

## MANAGEMENT, KNOWLEDGE AND VALUE WITHIN THE ROMANIAN RESEARCH INSTITUTES FOR THE PAST 20 YEARS

### **Fotache Liviu Christian**

*Economical Studies Academy of Bucharest, 132 Brestei Street, Craiova, liviuchristian@yahoo.com, 0728297207*

### **Cruceru Anca**

*Romanian- American University, Faculty of Management- Marketing, 1B Expozitiei Blvd, Bucharest, cruceruanca@yahoo.com, 0723508894*

*Our action is intended towards emphasizing some of the most important issues in Romanian research area, especially with reference to the technical and agricultural research and this because it is important to understand how our research area has evolved in the past 20 years in order to know what has to be done in the present to achieve a reliable research industry in the coming future. Before reaching any benefit from our research system we should understand what drives the people involved and what makes it so difficult to manage and so important for the society.*

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### **1. An objective “radiography” of the evolution of the organizations assigned to the research – development domain**

The research – development institutes have crossed a “golden period” at the end of the 60s and at the beginning of the 70s, simultaneously with the efforts made by the then form of government to obtain a certain industrial, and, implicitly, scientific independence. The collaborations with similar organizations from France, particularly, and also from the former USSR, and from the States, in spite of all the existing bottlenecks, have allowed the birth of a fecund scientific environment. At a given moment, Romania even benefitted by a rather numerous and well trained researcher group and by the necessary resources, and pretty surprisingly, Romania also benefitted by at least an extensive material support, although not directly related to the latest technologies.

The Romania of 1990 found meant research institutes for almost all the industrial domains, to be located in the most important towns of the country, research institutes to be organized around the universities from Bucharest, Iasi, Cluj, Timisoara, Sibiu, Constanta, Craiova, to name only some. The attraction and pressure forces from the free market instantaneously made their presence obvious in the research – development domain, as well, “knocking down” a domain with a practically inexistent “immunity” system. The management of the vast research – development domain was not oriented either towards increase, or towards survival.

“The wave” of request and offer struck, at the peak of its force, like a cold shower, the system, which resulted in the decrease of the management of this one to the level of reality; the mentioned cold shower included:

- the migration of the experienced technical personnel reached very high levels;
- for the great majority of the ones who chose to remain in Romania, the excessive politicizing of the institutes that were still under the state’s subordination made it rather impossible for them to have access to high positions that would thus motivate their real implication;
- the fundamental research remained, to a great extent, the responsibility of “idealists” who have not had the capacity to cross beyond the theoretical discovery and proceed with patenting and putting to good value their ideas, not to mention that the bureaucratic, development and capitalization body was, mostly, made up of less adequately educated persons who has no interest or attraction to that domain, or who were simply unfit.

Unfortunately, this was not the only bottleneck the national research – development system was faced with after the 90s. During the first year after the revolution, the research institutes remained in the state’s patrimony, and the allocated budget for this domain was scarce for years on end, sometimes just covering the disproportionately small salaries if related to the Romanian researchers’ high education and professional qualities, and also some maintenance expenses, as well. The investments in new equipment and modern research techniques were quasi inexistent. Needless to say that, at the end of the 90s, the Romanian research institutes’ material foundation was obsolete from the technological point of view.

However, this is not the end of the problems that the national research system was faced with, at least not yet. The initiation of the privatization process represented only to a small extent the re-launching of an organization as a research institute.

As concerns the years that have passed between the former form of government and to the present date, it is much to our regret that we can list here only few positive aspects. Nevertheless, the location of the institutes next to university centers helped the institutes acquire qualified youngsters who would thus become future researchers.

In spite of an obsolete material foundation, in spite of less educated researchers, in spite of having an extremely precarious position on the European and international research – development market, the research institutes from Romania still try not to recover the former famous status, but to survive in a rather difficult context.

## **2. Assessments on the management applied by the research – development organizations. Consequences of this management**

Thus, it is more than obvious that, based on the above “picture”, we shall not be able to assume that the research-related management could be called “a success”. Although it was not the same policy that was applied to the management of all the institutes, there are outstanding joint characteristics and we consider that it might be interesting to have a look both at the management decisions and also at the market pressures.

Plus and minus approaches related to the research – development management of the Romanian institutes

The management officers of the research institutes have proven little interest in a careful administration of the resources they benefited by. We do not refer here mainly to the tangible patrimony in spite of the fact that the poor administration of this one has not allowed a capitalization of the patrimony to be consistent with the potential, not to mention that it has also triggered an overwhelming increase of the additional expenses, as well. The overhead and maintenance expenses of the physical patrimony have become disproportionate if related to the number of active researchers and to the volume of the continuously decreasing purely scientific activities.

The applied management has ignored the possibility to externalize the dedicated activities – accounting, legal, maintenance, while the bureaucratic unit kept the same positions in parallel with a dramatic decrease of the researchers’ number. The institutes preserved a wide range of activities, besides the administrative ones, while putting into practice an inefficient technique to assign the resources to too many domains.

The insufficient funds have hindered the institutes from participating in the main scientific events to be organized all over Europe, have hindered the institutes from benefiting by the computer-based information process, from setting contacts and initiating partnerships; needless to say that it was such partnerships that would have benefited by the expertise and knowledge of the Romanian researchers.

Previous to the 2000s, the research institutes have nor managed to develop a knowledge marketing policy as the so-called “brain export” process has not brought back to the institute any kind of value. Such a situation should be also understood from the point of view of the fact that before the “90s the institutes did not have to deploy any effort in view of the capitalization, on

the dedicated market, of the research results as these ones were included in a centralized material at the economic units from Romania or from the former Soviet block.

This way, for more than 15 years, the Romanian research activity, the owner of an impressive range of innovative technical solutions out of which some have already been patented at the national and international levels, allowed “dust” and time to cover them, and even worse than this, some of these solutions significantly lost some of their assigned value when the initiative arose to launch them on the market.

It is to a great extent that the management of these organizations was based on financing from the state budget, which led to a reduced interest towards marketing and towards development by means of a project-based management.

The valuation of the attitude towards the organization, towards its values and towards the environment in which the organization operated is absolutely necessary to be able to better understand the extent to which the research – development environment from Romania shall be able to meet the opportunities and challenges that lie ahead for the period between 2008 and 2013.

### **3. Analysis of the major involved aspects**

Major aspects of the research – development domain:

- the dedicated personnel and the related knowledge make up the most important resource of the organization that operates in the research – development domain;
- the research activity at the European level develops, to the greatest extent, further to the support provided by national and European research programs, thus setting up the knowledge and partnership networks;
- the specific nature of the research – development domain and of the scientific knowledge market imposes the use of state of the art technologies, the updating of the endowment, of the work technologies and of the managerial methods;
- the active attendance at the domain-related events organized on a regular basis at the European and international levels is a compulsory condition.

These four aspects stand for the main columns of the research – development domain; they are the axes around which the research – development domain develops. It shall take huge efforts, really much time and determination to be able to go beyond this handicap that has not been inherited, but that has been induced by indifference, by the lack of initiative and by the incapacity to understand the depth of this domain and the seriousness of the actors who perform in this context.

However, we take into account another aspect, that has brought its major contribution to the present situation. The stakeholders’ priorities have been either neglected, or exacerbated, and the passage from one extreme position to the other was obvious. Our intention is to point to the fact that the stakeholders’ carelessness has led to serious lack of balance for the system since the system balance is granted by the very correlation between, on the one hand, their interests, and, on the other hand, the requests placed by the market and the pressures made by the domain market.

### **4. Proposals to improve the management of the research – development organizations**

To be able to be successfully involved as active actors on the European research – development market, the organizations shall have to apply **a management that is based on knowledge** that is real, adaptable and flexible and depends on signals from the environment.

The specialization of the activities seems to be now more necessary than ever, and we do not refer here exclusively to the scientific, research activities. The specialization of the bureaucratic, financial – accounting and legal activities is compulsory to be able to integrate the organizations into the pan-European research networks / consortiums. It is already common knowledge for

everybody that the European financing, in general, and the European financing for the research – development domain have become the subject matter of an excessive bureaucratic pressure.

It is our deep wish to make an inventory, for the pages to come, with a brief list of the obvious measures that should be taken in view of turning the management of the research – development organizations into an efficient one:

1. to render efficient the management of the bureaucratic processes:

- to set up a legal department that is specialized in making-up the documentation that is related to the projects with European or national financing / to hire a consultancy company that is specialized in the administration of the bureaucratic processes (to check contracts, to organize public tenders – procedures, etc);

- to set up a financial – accounting department that would take over the correct and efficient administration of the cash inputs and outputs that have been generated by the project all through its implementation (the existence of such a department is justified in case of those organizations that simultaneously participate in several projects, where the activity volume is high, and the projects share multiple similar characteristics) / to hire a consultancy company that is specialized in the administration of the bureaucratic processes (to check contracts, to organize public tenders – procedures, etc);

- to standardize the bureaucratic modules within the projects, including aspects related to the organization and launching of public tenders, press releases and publicity, non-scientific reports, presented in quasi similar forms, easy to adapt and that are replicable;

2. to specialize, at the highest possible level, the developed scientific activities – the outsourcing of the non-specific activities shall be completed simultaneously with an increase, to the maximum, of the personnel specialization level and with the improvement of the methods to acquire information that has value and knowledge potential;

3. to direct the research – development activities to the market requests. The research, and particularly the industrial research, shall give proof of realism and pragmatism as concerns the applied approach methods, and we must understand that, pretty often, a product that cannot be sold is a product that lacks importance, at least for the time being, at least with reference to the environment we are living in;

4. to organize valuation campaigns in order to decide which are the traditional clients' needs, and to understand the level of satisfaction of these ones;

5. to implement market study programs that would render obvious the requests, needs, new standards and expectations the dedicated market has so that the research – development organizations be able to set their targets, and even try to provide, in due time, the solutions that would be adequate to the innovation requests, to the research and development requests for new products and services.

Nevertheless one of the most important decisions that should be taken in order to really improve research is to decrease the bureaucratic dimension of the Framework Program that sustains research all over the European Union. It is a very important and difficult task but it definitely is a must if research and researchers are to be considered a reliable economical driving force.

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