promote and revitalize this sector. As I mentioned before, the strategy was designed with the aim of developing a new business sector related to biosciences with the ultimate goal of diversification of the existing industrial tissue.

Over the last two decades, the Basque Government has undertaken scientific and technological policies which support the existing industrial fabric, but also prepare the Basque country for future challenges by means of diversification into knowledge-intensive sectors. Strong government support with a pro-business orientation has helped the development of a thriving biosciences community, promoting the collaboration between the academic world, the health system and industry. Proven experience in clustering has also worked to create a nourishing environment that acts as a magnet for talent. Within this favourable framework, an attentive to technological revolutions private sector and an entrepreneurial spirit become assets for consolidating the Basque Biocluster.

What have been the key achievements so far and what are the next priorities and areas of focus in the agenda?

Development of life sciences in the Basque country experienced a significant push at the beginning of last decade. The recent evolution in the life sciences scene has transformed the Basque country into the Basque BioRegion, a network of entities (businesses, science and technology, biomedical environment, investors, etc.) whose activities not only are productive in scientific terms, but also have an economic impact in Basque economy.

The core of the Basque Bioregion is the Basque Biocluster that comprises nearly 30 partner companies, 45 with subsidiaries. The value chain of the cluster is companies capable of generating entirely new products and services with a solid base of industrial property. Areas of business activity of the association are mainly (59 percent) health, human and animal, as well as food industry, cosmetics and management of transversal services, etc. Within the areas of action, diagnosis is the main focus.

Such a sector is R&D intensive and, consequently, one of the BioBasque strategic axes was related to knowledge generation, and required strengthening the existing R&D capabilities, both in terms of researchers and infrastructures. That effort derived also in the creation of two Cooperative Research Centers, CIC bioGUNE and CIC biomaGUNE, to align strategic research agendas within the Basque science and technology agents, with a sustained public investment of more than EUR 150 million (USD 202.11 million).

The scientific and corporate progress achieved in the Basque country in the fields of biosciences suggests that the region's scientific/technological and corporate capabilities are moving in the right direction towards the stated objectives.

The next phase of the strategy proposes diverse courses of action based on the following objectives: specialised science and technology; growth of the biobusiness activity in all areas under

development (biotechnology, biopharmaceutical, medical devices, specialised services); increase in business diversification initiatives from industrial companies in sectors with a long tradition; increase of the weight of suppliers in all value chains; incorporation of developments in user/customer sectors.

Other objectives which are no less important can also be highlighted, such as the availability of capital and funding, availability of specialized talent, effectiveness in the exploitation of results (transfer), an aligned healthcare system and the revitalization of the sector.

Talking about new areas of focus in the agenda, the Basque Government has recently renewed its commitment to the biosciences and to economic diversification towards medical research, through the Basque Smart Specialisation Strategy, RIS3, focusing the exploitation of industrial research on personalised medicine, medical and healthcare technologies and supplies, and new medical and technological developments related to ageing.

The priority of the Biosciences area focuses on the human health sector, which includes ageing from a healthcare point of view (and technologies). There are capacities highlighted in some of the KET with greater application to the priority, namely in this case, the convergence of facilitating technologies (micro-nano-bio-ICT), which we believe represent a significant contribution to business development in the Basque country in a new emerging field with great future prospects.

For over ten years, both areas of knowledge have played an important role in the Basque Government's strategic commitment to the diversification of our industry towards knowledge intense sectors, products and services. The huge effort and economic investment in these areas is paying off, with an increasing number of life sciences companies interacting with our Basque nano-ecosystem comprised of over 180 businesses. In the Basque country today, we have over 15 biotechnology companies that incorporate micro- and nano-technologies into their production processes in order to develop new products and take them to the market.

In order for a successful roadmap to be developed and rolled out on cross-cutting KETs, a very useful area to expand upon would be the demonstrative and validation process, in order to close the gap between the prototype and the commercialization process. Breaching this gap would be a milestone for companies, as this would support them in overcoming the difficulties faced, once they have passed the prototype and research stage.

A clear example would be the case for biosciences. Here the product needs to be finalized in the final environment. Links have already been established with the health system and the bioindustry of the Basque region, yet funding the process remains difficult. The health system is ready to prove and test the product, the product is ready to be proved and tested, however the problem lies in the fact that there are not enough resources and not enough finances to allow this testing to take place. The tools for proof of concept are missing. This is an area that still requires some work.

The BioBasque Cluster that you are heading was set up at that time. What have been some of the major milestones since its inception?

BioBasque Agency is the instrument created by the Basque regional Government to implement the BioBasque 2010 strategy. The BioBasque Agency belongs to the Basque Development Agency, SPRI, a public company dependent on the Basque Government (Economic Development and Competitiveness Ministry). And Basque Biocluster is a non-profit entrepreneurial biotech association that represents and give support to the bioindustries in the Basque country.

Since the creation of the Basque Biocluster in 2010, the close relationship between both entities, BioBasque and Basque Biocluster, have paved the way for the consolidation of the small but vibrant

Basque Bioregion with two main streams of activities: consolidation of the already existing biocompanies and promote the growth of the biocluster.

Concrete ongoing examples are the development of a joint international commercialization platform for the biocompanies and the deployment of a sophisticated portfolio of services for bioincubation. The experience gained in the implementation of BioBasque strategy serves now as a basis for the design of the strategic agenda of the Basque Biocluster.

Could you please explain what is behind the Innovation System you implemented?

Basque country has a long history defining economic development strategies over the past 35 years. The continuousness of plans and strategies, responding to specific needs at each stage, have progressively sought modernization, competitiveness, specialization, diversification and sophistication of the Basque economy based on existing capacities and exploitation of greatest potential opportunity areas, creating the so-called Basque Innovation System.

The Basque Innovation System is an extended network that enables the transformation of good ideas into solid companies or commercialized innovations, and helps to create sustainable growth. From individual entrepreneurs or Technology Transfer Offices at universities (public and private) and technology centers, potential business initiatives and innovative projects are earmarked and co-developed by the network.

The Innovation System is connected internationally through networks and associations such as the International Association of Scientific Parks (IASP) or the European Business Network (EBN). Participation of BioBasque in different international programs also helps start-ups to accelerate growth through networking and access to strategic partners including financial, and other experts.

One of the Basque Government's missions is to establish a biocluster capable of competing in Spain and internationally. How is BioBasque positioned today versus the other life sciences clusters of Madrid, Catalonia, Valencia and Andalusia, and generally, in the European bio sphere?

In fact, (according to the Spanish Bioindustry Association's ASEBIO-, 2013 Report), Basque country is the fourth community in Spain regarding number of biotechs (just behind Catalonia, Madrid and Andalusia), accounting for the 10.91 percent, above the six percent of Spanish GDP the Basque economy contributes. As for the number of companies using biotechnology, the Basque country is also ranked fourth, with 9.73 percent. Basque biotechs have a relative weight that almost doubles the corresponding weight in terms of the global size of the Basque business tissue.

The Basque country brings together a total of 51 companies in the health sciences sector, with turnover of EUR 376.62 million (USD 507.45 million) in 2013, of which around EUR 62 million (USD 83.54 million) proceed from exports. The sector employs a total of 2,700 people (over 50 percent highly qualified) and has invested EUR 121 million (USD 163.03 million) in R&D&I in said period. 60 percent of companies are less than ten years old and 90 percent have their headquarters in the Basque country. Practically all (90 percent) of the companies develop their activity on an international scale.

BioBasque is also recognized as a bioregion at national and international scale. It was chosen as RegioStars 2011 Award (EU) finalist among 66 initiatives from among 18 countries.

We like saying, as I mentioned before, that we are a small but vibrant bioregion. Today, the Basque country has been included into the map of European bioregions with its own identity, in close interaction with other actors on the international scene of biosciences, articulating and establishing

collaborative initiatives with different partners all over Europe.

In this sense, we believe that we stand before this great challenge of the 21st century and we see the horizon with optimism. We think we can provide value arguments on bioscience, health and ageing, and we believe we are an engaging opportunity to explore and to build partnerships in the target markets.

The word "cluster" itself has become trendy, with regions worldwide adopting the term in numerous ways. What in your opinion does it take to be a true cluster in biosciences?

The Basque country has been at the forefront of the design and implementation of cluster policy since the early 1990s, when it embarked on a strategy to transform its economy in response to deep economic crisis and high levels of unemployment. Policy responses were sought to construct new competitive advantages, and the Basque government was a pioneer in the establishment of a Porterian (Michael Porter) cluster policy. The success of this policy, as part of a broader economic strategy, can be seen in the GDP growth experienced over the last 30 years, which places the Basque country in the top 5 percent of European regions today in GDP per capita.

Basque cluster associations are key agents of the competitiveness policies in the Basque country, with a huge mobilizing capacity, creation of social capital and generation of expertise. The Basque approach was based from the beginning on the idea of "priority clusters;" that is to say, only a part of the natural clusters were considered to put forward cluster initiatives. We understand clusters as a very useful tool for the industry policy. But we also understand that cluster policy is only one policy that must be integrated and embedded within the whole competitiveness and innovation system. It has an enormous potential and multiplicative effect, but is only a part of a bigger framework.

Now in 2014 we find ourselves at a critical moment for reflection and change. New challenges are pressing, related to the need to transform Basque industry towards higher-value and more radically innovative activities and to stem the renewed de-industrialization processes of recent years.

Moreover, the response to these challenges is strongly connected with an emergent strategy (RIS3) that seeks to focus resources and investments in areas where there are clear synergies with existing and potential business capacities of the region. This reflection is leading the Basque country towards a balanced strategy that combines a cross-cutting priority to various sectors "we mentioned just before" in which the Basque country has strong expertise and capacities combined with commitment in a diversification field in search of a high-tech businesses with high growth potential.

Bioscience has revealed itself as a sensible field to invest business development efforts into. Risky by nature and typically requiring medium to long maturation terms, but offering high rewards. That's what we believe that Basque biocluster should be a very useful tool for the improvement of the Basque life sciences sector.

Taking into account the specific features of emerging industries, such as high technological intensity, global market orientation, mostly new companies and capital intensive businesses, cluster services in biosciences should address, amongst others, intellectual property protection, professional investor analysis, design of bundled offerings, access to international markets, out/in-licensing, leverage capacities to outsourcers.

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