



FEDERAȚIA SINDICATELOR LUCRĂTORILOR DIN CERCETARE PROIECTARE DIN ROMÂNIA

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EMPLOYEES – ROMANIA

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The Analyses of the Partnership Agreement (PA) 2014 version From the Scientific Research – Technological Development (SR-TD) And of the Operational Program Competitiveness (OPC) 2014-2020

This analyze is made on the documents on the Ministry for European Funding website, on March 2014, in Romania. As I drew the attention both to Mr. Minister E O Teodorovici, and to Mr. Prime Minister Victor Viorel Ponta at CIPA meeting, at Victoria Palace, according to Art 13 of the Romanian Constitution, the official language is Romanian, and, consequently, the documents issued by the Romanian authorities must be in Romanian, so I won't take into consideration the fact that there are documents prevailing the Romanian version.

We notice in the 2014 version of the Partnership Agreement (PA), ever since the analyze of the economic and social situation, together with its perspective which might justify the options for 2014-2020, the authors' tendentiousness based upon rough misinformation of the European responsible, and not only theirs, but also the tendency to exonerate from responsibility the local decision-making bodies. For instance, I shall present the excerpts from the PA between („...”) and with bold the fragments with direct impact and the comments will have in front „Comm.:" for a clear and straightforward delimitation.

Consequently:

1- „*Competitiveness and local development*”

The general level of the economic activity in Romania is still very low. The level, structure and sectoral performance analyze obviously shows that the *competitiveness* issue is a challenge for Romania:

- the current dependency of the labor force occupancy in agriculture with very low added value, where the small farms have a large proportion (almost 93 % of the total number of farms), with low orientation to the market, low level of productivity and technical equipment, high areas of orchards in decline (over 50 %);
- the entrepreneurship culture, as reflected by the relatively low density of the businesses in all regions, except for the region Bucharest – Ilfov, as well as the orientation towards activities with low added value;
- un-competitive levels of productivity at international level, for many industrial areas;
- weak current representation of significant added value services in the economy;
- **fragmentation, excessive standardization, inefficient use of the resource in the Romanian environments of research and development and in the academic ones, as well as the absence of a strategy for development of the institutions with intense research activities.”**

Comm.: I made an excerpt of a large part of the introduction, in order to clearly see how they force the inclusion of the Scientific Research – Technological Development (SR-TD) as part of the Competitiveness program, which has no sense, by using terms (fragmentation, excessive standardization, environments, intense activities, etc.), and/ or the inefficient use of the resources (which resources, those which further on are considered as insufficient and generating the domain disaster), without making a clear distinction between the SR-TD ones, on which clarifications have been made in the brackets up, from those of the so-

called academic “environment” which it is not clear what it stands for. We are not aware of a Budget Chapter meant for the “Romanian academic environments”, except for the budget of the Romanian Academy, but we must not leave aside the fact that there is a document “National Goals in 2020 EU”, where it is for Romania, at page 2, the provision for 2% of the NGP for the SR-TD, provision also included in the PA.

2- “1.1 THE ANALYSE OF THE DISPARITIES, OF THE DEVELOPMENT NEEDS AND OF THE GROWTH POTENTIAL

1.1.1 ANALISE OF THE DISPARITIES AND IDENTIFICATION OF THE MAIN DEVELOPMENT NEEDS THE CHALLENGE FOR COMPETITIVENESS AND LOCAL DEVELOPMENT

General Issues

Usually, the competitiveness is defined as an activity capacity to maintain the market quota in the open markets market.”

Com.: I presented the chapter title for easier localization though the main part, which, in a normal logic should be at page 1 is afterwards, namely the definition of the **Competitiveness as the capacity of an activity developed in an open market to preserve its market quota**. So, where is the SR-TD place in this program, except for the aberrant justification from page 1?

3- “The competitiveness concept may be applied likewise at country or region levels. In this context, many aspects of the competitiveness show up in a more aggregated shape:

- the degree of entrepreneurship culture;
- the areas presenting a comparative advantage;
- the resources at disposition;
- **the research and innovation systems;**
- the infrastructure and the transport and communications services;
- the locations and working points availability;
- the competencies availability;”

Com.: The explanations from the previous issue from the PA on the competitiveness concept, besides some phrases expressing the level of formation of those drafting the document (even if they only translated it from English”, like “more aggregated shape” of the competitiveness aspects, do nothing more than to show how far they are from the research and innovation activity, and that they are not very familiar with the “systems”. What are the so-called “research and innovation systems” in there can be explained only by the maneuver to hide the SR-TD, the Innovation into the OP Competitiveness and by the paragraphs 2, and 3 and to attach them the “smart specialization” phrase in order to justify directing the funding for the university clientele.

4- “As answer to the above mentioned analysis, the investments for the 2014-2020 are to be prioritized in the National Strategy for Competitiveness, in the National RDI Strategy, in the National Strategy for Agriculture, in the Regional Development Plans, **based upon the smart specialization principles**.

Reflecting the general influence on the labor force occupancy and on stimulating the increase and the support of some existing activities, sectors have been identified presenting an outstanding growth potential for the added value – health/ pharmaceuticals products; textiles/ leather; wood/ furniture; energy/ environment management – as well as in the agriculture, fishery and forestry, which are also going to be of importance in Romania’s development on medium term. For a sustainable development of the national competitiveness it is necessary that the investments in these sectors to be treated with priority at national level, and to receive the highest amount of support from the ESI Funds. In the same time, the Regional Development Plans may identify locally other sector with growth potential that might represent a secondary interest point for investments.”

Comm.: It is interesting to compare the prioritization of the ESI Funds distribution both from considering the document Preliminary Priorities for Romania in the 2014-2020 programming period, sent to the EC and from identifying of some sectors of secondary interest resulting from the Regional Development Plans. One must not forget that the National Strategy for Competitiveness and the National RDI Strategy as we

are going to find out at least for the RDI strategy that it has not been adopted yet though it is invoked ever since the first versions of the PA.

5- “The Draft of the National Strategy for Competitiveness identifies the industrial sectors and services with added value that proved recent increase of 12 and good performance at exports:

- the vehicles sector has a high added value and includes about 500 large and medium companies, among which companies of production and assembling Ford and Renault vehicles; their involvement into the supplying chain improved the productivity and the competitiveness of the Romanian companies; the sector is strongly oriented to the export;
- the food and beverage sector has a medium to high added value; it comprises few large companies and about 7,000 SMEs; it focuses mainly on the internal market in Romania;
- In agriculture, the organic primary production is largely directed to the export, the textiles and leather sector has a low added value and a low to average technology, but it can represent potential to growth in the productivity and in the added value by innovation; the sector comprises about 4,000 SMEs and it is strongly oriented to the export;
- the information technology and communications sector is competitive at international level, but is mainly based upon external subcontracting for clients abroad, more than on the internal Romanian system of production;
- the financial sector services mainly focus on the internal market.”

Comm.: The excerpt was necessary to be able to “notice” how the prioritization from page 4 was made, based upon the Strategy for competitiveness, on the industrial sectors and on the services that have to be supported in the following period of time, as they have “potential” according to the analyses, together with the other two strategies, of which one is not even drafted as I have shown before.

6- “**The activity of research, development and innovation (RDI) in the support of the competitiveness** **General Issues**

The science, the technology, and the innovative behavior are the forces for transformation for the economic agents, for the persons, and the society as whole, facilitating:

- the increase of the added value for the products and the services, supporting so the increase in the profitability of the economic agents and the increase of the qualification degree;
- obtaining competitiveness and maintaining it on a more globalized market;
- approaching many of the great challenges the society is facing.

The Europe 2020 Strategy intends to push for the smart development by supporting some sustained investment in the innovation. In 2012, Romania invested only 0.49% of the NGP into the RD, 80% of the investments being made by the public sector. To achieve the **Europe 2020 goal** (RDI investments representing 2% of the NGP until 2020), it is necessary to make steps in changing the behavior³³. Despite all this, several studies show a relatively high level of innovation at the Romanian economic agents and suggest the need to look beyond the official figures on the RD expenses in order to fully comprehend the situation. ³⁴

2020 Goals Total investments in research and development (from public and private sources) - % din PIB
EU27 Goals 3%

The goals taken by Romania through the National Reform Program 2%

Current situation of Romania (2012) 0.49%

2013 Specific country recommendations:

- Insuring more tight connections between research, innovation and industry, especially by prioritizing the research and development activities that have the potential to draw private investments.

As for the **territorial distribution**, the expenses and labor force hired in the RD area specific for the economic agents (36 %) and for the State (41 %) are highly concentrated in the Bucharest-Ilfov area; only the expenses and the labor force employed in the RD in the higher education institutions (22 %) have a wider territorial distribution.

Low level and slow development of the investments into the RD in the private sector

In 2011, the private sector in Romania invested only 825 millions RON into the R-D, 17.1 % of the investments total. Between 2007 and 2011, the increase of the expenses for the R-D in the private sector was of only 11.8 %, little more than a third of the total percentage of the expenses for the R-D³⁵. This evolution may be given to the structural factors, and others likely ones. The economic agents' growth potential is tightly connected to the economic structure of Romania:³⁶

- the larger companies are more than 0.4% of the total number of enterprises, but they contribute with 47.3 % from the VAB that can be granted to the companies; according to the evaluations, 56.4 % of the large companies are active considering the innovation;
- medium enterprises are 1.9 % of the total of the companies and generate 20.5 % of the VAB from the private sector; it is estimated that 38.7% of the medium enterprise are active considering the innovation;
- small companies are 10.6% of the total and 17.8 % of the VAB from the companies; according to the estimations only 27.5 % of the small companies are active considering the innovation;
- micro-enterprises are 87.1 % of the companies' total, and produce 14.4 % of the VAB from the sector.

It is believed that only a small part of them have capacity or orientation to the innovation.

Currently, the investments in the R-D are highly concentrated in the companies with high and average technological level, representing a low percentage from the total. ³⁷. The large percentage of companies involved into medium to low technological level activities produces a low demand for support meant for innovation.

The weight of large and medium technological industries at the gross added value generated by all companies from the industrial sector increased from 20.8% in 2008 to 25.9% in 2011, increase showing a better resistance to the effects of the crisis and to sustainability. The high technology companies and medium enterprises activity was naturally supported by significant investment into the research, development and innovation, they focusing 84% of all the industrial expenses for research and development in 2011.

The innovation potential reflects also the activity they do. As shown above, most of the companies in Romania develop activities characterized by a low added value. Almost half of their total develop retail activities, or likely to those. Nevertheless, beyond the structural factors suggesting that a very low ratio of companies represent a realistic target for support for innovation, supplementary factors were identified limiting the private investments into research and innovation³⁸:

- the negative impact of the international economic crisis, producing the increase in the aversion to the risk, it reduced the liquidities and had a significant influence on the SMEs access to the funding, including the funding for R -D³⁹;
- the lack of the risk capital in general, but particularly the absence of the risk capital as funds meant for the technological innovations resulted from R-D activities;
- the interruption of the national public support given to the RDI, starting from 2009 (the calls for projects in the National Program have become irregular, and the budgets allowed for them decreased drastically);
- the complexity of the rules on the access to funding and to implementing the RDI projects with public support;
- the decrease of the employees in the RD area from the public sector;
- many of the companies with foreign capital (including ex State companies) do not comprise research activities in their operations in Romania;

- existing weak connections between the higher education and the R-D from the private sector in Romania as well as the weak applicability in practice of the research results generated by the public sector;
- the high costs for certification at European level. The Romanian institutions are so forced to register them at national level.

Despite the fact that, during 2007-2013, the offer for financial support for R-D was very various, the demand from the enterprises was not particularly high. The access to financial instruments (credits, warranties, risk capital) was limited during this time, and the SMEs, especially, found out that it is difficult to provide a solid cash flow, necessary for their projects.

Comm.: I have selected this part of the PA, Romanian version, not only for the disinformation and the contradictions in it, but also to prove how we are lied, and how the European officials are misinformed. So, the table on the funding percentage of the NGP and the EC recommendations (I do not comment the English translation, if the wording has not been initially in Romania), are no longer in the PA English version, the strategies they refer to are different (in a document it is the strategy for agriculture, in the other it is for rural development), depending on the version, and only the private research is nominated apart, and in the rest of the document we have nothing more than phrases like “higher education and research institutes”. Truths like “interruption of the national support granted to the RDI activities starting 2009”, let’s consider it so-called academic wording to mask the blocking of the area funding, but also the directing of the even insufficient funding to the university mafia. It is interesting how are justified then the statements on the low put into value of the funding granted for the area (which ones?) or the complexity of the rules on the EC access, as the interruption of the funding is acknowledged.

7- “The analyze of the demand for public funding for the R-D shows that the TIC is active in getting public funds, while the R-D from automotive industry and from the chemical one are mainly based on private funding”.

Comm.: It is another sample of “pertinent analyze” on the SR-TD of Romania status that might be based on the social-economic analyze performed by Jaspers, and which might justify hiding it to the CIPA monitoring committee.

8- “The model of the expenses for the R-D private sector is only partially correlated to the sectors aimed by the National Strategy for Competitiveness and by the National RDI Strategy. Based upon the analyses of the RDI market of Romania and according to the methodological orientations specified in the “European guidelines for the Research and Innovation strategy based on Smart Specialization” (RIS3), the National RDI Strategy identified the priorities for RDI public investments for 2014-2020:

- bio-economy (agriculture and forestry, fishery and aquaculture, food, bio-pharmaceutical products and bio-technologies);
- TIC, area and safety;
- energy, environment and climate changes;
- eco-nanotechnologies and advanced materials;
- health.

The most important research and development infrastructure of Romania, the ELI-NP, its first stage being funded during 2007-2013, it is estimated to bring significant progress in the area of basic sciences – laser and nuclear physics, astral-physics – as well as important progress in the applications for the major society interests in the area of material sciences and life. To promote the commercial exploitation of the results and of the ELI-NP facilities, an association meant for the research and for the economic agents had been established. The ELI-NP existence will produce stimulating effects on the high technology industries, giving interesting opportunities for the companies in performing borderline research, as well as stimulating the research for the innovative enterprises, with direct and indirect effects on the economic environment at local and regional levels.”

Comm.: After the long series of disinformation and manipulation, we finally get to their real purpose, the pursuit of detouring the European funding to the ELI-NP project, action started in 2011, with 180 million Euros. During this time, some structures, associations have been “set up” in order to confuse the European decision-making bodies and the public opinion on this goal, which has as deadline, if successful, the year 2030, and of which, also in case of success, only 5% will be allowed for activities outside the area of fundamental research, which is the main goal. Of course, we cannot forget about the aggressive “propaganda”, including by “announcing” a Nobel award, as result of the project, but until then, it is “ensured” the use of the European funding for the discriminatory wages for all those involved in the project, compared to the rest of researchers and research staff of Romania.

Preparations is made by the announcement “the Model of expenses for the private R-D sector is correlated only partially with the sectors aimed by the National Strategy on the Competitiveness on the National RDI Strategy..” which exonerates them from EC provisions, correlated with some invented areas, like bio-economy, eco-nanotechnologies and so on, and, in the current leadership’s vision, the smart specialization is insecure by the passage to the sole ELI-NP infrastructure. It is the result of the lesson learnt in 2011, being funded in 2011-2013, not for 2007-2013 as presented in the document, and also a result of the criticism that did not succeed to defeat the mafia maneuvers, infiltrated also in Brussels

9-“ **Public R-D fragmented and weakly connected to the economic activity**

Romania has a large R-D public structure comprising 54 universities, 46 national research-development institutes, the Romanian Academy with 66 research institutes and centers, the Agriculture and Forestry Academy with 17 institutes, research centers, and research units on field. With regard to the **territorial distribution**, though represented in all regions, the R-D activity is mainly focused in Bucharest, Iasi and Cluj. Despite this, we found out that the environment in R-D and in higher education institutes of Romania is characterized by fragmentation, inconsistency in quality, excessive standardization, and inefficient use of the resources and in the absence of a development strategy of some intensive research units⁴¹.

The private agriculture research has a low weight in the national agriculture research. A particularity of the agriculture research in Romania is the fact that the research itself is associated to the activity of development and innovation as well as with the trade activity on seeds, wine, forestry, animals growth and fishery market.

The R-D institutes are evaluated and classified according to the performance of their R-D activity 42. Main evaluation criteria are the quality of the research results, the quality of the human resources, the quality of infrastructure and the level of its exploitation, the managerial efficiency, the quality of the institutional development plan.

⁴⁰ In order to establish a National RDI Strategy based upon the smart specialization, the Ministry for National Education of Romania order Jaspers company analyze on the RDI market according the RIS3 Guidelines. Both the priority economic sectors identified by the Strategy on the Competitiveness, and the thematic priorities for the public investments into RDI, identified in the National RDI Strategy are based upon this analyze.

⁴²- *According to the Government Decision no 1062/2011.*

The analyze of the publications and on the license demands shows that the Romanian R-D public institutions have a lot of strengths in the following areas:

- **materials production technologies, including the nanotechnologies;**
- **engineering, including aeronautics, and automotive;**
- **information and communications technologies;**
- **environmental science and technology;**
- **medicine / health;**
- **agriculture.**

This analysis corresponds to the strengths of the Romanian research in European framework. The areas “Cooperation” in FP7 where Romania’s participation was strong (based on the attracted funds) were: ITC; Transport (including Aeronautics); Nano-sciences, nanotechnologies, Materials and New technologies of production; Environment; Health; Food industry, agriculture and fishery and Biotechnology.

These strengths are well-correlated to the sectors showing growth and export potential in the National Strategy for Competitiveness (for instance automotive, ITC, food industry), with the opportunities of second degree where innovation might extend the lifespan of some mature production lines and that might support the diversification tied to them (for instance wood and textiles), and with the social major changes Romania is facing (particularly the adjustment to the climate changes and environment restoration).

Despite these, while a large part of the research developed in Romania is impressive, this is mostly pushed forward by the scholastic curiosity, rather than by trade considerations. The ties between research, education and the economic sector remain weak⁴³, the result being that few ideas are transferred and traded. The collaboration activity, as it is, tends to be made between R-D institutions and the large companies. The SMEs participation is limited, though this reflects in a certain ratio the relatively low extent and the sectoral structure of the SMEs basis. The public research institutes did not develop a specific and special management capacity, dedicated to a better trading of the research results, a better management of the intellectual property rights, a stronger dialogue with the enterprises, in order to support their needs.

Comm.: I emphasized certain parts of the excerpt to hyphenate the contradictions not only with the above excerpts, but also with the statements from the same excerpt. Repeatedly, it is put the idea of fragmentation and of the weak connection with the economic side (apparently it would refer to the bio-economy), of the territoriality, partially “saved” by the occurrence of the university research, so of the universities which have a more balanced national coverage, of the defective human resources basis, saved also partially by the universities, by the unilateral “balancing” of the university titles with the scientific ones, and not the last of the publications and of the certifications demands which, depending on the paragraph are either strengths or weakness, with lame reasoning in both situations. Of course, the author are not aware of breaching the provisions of European Researcher’s Charter or of Frascati’s Handbook, as their purpose is to include the SR-TD into the OPC, and once this goal achieved, to secure the funding direction to the university clientele, more or less hyphenated in the so-called justification. With bad intention, it is not know that the activity of scientific research is performed on the horizontal of the national economy, and we cannot talk about a centralization, or putting it together, as the object of activity is not “to develop a specific and special management capacity, nor its dedication to better trading of the research results, a better management of the intellectual property rights, a stronger dialogues with the enterprises to support their needs”. The SR-TD strategic character is ignored by the evaluation and the certification of the research institutes only (the universities are excepted from it), according to the GD 1062/2011, which is betrayal of the national interest and sabotage of the Romanian economy, and we must draw the attention on the ridicule put on the SR-TD activity and on the attack to the prestige of the scientific researcher and of the research staff. To save the requirements imposed to the projects developed as it was possible, under the prior presented terms, we see that at “strengths grounds” stay the **published articles**, those imposed so that the projects would eligible and accepted, supplementary to the obligativity of partnership with the universities. In conclusion, not the transfer of the results to the economy, and the **certification** represent the issue. It is to be noticed the effort to justify this way as well the areas of interest, by the use of “including” to put areas where the respective one did not show, but, despite all efforts the “bio-economy” did not show up, and some areas “broke” – to see the energy, the environment ...

10- **“Learnt lessons**

Currently, there are few available evaluation results to provide for a perspective image on the relative efficiency of the specific interventions type. Despite this, important lessons have been learnt in 2007-2013, including those related to:

- the major demand deficit in the areas to be developed in Romania, that prevents the enterprises and market economy;
- financial instruments less adapted to the SMEs need and the regulations on the state/ minimal aid;
- fragmentation of the support given to business in the Operational Program Competitiveness and in the Regional Operational Program, that rendered difficult to get the efficiency;
- fragmentation of the research environment and the inadequate connection with the needs for business growth and the social challenges;
- the absence of proper financial instruments for the R-D sector needs, and its connection to the productive sector/ to the technological transfer;
- the importance of the simplified rules related to access and projects implementation.

Main development needs

As reaction to the above analyze, the investments priorities for 2014-2020 are to be established in line with the National Strategy for Competitiveness of Romania, to the National RDI Strategy and the National Strategy for Rural Development, following the principles of smart specialization and emphasizing the support of the commercial component in the RDI activities. A complementary fiscal environment will stimulate the companies, including the multinational ones, to place their research activities in Romania. In 2010 a deduction of

120 % on the tax for R-D researches has been imposed for the enterprises where the R-D activities represent at least % of the total yearly expenses, and this deduction increased to 150 % in 2013.

The ESI funds investments into the agriculture are to be prioritized based on the findings of the national evaluation of the research-development bodies as follows:

- **strong institutions/ having a strong connection with the priority sectors – main priority for support;**
- **less strong but able to improve themselves / well connected to the priority sectors – secondary priority for support;**
- **weak institutions/ they are not connected to the priority sectors – no priority for support.**

For the agriculture sector, the knowledge transfer, the support for innovation and the well correlated research with the farmers' practical needs are to be important for the competitiveness and the increasingly high farmers' performance. In order to facilitate the introduction of new technologies, it is to be essential the focusing of the research units on practical application at farm level, in the frame of the partnership agreements for development.

Starting from the conclusions of the analysis on the obstacles in the development and of the SWOT analysis (appendix I), main development needs are:

- creating a public environment of R-D more compact and more modern to focus on the economy needs, on the social changes and on the technologies where Romania has potential of world class, according to the principles of smart specialization and in order to increase the trading degree and the internalization of the research;
- promoting an entrepreneurship and innovation culture in the whole educational system and in companies which is to be related with all forms of support, financial, managerial, technical, creative, in order to value the latent potential existing within the population and the companies in Romania".

Comm.: We took this last part of the PA on the SR-TD as it shows just the opposite to what it intends to prove, that is that no lesson has been learnt from the 2007-2013 programming, continuing the simulacra of the investment into the research, according to the European strategy, using the European scheme, but with reasoning typical for the period before 1989. For those who don't know, phrases like "world class potential" and/ or "achievements at world level and more" were frequent in Ceausescu's justifications,

which uncover the authors and their intermediaries. As for the solutions, we can notice the pragmatism, their clarity related to the research, when interpreting phrases like “more modern, more compact” in the public area, as in the private one, which was center of the attention up to now, things are clear from page 8, where it is noticed that is only partially correlated with the sectors aimed by the National Strategy on the Competitiveness and on the National RDI Strategy. We even have precious indications, after the learnt lessons, like “promoting an entrepreneurship and innovation culture in the **whole educational system and in the companies**” which have to be corroborated with those on the investments into the national institutes resulted after the evaluation of the national bodies (sic) of research-development who, strange enough, are divided into strong, less strong and weak in opposition to the GD 1062/2011.

11- **“In the 2001-2008, the Romanian economy increased with 6.3 % average per year, this one being one of the fastest growth rates in the European Union.**

Macro-economic perspective

In 2013, the internal demand was the performance engine. The current account deficit is estimated to be significantly adjusted at 1% of the NGP, and it will gradually grow to less of 2% of the NGP in 2016... The inflation will continue to decrease in 2014-2016, reaching 2.3 % until the end of the year, with an annual average of 2.5 % in 2016. According to the national accounts, the labor force occupancy will increase in 2014-2016 with an annual average of 0.7%, and the number of employees will increase with 0.8 %. The labor productivity will increase grace to a quicker growth of the NGP, due to the increase of the labor force occupancy rate. The unemployment rate at ILO level will decrease to 7% , from 7% in 2012, while the occupancy rate in the population aged between 20 and 64 years old will increase to 67%.

English official version

Romania is the seventh largest country in the EU in terms of population (20.12 million¹) and the second largest from the group of New Member States, after Poland.

During the period 2001-2008, the Romanian economy expanded by an average of 5-6 percent per year, representing one of the fastest growth rates in the European Union.

Macroeconomic perspective

Domestic demand will be the driver of performance. **The current account deficit** will remain within a range between 5.4 – 6.9 billion Euros, representing 3.9% of GDP in 2013 and 4.1% in 2016, being fully covered, throughout this period, from autonomous non-interest bearing sources. **Inflation** will continue to decline in 2014-2016, reaching 2.3% in 2016, with an annual average of 2.5%. **Employment**, according to national accounts, will increase in 2014 – 2016 at an annual average rate of 1.2%, with the number of employees augmented by 0.9%. **Labor productivity** will improve due to a more rapid increase of GDP relative to the increase in employment. The **ILO unemployment rate** will reduce to 6.6%, with the employment rate among the population aged 20 to 64 simultaneously increasing to 65%.

Comm.: I have selected the introduction part in the PA, Romanian and English version, from where it can be clearly seen if for an unauthorized person the difference in the sent information. No comments.

The analyze of these documents will continue with the presentation of some issues of some particular importance from the OPC, which confirm and detail what was about to be justified in the PA

“Romania committed itself for 2% of the NGP as target for funding the investments into the RDI. This is to be achieved including through national RDI programs that have to cover mainly for the fundamental research and for basic funding for the research public institutes such as the Romanian Academy”

“On one hand, the OPC intends to support the private RDI and to connect the public RDI and the market. As such, there are considered three main pillars, according to EU recommendations and the

national strategic framework: 1. Enterprises – key actors for innovation, 2. RDI sector as area of opportunity for performance in the field, 3. Support for priority areas, according to the principle of theme concentration and the strategic options of the NRDIS and of the NSC.

[33.] The two strategies have been correlated in order to achieve a tighter connection between the RDI system and the private sector. Focusing on smart specialization, these documents bring in main view the promotion of the innovation and the increase of the technologic transfer, drawing in the SMEs into value chains considering the “smart specialization”, based on industries and services that present an important innovative potential.

[40.] For the efficient use of the ESI funding, there had been considered the synergies with the Horizon 2020 activities, both considering the theme concentration, and the prioritization. Consequently, through OPC the RDI actors in Romania are supported (especially the private ones) up participating in the EU research area (currently, the participation is extremely low, according to the NRDIS).

[41.] In addition, OPC is built according to the 2014-2020 National Plan for RDI in order to ensure the increase in the interventions efficiency and to avoid the overlapping.

Selected theme Objective – The selected investment priority – Justification of the selection
TO1:

Strengthening the research, the technological development, and the innovation

Art. 9 1. Reg.1303/2013

PI1: Promoting the investments into R&I, developing connections and synergies between the enterprises, the research and development centers and the higher education, especially by promoting investments in the development of products and services, technologies transfer, social innovation, eco-innovation and applications of public services, stimulating the demand, creating networks and groups and the open innovation through smart specialization, as well as supporting technological and applied research, the pilot lines, the actions to early validate the products, the advanced and first-production production capacities

Currently, Romania has one of the lowest intensity scores for RD in the EU, representing less than a quarter of the 2% target for 2020.

The RD private investments are of 0.17% of the NGP in 2011, being also among the lowest from the EU, and there is practically no certification activity. Moreover, the companies do not exploit the research results and there are few connections between education, research, and businesses.

The government and the private sector continue to invest too less, **with the major risk to fall under a necessary critical mass for maintaining a viable ground for the knowledge based economy.**

Selected theme goal Selected investment priority Justification of the essential generic technologies selection and the dissemination of the general use technologies;

Art. 5 1. (b) Reg. 1301/2013

TO1:

Strengthening the research, the technological development and the innovation

Art. 9 1. Reg.1303/2013

PI2: Improving the research and innovation (R&I) infrastructures and of the capacities to develop the excellence in the C&I and promoting the centers of competitiveness, particularly those of European interest;

Art. 5 1. (a) Reg. 1301/2013

- The Romanian economy is characterized by the prevalence of low and medium technology sectors, **with weak demand for knowledge and an under-developed culture of innovation. The research, innovation and the industrial policies are not sufficiently integrated.**
- **The RDI system is very fragmented (large number of research institutes, combined with the lack of critical mass of the quality results).**
- Low level of scientific publications and of pattern demands.

Action 1.1.5. Partnerships for knowledge transfer (Knowledge Transfer Partnerships)

Proposed objective

The action addresses to the second specific objective for the 1.1 investment priority

This actions intends to encourage **the setting up of a business environment around the higher education institutes and the RD ones**, by stimulating the trading of the knowledge, skills and their facilities to the business environment, based upon the setting up of some partnerships with the enterprises/ the groups of enterprises interesting in getting, collecting and changing knowledge, including abilities and competencies or in accessing the facilities of high technical/ scientifically performance. **These knowledge transfer partnerships are to answer the strategic needs for enterprises business development and are to provide innovative solutions for developing and trading products and new processes, improved by granting support to the enterprises, tailored on the individually and group identified needs in various stages of development of the new business they promote.**

In the same time, the action trends to value the potential of the developed or modernized RD infrastructures in Romania, starting 2007 and of those resources developed in the same time to serve the innovation needs of the enterprises for increasing the added value of those competitive sectors or of those with growth potential.

The offer of the research organizations for enterprises will include a portfolio of research, innovation and technological transfer activities which can be grouped into three main categories as follows:

a. the development of the connections between the knowledge and enterprises suppliers

- **identifying new potential beneficiaries of the knowledge transfer,**
- **services of technological assistance and knowledge transfer,**
- **consultancy for business management,**
- **consultancy and expertise for validating the idea/ the solution (diagnosis services for a business for accessing and implementing the proper technical solutions),**
- **consultancy and expertise in obtaining, protecting and trading the industrial property rights,**
- **services for counseling related to using the standards,**
- **services for analyses, testing, characterization, labeling the quality and certification,**
- **accessing databanks and technical - scientific libraries,**

b. stimulating the enterprises access to the facilities of the institutions supplying the knowledge transfer

- **access to the infrastructure/ laboratories/ RD equipments (including trading if necessary),**
- **market analyses,**
- **renting areas for project activities,**

c. stimulating the transfer of research abilities

- **special staff detaching, as well as placing young graduates into the enterprises,**
- **consultancy for access to various sources of funding (including national/ European programs and financial instruments),**

- research-development in cooperation.

Eligible applicants

In the category of eligible applicants there enter the **research organizations (RD and higher education institutions)**, that do not go under the incidence of the state aid regulations and that are to be selected depending on their scientific and technical capability, as well as the capacity to draw in, answer and manage a sufficiently large number of projects with the enterprises, in agreement with the stipulated targets. **Research organizations are to be intermediate bodies.**

Action indirect beneficiaries are the enterprises which access the tender of the research organizations.

Action 1.2.3. Creating synergies with the RDI actions of the frame-program HORIZON 2020 of the European Union and of other international RDI programs

Proposed objective

Action addresses to the second specific goal of the 1.2 investment priority.

This action contribute to the development of a joint strategic perspective in view to ensure the consolidation, the coordination and the complementarities between the Structural and Investment Funds (FEDR) and the EU Horizon 2020 Framework Program, in order to unblock the potential of excellence in the RDI area and to increase the fund impact by:

- establishing some “ERA chairs” in order to draw in their famous university teachers;

Implementation

Among others, the following types of projects are to be funded by this:

1. Projects for ERA Chairs - „ERA Chairs” (ERA=European Research Area) have the purpose to draw in famous university teachers into institutions presenting excellence research potential, in order to support these institutions in unblocking their potential, and so creating a RDI base into the ERA. Horizon 2020 will fund for the staff and administrative expenses.

Action 1.2.4 Drawing in staff with advanced competencies from abroad, in order to consolidate the RD capacity

Proposed Objective

The action addresses to the second specific goal for the 1.2 investment priority.

This action has as goal to set up nucleus of high level scientific and/ or technological competency, at European standards, with a RD institution, a university or a host enterprise, by drawing in foreign experts of any nationality, with acknowledged competency. The transfer of competencies between academic and industrial environments is encouraged. The projects are to be led by the foreign expert, to be employed as scientific researcher for a period of time equal at least with the project duration, in the host institution. The action is to follow up the strengthening of the RDI capacities for preparing the participation in Horizon 2020.

The action will focus on the four areas of smart specialization established by the National RDI Strategy for 2014-2020 (bio-economy, information and

communications technologies, energy and environment, eco-technologies) and on health, area of national interest.

Eligible applicants

Private or public research organizations and large, medium or small enterprises with RD activity included in the statute.

Scope

The action covers all national territory.”

Comm.: The fragments are explicit enough, mostly by using various sizes of the fonts, colors on some passages in order to emphasize them, without taking them out of the context. The mystery of the research organization is clarified, as it comprises the university and research institute, though we have also research centers that might create confusion among the non-authorized readers, in the typical manipulation of the university clientele, these being, usually, structures created nearby universities by the absorption of some research institutes. We have the explanation on the destination of the national RDI programs funding to the fundamental research and to the institutes of the Romanian Academy, but also the destination of the European funds allowed for competitiveness, as we consider them of the national economy, but we find out that, “through OPC, the RDI actors of Romania are supported (especially the private ones) to participate in the EU research area (currently, according to the NRDIS, the participation is very low according to the NRDIS)”. It is also true that it is not clarified if it is about private research or private environment involvement into SR-TD funding, especially as from the research tender, we find out as objects of activity: identifying the potential beneficiaries, renting areas and equipment, services and others alike. We have another definition for the fragmented RDI system: **“large number of research institutes, combined with the lack of critical mass for the quality results”**, as well as related to the critical mass, which no longer refers to researchers, but to the quality results, which is in opposition with the statements from the PA.

OPC also has another “interesting” part, especially as we are in the copy-paste era, ie two chapters Action 1.1.2 and Action 1.1.3, which besides the titles are not in English, fact that rise questions on the program origin, but also related to the authors. Significant for the latest, besides the grammar errors, of the foolish remarks from the PA and OPC, it is the following wording from the above analyzed program: “Sustainable development is the following wording from the above analyzed program: “Sustainable development starting from the smart specialization concept and the increase of economic growth through investments in ICT development – innovation, both related to the process, and at product level, with priority in the areas identified as being potentially competitive and according to the national RDI strategy”. The despise of the scientific researcher and of the research staff of Romania, their offending, reaches the maximum level in presenting the Action 1.2.3, with the justification of setting up some “ERA chairs” and attracting some university teachers from anywhere, in order to be employed as researchers and to unblock the potential, they do not specify which, but only like this we are going to have a base for entering ERA, otherwise not having any chance, in authors’ opinion.

For whole and proper authors’ identification and their original environment, after presenting their opinion on researcher’ and scientific research staff’ quality, we show below the destination of the SR-TD funding (which according to some media information would be of 800 million Euros):

“Investments in equipment for higher education are to be prioritized according to the national strategy for higher education, considering the EU 2020 targets related to the level of preparation for third education and the insertion of the graduated on the labor market. Consequently, the support for infrastructure will come in completion of the measures meant to lead to the higher education alignment to the labor market needs. **More investments into the infrastructure and into the equipment meant for the higher education are to follow up the modernization and the internationalization of the most important university centers and afferent research units, especially those ensuring a better connection with the research and/ or cooperation with the business environment.**

Within this theme goal, interventions from the ESI Funds have been set up, aimed to contribute in achieving the main goal – *Improving the terms for research and development, following particularly especially that the combined levels of the public and private levels in the sector reach 2% of the NGP.* This is to be achieved by supporting the innovation within the enterprises, as well as through strengthening the capacities for excellence in research and innovation and for technologic changes. In rural areas, innovation and knowledge base are to be strengthened by cooperation between rural, food and forestry sectors and with other stakeholders, as well as through creating clusters and networks and the use of the consultancy services.

The RDI component of the OP Competitiveness is to be developed in synergy and complementarities terms with the National RDI Plan, and, also, in synergy with the European Program on RDI, Horizon 2020. FEADR funded research is to be in synergy with the 2020 Horizon Program which is more and more focuses on practical issues and which is to offer funding for the new interactive and applied approaches, as well as for theme networks and for projects in ample partnerships. Within the National RDI Plan, the state budget is to support the fundamental and borderline research, in completion to the ESI Funds that aim the support for applied research and business innovation. In addition, the synergy will be secured by joint RDI actions, with eligibility criteria used in OP Competitiveness in order to connect the enterprises with the support services for innovation, and in order to offer them access to research facilities including the developed or modernized infrastructures, during 2007-13.

*The Europe 2020 Strategy aims to foster smart growth by supporting sustained investment in innovation. In 2011, Romania invested only 0.48% of GDP in R&D, with more than 80% accounted for by the Romanian public sector. A step change in behavior is needed to achieve the **Europe 2020 target** of 2% of GDP by 2020². Some studies point to a relatively high level of innovation in Romanian businesses nevertheless³, and suggest a need to look beyond formal R&D expenditure in order to fully comprehend the situation. In terms of **territoriality**, Business (36%) and Government (41%) expenditure and employment in R&D are highly concentrated in Bucharest Ilfov; only R&D expenditure and employment in Higher Education Institutions (22%) is more dispersed.*

Low level and slow growth in private sector investment in R&D

In 2011, Romania's Business Sector invested only 825m lei in R&D, 17.1% of the total. Growth in private sector R&D between 2007 and 2011 was only 11.8%, just over a third of the growth rate for all R&D expenditure⁴. This pattern is attributable to structural and other factors.

The innovation potential in business is closely linked to Romania's economic structure⁵:

- *Large companies account for just 0.4% of all companies but they contribute 47.3% of GVA attributable to companies; 56.4% of large companies are assessed as innovation active.*
- *Medium sized companies account for 1.9% of companies and generate 20.5% GVA in companies; 38.7% of medium sized companies are assessed as innovation active.*
- *Small companies represent 10.6% of the total and 17.8% of GVA in companies; 27.5% of small companies are assessed as innovation active.*
- *Micro companies amount to 87.1% of the total and 14.4% GVA in companies, only a small fraction are believed to have capacity or orientation towards innovation.*

At present, investment in R&D is extremely concentrated in high and medium technology companies which represent a small proportion of the total⁶. The large proportion involved in low or medium-low technology activities, generate a low demand for innovation support. Innovation potential also reflects the focus of

²Highlighted in Commission Services Position Paper (October 2012) p7; European Council Recommendations on Romania's National Reform Program (June 2013) p8.

³ For example, DG ENTR, 2011, SME Access to Finance Survey.

⁴ Source: National Institute for Statistics.

⁵ Source: INS and Study The role of private sector in the development of competition in R & D and innovation system.

⁶ The turnover of high and medium-tech companies was 30% of the total industry turnover in 2011, increasing from 24% in 2008. Source: "New directions of industrial policy and necessary structural changes" (Cojanu et al, 2012).

activity. As discussed above, Romania's company base is skewed towards low value-adding activities. Almost half of the total is in retailing or close-to-retailing activities.

However, beyond the structural factors which suggest that a very modest proportion of the business base represents a realistic target for innovation support, additional factors have been identified as constraining private investment in research and innovation⁷:

- the negative impacts of the international economic crisis which have increased risk aversion, reduced liquidity and had a significant effect on SME access to finance, including to fund R&D⁸.
- lack of venture capital generally, but more specifically an absence of venture capital funds dedicated to R&D driven technological innovation.
- disruption in national public support to RDI activities since 2009 (National Program calls become irregular and the calls' budgets decreased sharply).
- the complexity of rules concerning access and implementation of publicly supported RDI projects.
- decrease in the number of R&D employees in the private sector.
- many of the foreign-owned companies (including former state companies) do not include research activities within their operations in Romania.
- weak connections between academia and Romanian private sector R&D, and the poor practical applicability of the research results generated by the public sector.
- high costs of patent registration at European level. Romanian institutions are determined to patent at national level.

In spite of a diverse offer of financial support for RDI in the period 2007-2013 was quite diverse, demand from enterprises was not particularly high. Access to financial instruments (loan, guarantees, and risk-capital) was limited in this period and the SMEs, especially, found it very difficult to ensure a robust cash-flow necessary for their projects.

Limited alignment between private R&D and sectors with growth potential

In 2011, business R&D expenditure was concentrated in the automotive (22%), chemicals (10%), ICT (10%), and electrical equipment (7%) sectors. Private R&D institutions have also a large share of business expenditure for R&D (22%).

Some large sectors are associated with very small R&D expenditure. Trade, which accounts for almost half of all businesses, contributes only 2%; Agriculture, which accounts for 30% of employment contributes less than 1%.

Analysis of the public demand for R&D funds shows that ICT is active in seeking public funding, whereas automotive and chemical R&D is based mainly on private funding.

The pattern of private R&D expenditure is only partially correlated with sectors targeted under the National Competitiveness Strategy and National RDI Strategy.

Based on the analysis of the RDI market in Romania⁹ and according to the methodological guidelines specified in the European "Guide for Research and Innovation Strategies based on Smart Specialization" (RIS3) the National RDI Strategy identifies the following thematic priorities for the public RDI investments in the period 2014-2020:

- bio-economy (agriculture and forestry, fisheries and aquaculture, food, biotechnologies and biopharmaceutics);
- ICT;
- energy and environment;

⁷ "Intermediate evaluation of the National RDI Strategy and of the National Plan for RD&I" (Technopolis Group, 2012), "New directions of industrial policy and necessary structural changes" (Cojanu et al, 2012), "Role of the private sector in developing competitiveness in the research-development-innovation sector" (2012).

⁸ The overall number of innovators in 2010 decreased by almost 40% relative to 2006. Process innovators, which represent the majority of innovators, registered the worst decline (almost 50%). The number of companies that introduce new or significantly improved products declined by almost a third compared to 2008.

⁹ In order to establish a National RDI Strategy for Smart Specialization, the Romanian Ministry of National Education commissioned JASPERS to produce an analysis of the RDI market consistent with the RIS3 Guide. Both the priority economic sectors identified by the Competitiveness Strategy and the thematic priorities for public RDI investment identified by the National RDI Strategy have this analysis as a common basis.

- *eco-technologies (transport vehicles, pollution-control technologies and waste management, intelligent city);*
- *health.*

Fragmented public R&D poorly linked with business

Attention pages 24 and 25

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The analyze of the demand for public funding for R-D shows that ITC is active on getting public funding, while the R-D from automotive and chemical industry mainly rely on private funding.

The expenses pattern for the R-D private sector is only partially correlated with the sectors aimed by the National Strategy on the Competitiveness and on the National RDI Strategy. Based on the Romanian RDI market analyze ⁴⁰and according to the methodological orientations specified in the “European Guidelines for the research and innovation strategy based upon the smart specialization” (RIS3), the National RDI Strategy identified priorities for public RDI investments for 2014-2020:

- bio-economy (agriculture and forestry, fishery and aquaculture, food, bio-pharmaceutical products and bio-technologies);
- ITC, area and security;
- energy, environment and climate changes;
- eco-nanotechnologies and advanced materials;
- health.

The most important research and development infrastructure of Romania, the ELI-NP, its first stage being funded during 2007-2013, it is estimated to bring significant progress in the area of basic sciences – laser and nuclear physics, astral-physics – as well as important progress in the applications for the major society interests in the area of material sciences and life. To promote the commercial exploitation of the results and of the ELI-NP facilities, an association meant for the research and for the economic agents had been established. The ELI-NP existence will produce stimulating effects on the high technology industries, giving interesting opportunities for the companies in performing borderline research, as well as stimulating the research for the innovative enterprises, with direct and indirect effects on the economic environment at local and regional levels.

Public R-D fragmented and weakly connected to the economic activity

Romania has a large R-D public structure comprising 54 universities, 46 national research-development institutes, the Romanian Academy with 66 research institutes and centers, the Agriculture and Forestry Academy with 17 institutes, research centers, and research units on field. With regard to the **territorial distribution**, though represented in all regions, the R-D activity is mainly focused in Bucharest, Iasi and Cluj. Despite this, we found out that the environment in R-D and in higher education institutes of Romania is characterized by fragmentation, inconsistency in quality, excessive standardization, and inefficient use of the resources and in the absence of a development strategy of some intensive research units⁴¹.

The private agriculture research has a low weight in the national agriculture research. A particularity of the agriculture research in Romania is the fact that the research itself is associated to the activity of development and innovation as well as with the trade activity on seeds, wine, forestry, animals growth and fishery market.

The R-D institutes are evaluated and classified according to the performance of their R-D activity ⁴². Main evaluation criteria are the quality of the research results, the quality of the human resources, the quality of infrastructure and the level of its exploitation, the managerial efficiency, and the quality of the institutional development plan.

⁴⁰ In order to establish a National RDI Strategy based upon the smart specialization, the Ministry for National Education of Romania orders Jaspers company to analyze on the RDI market according the RIS3 Guidelines. Both the priority economic sectors identified by the Strategy on

the Competitiveness, and the thematic priorities for the public investments into RDI, identified in the National RDI Strategy are based upon this analyze

⁴¹ Emphasized in the Position Paper of the Commission services (October 2012) page 7; the National Reform Program 2011-2013, the Intermediate Report (March 2013) page 12

⁴² According to the Government Decision 1062/2011

The analyze of the publications and on the license demands shows that the Romanian R-D public institutions have a lot of strengths in the following areas:

- materials production technologies, including the nanotechnologies;
- engineering, including aeronautics, and automotive;
- information and communications technologies;
- environmental science and technology;
- medicine / health;
- agriculture.

This analysis corresponds to the strengths of the Romanian research in European framework. The areas "Cooperation" in FP7 where Romania's participation was strong (based on the attracted funds) were: ITC; Transport (including Aeronautics); Nano-sciences, nanotechnologies, Materials and New technologies of production; Environment; Health; Food industry, agriculture and fishery and Bio-technology.

These strengths are well-correlated to the sectors showing growth and export potential in the National Strategy for Competitiveness (for instance automotive, ITC, food industry), with the opportunities of second degree where innovation might extend the lifespan of some mature production lines and that might support the diversification tied to them (for instance wood and textiles), and with the social major changes Romania is facing (particularly the adjustment to the climate changes and environment restoration).

Despite these, while a large part of the research developed in Romania is impressive, this is mostly pushed forward by the scholastic curiosity, rather than by trade considerations. The ties between research, education and the economic sector remain weak⁴³, the result being that few ideas are transferred and traded. The collaboration activity, as it is, tends to be made between R-D institutions and the large companies. The SMEs participation is limited, though this reflects in a certain ratio the relatively low extent and the sectoral structure of the SMEs basis. The public research institutes did not develop a specific and special management capacity, dedicated to a better trading of the research results, a better management of the intellectual property rights, a stronger dialogue with the enterprises, in order to support their needs.

Learnt lessons

Currently, there are few available evaluation results to provide for a perspective image on the relative efficiency of the specific interventions type. Despite this, important lessons have been learnt in 2007-2013, including those related to:

- the major demand deficit in the areas to be developed in Romania, that prevents the enterprises and market economy;
- financial instruments less adapted to the SMEs need and the regulations on the state/ minimal aid;
- fragmentation of the support given to business in the Operational Program Competitiveness and in the Regional Operational Program, that rendered difficult to get the efficiency;
- fragmentation of the research environment and the inadequate connection with the needs for business growth and the social challenges;
- the absence of proper financial instruments for the R-D sector needs, and its connection to the productive sector/ to the technological transfer;
- the importance of the simplified rules related to access and projects implementation.

Main development needs

As reaction to the above analyze, the investments priorities for 2014-2020 are to be established in line with the National Strategy for Competitiveness of Romania, to the National RDI Strategy and the National Strategy for Rural Development, following the principles of smart specialization and emphasizing the support of the commercial component in the RDI activities. A complementary fiscal environment will stimulate the companies, including the multinational ones, to place their research activities in Romania. In 2010 a deduction of

120 % on the tax for R-D researches has been imposed for the enterprises where the R-D activities represent at least % of the total yearly expenses, and this deduction increased to 150 % in 2013.

The ESI funds investments into the agriculture are to be prioritized based on the findings of the national evaluation of the research-development bodies as follows:

- strong institutions/ having a strong connection with the priority sectors – main priority for support;
- less strong but able to improve themselves / well connected to the priority sectors – secondary priority for support;
- weak institutions/ they are not connected to the priority sectors – no priority for support.

For the agriculture sector, the knowledge transfer, the support for innovation and the well correlated research with the farmers' practical needs are to be important for the competitiveness and the increasingly high farmers' performance. In order to facilitate the introduction of new technologies, it is to be essential the focusing of the research units on practical application at farm level, in the frame of the partnership agreements for development.

Starting from the conclusions of the analysis on the obstacles in the development and of the SWOT analysis (appendix I), main development needs are:

- creating a public environment of R-D more compact and more modern to focus on the economy needs, on the social changes and on the technologies where Romania has potential of world class, according to the principles of smart specialization and in order to increase the trading degree and the internalization of the research;
- promoting an entrepreneurship and innovation culture in the whole educational system and in companies which is to be related with all forms of support, financial, managerial, technical, creative, in order to value the latent potential existing within the population and the companies in Romania.

As answer to the previous mentioned analyze, the investments for 2014-2020 are to be prioritized in the National Strategy for Competitiveness, the National RDI Strategy, the National Strategy for Agriculture³¹, the Regional Development Plans, based on smart specialization principles.

Reflecting the general influence on the labor force occupancy and on stimulating the increase and the support of some existing activities, sectors have been identified presenting an outstanding growth potential for the added value – health/ pharmaceuticals products; textiles/ leather; wood/ furniture; energy/ environment management – as well as in the agriculture, fishery and forestry, which are also going to be of importance in Romania’s development on medium term. For a sustainable development of the national competitiveness it is necessary that the investments in these sectors to be treated with priority at national level, and to receive the highest amount of support from the ESI Funds. In the same time, the Regional Development Plans may identify locally other sector with growth potential that might represent a secondary interest point for investments

Pag.17

The draft of the National Strategy for Competitiveness identifies the industrial sectors and added value services that proved recent increases¹² and good export performance:

- automotive sector has a large added value and comprises about 500 large and medium enterprises, among which companies for producing and assembling Ford and Renault vehicles; their involvement into the supplying chain improved productivity and competitiveness of the Romanian companies; the sector is strongly oriented to the export;
- the food and beverage sector has a medium to high added value; it comprises few large companies and about 7,000 SMEs; it focuses mainly on the internal market in Romania;
- ☒ In agriculture, the organic primary production is largely directed to the export, the textiles and leather sector has a low added value and a low to average technology, but it can represent potential to growth in the productivity and in the added value by innovation; the sector comprises about 4,000 SMEs and it is strongly oriented to the export;
- ☒ the information technology and communications sector is competitive at international level, but is mainly based upon external subcontracting for clients abroad, more than on the internal Romanian system of production;
- ☒ the financial sector services mainly focus on the internal market.

Romania is on the penultimate place in EU 27 from the density of the economic activities⁷

Considering the **territoriality**, there are significant differences between the development regions with regard to the density of the economic activities⁸

1.1 THE ANALYSE OF THE DISPARITIES, OF THE DEVELOPMENT NEEDS AND OF THE GROWTH POTENTIAL

1.1.1 THE ANALYSE OF THE DISPARITIES AND THE IDENTIFICATION OF THE MAIN DEVELOPMENT NEEDS

CHALLENGE WITH REGARD TO THE COMPETITIVENESS AND LOCAL DEVELOPMENT

General Overview

Usually, the competitiveness is defined as the capacity of an activity, developed in the market of the open markets to maintain its market quota.

The competitiveness concept may be applied likely at country or region level. In this case, many of these competitiveness aspects show in a more aggregated shape:

- entrepreneurship culture degree;
- areas presenting a comparative advantage;
- available resources;
- research and innovation systems;
- infrastructure and transport and communications services;
- locations and working points availability;
- competences availability;

Still at page12, we have the goals of the 2020 strategy, with 3% for research, but at specific recommendations the research does no longer show up

Page 8

Competitiveness and local development

The general level of the economic activity in Romania is still very low. An analyze of the level, of the structure and of the sectoral performance obviously shows that the *competitiveness* issue is a challenge for Romania:

- the current dependency of the labor force occupancy in agriculture with very low added value, where the small farms have a large proportion (almost 93 % of the total number of farms), with low orientation to the market, low level of productivity and technical equipment, high areas of orchards in decline (over 50 %);
- the entrepreneurship culture, as reflected by the relatively low density of the businesses in all regions, except for the region Bucharest – Ilfov, as well as the orientation towards activities with low added value;
- un-competitive levels of productivity at international level, for many industrial areas;
- weak current representation of significant added value services in the economy;
- **fragmentation, excessive standardization, inefficient use of the resource in the Romanian environments of research and development and in the academic ones, as well as the absence of a strategy for development of the institutions with intense research activities.**

To add

Investments in equipment for higher education* are to be prioritized according to the national strategy for higher education, considering the EU 2020 targets related to the level of preparation for third education and the insertion of the graduated on the labor market. Consequently, the support for infrastructure will come in completion of the measures meant to lead to the higher education alignment to the labor market needs. More investments into the infrastructure and into the equipment meant for the higher education are to follow up the modernization and the internationalization of the most important university centers and afferent research units, especially those ensuring a better connection with the research and/ or cooperation with the business environment. Within this theme goal, interventions from the ESI Funds have been set up, aimed to contribute in achieving the main goal – *Improving the terms for research and

development, following particularly especially that the combined levels of the public and private levels in the sector reach 2% of the NGP. This is to be achieved by supporting the innovation within the enterprises, as well as through strengthening the capacities for excellence in research and innovation and for technologic changes. In rural areas, innovation and knowledge base are to be strengthened by cooperation between rural, food and forestry sectors and with other stakeholders, as well as through creating clusters and networks and the use of the consultancy services.

The RDI component of the OP Competitiveness is to be developed in synergy and complementarities terms with the National RDI Plan, and, also, in synergy with the European Program on RDI, Horizon 2020. FEADR funded research is to be in synergy with the 2020 Horizon Program which is more and more focuses on practical issues and which is to offer funding for the new interactive and applied approaches, as well as for theme networks and for projects in ample partnerships. Within the National RDI Plan, the state budget is to support the fundamental and borderline research, in completion to the ESI Funds that aim the support for applied research and business innovation. In addition, the synergy will be secured by joint RDI actions, with eligibility criteria used in OP Competitiveness in order to connect the enterprises with the support services for innovation, and in order to offer them access to research facilities including developed or modernized infrastructures, during 2007-13.