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Shortages of innovation support organisations in the Basque country

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**SHORTAGES OF INNOVATION SUPPORT ORGANISATIONS
IN THE BASQUE COUNTRY**

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Abstract

Increasing competition, internationalisation of the strategies in a context of economic globalisation: these are the difficult conditions in which the activity of an increasing number of SMEs (two thirds of the European Union enterprises) have to deal with. For many of them, even if the activity they carry out is in a traditional branch, the innovation can be a decisive competitive advantage.

The many market failures that appear in that innovation process has lead to the different levels of government to intervene through Technology Policies in order to correct those imperfections.

The aim of this paper is to analyse those public interventions, focusing on the case of the Basque Country's Government Innovation strategy since the 80's. During these two decades this policy has experienced several changes, some of them in the right direction (like the integration of science and technology policy), while others do not achieve yet to solve the lack of involvement of a big proportion of SMEs in those R&D policies and neither to make them relate with most of the Basque Technology Transfer Agencies. In this sense, of the 13,054 manufacturing enterprises of the Basque Country (75% of them with less than 10 employees), nowadays only 318 carry out R&D activities, which means that the government policy only reaches to the group of firms that would find the way also without any external help. It is this dualism the major problem that has been identified thanks to the data obtained through our research in the "Regional Innovation Systems: designing for the future" project funded by the European Commission.

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1. INTRODUCTION

The aim of this paper is to try to evaluate the intervention of the Basque public authorities and several public and private organisations in the innovation field.

As the innovation process is on the one hand, the responsible of 80 or 90% of the productivity growth of the advanced economies, which at the same time is the main factor behind the economic growth (Cooke, Etxebarria and Gómez, 1997), and as on the other hand, in the innovation process many market failures take place, the institutions' intervention can play a fundamental role in the correction of such failures, and thus, in the economic growth.

In this way, the role of the institutions in the economic growth of a region will be analysed, defining the institutions as the habits, routines, rules, norms and laws that regulate the relations among people and which shape the human interactions (Johnson, 1.992), and as formal institutions, defined by others as organisations, such as political entities (political parties, Senate, regional agencies), social entities and education entities (universities, training organisations, schools) (North, 1.990). In this sense, it has been adopted the wide sense of the institution concept of authors as Edquist (1.997), Nelson and Rosemberg (1.993) or Johnson (1.997), but this paper will mainly focus on the formal institutions.

This intervention of the innovation support institutions can be more or less dirigist, from the simple creation of a favourable legal framework for innovation, until the selection of the technology areas to be promoted. At the same time, such intervention can accelerate the innovation process as well as to hinder it (Edquist, 1.997).

In this sense, and as it will be analysed later, the intervention of the different Basque institutions in most of the cases does not accelerate, and in many cases does not even generate the innovation process inside a big proportion of the small and medium Basque enterprises.

On the other hand, the division of competencies between the state and the region, has prevented the process, since some policies are designed from both levels, without a clear co-ordination between both.

2. DEFICIENCIES OF THE TRAINING ORGANISATIONS: FUTURE PERSPECTIVES.

The difficulties to recruit qualified personnel are one of the main problems that enterprises face at international level. Indeed, it is observed, that the education and training are becoming obsolete faster than in the past, and that 40% of European SMEs, when they need to contract, they do not find personnel with the required qualification level (Bustamante, 1.998). This process is, even, worst in the case of the technical personnel, who faces up in his work to a speed in the technological change not experimented till now.

In the case of the Basque Country, the difficulties that local enterprises face to find qualified personnel for their necessities, could be related on one hand, with the deficiencies that exist in the Education System, that not only take place in the Basque Country, but also in the rest of the state, and on the other, with the absence of an adequate Continuous Training System.

The first reason is related with the duality that exist in the *Education System*, and which is reflected in the fact that the interviewed organisations considered the worker's qualification as one of the region's advantage, while the enterprises said the opposite. In this way, while the qualification and university matriculation is one of the highest of Europe (the percentage of university students as a percentage of the total in Bilbao is between 15 and 18%, and in Lille (France) is between 12 and 15%, (Bibao-Metrópolis 30, 1.995), the professional training is in a complete opposite situation. This type of training has been wrongly designed, generating among the enterprises an unsatisfied demand. The main problem that professional training faces is the strict separation between the school and the enterprise, and above all, the necessity to improve the social and entrepreneurial valorisation given to this kind of education compared to university one.

In the Basque Country a model to follow could be the one designed by the Institute of Machine Tools of Elgoibar, (that not only teaches continuous training, but also professional one), that has not only eliminated the strict separation between the school and the enterprise, but also, has obtained important acceptance and prestige in the locality where it is located.

Although there has been a recent reform in the Professional Training, its positive effects will not appear until a change in the social behaviour does not take place that confers to this kind of training the value that deserves. Until this happens, a possible solution to solve the current unsatisfied demand of the SMEs, could be the promotion and orientation of the continuous and occupational training in the directions reflected by those demands.

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In relation with the *Continuous Training* of the workers, which looks at the capacity of the employees to assimilate new knowledge, and which indeed affects directly to the qualification of the enterprise' workers and managers, the solution to this problem has to come in the first place, from the conviction of the own entrepreneur of the importance of this kind of training, mainly in the sectors that face permanent technical innovation, and on the second place, from a correct offer of courses to each sector (which can be inside the enterprises, that is to say, in the workplace, or in specialised training centres).

In the Basque Country there are many institutions such as the Chambers of Commerce, trade unions (Forcem), Diputations, Machine Tool Institute (IMH)..., which offer courses for the active and unemployed workers. And on the other hand, the Regional Development Agency, SPRI, which offer courses to train managers and directives.

However, in the case of the **Training to active and unemployed workers**, in spite of the many organism that exist, there is only one institution that adequates its courses offer to the demand of the firms, in the case of machine tool sector. This Institute has become a reference point for best practice training provision, not just in the Basque Country, but in Spain itself (Cooke and Morgan, 1998).

In this way, there is a necessity for a centralised organisation, that could be the recently created "Foundation for the continuous training, Hobetuz", created by the Basque Government, enterprise associations and trade unions, which could co-ordinate and direct all the continuous training activities and courses offered in the region, analysing at the same time the specific demands (necessities) of the regional enterprises. Another activity that the foundation could carry out is the vigilance and prospective of new qualifications, both inside and outside the region. Indeed, it would be desirable to create synergies between this prospective (of future qualifications) and the technological prospective. (In fact Hobetuz and SPRI-Innovation, the area of the Regional Development Agency, SPRI, whose aim is to enhance the cultural and structural change of the Basque entrepreneurs, and which could assume the job of technological prospective, are located in the same building).

In any case, this solution could only be implemented if the definitive transference of the competencies in continuous training are made to the regional government, something that has began to occur in the Communities of Catalonia and Galicia, as it is this government level the most conscious about the necessities of the local enterprises due to its proximity to them.

Regarding the **Training to directives**, which is one of the most important tools that can help to carry out a mental and cultural change in the entrepreneur regarding innovation

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(Rothwell and Dodgson, 1.991 in Hassink, 1.996, it is provided mainly by the SPRI-Innovation.

Since the “Program of Self-training: Director Development” was put into practice in 1.993, of the 2.114 directors that participated in those courses, 30.7% were managers of enterprises of less than 25 workers (or microenterprises). Nevertheless, even if those percentages seem high, they are quite insignificant if the Basque productive structure by enterprise size is analysed, as it will be done latter in Table 3.

3. DEFICIENCIES OF THE INNOVATION: THE ROLE OF THE PUBLIC FUNDING.

As it is well known one of the main problems that the enterprises find when innovating, is the high cost of innovation.

The case of the Basque enterprises is not different to the rest, being this the principal obstacle the interviewed enterprises adduced when they had to innovate.

Possible solutions offered to increase the private funding, could be the promotion of venture capital, the creation of a system of guarantee-secure that makes possible the Bank’s financing for innovation, the development of mechanism of secure of risk derived from the innovation and of reciprocal guarantee, the implementation of a fiscality favourable to innovation or the creation of a second stock market such as the American (European Commission, 1.995; Cotec, 1.996).

Nevertheless, none of these measures has been implemented by the Basque Government, in part because some of them are competencies of the Central Government, and in part because the authorities have not foreseen such a solutions.

The traditional way to overcome the scarcity of private funding used by the Basque authorities, has been on one hand, the creation of a public enterprise of Risk Capital “SPRI Capital Riesgo”, and on the other, the R&D Projects.

The “Management of Risk Capital of the Basque Country, A.S.” dependent on the SPRI, was created in October 1.985, with the objective of promoting the risk capital activity in the region. In 1996 it had a social capital of 115 Mptas (participated in 80% by the SPRI). During its first ten years of activity, it has assisted a total of 32 enterprises, having 32% of them less than 25 workers, and 28% more than 100. But once again, if we have to take into account that in the Basque Country there are 13.895 enterprises of whom 12.395 (89,2%),

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have less than 20 workers (EUSTAT, 1.996), the grasp of the financing of SPRI Risk Capital, in terms of microenterprises is quite limited.

On the other hand, one of the most important providers of funding, in quantitative terms, is the Basque Government through its different R&D Projects.

In this way, until the end of the eighties the managers of the Technology Policy were acting without planning nor technological strategy, through subsidies to R&D departments of enterprises (sometimes without any discrimination criteria) and supporting the development of the existing Technology Centres through the creation of the network of Technology Centres under Basque Government's protection.

It will be in 1990 when the government will pass from the previous policy of diffusion and assimilation of existing technologies to a policy based on planning, selecting the most technological interesting areas for the productive environment and giving priority to generation of new technologies. This change will be materialise in the elaboration of the PET, "Technology Strategy Plan (90-92)". But is with the "Plan of Industrial Technology (1993-96)", when the first intentions to define a Technological Policy support of the Industrial Policy took place; inside the General Frame of Acting in Industrial Policy (1991-95).

The main tools of financing foreseen in this plan were the different research and technology development projects that appear in the Frame, which, as well, shows the last Science and Technology Plan, 1997-2000.

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FRAME: R&D PLANS OF THE BASQUE COUNTY

Plan of Industrial Technology (1.993-96)	Plan of Science & Technology (1.997-2.000)
<p>Generic Projects: directed to the generation and assimilation of generic technologies::</p> <ul style="list-style-type: none"> - <i>Type 1:</i> presented by the Technology Centres of EITE¹ and university departments (financed, both, 100% by the Department of IAF²). - <i>Type 2:</i> presented by the clusters or sectoral groups (the IAF Department finances until 50%). <p>Cooperation Projects:</p> <ul style="list-style-type: none"> - <i>Projects in Strategic Cooperation:</i> directed to the market, carried out in cooperation between the technological offer and the enterprises (more than one), funded by the IAF Department (until the 70%; application phase, until 50%; and personalisation phase 20%). Technology Centres of EITE and university departments, phase 1 and 2 100% financed. - <i>European and State Projects in Cooperation,</i> the Basque Government gives a complementary help. <p>Individual Projects: directed to the technological development and innovation, carried out individually by enterprises or in collaboration with Technology Centres or university departments. The IAF Department financed until 20% of the expenditures.</p>	<p>Basic Research Projects. developed by the university; and only with exception can be developed by Technology Centres and firms' R&D units.</p> <p>Integrate Projects: carried out by the technology offer and enterprises, and composed by, at least, one generic research project (in which the enterprise will finance at least 10% of the annual cost of the project) and/or a cooperation project.</p> <p>Co-operation Projects: carried out between the technology offer and the enterprises, (if is SMEs the government would fund until 50% of the annual cost, and if it is not, until 40%) Can be of two type:</p> <ul style="list-style-type: none"> - Projects to be develop by two or more firms with one or more Technology Centres and/or University Departments. - University-Enterprise Projects. <p>Individual Projects: of technologic development and carried out by an enterprise.</p>

The funding canalised by the Basque Government by means of these projects appears in Table 1.

Table 1: Industrial Technology Plan 1993-96. Funding breakdown

Type of projects (PTAs)	1993		1994		1995		1996	
	Investment	Support	Investment	Support	Investment	Support	Investment	Support
Generic Type I	1754 (15.75)	1700	2007	1853	2241	2241	2239	2239
Generic Type II		68%		47%		36%		48%
Cooperation Projects	838	32%	1429	53%	1674	64%	2155	52%
Individual Projects	8543 (76.73)	655	7000	847	6904	921	9570	1276
Total	11135	745	10436	943	10819	897	13984	4563

Source: Basque Government (1997)

As it can be appreciated, it is highlighted the increment of the Government support to co-operation projects which grew up 94% during this period, revealing the importance that this

¹ In this plan, the centres grouped in EITE (The Association of Technology Centres) were named Technology Centres under the protection of the Basque Government, due to the special agreement signed with it, by means of which one, the centres dispose of a stable frame of funding. This special frame disappear in the current Science and Technology Plan.

² Industry , Agriculture y Fishing.

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kind of projects had as instrument to encourage the co-operation culture between the enterprises and the technological agents, that were not very used to that.

Table 2 reflects the funding received through co-operation projects by agent, showing that although in the beginning the Technological Centres received more than a half of the funds, the situation is inverted since 1993, turning the enterprises into the main beneficiaries.

Table 2: Funding received through co-operation projects by agents

Agents	1993	1994	1995	1996
Firms	37.80%	57.3%	57.19%	54.66%
Technological Centres	59.35%	39.36%	38.82%	39.74%
University	2.85%	3.34%	3.99%	5.6%
Total	100%	100%	100%	100%

Source: Department of Industry.

However, the funding data by projects (in co-operation and individual) for 1995, as Table 3 shows, reflects that enterprises with less than 25 employees (90% of the enterprises of the Basque Country), received only 23.2% of the total fund, which demonstrates that the Government support does not reach the big proportion of very small enterprises which besides are the most abundant group.

Table 3: Number of manufacturing firms and funding by projects (co-operation and individual), by firm size (1995).

Number of employees	Number of firms	Number of employees	Number of firms in projects (co-operation and individual),	% total de grant received.
0-20	12.395	0-25	56	23,2
20-49	811	25-50	23	6,7
50-99	376	50-100	33	19,4
100-249	212	100-200	30	22,7
250-499	74	200-500	36	19,8
<500	27	<500	10	8,2
Total	13.895	Total	188	1.725.882.822 (100%)

Source: Department of Industry, Eustat and own elaboration

The Science and Technology Plan (1997-99) has introduced key changes, thus from the three kind of former projects, it has been passed to the four that appear in the previous **frame**.

As appreciated, the previous Type I Generic projects, which were directed almost exclusively to EITE network Technological Centres (not including the sectoral centres) to

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develop generic technologies, have disappear, disappearing also the “tutela” agreement that these centres have with the Basque Government.

On the other hand, the former Type II Generic projects, which were carried out between the enterprises and the technological offer, have been included within the Integrated projects. And as this kind of projects foresees a second phase, of Co-operation, a bigger diffusion of the generic technologies previously obtained as well as an increase of the co-operation among the agents of the system is expected, because it is permitting the access to funding for innovation to a bigger number of firms.

As noted in Table 4, the funds exclusively received by EITE network Technological Centres, was very important (1,019.248 Mptas). Nevertheless, from now on, it is expected that the amount of resources in the hands of enterprises will increase.

Table 4: Funding through Generic Projects and number of projects(1996)

	Generic Type I	Generic Type II
Number of projects	47	76
Budget (Mptas)	1.019.248	1.237.897

Source: SPRI (1996)

Summing up, the reforms are going in the right direction, but taking into account that the percentage of innovative enterprises with less than 50 employees is 68% in Germany, 67% in Ireland and 64% in Belgium (Green Paper, 1995), and that in the Basque Country this percentage reaches 95% (13206) and among them only 0.8% accomplish R&D activities (in the strict sense), the attention carried out by the public authorities over these enterprises has to be reinforced.

Hence, the funding of the government should have to take into account the necessities of that majority of very small enterprises both through mechanism of demand listening and through offer orientation towards those demands.

In spite of the financing support that the Basque Government gives to enterprises, is also necessary to generate a change in the attitude of the Basque entrepreneurs in order to introduce within enterprises an Innovation Strategy.

In this sense the SPRI realises a sensitisation of the Basque entrepreneurs by means of several programs, within its Entrepreneurial Innovation area:

Reto Program: which supports the strategic reflection and the process of change and continuous improvement in the Basque SMEs.

Organisation and Strategy Program: which encourages and facilitates the elaboration and application of entrepreneurial strategy plans which improve the management and

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organisation in the industrial SMEs (including the accomplishment of diagnosis of the technological innovation management), and finally,

Joint venture Program: which promotes the realisation of more or less permanent activities or projects in co-operation

However, the evaluation of these programs, regarding very small firms, is not very positive.

In relation to the Reto Program, Table 5 shows that, it is the one that has had the best results. That is, both the total number of enterprises and the participation of very small firms have increased notably, aspect that reflects the sensitisation of the Basque entrepreneur in order to maintain market shares.

Table 5: Participation in the Reto Program by firm size

	1994	1995	1996	1997
Number of firms	22	26	34	51
1-24	4.5%	7.6%	5.8%	17.6%
< 100	81%	61.5%	94%	70.5%

Source: SPRI (1997) and own elaboration.

Relating Organisation and Strategy Program, as appeared in Table 6, it is the program with the biggest participation of enterprises and the one that as introduces a diagnosis of innovation, could be the most suitable instrument to accomplish this cultural change in the Basque enterprises, but as it can be appreciated, the participation of the very small firms has diminished comparing to the firms with more that 100 employees (which suppose 2.2% of the total Basque manufacturing enterprises, Table 3).

Table 6: Participation in the Organisation and Strategy Program by firm size

	1994	1995	1996	1997
Number of frms	79	77	153	150
1-24	49.3%	41.5%	36%	24%
< 100	33%	36.3%	43.1%	46%

Source: SPRI (1997) and own elaboration.

Finally, regarding the Joint-venture Program, which could be the ideal tool so that small enterprises can face up to the problems derived from their small dimension, it is observed in Table 7, that the number of total firms that have taken part in this program has dramatically diminished, passing its participation from 24 firms to 6 between 1994 and 1997.

Table 7: Participation in the Joint venture Program by firm size

	1994	1995	1996	1997
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Number of firms	53	11	19	13
1-24	45%	63%	47%	46%
< 100	39.6%	36.36%	21%	30%

Source: SPRI (1997) and own elaboration.

4. SHORTAGES OF THE SCIENTIFIC AND TECHNOLOGICAL ORGANISATIONS: AUSENCE OF STRONG LINKAGES

In the Basque Country, within this group are the Universities, the Technological Centres and the Sectoral Centres.

The *University of the Basque Country (UBC)*, despite of being the basic element of the scientific system in the region (because there are not other public centres that accomplish basic research, as occurs in the rest of the State), this organisation does not have a close relation with the productive system, and as Table 8 shows, the number of contracts with private enterprises of the region is rather reduced.

Table 8: Number of contracts of the UBC with enterprises.

Type of contract	Number of private firms	
	1995	1996
R&D	25	27
Technological support	110	129
Services	163	156
Training	34	75
Total	332	387

Source: Industrial Liaison Office and own elaboration.

Besides, as appeared in Table 2, its participation in the co-operation projects, which establish relation with industry, for the 1993-96 period, supposed only 5.6% of the funding of the Plan. In fact, the Department of Industry, in the plan evaluation, mentioned explicitly the few connections that University had with the technological support infrastructure and with firms, criticising at the same time, the lack of transfer of scientific results outside academic world.

In order to solve this constrain, the Basque Government establishes within the current plan, for the 1997-2000 period, several measures to promote the linkages university-centres and university-firms, such as: University-Firm contracts and the incorporation of technicians and scientists to industry. In any case, the effects of these measures will not take place until certain aptitudes or behaviour of both entrepreneurs and academics do not change.

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In this sense the enterprises do not rely on the research carried out within the university departments, because they consider that those ones lack of confidentiality and because the work rhythm is much more slow than short term that their necessities require.

On the other hand, there are interests conflicts in two senses, firstly, when the academic is researching, only faces up to a type of risk, it is, the loosing of it prestige, nevertheless, the entrepreneur assumes a financial risk in case of failure. Secondly, if the research is successful, the academic will prefer to publish and diffuse the results, while the entrepreneur will prefer to maintain the secret and avoid the competence.

Beside, many academics are not interested in the research activities due to their condition of civil servant and many entrepreneurs are neither used to co-operate with university.

To solve the problems of the lack of interest of the academics in their co-operation with industry, the one of the different work rhythms and the asymmetry in the risk perception in relation to the research result, the authorities should promote a change in the incentive system so for academics, prizing the collaboration with industry via Curriculum or financial.

Regarding the problems of confidentiality and diffusion of results, these could be solved by means of the creation of an International framework of patents, and of aid to the presentation and maintenance of the same ones. The academic could be, of this manner, diffuse the results without producing any financial loss to the entrepreneur, once research is finished, and at the same time, he/she would be interested, as the entrepreneur is, in maintaining the confidentiality during the research.

Finally, to motivate the entrepreneurs, should be necessary the Industrial Liaison Office (ILO), become a pro-active commercial office, which apart from informing about the scientific and technological offer of the University, knows the technological demands of the regional enterprises.

The *Technological Centres of EITE network* together with *the Sectoral Centres* of the Basque Country, are considered as the technology transfer system more developed of the State (Cotec, 1997; Cooke and Morgan, 1998), such as the data of the following table reflects.

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Table 9: EITE incomes by activities

	1995		1996	
	Mptas	number	Mptas	number
Industrial projects under contract	3.053	588	3.598	684
European projects	777	112	900	125
Generic projects, Basque Government	1.860	111	1978	105
Generic projects, Other administrations	690	88	784	104
Technological services	728	5709	714	6933

Source: Science and Technology Plan 1997-2000 and EITE (1996).

However, the big number of *EITE Centres* of high tech level but not specialised has led, in many cases, on the one hand, to the generation of duplicities in the technological offer, and on the other hand, to an unsuitability between that offer and the demand of many regional firms that do not still reach that technological level.

In this way, two groups of firms, are again distinguished within the region: the very innovative ones, which take part in regional, national and European projects, and the group of those that co-operate in a smaller degree, mainly within the value chain and that in specific cases use the technological assistance of these centres. That is, such as some authors say, these centres are like a “fire brigade”, (Hassink, 1996). These last fact is reflected in Table 9, which shows that the technological services offered by EITE centres to enterprises accounted, in 1996, for almost 7000, while the long term co-operation, which take place by means of the industrial projects under contract, the regional or national ones and the European ones, was rather smaller, being respectively, 684, 209 and 125.

It is precisely towards this group of firms, where the centres should direct their technology offer using an aggressive commercial policy, because it is just here where the bigger proportion of enterprises is.

To solve the problem of the limited reach of their offer to that group of firms, a step ahead would be the creation of a department that analyse continuously the technological demand of these enterprises through techniques of prospective and marketing.

Finally, regarding the problem of the non specialisation that has been, in many cases, attributed to these centres, one can appreciate a change in the right direction, because if the analysis is carried out by sectors in spite of by technological areas, it shows that even working in the same areas, the centres are specialised at sectoral level.

5. CONCLUSIONS

Increasing competition, internationalisation of the strategies in a context of economic globalisation: these are the difficult conditions in which the activity of an increasing number of SMEs (two thirds of the European Union enterprises, having 93.2% of those one among 0 and 10 employees) have to deal with. For many of them, even if the activity they carry out is in a traditional branch, the innovation can be a decisive competitive advantage.

The many market failures that appear in that innovation process has led to the different levels of government to intervene through Technology Policies in order to correct those imperfections (Lundvall, 1.997).

Although certain responsibilities in these concerns should fall into the national or supranational levels, such as, the change of incentives in the academia, the creation of favourable legal frameworks for innovation, the regulation of patents at international levels, or the protection of the intellectual property rights, nevertheless there is not doubt that the most suitable to accomplish other activities, is the regional level. Among them, one could mention, the promotion of an innovative and associative culture, the designing of the training programs more adequate to the firms needs, the choice of the strategic technological areas for the environment, or the orientation of the technological agents offer, so that given its proximity to the agents of the System, the regional level has a bigger knowledge of their necessities.

However, the Basque Government, when designing the different regional policies of supporting to innovation, faces up to different problems.

Within the training area, the absence of powers in continuous training and the principles so rooted in the society according to which ones, the university training provides a prestige and a social level unreachable through other alternatives, such as the professional training, together with the traditional deficient design of such training that had led to a strict separation between school and firm.

Within the financing area, the main problems are on the one hand, the lack of mechanisms of private funding for innovation and on the other hand, the existence of a very numerous group of enterprises which do not have and strategy and an innovative culture, to which one the current measures providers of financial resources established by the Basque Government. Finally, within the area of the scientific and technological organisations: on the one hand, the lack of incentives and the interests conflicts have hindered the connection among the university and the firm, and on the other hand, the high technological level of the

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technological level has as well limited, a stable and durable relation among these centres and a big number of firms.

Some solutions have gone in the right direction, such as the creation of a "Foundation for the continuous training, Hobetuz" or the self training courses of the SPRI. In the area of funding, the creation of the "Society of Venture Capital of the Basque Country", the innovation projects oriented to the strategic areas essential to maintain the competitiveness of the local enterprises or the different programs directed to promote the innovation culture of the entrepreneurs. And finally, in the area of the scientific and technological organisations, the support given to the technology centres aimed at consolidating the technological offer.

Despite all previously said, the main problem of the Basque public intervention through its different institutions is the incapacity of integrating within the innovation process to a great number of firms.

In regions dominated by the large firms, there are signs that show that these firms are increasingly interested in the quality of the local employment, the character of the local suppliers and the networking capacity of the regional development institutions. This big enterprises act as tutors for the SMEs and can enhance its innovation capacity.

For this microenterprises, that in other European countries have demonstrated their innovation capacity, there would be necessary specific and selective measures in all the areas that can affect their capacities, that is to say, in the training programs of the SPRI, in the R&D programs (such as the European CRAFT), in the offer and prospecting of the technology centres, and in the courses aiming at promoting an innovation and associative culture. In this sense, it seems that the regional authorities have forgotten that 89,2% of the manufacturing enterprises of the Basque Country have less than 20 employees, and that among them only 0.5% realised, in 1.995, some R&D activity.

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