

**THE EUROPEAN DIMENSION OF REGIONAL
RESEARCH POLICIES**

ANDREU MAS-COLELL
Minister for Universities, Research and
the Information Society

Brussels, 12 November, 2002

THE EUROPEAN DIMENSION OF REGIONAL RESEARCH POLICIES

Brussels, 12 November, 2002

A. Mas-Colell

Dear Commissioner,
Authorities,
colleagues and friends,

I. Introduction

Many thanks for the opportunity to be here today. It is significant, and commendable, that the regions of Europe be present at the launching of the VI Framework programme. It reflects the awareness of the Commission on this matter, embodied in the Communication on "The Regional Dimension of the European Research Area" of October 2001, in the many workshops on the subject held across Europe – we were happy to promote one last April in Barcelona - and in a recent, (21 of October), Milan speech by Commissioner Busquin.

It is my intention today to underline the vital function regions play in European science and technology, to present some concrete examples from our work in Catalonia and to speculate a bit about the desirable role for regions in the development of the European Research Area.

II. The increasing role of regions

I lack the figures to make a detailed statement, but it seems to me that the role of regions in the promotion and financing of European research is on the rise. In Catalonia, for example, regional funding represents one of every three euros of public money spent on R+D. Recently we reached an agreement with the Spanish government to develop a sincrotron light source near Barcelona financed half-and-half by the Spanish and Catalan governments. It is not a unique case. Soleil, the French sinchrotron project currently in development, also depends on regional financial support. Not long ago, an editorial in Nature stated that the last chance for the development of a European facility for neutron research (the European Spallation Source) rests with regional initiatives.

The involvement of regions in the promotion of R+D activities is not surprising as regions, within the range of their, extremely varied, legislative and economic possibilities, have as one of their main objectives fostering their own economies. To this end, it is well understood that an environment rich in R+D activities is conducive to spillover effects very favourable to economic growth. Thus, the logical efforts of regions in pursuance of their own growth, have, as a natural consequence, the increase of the research effort in the whole of the European Union. Surely, without the initiative of the regions the total research effort of the EU would be smaller. Given the Lisbon aim and the Barcelona objective, this is certainly a positive fact.

No two regions are equal. Therefore, no two regional R + D policies can be the same. Regions differ not only in structural characteristics (territory, population, GNP, etc), but also, and most significantly, in the range of administrative, legal and political tools they have at their disposal, as well as on the financial resources they can mobilize. Nonetheless, all over the map of Europe the presence and the research activities of regions are increasing.

There is, however, an important fact that needs to be stressed: most of the sources of public funding of R + D in the European Union are still not at the European or regional level, but at the state level. It is, therefore, impossible to conceive of a sensible research policy at the regional level that is self-contained, that is, which thinks of the region as a closed entity. In brief, the interplay of the regional level with the state, and also the European, level, is essential.

In Catalonia we have spelled out the consequences of this basic fact in a somewhat radical manner. I give two examples:

1. First: we do not award grants for projects. We recognized, after some constitutional haggling, that the funds for project grants are to be obtained at the state, Spanish, level. We could, of course, award grants with the funds we increasingly devote to research. But, with some minor exceptions, we do not. Instead, we have preferred to develop a policy whereby our funds are entirely devoted to strengthening our scientific and technological infrastructure with the aim of making ourselves attractive to external, public and private, funds. Keeping in mind this central axiom of our research policy, we note that it is very important for us, but also for the efficiency of R+D policy at all levels, that public funds be allocated in a transparent, competitive and open manner, with public calls for proposals and with strictly scientific, or technological, evaluation criteria.

The remark I have just made underscores the significance of the European level. Although European funds are a small fraction of total funds, they have a strategic character essential for the regions. European evaluations and awards have a high level of credibility and can be the decisive test of the soundness of the regional policies I'm describing. It is because of this that we will always support the increase of European funds for research.

2. As for the second example let me mention matching. It is crucial, from a regional point of view, that regional and state policies be complementary rather than substitutes for each other. It is frustrating, for instance, to develop a regional fellowship programme with the intention of adding to a state programme only to see the state programme subsequently contract. One way out of this conundrum is to specialize in things the state does not do. Another is explicit coordination. This can go from the establishment of a very general contract between the state and the region to a more piecemeal approach. Matching is an example of the latter which we, in Catalonia, are practicing with increasing regularity.

So far I have referred mainly to public funding of R+D. This is only a part of the story, as it is clear that the very successful regions and states are characterized by the decisive role played by private funding and, more concretely, by business expenditure in R+D. Here it is important to recognize that the market for R+D knowledge is truly international. In the same way that local firms, to be internationally competitive, need R+D - and they will be pushed to find it wherever it is available - the local R+D institutions should look at the international market to sell their know-how. This can take many forms. From the patent sold to a multinational, to the attraction to the region of a research lab of an outside firm, or even, as an intermediate possibility, membership of business clusters of the Media Lab variety. In Catalonia our policy towards the promotion of corporate research has this international market outlook as one of its main axes. We are, of course, sure that a vibrant R+D environment will have an effect on local firms, both the established and the new ones. The classical mechanism of local spillover ("the knowledge in the air", in the expression of Alfred Marshall) is undoubtedly at work. But we think that, at the beginning of the 21st Century, the international outlook has to be sought from the start. Behind every successful scientific and technological local culture with international impact, there is a previously internationalized scientific or technological matrix.

III. Some specific initiatives of the 3rd Research Plan of Catalonia.

Let me now set out in more detail the main features of our R+D policy, as embodied in the 3rd Research Plan of Catalonia (2001-2004). I want to say before going further that this plan is supplemented by an Innovation Plan that was elaborated with the help of the European Union through the RITTS Programme (Regional Innovation and Technology Transfer Strategies). The starting point of the Innovation Plan is the recognition that the universities and research centers constitute a key source of strength and comparative advantage. In consequence, the Plan strives to promote the generation of spin-offs. This is not easy as the traditional culture of the university-research system, based on the civil service, has many virtues, but economic entrepreneurship is not one of them. Fiscal incentives, incubators, seed capital, venture capital have been brought to bear, with promising results. We are currently on the verge of launching a program, within European Union rules, for helping firms to set-up corporate research centers.

The 3rd Research Plan has one fundamental aim: the efficient augmentation of the R+D sector. With this, of course, we are helping ourselves, but we are also helping Europe to reach the Lisbon aim and the Barcelona objective. It is our contribution to the cause, a cause we believe in deeply. In 2000 our level of R&D expenditure was at 1.1% of GNP. The target of the 3rd Research Plan is to reach 1.4% by 2004. Lisbon and Barcelona will demand then an ambitious target by 2010.

In this path of expansion, reflected by an average annual increase of over 15% in our government research budgets for the period 2000–2003, funds have to be allocated following some criteria. In this respect, one should distinguish two issues. The first is the determination of objectives and the possible focus on priority areas. The second is the design of the tools for the implementation of the allocation policy.

1. As for objectives, our philosophy has not been inclined towards setting priority areas. Thus, we have oriented our policy along two axes. In the diversification axis we engage in prudent behaviour: we have to maintain some presence and expertise in a number of large, mostly traditional, areas of knowledge. Of course, the size of any particular region will determine how fine a partitioning of knowledge is appropriate. In the specialization axis our motto is to go with the winner. In other words, to give support, to reward and to encourage whatever that works, in the sense of producing, or being about to produce, cutting edge research.

2. As for the tools for the implementation of research policy, allow me to classify most of them under two headings: tools related to human resources and tools related to research centers.
 - i) First I'll outline some of our human resources programs. I ask you to keep in mind that the overall purpose is the increase, extensive and intensive, of human resources (researchers, students, technicians, etc.) available for research:
 - 4 Consolidated groups. We have organized our entire public research system into some 500 consolidated groups, a kind of cartography. This, of course, is periodically renewed through open calls. Each group receives a small amount of financial support.

 - 4 Teaching release program. Every year, by means of a call and an external evaluation, we give an award to 30 university professors who are particularly productive in research. The award gives them the opportunity of a release from teaching responsibilities for 5 years to enable them to concentrate on their research projects.

- 4 Predoctoral grants. We finance some 800 predoctoral students, from all backgrounds, to study at our universities, or abroad. We believe that graduate doctoral education is the natural hinge around which the European Research Area and the European Space of Higher Education should be articulated. The harmonious joint functioning of these two spaces is crucial if Europe is to mount a real challenge to the dominance of the USA.

- 4 Postdoctoral fellowships. We offer co-financing options to the universities and centers of research to encourage them to participate in the Ramon y Cajal post-doctoral program of the Spanish government. This is a good program that offers reasonably well paid, 5 year postdoctoral appointments. During the first two years of the program we have succeeded in attracting 330 out of the 1300 fellowships to Catalonia.

- 4 Recruitment of Senior Researchers. We have also set-up a foundation, the Catalan Institution for Research and Advanced Studies, ICREA, whose main function is hiring senior researchers, mainly from outside the Catalan research system, on a permanent basis and in collaboration with universities and research centers. The researchers are paid by ICREA but work at the collaborating university or research center which also provides the support infrastructure. The foundation was created two years ago and already has 50 researchers. Of these 40% are non-Spanish and 62% have been incorporated from outside Spain. Our intention is to develop this program at a rate of 20 to 25 new researchers per year. The program has been very well received by universities and research centers and I would like to emphasize that while the posts are tenured, they are based on labour, not civil service, contracts.

4 University law. The Parliament of Catalonia is about to pass a new university law that allows labour contracts at the universities for the first time. It is our intention to assist our universities financially with the development of employment programmes based on this contractual option.

ii)

The second main dimension of our R+D policy is the promotion of research centers staffed with a critical mass of researchers. I do not say “centers of excellence” because striving for excellence should be taken as a given. This policy derives from the following analysis: first, research centers are essential to the productivity of a research system. Second: the number of medium sized research centers in Catalonia is insufficient. Third, the strong emphasis of the VI framework programme on centers of excellence has been duly noted. All the centers we have promoted have legal standing, a Board constituted by the Catalan government and one or several universities, a director named by the Board and external scientific committees. In the last three years we have developed around ten new centers in a variety of areas such as chemistry, cardiovascular diseases, genomics, biomedical research, telecommunications, fotonics, high-energy physics, internet, economics, archaeology,.... Some are up and running, some are just starting. Indeed, it is because of this that we are a bit weary about track record being a substantial evaluation criterion for centers in the VI framework program. This penalizes new institutions. We believe that it is the researchers’ track- record that should be evaluated.

I would like to conclude these remarks by mentioning some initiatives that transcend the notion of centers but that are also basic to our research policy. One is the development of scientific and technological parks, understood as spaces located near universities where public and corporate research centers share premises and interact. Mention the Barcelona Science Park promoted by the University of Barcelona as our leading

example. A second initiative derives from the desire to place in Catalonia a scientific or technological facility of European significance. As I have mentioned before this has cristalized in an agreement with the Spanish government to develop a Sincrotron Light Source, which we expect will boost Catalan and Spanish capabilities, but also be a useful asset for the whole of Southern Europe. In fact both the Spanish and the Catalan governments are quite open to the participation in this project (perhaps through the article 169) of other regions and states.

IV. The regions in the future of Europe

Up to this point I have spoken about the increasing role of the regions and I have illustrated a number of policy issues with experiences from Catalonia. In a sense I have talked about the regional dimension of Europe but I could rephrase much of what I have said as underscoring the European dimension of the regions. Regions certainly have a crucial role in the development of the European Research Area. But I want to go a step further and suggest that so does the cooperation among regions. The European Research Area will be stumped if we conceive it merely as a collection of densely intralinked states connected by high capacity cables at the top. At its culmination the European Research Area must rest over a universally linked network. It is only with this type of network that the reality of Europe will become a structural fact, a feature of the landscape endowed with geological stability. Interregional cooperation is a very effective way to take steps in the right direction. Let me give you an example from a related area. Very recently the regions of the Four Motors for Europe, one of which is Catalonia, went jointly to an educational fair in Shanghai. The purpose was to promote our universities in China. By going together we were not just selling each of our regions. By going together we were also selling Europe because seen from China this is what we have in common, it is what unites us. In many small ways like this, the regions of Europe

are pushing the development of the European areas of higher education and of research.

I have just mentioned the Four Motors for Europe. This is an example of interregional cooperation that has already some tradition and which, I believe, can be considered successful. The four regions have things in common: we are all regions with a rich history in the old economy and we are all managing the transition to the new economy well. But, if for no other reason than the diversity of our territorial placements, we are also very different and it is because of this that we may have useful things to tell and teach each other and that we may constitute a successful example of cooperation. To ensure that the cooperation continues to thrive, we need to look to the future and in particular to the VI Framework programme. The ERA-NET initiative, for example, is very promising and we are studying in which form to participate in it.

Let me conclude in a more political tone. It is natural that the regions of Europe desire to be listened to or, even better, to be party to the debates that will frame the European Research Area. The interests of Europe and of its regions are aligned. Every meeting we are excluded from impoverishes us a bit but it also impoverishes Europe. And there is no one to spare for the Lisbon challenge and the Barcelona objective. Let me clarify that when I refer to exclusion I do not necessarily mean to the E.U. I could refer to the ESF. We are at present living through a particularly important period. The institutional future of the Europe of the 21st century is being shaped in the discussions of the European Convention. I can only hope that the impact that the regions are bound to have in our common future will be fully reflected on its proceedings.

Thank you very much for listening to me in this very special occasion.