

TAX SUBSIDIES FOR THE RESEARCH - DEVELOPMENT ACTIVITY IN ROMANIA. CASE STUDY IN THE BUILDING INDUSTRY

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Abstract. After 1989, methods and solutions were sought for to stimulate the research-development activity in Romania so that researchers, as many as they were in Romania, would not leave the country and, should that have been possible, those that were abroad may return home. But, this activity needs much more support because results are not always achieved immediately and the said results cannot always enter into a production process immediately in order to generate income and, implicitly, profit for the entities developing such activity. That is precisely why another approach is necessary in what concerns the financing of this activity because the state budget funding proves to be insufficient and the private sector made its presence felt in the financing of this activity only during the last years. The objective of this scientific approach is to introduce a synthesis of the facilities which are granted tax wise for the research-development activity, facilities which are more substantial only as of the year 2016. We have introduced the legislative framework used as a lever by the Romanian state to stimulate this activity. As a comparison, we have presented the tax subsidies granted by European states for economic activities, among which, that of research-development.

Key words: research-development, tax subsidies, research-development institutes, Orizont2020, GDP

1. Introduction

The research – development activity is an important factor which contributes to the economic – social development and a motor of the economic-social progress; science and technology are basic components of modern life directly helping the states in the achievement of the economic and social objectives, in the achievement of a sustainable development (Czamiński *et al.*, 2011; Karabag *et al.*, 2011; Kasahara *et al.*, 2014).

The importance of the research activity is seen in many official documents: thus, the scientific research activity represents the most elevated manner of human resources development, both by a continuous training/information it requires and by the achieved results. Nevertheless, though indispensable for the development and for the solution of the global issues of the society, the scientific research was the first which was sacrificed in Romania as it was considered a luxury in relation with the

emergency of the moment (Văcărel *et al.*, 2006; Purkayastha *et al.*, 2016; Junxue and Guangrong, 2017).

The main direction of the development program in this field is the set up of a research-development national system as factor of resources multiplication capable of supporting the development of the Romanian society.

The main directions of action in this field are the following:

- the restructuring of the research-development national system by defining the strategic domains and the priority financing in those domains by the diversification of the financing sources and a better capitalization of the research and Romanian inventions results; assurance of tighter connection between research and the necessities of business entities;
- the adaptation of the national system of research and technological development to the requirements existing in the European Union. The opportunities offered by the community programs of the field will be more efficiently capitalized with a view to improve the consistency with the requirements of the information society. The time grading of the priorities in this field and the distribution of the budgetary funds will aim to the consolidation of the ties between the research-development system and the requirements of the country's economic progress, with a view to the fast absorption of the research-development results by the business entities;
- the laboratories endowment and computerization in order to place them at levels comparable to the similar ones in the European Union. In order to achieve this measures are stipulated which will provide for the

transformation of centers and institutes in performant development platforms as entities of national interest dedicated to the development and capitalization of the existing research potential, limit the danger of its dissipation to other activity sectors or outside the country;

- for the integration into the European structures, consideration is granted to projects of collaboration and set up, on the territory of Romania, of scientific research centers, just like certain countries in Europe, where specialist will join, both from our country and from countries of the European Union, especially in domains where there is a valuable scientific tradition and scientific and economic advantages are predictable for Romania, including the conservation of the national ecologic system and the capitalization of the natural potential of the country;
- the development of the research - technological development activity at a regional level, stimulating the innovation activity and that of capitalization of the achieved results in territorial interdisciplinary research - development centers.;
- assurance of the interface between research and industry, at the national and regional levels, by the development of a specific institutional infrastructure meant to facilitate the transfer and capitalization in the economy of the results achieved through various research-development programs (Văcărel *et al.*, 2006).

2. Financing of the research - development activity in Romania in the building industry

The research - development activity in the building industry is supported both from private sources as well as from financing sources coming from the state budget.

From the budget, the financing of this activity is done both through the Nucleus Program as well as through various programs. Initially, there were the sectoral financing programs of the Ministry of Public Works and Territorial Administration, then the AMTRANS program appeared and managed, to a certain extent, to provide for the financing of the research-development activity in the building industry.

As of 2009, the financing of the research-development activity in the building industry is done only through the Nucleus Program because, by legislation, the sectoral financing programs were decreased at the level of the ministries, the task of this financing becoming to the relevant ministry, being it the Education and Research or just the Research and Innovation.

On the basis of the present legislation, harmonized with the provisions of the European Directives, under the program Orizont 2020 it was stipulated that until the year 2020, the research-development activity in Romania be financed by 1% from the budget and 1% from private sources. For now, the financing from the budget oscillates between 0.43 % - 0.48% from the GDP, and, during the last years, the financing from private sources tends to become more visible and increased as compared to the values of the beginning of the years 2000.

3. Tax subsidies in countries of the European Union

At present, the majority of the European Union member states apply a wide range of direct and indirect measures to support research and development. Several states have introduced or extended the sphere of action of the taxation instruments meant to support the research-development process.

The indirect tax incentives cut the research-development costs to a great variety of companies, including SMEs. It is advisable to use tax incentives to support private research-development as it addresses to a wide range of companies and allow each one of them to establish by itself the contents of the research-development processes. If they are well designed, these taxation schemes contribute to the raise of the investments in innovation on the whole (Bronwyn and van Reenen, 2000).

The tax incentives for research-development allow the companies to decrease the value of the charges and taxes paid as a reward for the development of innovative activities. An analysis of the incentives and taxation schemes used at present in European Union member states revealed a great diversity of them. In this context, a uniform system of tax incentives cannot be recommended for research-development. Subsequent to the analysis of the taxation systems, the conclusion was that tax incentives, irrespective of their type, intensify the research-development process and their design is crucial for their effectiveness (Hines Jr., 1995; Nirupama, 2016; Minniti and Venturini, 2017).

Also, taking into consideration the fact that tax incentives do not represent the only financial instrument meant to encourage research-development, it is imperiously necessary to coordinate the efforts of all the entities involved in the financing of research-development. Unfortunately, such coordination is insufficient in many countries of the European Union. To register the best performances, the proportion in which the direct measures are combined with the taxation ones depends on the specific context existing in each member state (Bronzini and Piselli, 2016; Crespi *et al.*, 2016; Freitas *et al.*, 2017).

Austria cancelled the charges for research-development as of 1999 and grant a tax deduction for purchases of depreciable goods with a period of use in excess of four years, a situation which allows research centers with better equipment. The deduction goes up to 9% of the purchase or production price of depreciable assets involved in a professional activity in Austria (6% for the intangible assets). In the case of an insufficiency of the benefit, this tax deduction is added to the depreciations being carried over to the benefits of the subsequent exercises, without time limit (Brezeanu *et al.*, 2005).

Belgium grants a very favorable taxation regime to “coordination centers”. If those centers which may be both branches and subsidiaries are subject to a common rate corporate tax, the tax base is determined by the administration agreement on a presumptive basis. As a general rule, the tax base may be assessed at 8% of the functioning expenses of the center, besides the expenses on personnel and the financial ones. Dividends and eventual interest deposited by the coordination centers must fulfill a certain number of terms and be approved by a ministerial committee. They must especially depend on a group of companies implemented in a minimum of four different countries making outside Belgium a turnover of at least 1 billion Euros and have as their own capital at least 100 million Euros. Moreover, they have to employ 10 people within 2 years from establishment (Sakakibora, 1998; Cappelen *et al.*, 2012; Chen and Gupta, 2017).

A coordination center may exercise one or several of the following activities: publicity, information supply, insurance and reinsurance, scientific research, legal and accounting works centralization and, generally, all the activities having a preparative or auxiliary character for the

group companies. The coordination centers are subject of an annual fixed tax of 40,000 EUR by employee, restricted to 400,000 EUR (this limit is equal to the amount owed by a center which hired a minimum of 10 employees) (Brezeanu *et al.*, 2005).

The Finnish clusters interministerial programs were created subsequent to the decision of the Finnish government of 1996-1997 to raise the public expenses in the field of research-development. Those programs sought to create clusters based on knowledge, structures within which the grouping of the companies is achieved according to the field of interest not to geographic criteria. Those programs potentiate the strong points of an economy, focusing on those economic domains in which the innovation and development potential is high. The target groups of such programs are represented by research centers, governmental agencies, industrial companies, risk capital entities and consultants. The annual budget allocated to those programs is of 33 million Euros (Minea and Costas, 2006).

The Program for the Development of Industrial Research in Greece (PAVE) is a governmental financing scheme of industrial research launched in 1986 and which was successful, especially concerning the raise of awareness related to the importance of innovation and of research-development activities for Greek companies. Besides that, the cooperation between companies intensified as well as between them and universities and research centers. Also, PAVE led to an increase of the number of employees in the field of industrial research and indirectly resulted in a raise of the level of participation in the research programs financed by the European Union (Brezeanu *et al.*, 2005).

The ANVAR program of reimbursable grants dedicated to innovation in France – in seven years this program contributed to the achievement of 7,000 innovation project in 5,600 companies. The program was useful especially for new companies for which innovation is crucial and which do not have sufficient available funds to finance research-development activities.

The „Holders of Knowledge from SMEs” is a program of the Dutch Government whose main aim is the growth of the SMEs innovational capacity. In that sense, the companies receive subsidies to hire a young master programs graduate generically called “holder of knowledge”. Companies with up to 100 employees may apply for these programs and the holder of knowledge has to be hired for a minimum of one year and has to work at least 32 hours/week. The maximum subsidy which may be received by a company upon the employment of a holder of knowledge is of 9,000 euro (von Zedtwitz and Gassmann, 2002; Văcărel, 2003; Brown *et al.*, 2017).

In *Great Britain* there are 33 “company areas”. Companies which settle in those areas enjoy a tax deduction equal to 100% of the amount of their investment in industrial and commercial buildings and in equipment, implicitly in the research-development activity, during the subsequent 10 years from the area set up. They also benefit of the exoneration of local taxes for a period of 10 years (Brezeanu *et al.*, 2005).

The ALBA Center of Scotland represents an innovative collaboration between industry and the academic environment. This offers a wide range of business development facilities such as locations fitted with all the utilities, financial assistance and support for employees’ training. The ALBA Center was set up subsequent to an initiative of the Scottish Enterprise, the most important

Scottish economic development agency. Working in cooperation with four of the top Scottish universities and a series of private partners, both from Scotland and outside it, the center supplies a wide range of business services (Athukorala and Kohpaiboon, 2010; di Minin *et al.*, 2012; Hsu *et al.*, 2015).

The Spanish legislation grants a tax credit for new products and industrial technologies research and development. In principle, the credit amount is equal to 30% of the research and development expenses incurred during the exercise. Nevertheless, to the extent in which over the average of the expenses of the same nature made during two preceding exercises, the 30% ratio applies to the expenses corresponding to that average whilst the supplementary expenses entitle to a credit of 50%. The total of all those tax credits is limited to 35% of the tax owed for the exercise. The non-imputable tax credits are carrying for five years (Brezeanu, 2003).

4. Tax subsidies in Romania

Unfortunately, in Romania we cannot speak about tax subsidies related to the enhancement of the research-development activity until 2008.

In 1990 the Government Decision no. 1284 of December 8 was issued on some measures of organization and financing of research-development units which was subsequently abrogated.

All the legal acts appeared after that date did nothing but offer the legal framework of running this activity but no tax subsidies granted. We must not be surprised by the fact that research is considered the “Cinderella” of the Romanian economy, a fact also seen from the value of the GDP allocated to research and which was the greatest in 1992 (0.9%) followed by the one of 2008, amounting to 0,59%.

If from the GDP no great amounts of money were allocated to the research, over the years various programs appeared aiming at the financing of the research-development activity.

As we mentioned above, in 2008 appeared the first real tax subsidies for the research-development activity. Thus, the Emergency Ordinance no.200 of 2008 approved Law no.343 of 2008 which amended the Taxation Code thus:

„ART. 19¹

Deductions for research-development expenses

(1) Upon the calculation of the taxable profit, the following tax incentives are granted to research-development activities:

a) 20% supplementary deduction of the expenses eligible for such activities upon the calculation of the taxable profit; the supplementary deduction is calculated on a quarterly/annual basis; in the case of fiscal loss, the loss is recovered according to the dispositions of art. 26;

b) the application of the accelerated depreciation method also in the case of devices and equipment dedicated to research-development activities.

(2) For the application of the provisions of the present article, norms will be drawn up on the deductions for the research-development expenses, and such norms will be approved by joint order of the minister of public finance and the minister of education, research and innovation”. Presently, the value of the deductibility percentage of the research-development expenses is of 50%.

In 2016 the Emergency Ordinance no. 32 was adopted and it amended Law no. 227/2015 Taxation Code which, with its art.60, paragraph 3, stipulated as follows:

„3. The natural persons, for income made of salaries and assimilated to salaries specified at art. 76, paragraph (1)-(3), subsequent to

the running of applicative research-development and/or technological development activities, under the terms established by joint order of the minister of the national education and scientific research, the minister of economy, trade and relations with the business environment, of the minister of labor, family, social protection and aged persons, of the minister of agriculture and rural development”.

Practically were included the research-development and technological development going on in all the fields of activity, both in research institutes and in economic entities which have as the field of activity research-development and technological development activities.

At the same time, the ordinance specified that “ in order to benefit from the exemption from the payment of the tax on the income from salaries and assimilated to salaries, the natural person must develop eligible research-development activities included in a research-development project. The research-development project is identified by at least the following elements; the scope of the project, the research-development domain, objectives, research-development activities, the period of development, the type of the financing resource, the project budget with the explicit specification of the expenses on salaries, the result category, the novelty and/or innovative character of the result. The tax exemption on income made of salaries is granted even in the case of failure to achieve the research-development project objectives (research risk).”

Another step was taken by this ordinance to stimulate the research-development activity and, implicitly, to attract young people towards this domain, on one hand, and, to attract Romanian researchers developing their activity in other countries, on the other.

5. Comments

These provisions for tax subsidies for the research-development activity in Romania address not only to universities and research-development institutes but also to private economic entities which develop such an activity, even to those of the private sector. Here we may mention ICECON SA, IPA SA, MINESA ICPM SA etc., private economic entities which develop research-development activities mainly with private economic entities.

The difference is that most of the times the results of the research-development activities performed by private economic entities have better chances to reach the framework of a production process than the results obtained from research-development activities by state institutions, all the more that private entities may benefit more easily of the non-refundable funds of the European Union than state institutions.

But, we need to be optimistic that in a near future this will also be regulated and those non-refundable funds will be more easily accessed by everybody developing research-development activities.

6. Conclusions

In our scientific approach we have endeavored to show some manners of stimulating the research-development activity both in Romania and in countries of the European Union. It is true that in Romania such activity is done mainly in state institutions but, over the last years the private sector started to put a stress on this activity, a thing which is mainly seen with producers of wide utility various materials. To attract young people to this activity we have to stimulate them because, in the Orizont 2020 Program, Romania committed to allocated until 2020 from the budget and from the private sector a percentage of 1% from each and it would beat creation to

reach the situation in which that money will be allocated and it will not be spent as we will not have with whom to spend it especially because the research personnel is naturally decreasing.

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