



MINISTRY OF ECONOMY AND TRADE

Sectoral Operational Programme
“INCREASE OF ECONOMIC
COMPETITIVENESS”

- Draft -



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INTRODUCTION

The Sectoral Operational Programme “Increase of Economic Competitiveness” (SOP IEC) is one of the seven instruments (OPs) for achieving the priorities of the National Strategic Reference Framework (NSRF) and the National Development Plan 2007 – 2013 (NDP), which aim to strengthen the strategic focus of the Economic and Social Cohesion policies and Regional Policy across Romania and to make the correct and appropriate linkages to the European policies and the Lisbon Strategy, which focuses on policies for growth and job creation.

SOP IEC mainly focuses on the first priority of NDP “Increase of economic competitiveness and development of knowledge-based economy” and the second priority of NSRF i.e. “Increasing long-term economic competitiveness” and also contributes, to a different extent, to the implementation of all NSRF priorities.

SOP IEC was elaborated under the coordination of the Managing Authority for SOP IEC - Ministry of Economy and Trade (MET) and is the result of the partnership consultations both with the strategic partners (MA CSF-Ministry of Public Finance, other MAs—ministries coordinating other OPs, institutions designated as Intermediate Bodies, other line ministries and agencies, social partners, civil society organizations, potential beneficiaries, other stakeholders involved in this field).

The implementation of the programme is under the responsibility of the Managing Authority for SOP IEC, which is the Programmes with International Organizations Directorate within MET. In order to carry out the programme efficiently, the National Agency for SMEs, Ministry of Education and Research-Research Department, Ministry of Communications and Information Technology, Ministry of Economy and Trade-Energy Policy General Directorate and National Authority for Tourism were designated as Intermediate Bodies (IBs) for SOP IEC.

The starting point for SOP IEC is the analysis of the current situation of entrepreneurship and innovation, with special emphasis on the small and medium-sized enterprises sector (SMEs), the resources for RDI sphere, ICT sector, energy efficiency and environment protection issues in the energy sector as well as tourism.

It is followed by the SWOT analysis, on which the development strategy is built. The SOP also contains a description of the priority axes, key areas of intervention and proposed operations, as well as financial tables, implementation provisions, partnership arrangements.

The **general objective** of SOP is **the increase of Romanian companies’ productivity by reducing the disparities compared to the average productivity of EU**. The target is an average annual growth of GDP per employed person by about 5.5%. This will allow Romania to reach approx. 55% of the EU average productivity by 2015.

The specific objectives are:

- Consolidation and growth of the Romanian productive sector
- Establishment of a favourable environment for enterprises’ development
- Increase of the R&D capacity and stimulation of the cooperation between RDI institutions and the productive sector

- Valorization of the ICT potential and its application to the public (administration) and private sector (enterprises, citizens)
- Increased energy efficiency and sustainable development of the energy system.
- Promotion of Romanian tourism potential

Taking into account both the identified possibilities for improvement of the competitive position of Romanian enterprises to cope with the challenge and to be able to use the opportunities arising from operating on the European Single Market and the areas eligible for the ERDF support, the following Priority axes, key areas of intervention and operations have been identified in the SOP IEC:

Priority Axis 1: An innovative productive system

Priority Axis 2: Research and Development for competitiveness

Priority Axis 3: IT&C for private and public sectors

Priority Axis 4: Increased energy efficiency and sustainable development of the energy system

Priority Axis 5: Romania, an attractive destination for tourism and businesses

Priority Axis 6: Technical Assistance

Technical Assistance (TA) will assist in the implementation and monitoring of the programme. TA is expected to contribute significantly to achieving the global and specific objectives.

The priority axes of Romania's competitiveness strategy are in full compliance with the lines of action of the Commission's proposal regarding the framework for Competitiveness and Innovation 2007-2013, and take into account the guidelines put forward by the European Commission for the cohesion policy for 2007-2013.

The ERDF contribution to SOP IEC budget for the 2007-2013 programming period is 2,240 million Euro, which represents 13.28 % of the Community contribution to the NSRF.

1. ANALYSIS OF THE CURRENT SITUATION

1.1. Competitiveness Factors

Sustainable economic growth and improvement of living standards of the population are triggered by the development of economic competitiveness in the world's challenging context such as globalization of economy, opening of international markets and rapid technological changes; these challenges have to be transformed by Romanian economy into opportunities. The analysis of competitiveness factors and the identification of problems Romania is facing, pursuing to find the best solutions, represent a must when it comes to the assessment of the country's future economic potential.

The study on the world states' competitiveness conducted by World Economic Forum (WEF), ranked Romania 67th out of 117 analyzed countries in 2005 (with a score of 3.67), lower compared to the previous year when it was 63rd out of 104 analyzed countries (with a score of 3.86), behind the new member states and also behind other candidate countries such as Bulgaria (ranked 58th) and Turkey (ranked 66th). World Economic Forum conducts the analysis of competitiveness based on three factors: technology, institutional frame and macroeconomic environment. The Report on Global Competitiveness – WORLD ECONOMIC FORUM, 2003 and 2004 (on which data is available) ranked Romania 55th - in terms of technology, 58th - in terms of macroeconomic environment, and 67th - in terms of public institutions, out of 80 analyzed countries, which demonstrates the need for major improvements in these areas.

Over the last five years, Romania registered a **macroeconomic stability** that is essential for the country's sustainable development, marked by a substantial GDP growth, based on investments, exports and less on consumption. In structure, the contribution of economic branches to gross domestic product indicates an improvement in terms of proportionality, but also an evolution towards modern structures, typical for developed economies. It is worth mentioning that, because of its structural reforms, Romanian economy is currently capable to meet market requirements, enhancing the international economic environment opportunities in real time. The sustained economic growth, with an annual average rate of 6.1%, in 2001-2004, was due to high annual increases in constructions (8.2%), industry (5.2%) and services (5.5%). In 2005 the increase of GDP was of only 4.1%, half of the 2004 level (+8.3%), mainly due to a decline in agriculture, a slower increase in industrial sectors, and significant increases in constructions (+9.9%) and services (+8.1%); the two latter sectors contributed for 54.8% to the GDP formation.

A positive indicator of structural changes that occurred in Romania is the constant growth of private sector weight in GDP, which reached 70.8% in 2004 compared to 63.7% in 1999.

Despite the significant progress made in the recent years, Romania is still lagging behind the European competitors, in terms of economical development, which is also proved by GDP at PPP, that is approximately 50% of the new member states' GDP and approximately 40% of that of the least developed EU-15 countries (Greece, Portugal). GDP per capita (PPP) is approximately 1/3 of the EU-25 average in 2004, proving also the substantial gap compared to EU.

The evolution of **labour productivity** GDP in Purchasing Power Standards (PPS) per person employed registered a positive, but insufficient trend, from 27.9% in 2000 to 35.3% in 2004 relative to EU-25 average productivity.

The labour productivity in industry increased by 11.6% per year, in the period 2000-2003, a higher percentage than in many other countries of the region (source CANSTAT Statistical Bulletin 2003/4), such as Poland (9.8%), Czech Republic (7.7%), and Hungary (8.9%). Although this indicator had a positive evolution, a trend maintained also in 2004 (11.9%), Romania is behind EU countries average, including the countries in the region, for most economic activities. Productivity growth depends both on technological development, carried out through tangible investments (equipment, new technology) and intangible investments (licenses, patents, trademarks and know-how), and on improvement of product quality, marketing and application of research / innovation and other sources that foster added value.

The **low cost of labour** is a dominant source of competitive advantage but this records a progressive decrease, which calls for stimulating internal research and innovation as major course of action, that will bring beneficial results such as lowering the imports of technologies and equipment and increasing the gross added value of products intended for the domestic market but also for export.

The **privatization process of state-owned companies** reinforces financial discipline and arrears' decrease, enterprises' restructuring, lowering of production costs, increase of professional training of employees. That is why this process was intensified in Romania over the last years, where a considerable share of processing industry and most of the natural gas and electricity distribution have been privatized.

The **engines of economic growth** over the last years have been represented by export and investments. Romania's **export**, based approximately 98% on industry, registered a positive evolution between 2000 and 2004, but depended to a great extent on products with low added value. The highest exports volume was recorded in textile industry, where inward processing is predominant, followed by metallurgy with mainly inferior steel and less special steel. There has been progress in export of high added value products such as equipment industry, radio, television and communication equipment, car and electrical appliances and of transport industry (mainly motorcars).

The increase of Romanian products competitiveness was reflected by changes in exports structure of products belonging to manufacturing industry (the analysis excepted the food industry). Thus, in the 1999-2004 period, the weight of resources exports decreased from 16.1% to 15.6%, as well as the low technology ones from 49.6% to 43.1%, whereas the weight of average technology products significantly increased from 16.1% to 22.3% and of high technology ones from 2.5% to approximately 5%. The export volume continuously increased in this period and almost doubled in 2005 compared to 2000 (from 11,273 mil. Euro in 2000, to 22,255.1 mil. Euro in 2005). As for imports, the weight of high and average technology products is approximately equal to that of low technology products. This demonstrates that technology is mainly imported in Romania, and only on a small scale is locally generated and, where available, local innovation is hard to be promoted and transferred to productive companies. It can be said that, to a great extent, Romanian products offered for export are competitive by costs and not by innovation.

Investments represent a significant driving force for economical development. Direct foreign investments may lead to a substantial growth of productivity because they bring not only technology, but also the best practice. In 2004 Romania witnessed an increase in foreign direct investment (FDI) that was of 4,098 million Euro (according to payments balance of the National Bank of Romania). an increase of over 111% compared to 2003. Romania managed thus to lower the gap and to become more competitive compared to other countries from Central and Eastern Europe in attracting FDI. The above mentioned increase of FDI was mainly due to significant foreign investments in privatization transactions (Petrom with OMV), capital increases (Dacia – Renault in car industry, Ispat - Sidex in steel industry, Michelin in tire industry, Carpatcement in building materials industry), green field investment such as Holzindustrie Schweighofer (wood products), Saint-Gobain (glass industry), YKK (accessories for clothing), Lek Farmatech (pharmaceutical industry) and brownfield investments such as Roti Auto SA (tire industry)

The interest of foreign partners in Romania as destination for FDI is also reflected in the 54% growth of foreign-capital companies incorporated in 2004, compared to 2003, most of them in industry (58.7%). The foreign investors' orientation towards industry is especially due to the advantages Romania offers in this field (reduced price for land compared to other countries in the region, cheap labour force and qualified for the industrial field, production capacities, tradition). On the other hand, the FDI growth was highly affected by transport, communication and energy infrastructure development that do not reach European levels.

A determinant element for the growth of foreign direct and local investments is the **existence of a stable and predictable business environment**. To accomplish this need, an Action plan to remove administrative obstacles for business environment was developed each year, and the implementation of this plan led to simplification of legal and administrative procedures for starting up and developing business competition and increasing the efficiency of authorization and approving processes. The registration process for a limited liability company involves at present 5 authorisations based on own responsibility declaration, and generally lasts 3 days, which places Romania above the average of EU candidates and new member states.

One issue that small investors, especially Romanian, have to cope with is **reduced access to financing**, which calls for the creation of a favourable environment for business financing on competitive market terms, creation of guarantee and co-guarantee funds to support enterprises and stimulation of other financial instruments as venture/risk capital.

The economic competitiveness is intrinsically determined by **the quality of products and services**. At national level, the efforts were focused on transposing the European regulations into the national legal system and on ensuring the implementation conditions in terms of EU requirements. Moreover, the legal framework has been improved by adopting laws on evaluation of products conformity, and the institutional infrastructure has been developed with regard to national standardization, metrology, laboratories and accreditation of certification and inspection bodies. Implementing the European standards and creating a product conformity evaluation system - efficient, competent, transparent and, therefore, credible, significantly contributes to facilitate the access of Romanian products on the single market and offers opportunities for the business environment in Romania to improve its international position.

The permanent and constant expansion of the **information and communication technology** market (ICT) is a significant factor contributing to the development of IT infrastructure and to a

greater competition. According to the EITO (European Information Technology Observatory) last survey, Romania has one of the highest dynamics at regional level. However, the total ICT expenditure as percentage of GDP is less than half of EU15 average (3%). Communication market liberalization and the removal of Romtelecom monopoly on the fixed telephony market have triggered an increase in the number of electronic communication networks and service providers operating on the market. In 2000-2004, the penetration rate for the mobile telephony has increased by 50% annually remaining however, lower than EU25 average (83%).

Regarding **PC** penetration, an ascending trend may be noticed, with an annual average sales increase of over 50%, still remaining in terms of penetration rate (12 PCs/ 100 inhabitants at the end of 2004) lower than EU15 average (approximately 40 PCs /100 inhabitants). The number of Internet users has increased, but the Internet penetration rate is still low, especially in the rural areas, where access price is higher. The decrease of broadband Internet access costs, the higher competition among Internet providers, and the consolidation of a culture in this field represent comparative advantages for the economic evolution of the country, together with the positive evolution of software industry.

The **information society development** increased in Romania beginning with 2001 by setting up a legal framework to support the development of e-government and e-business applications. Since 2003, banks have developed programs to promote electronic payments, the use of cards has increased. The positive evolution of the IT sector has determined World Economic Forum in the Global Report on Information Technology 2004-2005, to rank Romania 53rd out of 104 countries, an upward evolution compared to 2003, when Romania was ranked 61st out of 102 countries.

In Romania, **the research, development and innovation** activity is based on a valuable tradition currently covering over 50 specific scientific and technological fields and maintaining a relatively stable annual activity and results level. The research and development activities continue to be carried on mostly in the public sector (over 60%). One of the main problems is the insufficient financing (0.4% of GDP in 2004), of which only 10% of the innovating companies benefit. In 2004, the innovating companies have spent approximately 3% of the turnover, of which 24.5% on RD, 53.4% on purchasing equipment and only 6.6% on patents and licenses. The RD infrastructure is outdated and there is a 5 to 10 years gap between the existing equipment and the current standards. Another major problem is the weak connection between research and economy and the relatively low capacity of valorising research results (economic and commercial applicability). In creating the technological transfer and innovation infrastructure, the first steps have been made by establishing technological transfer centres, technological information centres, innovative business incubators, industry connection offices, scientific and technological parks as well as excellence centres, but the results are however not sufficient.

The quality of training and new skills of labour force are important competition factors. From the education point of view, Romania recorded a permanent growth of the number of active population with secondary studies (70.5% in 2003), higher than in many European countries. Unfortunately, the weight of high education graduates, even if with an upward trend (10.6% in 2004), is lower than EU25 average of 21.9%. With regard to lifelong learning and professional training, the training offer focuses mainly on general aptitudes (PC use, foreign languages, accounting, etc.) and less on specific aptitudes. The percentage of people attending this type of education in Romania (1.6%) is 6 times lower than that in EU25 (9.9%).

The development of the **energy sector**, as fundamental infrastructure of the national economy, provides for the country's energy need and supplies export surplus, by interconnection to European networks. With regard to energy market development, the opening degree is of 82.3% since the beginning of 2005, which triggered the increase of eligible consumers. Regarding the natural gas market, liberalization continued by increasing the opening degree to 50% as of 1 January 2005. The problems affecting this sector are the high-energy intensity that can become a handicap for economic competitiveness in the context of energy prices increase and the negative environment impact of energy generation capacities, mainly large combustion plants.

In order to support **the use of renewable energy sources** that could provide a long-term competitive advantage, a legal package has been issued to foster the development of green certificates market (opened in November 2005).

The **SMEs sector** is a dynamic one with a high capacity to adapt to market requirements, which entails job creation and absorbs labour force from other sectors of economy. The number of active private SMEs has grown in 2004 by 27% and the number of employees by 10.5% compared to 2000, proving the existence of entrepreneurial spirit, which, however, needs more economic education and information on market potential, especially in the services area.

Tourism in Romania has a significant development potential, even if its weight in GDP is approximately three times lower than in countries where tourism is an important economic sector (Spain, Italy, and Greece). The increase of investments in tourism infrastructure creates conditions for the development of a modern tourism but needs sustained promotion actions at international level.

1.2. Manufacturing industry

The constant development of industry as a whole in the period 2000-2004, contributed to an economic growth of 26.5%. The weight of industry in GDP structure remained of about 27%, comparable to developed economies levels.

Structure of gross value added, by sector

	-%-				
	2000	2001	2002	2003	2004
Gross Value Added, out of which:					
Industry	27.3	27.7	28.1	27.3	27.0
Agriculture	11.1	13.3	11.4	11.7	13.0
Construction	4.9	5.3	5.8	6.0	6.1
Services	46.3	44.5	45.3	44.7	44.1
Other	10.4	9.2	9.4	10.	9.8

Source: National Institute of Statistics (NIS)

Industry as a whole contributes with approximately 97% to Romanian exports and employs about 23% of the active labour force.

The evolution of industrial production shows that **manufacturing industry** triggered the general economic growth. Manufacturing is the main component of Romanian industry, representing in 2004, 79.4% of the industrial production and employing 85.4% of the total labour force in the

industrial field. Insufficient investment and managerial abilities led to a slower growth of industrial production in 2005 (only 2.3%).

Industrial production indices

- % change compared to previous year -

	2000	2001	2002	2003	2004
Total industry	107.1	108.4	106.0	103.2	105.3
Extractive industry	105.0	105.0	96.1	98.6	102.4
Manufacturing industry	108.1	109.9	107.9	103.9	106.3
Electric and thermal energy, gas and water	99.6	98.7	98.3	101.1	96.8

Source: National Institute of Statistics (NIS)

In the period 2000 – 2004, a significant growth was registered in rubber and plastic materials production (201.3%); wood processing and furniture industry (180.3%); road transport equipment (151.0%); machines and electrical equipment (145.9%); chemical industry (149.0%), oil processing (122.3%); cellulose, paper and paper products industry (122.2%); radio, TV and communication equipment (140.9%); textile industry (121.7%); etc. (see Annex 1, Table 1).

Industrial FOB exports in 2004 of 18,560 mil. EURO represented a 69% increase compared to 2000 and accounted for 97.7% of the total Romanian export.

Foreign trade of Romania

- % change compared to previous year -

	2000	2001	2002	2003	2004
Export FOB (mil Euro)	11,273	12,722	14,675	15,614	18,935
%	141.3	111.8	115.3	106.3	121.3
Import CIF (mil Euro)	14,935	17,383	18,881	21,201	26,280.7
- %	123.6	133.1	108.6	112.3	124.0
The degree of the imports coverage through exports (%)	79.2	73.2	77.7	73.6	72.0

Source: National Institute of Statistics (NIS)

In 2005, industrial FOB exports increased by 17.5% (21815.1 mill. Euro) and imports by 24.8% (32,014.9 mill. Euro).

Manufacturing industry export represented in the period 2000-2005 over 99% of industrial export (Annex 1, table 2). The higher industrial export growth compared to industrial output growth points to an improvement of competitiveness of several industrial sectors. Textile and clothing remained on the first place during 2004, with a weight of 22.5% in total export. Machines and equipment and electric appliances had a good evolution, with a weight in export of 7.2% each, from 5%, respectively 3.2% in 2000. A decrease of metallurgical products export, from 15.2% in 2000 to 14% in 2004 and of chemical products from 6.2% to 5.4% was registered in the same period. Despite the above, metallurgical products export ranks second in Romanian exports. The manufacturing industry exports structure still reflects the prevalence of traditional industrial sectors using low skilled labour force and a relative lack of high technology sectors.

The manufacturing industry import was of 22,788.4 mil. Euro, 86.7% of total **CIF import** in 2004 (Annex 1, table 3) and 27,477.8 mil. Euro, 84.4% of total CIF import in 2005. The import

was mainly due to „green field” investments and temporary import for inward processing. Machines and equipment prevail in the import structure, with a weight of 34.84% in 2004 compared to 31.5% in 2000, due to modernization and refurbishment efforts, including capital goods promoted by foreign capital penetration. Textile products imports still rank second despite a reduction of 4.5% compared to 2000. Next, come chemical products, plastics and rubber. At the same time, the relative weight of mineral products import decreased, from 23.5% in 1996 to 13.43% in 2004. The most important changes in the import structure were the increasing weight of machines, equipment, vehicles, and control instruments group and the reducing weight of textile products.

The decrease of domestic and external market, financial difficulties and the harmonization efforts with new market economy conditions determined profound changes materialized mainly in the sometimes dramatic decrease of output, closing down of capacities (not always obsolete), massive layoffs, low level of modernization.

Foreign Direct Investments (FDI) in Romanian economy were 15,040 mil Euro at the end of 2004 (according to the National Bank of Romania Report). FDI in industry were at about 8,100 mil. Euro; manufacturing industry attracted 75.5% from total investments in industry as follows: steel industry -13.2% of total, means of transport 5.7% of total, building materials sector 4.0% , wood industry 3.4%, chemistry 2.6% and light industry 3.3%.

The main sectors that attracted green-field foreign investments are tires, auto components, telecommunication equipment, wood processing and construction materials. The investments of multinational companies started to generate clusters in different manufacturing sectors such as: auto components, wood, textile, and furniture.

However, multinational companies operating in Romania usually sub-contract local companies only to a small extent mainly because of their insufficient managerial, marketing and technological abilities. Better results in terms of supplier chains were obtained in automotive and electrical industries.

Gross value added in industry grew from 30.9% in 2000 to 35.1% in 2004. The weight of GVA in manufacturing industry out of total industry evolved from 68.3% in 2000 to 79% in 2004. The most important manufacturing sectors, from this point of view are metallurgy (27%), consumer goods (26%), chemistry (20%), machine building (11%), and electronic-electrotechnic (4%).

The average number of employees in manufacturing industry continuously decreased in the period 1999 - 2004, from 1,628 thousand persons in 1999 to 1,491.3 thousand persons in 2004 (Annex 1, table 6), especially in metallurgy, means of transport, chemistry and machines and equipment sectors.

The average number of employees in some sectors of manufacturing industry

- thousand persons -

Sector	1999	2000	2001	2002	2003	2004
Metallurgy	194	163	168	146	144	138
Means of transport industry	146	132	126	121	110	102
Chemical Industry	142	128	122	108	108	106
Machine and equipment industry	182	150	144	149	135	133

Source National Institute of Statistics (NIS)

The reduction of personnel in the specified sectors was due to companies restructuring externalization of activities, production modernization and better managerial performance imposed by multinational companies. On the other hand, in the textile, footwear, garments and electrical machines and appliances sectors, the number of employees remained at the level of 1999. The existence of an increasingly ageing workforce requires programmes targeting employment.

The structure of active enterprises in terms of staff number changed, through an increase of the number of SMEs, as a result of large companies restructuring and due to incentives for SMEs.

From the size point of view, only 2% of manufacturing industrial companies are large but they employ 54% of the work force and achieve about 62% of the turnover (according to data provided by the Ministry of Economy and Trade for 2004). In the above context, the increase of manufacturing industry competitiveness depends to a significant extent on the technological modernization of large enterprises.

Labour productivity in industry recorded a growing trend mainly due to staff reduction, but also, to a smaller extent, to modernization of production and better management (Annex 1, table 4). In the period 2000-2004, labour productivity increased annually by about 7.5% (Annex 1, table 4). However, productivity in manufacturing industry is about 4.5 times lower than EU average. A highly needed increase of labour productivity requires new technologies, new manufacturing and marketing methods, application of quality and environment standards, better energy efficiency, use of information systems and application of innovation.

Conformity with environmental standards is essential for industry competitiveness and will require significant financial efforts.

The speed of innovation speed dissemination is crucial for productivity and growth and requires both the implementation of the R&D results and purchase of patents, licenses and new equipment and technology. Research-driven innovation in manufacturing industry is sustained both by own research activity within companies and by the 44 R&D specialized institutes, the capacity of which to generate applicable results is poor.

1.3. SMEs sector

SMEs are prevailing in Romanian economy, as well as in European countries and represent over 99% of total enterprises, having a substantial contribution to GDP and employment.

Weight of SMEs in economy

	% no.SMEs in total enterprises	% SMEs Employees in total economy	Employees / SMEs	Turover / SMEs (Mil Euro)	% export in SMEs turnover
ROMANIA 2002	99.5	51.1	5.9	0.145	10.6
ROMANIA 2004	99.5	56.6	5.8	0.161	10.4
EUROPE 19	99.8	69.7	5	0.9	12

Source: National Institute of Statistics, SME European Observatory 2003

SMEs by size in 2004

In 2004, almost 403,000 SMEs were active, an increase of about 24% compared to 1999, respectively 13% compared to 2003. The data for the period 1999-2004 points to a slightly oscillating trend in terms of size. The structure by sectors of activity shows that the most substantial weight of SMEs belongs to services (77.4%), while the industrial sector is maintained at approximately the same values, during the entire period (14%). In 2004, a positive dynamics was recorded by the construction sector (annual growth rate of 23.2%), followed by services with 13.1% and industry with approximately 9%.

SMEs distribution by size - comparison Romania / Europe-19 (%)

Size	Romania (2003)	Europe 19 (2003)
Micro-enterprises	87.1	89.5
Small enterprises	9.7	6.5
Medium enterprises	2.3	0.9
Total SMEs	99.5	99.7

Source: National Institute of Statistics, SME European Observatory 2003

Changes in the territorial distribution of SMEs

The country average rate is 19 SMEs/1000 inhabitants; 3 times lower than in EU-15, with an average of 52 SMEs/1000 inhabitants.

The most relevant growing rate of SMEs number per 1000 inhabitants is in Bucharest-Ilfov region, 45% in 2000-2004, followed by West Region, 25%. The North-East and South-West (Oltenia) regions have recorded a much slower increase, 12-14%. Despite the considerable growth of SMEs number in 2004 compared to previous years, the gaps between regions remained at a high level with a significant concentration in Bucharest-Ilfov.

The regions with positive dynamics in SMEs demography are those in which the processing industry SMEs are significantly present, whilst the regions with the weakest performances are those where the services SMEs are prevailing.

Regional specialisation index in industrial sector in 2004

The regional economic structure by industrial sectors in 2004, illustrates the following features: Textile and garments industry has a significant weight in the total industrial activities in the North-East Region (23.3% of total manufacturing units in the region), in the North-West Region (20.2%), in the West Region (19.2%) and in Bucharest-Ilfov Region (17.8%). The mechanical

processing sector is dominant in Bucharest- Ilfov Region (23.5%), South-East region (22.7%) and South-West Region (19.6%). The wood processing sets the profile for the Centre Region (22.1%), the North-West Region (20.9%) and North East one (16.4%). All these regions could be defined by a traditional abundance of raw material. The food processing industry prevails in the South Regions, especially in the South West (27.2%), South East (26.1%) and East (25.4%). The chemical industry is well represented in Bucharest-Ilfov (28.9%) and lower in all other regions, at almost half the weight. The “other industries” category which is very dispersed regionally has the largest weight in the West Region (16.3 %).

Regional specialisation index in services in 2004

Although trade represents the most important component in the services sector in all development regions (South West - 72.1%, East - 71.5%, North East - 68%), in the more economically advanced regions trade begins to lose weight in the competition with other types of services, even if it still remains at more than 50%.

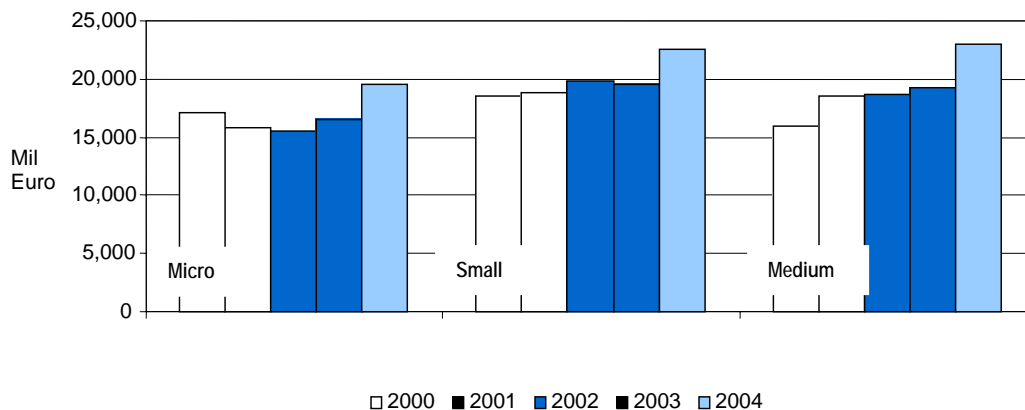
The “other services” category is better represented than the trade sector in more developed regions such as Bucharest-Ilfov (39.4 %), Centre (26.3%), West (26.9%) and North West (24.5). Due to its geographical position next to the major commercial flow, the North West Region has a higher weight of transport services.

Excepting the Bucharest-Ilfov Region, tourism services display rather similar values in all regions, indicating a development potential of this SME category in almost all the regions of the country.

Turnover evolution in SMEs sector

Balance sheet data for 2004 indicate a total turnover of 65,055 mil. Euro for the SMEs sector, out of which 19,498 mil.Euro for micro-enterprises, 22,524 mil.Euro for small enterprises, and 23,033 mil.Euro for medium sized enterprises. Percentage-wise, it is medium sized enterprises (35.4%) followed by small enterprises (34.6%), and micro-enterprises (30%).

Evolution of SMEs turnover by size, in 2000-2004



Source: Ministry of Public Finances and National Institute of Statistics, The Annual Report on SMEs sector in Romania, NASMEC 2005

Turnover increases along the whole period, with the best performance in 2004.

SMEs turnover by economic sectors

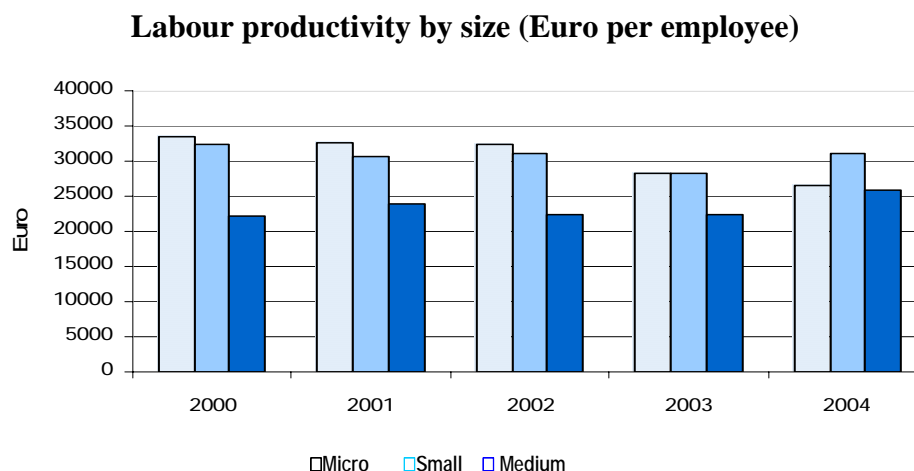
In 2004 the SME turnover reached 45,028 MEuro in the service sector, 13,835 MEuro in industry, 4,758 MEuro in constructions. Services are the most important sector from the turnover point of view, the amount being almost three times higher than in industry and almost ten times higher than in constructions.

The construction sector had the most significant growth rate over the reference period. The growth rates in 2004 compared to 2003 are significant for all the sectors of activities. The construction sector ranks first due to its 19.4% growth rate, above the average percentage for the SME sector (services 17.2% and industry 18.2%).

Labour productivity in the SMEs sector

In 2004 the average productivity for the whole SME sector was of 27,823 Euro/employee with 26,592 Euro for micro-enterprises, 30,984 Euro for small enterprises and 25,894 Euro for medium enterprises.

The highest productivity level in Romania characterizes small enterprises, 11.3% more than the average for the whole SME sector. It is somehow unusual in comparison to EU15 where the pattern is exactly the opposite, that is the highest productivity belongs to medium enterprises for which scores are almost double compared to micro-enterprises.



Source: Ministry of Public Finances and National Institute of Statistics, The Annual Report on SMEs sector in Romania, NASMEC 2005

The service sector displays the highest productivity, about 50% more than the other sectors. Industrial sector had a productivity growth rate higher than the one in the construction field. (11.7% compared to 9.5%).

SME sector foreign trade

In 2004 the SME sector recorded an export value of 6,754.8 MEuro, representing 35% of the total volume of exports in Romania.

The manufacturing industry sector accounted for 63.1% of the total SMEs export volume. 23.1% of the manufacturing SMEs were involved in outward processing in 2004.

SMEs capacity to invest

In 2004, SMEs carried out mainly small size investments: 46.1% of SMEs made small investments, while only 14.3% made higher value ones. A relevant percentage of SMEs (37.9%) did not make any investment at all in 2004. Micro-enterprises have the lowest percentage regarding large investments (13.0%) and the highest weight of enterprises that did not make any investment (39.4%), while the percentage for medium-sized enterprises that made large investments grows to 35.1%. and the weight of enterprises that did not make any investment decreases at 19.7%.

By type, the majority of investments, i.e. 88% of the total value in each SME category is represented by tangible assets. Intangible assets have a marginal role in SMEs investments, while financial intangible assets account for 9.5% of investments in micro-enterprises, 8.3% in small enterprises and 9.1% in medium ones.

Tangible assets have the following distribution: in industry (93.9%), in constructions (89%), and in services 86.9%. Intangible assets have a more important role in services (18%), and industry (1.5%). Financial assets are important in services with 11.4% and in construction with 9.9%, while they have a less relevant role in industry with only 4.6%.

Credit guarantee for SMEs

In 2005, the number of guarantees given by the National Credit Guarantee Fund for SMEs was of 325, with a total value of 36.72 MEuro representing 130% of the total own resources of the fund at the end of November 2005. The above sustained loans granted to SMEs amounted to 70.52 MEuro.

Compared to 2004, the 2005 guarantees represent an increase of 325% in number, and of 470% in value, from 7.80 MEuro to 36.72 MEuro. The weight of granted guarantees related to the value of guaranteed credits is of 50.36%. Out of the 325 number of guarantees in 2005, 182 guarantees (56%) are for medium and long terms loans.

At the end of 2005, the National Credit Guarantee Fund for SMEs had 14 territorial branches.

Innovative companies by size, activity and turnover

In terms of innovation in businesses, Romania lags behind other European countries. In 2000-2002, only 17% of companies undertook innovative activities¹. This percentage is far behind the EU15 data, where in 1998-2000, 44% of companies were considered as innovative.

The majority of technological innovations refer to purchase of new tools and equipments (58% of all companies and up to 73% of small companies). A large part of innovative companies (47%)² implemented innovative solutions related to product design, marketing policy, strategies and management policy, and company structure. Despite the improvement, according to Networked Readiness Index, Romania still ranked 53rd out of 104 countries (compared with 61st out of 102 countries in 2003).

Only 13% of small and 21% of medium-sized companies are innovative; the weight of SMEs that cooperate with foreign companies in R&D is less than 3% for small and 4.6% for medium enterprises.

From the point of view of intellectual property, SMEs are less willing to adopt protection measures than large enterprises. In industrial innovative companies the mostly used methods are the registration of industrial models and designs / trademarks.

In terms of ICT use, SMEs are less prepared due to the lack of adequate IT infrastructure (number of PCs and Internet access). The ICT impact in sales, namely e-commerce, is still low compared with EU countries.

Access to business support services and infrastructure in 2004

The SMEs demand for business advisory services is focused on consultancy in finance, marketing, production and design. Out of 80.4% of SMEs using consultancy services, only one third resorted to employees training services and even fewer to other consultancy services as business planning (21.7%) or technical assistance for certification and product standards (20.3%).

Business support infrastructure (industrial parks, business incubators, business centres, science and technology parks) is poorly developed in terms of number, territorial distribution and performance. In Romania there are 21 business incubators located in all regions.

¹ Data are based on the Romanian Innovation Survey carried out by National Institute of Statistics, covering the following sectors: extractive industry, manufacturing industry, energy and water and services. Only firms with 10 or more employees were included in the survey.

² Data are methodologically comparable since all surveys, included the Romanian, were based on the CIS 3 (Community Innovation Surveys)

SMEs distribution within business incubators

Number of incubators by number of companies assisted in 2004			Number of SMEs assisted by sector in 2004		
No. of SMEs	1<5	6-15	16-25	Industry	Services
No of business incubators	3	6	8	60	159

Source: NASMEC, survey on business incubator, industrial and technology parks, The Annual Report on SMEs sector in Romania, NASMEC 2005

The average number of incubees is 11 SMEs per incubator, less than the average EU BIC of 27 companies per incubator. The average surface of a business incubator in Romania is of 1,630 sqm (mostly used for production and office activities) compared to 3,000 sqm, the EU-15 average. The greater number of incubated SMEs operate in services and industrial sector and there is no clear specialization for possible incubees. The existing incubators offer general business-consulting services, such as start-up advisory services, preparing business plans. Only 10 of the incubators offer ICT services as well.

1.4. Scientific research, technological development and innovation

The evolution of the R&D and innovation (RDI) field in Romania is undergoing important changes, mainly due to the near perspective of EU accession. The analysis of present RDI situation reflects the political and economic efforts necessary for responding to accession requirements and for ensuring the necessary conditions to achieve the overall Lisbon objectives.

R&D personnel

The research potential in 2004 was represented by a total personnel employed in R&D activities of 40,725 (“The Research activity in 2004”, National Institute of Statistics 2005), out of which 9000 PhDs. Around 55% are active in the field of technical and engineering sciences, which could be a comparative advantage for responding to research demand coming from the economic environment.

In 2003, the researchers weight (FTE) was 3.13 per 1000 employed population, which represents about 58% of the EU25 average (5.4). The R&D personnel had a slight increase compared to previous years.

Employees in R&D activities

	1999	2000	2001	2002	2003	2004
<i>Number of employees, of which:</i>	48,113	37,241	37,696	38,433	39,985	40,725
Researchers	26,492	23,179	23,597	24,636	25,968	27,253
Certified researchers	10,341	8,926	8,507	8,513	9,219	9,318

Source: Statistical Yearbook of Romania, 2004 and NIS Bulletin “Research activity in 2004”, 2005

Low salaries, inadequate research infrastructure for high performance, as well as the opportunities offered by research programmes of other countries, led to a gradual increase in

average age of R&D personnel, so that at present the persons older than 45 represent approximately 50% of the total number of researchers.

The regional distribution shows a major concentration of units (about 41%) and R&D personnel (about 50%) in Bucharest-Ilfov region. For the other regions, the weight of R&D personnel is between 4-5% (South-East and South-West regions) and 11% (South region). The network activity (between the researchers from different R&D institutions and/or universities) takes place only randomly and especially within national RDI programmes. A good example is the micro- and nano-technologies research network, which is permanently active, and is connected to other international networks.

In 2004 the largest weight of researchers (FTE) was in the manufacturing industry (62%), followed by agriculture, forestry, fisheries (14.4%), services (9.4%), extractive industry (8%), electric and thermal energy, gas, and water (5%) (Frascati methodology).

Funding of R&D and Innovation activities

In the period 1999-2004, the yearly gross domestic R&D expenditures registered a relatively stable but very low level that started to increase to more than 0.40% of GDP only in 2004. A significant increase of public funds allocated to R&D occurs in 2006 (0.38% of GDP compared to 0.26% of GDP in 2005). This tendency will continue in the future due to the commitment of the Government for the implementation of the Action Plan for reaching the 3% objective of the Lisbon strategy. Generally, there is an equal contribution of the two principal sources of funds, public, and private.

Gross expenditures for R&D

Gross expenditures for R&D	1999	2000	2001	2002	2003	2004*
% of GDP	0.40	0.37	0.39	0.38	0.40	0.43
out of which, by funding sources:						
- public R&D expenditure of GDP (%)	0.19	0.15	0.17	0.18	0.19	0.21
- business R&D expenditure of GDP (%)	0.20	0.18	0.19	0.16	0.18	0.19

Source: Statistical Yearbook of Romania 2003 and NIS Bulletin „The research activity of R&D in 2004”, 2005

Note: *) Preliminary estimation of NIS

Romania has a very low level of gross expenditure for R&D, representing about a quarter of the R&D average of EU-25 R&D intensity. The R&D intensity of Romania is lower than countries from Central, and South–Eastern Europe. A positive aspect is the larger contribution of the business sector for financing R&D, compared to the ten New Member States.

Innovative enterprises

At European level, 51% of productive enterprises are technologically innovative. In Romania the innovative enterprises weight is still low, but the tendency is to increase from 17% (2000-2002 innovation resulted from the survey according to EUROSTAT CIS 3 methodology) to 19.3% according to 2002-2004 survey (EUROSTAT CIS 4 methodology). At the same time, the activity structure changed as follows:

The innovation survey	Innovative enterprises in industry	Innovative enterprises in services
2000-2002	19%	13%
2002-2004	21%	17%

Source: the innovation survey in industry and services, NIS

In 2002, the innovative enterprises' turnover accounted for 42% of the total turnover of enterprises subject to statistic research. A similar weight is reported in terms of employees number.

Innovation expenditure is still very low, representing about 3% of the innovative enterprises turnover in 2002, and 3.6% in 2004 (or 1.5% from the total turnover). In the structure of innovation expenditure, the highest weight is for equipment and software procurement i.e. 53% in 2002, respectively 60% in 2004, compared to 25% in 2002, respectively 24% in 2004 for R&D expenditure. Internal R&D expenditure is about twice larger than external R&D expenditure.

The weight of sales of new or improved products (new for the company or new for the market) is an important indicator to characterize the innovation state. In this respect, Romania is better placed in terms of new products either for the company or for the market, both in manufacturing industry and in services (Annex 2, Table 1). A special importance is attached to high-tech products and services. The high-tech products export represents only 3.3% of total Romanian exports that is much lower than EU25 average (18%). The new EU member states registered comparable data to Romania's with the exception of Hungary (21.7%) and Czech Republic (12.3%).

Innovation surveys indicate the companies' weak concern regarding intellectual property rights protection by patenting. Only 1% of enterprises submitted patents applications in 2000-2002, i.e. 7% of innovative enterprises. At international level, Romania was registered with 0.3 patents per one million inhabitants for EPO (in 2000) and 0.2 patents per one million inhabitants for USPT (in 2002), according to OECD and EUROSTAT data published in Science, Technology and Innovation, Key Figures 2003-2004, EU. The data rank Romania on the last place in the hierarchy, together with Turkey. The EU25 average is 107.7 patents/million inhabitants for EPO, respectively 59.9 patents/million inhabitants for USPT.

From the investigation carried out in 2003 by the National Institute of Statistics for 2000-2002, the structure of innovative enterprises was the following:

- a) by size: 83.4% are SMEs (53.7% small and 29.7% medium sized) and 16.6% are large enterprises;
- b) by field of activity: 73% are in industry and 27% in services (12% trade, 10% real-estate, 4.7% transport and communications).

Public financing of innovative activities is very low, only 10% of innovative enterprises (400, from which 306 SMEs) receiving funding.

The legal framework and the financial instruments to stimulate research activity and the application of research results in economy (i.e. risk capital funds for high-tech start-ups, and spin-offs) are missing, as well as tax incentives to foster innovation activities in enterprises.

The innovative enterprises' structure by size and NACE classification and the regional distribution of innovation expenditure are shown in Annex 2 (tables 2 and 3).

Therefore, it can be seen that in 2002:

- the most advanced innovation activity (except Bucharest Ilfov which concentrates most innovation capacities and resources) was the South Region, with innovation expenditure representing 11% of total expenditure of the country. The region with the lowest innovation expenditure was West Region (4,5% of total).
- the main economic fields with high levels of innovation expenditure were: transport and communications; electric, and thermal energy, gas, and water; food and drinks industry; furniture production, and other industrial activities; metallurgy; mining; mechanical engineering; road transport industry.

Partnership between R&D units and the productive sector

The partnership in R&D activities between enterprises and universities/R&D institutions is at a low level. The main cooperation framework between research and the productive sector consists of the national RDI programmes and direct orders (RDI procurement).

The main national programmes which promote and support cooperation enhancement between research units and the productive sector are the National Plan for RDI (1999-2006), and the Programme "Research of Excellence" (2005-2008). The co-financing funds from enterprises represented about 30% of the total budget of the National Plan for RDI.

R&D, and TT&I infrastructure

One of the new policies of the Romanian Ministry for Education and Research is the improvement of R&D infrastructure, in order to reduce the large gap between the Romanian R&D entities and similar ones in EU. This objective was approached in different steps, starting from the evaluation of available human resources and of its R&D performance and from the evaluation of the development perspectives of different scientific domains, both in the national economic context and the international one set by EU accession:

- between 1998 –2002 a number of grants have been given on a competitive basis for creating "research bases with multiple users" within high-education institutions, financed from a World Bank loan for financing the Project for the reform of high-level education and scientific university research. The result was the set-up and development of 34 centers, laboratories and research bases within 15 higher-education accredited institutions (from a total of about 80) in different scientific and technological fields;
- between 2000-2004 the National Plan for RDI, the main competitive financing instrument for R&D, included a specific component dedicated to science and technology excellence centres' development in priority areas, which, starting from identifying the existing excellence pillars and based on development strategies elaborated by these centers, provided a financial support of 30% of the acquisition cost for equipment and instruments. The initiative for excellence centers financed research teams in 30 R&D institutions (out of 700 R&D entities). Five of these R&D institutions are also involved in the programme for excellence centers development in the candidate countries, within the EU 5th Framework Programme;

- starting with 2001, the National University Research Council is running the programme for “excellence centers”, regarding the evaluation and certification of research centers from high-education institutions, according to criteria such as: research capacity, scientific competence and research performance (no funding involved). This process identified 29 excellence centers in universities.

The technology-transfer and innovation infrastructure, namely the organisations specialised in the dissemination, transfer and valorisation of R&D results in economy is still poorly developed. The development and consolidation of TT&I infrastructure is an important objective of the R&D government policies and can ensure a very favourable framework for strengthening the partnership between enterprises, universities and R&D institutions, for stimulating the research demand, and the development of own R&D departments in enterprises, especially in high-tech, for increasing the number of innovative enterprises in advanced technologies and supporting their set-up and development.

The setting-up of TT&I entities shows a slight improvement after the approval of GD no. 406/2003 concerning the set-up, evaluation and certifying of TT&I entities: TT centres, centres for technological documentation, industrial liaison offices, technology incubators. At present there are 26 functional and certified entities,. To stimulate the innovation based on R&D results absorption and to strengthen partnerships between research institutes, high-education institutions and industrial partners, the process of setting-up science and technology parks was also encouraged. (GO no. 14/2002 concerning the organization, and functioning of science and technology parks, approved by Law no. 50/2003). There are 7 science and technology parks with temporary certification in: Galati, Braila, Slobozia, Brasov, Bucharest, Timisoara and Iasi. Three of them (Galati, Iasi, and Brasov) are already operational.

The National Programme “Development of TT&I Infrastructure – INFRATECH”, approved by GD no.128/2004, is the main instrument which provides financial and logistical support to set-up and develop specialized TT&I institutions, including science and technology parks.

1.5. Information and communication technology market

The information and communication technology (ICT) contribution to economic growth depends both on ICT sector development and the level of ICT use in economy. The Romanian progress in information society field and its future opportunities are far from being satisfactory. The lagging behind items are noticed especially regarding Internet access, Information Society services and up-take of IT applications in economy.

As a proof for the current Information Society situation, it is worth emphasising the expenditure level in the IT field. In 2004, IT expenditure was only 1.34% of GDP, less than half of EU 15 average (3%). Even if there has been an increase from 0.89% in 2000 to 1.34% in 2004, it continues to be one of the lowest in Europe. From this perspective, the indicator for IT investments is essential for describing the innovation percentage in a knowledge-based society, especially due to the spreading of IT equipment, services and software applications. It will be extremely important to increase investments in the ICT field and to reduce the gaps between the actual expenditure level and the desired level of development.

A main cause to be considered in this context is the lack of financing and low ICT investment in the public sector, as well as the companies' reduced use of information technology.

In order to reduce the gaps between Romanian and the EU average, investments in infrastructure and content development are definitely needed.

Access to information infrastructure

Romania lags behind in terms of computer use and Internet access, not only compared to EU 25, but also to New Member States average. This has a negative impact on national competitiveness, as computer usage and Internet access are important factors for the economic development.

Concerning the PC penetration, Romania is still at a low level even if the annual average sales rate growth was more than 50%.

Many of the underdeveloped areas do not have the basic infrastructure to ensure Internet access and, in some cases, they do not even have access to fixed telephony.

The fixed lines number is increasing both in the residential sector and in the business one; the growth rate of the total number of subscribers during 2000-2004 was over 14%. Even in this context, fixed telephony penetration rate in 2004 (20.2%) was reduced compared to EU 25 average.

Telephony services provided through public fixed networks recorded a positive trend during 2000-2004. The digitalization rate also increased by almost 41%, reaching 77.15% in 2004, compared to 54.8% in 2000. The digitalization rate is still low, especially in rural areas.

An explanation for the low level of Internet penetration is that in some cases, even though there is a technical possibility for network connection, the prices are much higher than in large urban areas. The low penetration is also due to high prices for fixed telephony and Internet, compared to the average income of population. Another reason is the low rate of investments in infrastructure.

Concerning Internet access, the situation is critical, both for households and for enterprises. In 2004, only 10% of the population used Internet weekly, almost four times less than EU 25 average (38%). Only 39% of the Internet users accessed it from home, compared to 75% in EU 25. A similar situation can be found in enterprises, where 52% have Internet access, compared to 89% in EU 25. A major difference is noticed between SMEs and large enterprises: if 90% of large enterprises have access to Internet, the percentage is much lower for SMEs (50%).

From the total Internet access connections the percentage of broadband connections represented almost 39% in 2004. Considering the entire population, broadband connection penetration rate was approximately 1.7% at the end of 2004, lower than EU 15 average (7.6%) and EU 25 one (6.5%). Regarding the percentage of enterprises with broadband connections, there is a major gap between Romania (7%) and EU 25 average (52%) – more than seven times.

A wide spread broadband infrastructure is essential for the development and distribution of services and applications as **eHealth**, **eBusiness**, **eGovernment** and **eLearning**, that are essential for Romania's development.

These significant infrastructure gaps are remediable only through major investments, both from private companies and from public institutions.

E-government

Internet access is reflected in on-line public services development. The population has shown a great interest in e-government applications: in 2004, 19.8% of the population accessed the internet in order to interact with public authorities and to obtain information; this rate represents 90% of the population who uses the Internet with reduced frequency (22%). The fact that only 5.8% of the citizens used internet for downloading forms and 8.9% for sending filled forms is due to the small number of available applications. The gap compared to EU 25 average is major, taking into consideration that 42% of EU population accessed the Internet to interact with public authorities, to obtain information and to return filled forms (9.8%).

A similar situation is registered for enterprises that are using Internet to interact with public authorities. Thus, 29% of the enterprises are using Internet for interacting with public authorities and for obtaining information; this rate represents more than half of those enterprises that have Internet access (52%). The percentage of enterprises using the Internet for downloading forms (22%) and returning filled forms (12%) is much higher than the citizens percentage, but still below the EU25 level (41%, 29% respectively).

The reason for the difference between the two users categories (citizens /enterprises) is that most available online services are meant for the business environment. This situation is also reflected in the scores set out in a market study made by the Economist Intelligence Unit about e-government in Central and Eastern Europe. Regarding e-government applications for population Romania ranked 9th out of 10, with 4.08 points, and for e-government applications addressing business environment, 6th, with 6.16 points.

At present, e-government development in Romania is confronted with problems such as underdeveloped infrastructure, lack of interoperability between different available services and also a reduced number of available applications.

E-Learning

In the last years, e-Learning started to develop in Romania in 2001-2004: the Information Educational System, which represents the most important project in this field at national level.

Thanks to this project, there are 10.8 PCs /100 students in primary and secondary schools, and 14.3 PCs / 100 students in high schools. Also, 610 high schools are connected to Internet, and are using the AEL – Educational Assistant for Schools and High schools. Even in these conditions, significant disparities between urban and rural areas have been noticed. Through this project, 530 digital lessons have been made available, covering 40% of the curricula. In order to implement successfully this project, training programs for teachers have been organized.

According to eEurope+ report, the penetration of information technology is more significant and better funded in universities.

However, in 2004, out of the users who accessed the Internet in the past 3 months, only 5.6% used it for educational purposes - 4 times less than EU 25 average (20.7%). A better situation was registered in the case of using Internet for attending courses and training sessions related to employment opportunities (9.4% - almost 2 times lower than EU 25 average rated at 17.7%). The causes are two folded: lack of adequate infrastructure and reduced number of educational offers, especially for the employees.

A reflection of this is the score Romania obtained, only 1.6 points for Life Long Learning, in the European Innovation Scoreboard 2005 - 6 times lower than EU 25 average.

E-health

The percentage of population over 16 years old using Internet to search information on health is only 2% in Romania, compared to 4% in Central and Eastern Europe (December 2003). According to eEurope+ report, in December 2003, 16% of general medical practitioners had Internet access in their medical offices and 5% of them have been using Internet to interchange their patients' medical files. Also, the percentage of practitioners using patients electronic records was 49.2% in Romania, compared to 59% in the new member states.

The low ICT penetration in the health system is mainly due to insufficient budgetary funding. Thus, in 2004 only 43% of hospitals and 33% of clinics had Internet access. The present situation has negative consequences on treatment efficiency, inter-institutional communication and control.

E-business

E-business does not mean only on-line commerce, but also ICT integration in business development. It is, therefore, important to support SMEs to adapt to the structural changes enforced by new technologies.

While the percentage of enterprises that have Internet access is half of EU 25 average, the percentage of those having a web page is lower, only a third of EU 25 average.

Although in the last years statistics on e-commerce showed an increasing trend, it still represents a small percentage of the total value of trade. In 2004 only 3% of Internet users have purchased on-line, compared to 33% in EU 25. The reduced number of electronic commerce users is reflected in the low value of the turnover obtained from on-line commerce. In 2004, the e-commerce weight in the total turnover was 1.3% in Romania, compared to 2.1% in EU 25.

The reasons are the insufficient number of e-commerce offers, incomplete legislation and lack of public trust in transactions security. While the legislative framework was improved by reviewing the e-commerce law and by launching a portal for the official time in Romania – necessary for electronic transactions, a lot has to be done regarding supply diversification, transactions safety and increasing public trust. According to 2005 Security Space Report, only 172 from 34,026 servers in Romania were secured, i.e. only 0.5%.

Expenditure for integrated applications has a major impact on the entire activity of the enterprise. Because of the high cost of integrated software solutions for corporations, the number of those who are using these applications is reduced. The level of new technologies uptake does not refer only to connectivity (even if this is the key element), but also to the capacity of the population and the business environment to use efficiently these technologies and to the way the Government encourages the use of digital technologies.

In 2005, 35 distance payment instruments were approved for 25 banks. In the second semester of 2005, there were 66,000 registered users compared to 14,00 users in the same semester of 2003, when these payment instruments were introduced. The transaction value increased from 6 billion euro in the second semester in 2003 to 15 billion euro in the same period of 2005.

The situation of ICT use is reflected in 2005 Economist Intelligence Unit Report, where Romania received 6.25 points for business environment, 2.25 points for ICT adoption by population and business environment and 5.75 points for e-services support. With an average of only 4.19 points, Romania was on the 47th place, behind most European states.

Regional disparities

In the last years, Romania has faced the problem of growing inter-regional and intra-regional gaps. The most significant disparity is between Bucharest-Ilfov and the other regions. In Romania, at the end of 2004 there were 9,281 IT companies, compared to 8,438 in 2003 and 3,639 in 1999; 70 to 75% of the total turnover was concentrated in Bucharest.

As a result of the low socio-economic integration and weakness of ICT infrastructure, the existing opportunities in the Bucharest region were not extended to the adjacent areas. The same applies with respect to the urban and rural areas.

Therefore, an essential condition to ensure the development of the Information Society is the permanent upgrade and extension of the existing ICT infrastructure through public investments at local and national level, mainly in market failure areas.

1.6. Energy

The evolution of energy consumption and production

The gross consumption of natural gas was 17,604 million cubic meters in 2005, with a national gas production of 12,458 million cubic meters (2005) and imports of 5,146 million cubic meters in 2005 (29% from internal demand).

The gross oil production in 2004 was 5.5 million tons. In 2005, gross domestic production of coal was 31.6 million tones, out of which 28.7 million tones of brown coal and 2.9 million tones of coal.

The gross internal consumption of primary energy was 39,018 million toe in 2004, out of which 70% was covered by domestic production (which was about 28 million toe), while the remaining 30% was covered by imports. Estimations indicate that dependency of imported primary energy resources will exceed 50% of total primary energy consumption by 2015. Taking

into consideration an expected yearly increase in energy consumption of about 3%, and in order to ensure the security of supply, the following lines of action are essential: rehabilitation/modernization of existing production capacities, reduction of energy intensity and better capitalization of renewable energy resources.

In 2005, 56.7% of electricity was produced from fossil fuels (coal, oil and gas) at high production costs. 34% of the national electricity production was produced in the hydro power plants, while electricity produced in Unit 1 of the Cernavoda nuclear plant accounts for 9.3% (Annex 4, table 1).

Energy efficiency

The improvement of energy efficiency is a priority of the national energy policy as a counterbalance of the increase of primary energy consumption and of final energy consumption in all economic sectors (residential, industry, district heating).

Romania has low energy efficiency in comparison with EU countries. This is both the result of a low efficiency during transformation, transport and use of energy carriers and especially of the national economy structure where the share of energy intensive industries and products still remains high.

The **primary energy intensity** in Romania was 0.770 toe/10³ Euro in 2003 and final energy intensity was 0.496 toe/10³ Euro according to statistics of the National Energy Data Services.

In 2001, the **final energy intensity** was 4.24 times higher in Romania compared to EU average (0.637 toe/10³ USD₉₅ in Romania compared to EU average of 0.15 toe/10³ USD₉₅, to 0.45 toe/10³ USD₉₅ in Hungary, and to 0.55 toe/10³ USD₉₅ in Poland) (see Annex 4 – Table 2).

During 1999-2004, energy efficiency increased by about 1% per year due to the closing of inefficient companies and the emergence of new energy efficient ones.

As a result of economic restructuring, the primary energy consumption decreased by 30% in 2004 compared to 1990, and the final energy consumption decreased by 40% in 2004 compared to 1990, due to reduction of energy losses over the entire cycle: production-transport-distribution.

Investments needed for increasing energy efficiency are estimated at 2.7 billion Euro over 2004-2015 period. Investing in energy efficiency will lead to savings in financial resources for primary energy resources. Thus, the estimations for 2004-2015 indicate a decrease by 3.4 billion euro of the financial effort to acquire primary energy resources, if the consumption of primary energy sources decreases by 25.4 billion toe. By investing 1 Euro in energy efficiency projects, savings of 1.26 Euro for primary energy resources acquisition can result.

The investment effort for increasing energy efficiency should be targeted to the entire chain production - transmission – distribution - final use of electricity and thermal power.

The relatively low performance of energy production capacities leads to a lower energy efficiency in Romania, compared to EU member states. The weight of electricity production in thermal power plants in Romania indicates the great importance of these units in ensuring the

necessary energy for consumers. Most thermal power units (approximately 82%) were installed between 1970 and 1980 and have been in use for more than 20 years (see Annex 4, Graph 1). Most of these units exceeded their rated operating life, have low technological performances and a negative impact on environment.

In the case of hydro power plants, 37% have exceeded rated lifetime and others contain equipment or components with high ageing level, so this sector needs major investments.

The **Electricity Transmission Grid** has a technological level of the 60s and 70s and its equipment has exceeded rated lifetime; wear and tear is 50% for electricity lines and 60% for electric stations.

Distribution grids, especially the medium and low voltage ones, also have a relative high degree of wear.

The expansion of the **gas transport network** and of the number of the measurement-adjustment stations (SRM) was relatively slow (increase by only 0.87% in 2004 compared to 2003) and there is a need for additional investments to expand the networks. In 2004 the length of natural gas transport network was of 11,840 km and the number of the SRMs of 885.

Regarding the Natural **Gas Transport System**, 69% of gas transport pipes have exceeded rated lifetime. 29% of the measurement and adjustment stations are older than 25 years. The distribution networks operated by the main distribution companies (Distrigaz Sud-Bucharest and Distrigaz Nord-Targu Mures) are in the same difficult situation: 40% of the distribution networks have exceeded the rated lifetime.

In the field of natural gas and oil transit, 2 major projects are considered:

- NABUCCO Project - new natural gas transport pipeline from the Caspian Sea and Middle East to Central and Western Europe
- Constanta-Trieste Project (Pan-European Oil Pipeline - PEOP)

For a better operation of the national energy system at standardized parameters, it is necessary to continue the expansion of the interconnection capacity of electricity transmission grids with European networks. The rehabilitation and expansion of national electricity transmission grids must be made along with the interconnection of national grids with European ones.

Admission in 2003 of the national company of electricity transmission -Transelectrica S.A. as a full member in the Union for the Coordination of Transmission of Electricity (UCTE) and in 2004 in the Association of the Transport and System Operators (ETSO) contributed to its technical integration in European organisations, thus making possible the transmission through Romania of important electricity flows to Western and Central Europe.

At present, there are 2 ongoing interconnection projects: electricity transport line of 400 kV Oradea - Beckescsaba and telecommunications on the interconnection electric line of 400 kV Arad – Sandorfalva.

Renewable energy sources (RES)

At present, the weight of energy produced from renewable energy resources in the total energy consumption is about 29%, mostly produced in large hydro power plants. In Romania, the valorisation of renewable resources (except hydro resources used in large hydro power plants) is low due to high investment costs. RES could lead to a decreased financial effort to acquire primary energy sources (fossil fuels: coal, gas, oil) and environment benefits (green energy). Despite the diversity of RES, resources other than hydro have been exploited only to a small extent till now (not even the small hydro).

Romania has 5 main types of renewable energy resources: wind, hydro, solar, biomass, geothermal.

The country's technically exploitable hydro energy potential is 36 TWh/year. The economically exploitable hydro energy potential is estimated at about 23-25 TWh, with an installed capacity of 8,000 MW. In 2005 approximately 70% of the economic potential was capitalized and hydro capacities comprising 600 MW installed capacity are being built, with a production potential of 1,870 GWh/year.

The wind technically exploitable energy potential is estimated at about 8 TWh/year.

The energy potential of solar-thermal systems is estimated at about 1,434 thousand toe/year and that of the photovoltaic systems is about 1,200 GWh/year.

The energy potential of biomass is about 7,594 thousand toe/year (agricultural and wood wastes). Romania has a potential of about 167 thousand toe/year geothermal resources of low enthalpy, out of which about 30 thousand toe/year are valorised at present.

Environmental impact

The negative impact of the energy sector on environment is a source of concern. In case the commitments undertaken during the accession negotiations are not fulfilled, and the energy production capacities will not be modernized /refurbished with less polluting equipment and new capacities are not built, a number of large combustion plants will have to be closed, which will compromise the safe operation of the National Electricity System. According to a 2004 study of ICIM Bucharest, from the 72 large combustion plants coordinated by the Ministry of Economy and Trade, no one complies with the provisions of the EC Directive 2001/80 and 3 of them are in closing procedure prior to EU accession.

Large combustion plants release in the atmosphere a significant quantity of pollutants emissions (about 88% of all NO_x and CO₂ emissions, over 90% of all SO₂ emissions and about 72% of dust emissions are generated from the coal based electricity production capacities, Annex 4, table 4). The programs for environmental protection in the energy sector are extremely expensive. Targeted investments consist of flue gas desulphurization (DeSO_x) installations, burners for reduction of nitrogen oxides from flue gases (De NO_x) and electro-filters for dust retention (see Annex 4, Table 3).

1.7.Tourism

Due to its geographical position, Romania has an important tourism potential with its large diversity of cultural and natural resources, harmoniously distributed, which can provide opportunities for various forms of tourism, from classical ones (mountain, seaside, wellness and spa, cultural tourism), to the latest trends like rural tourism, ecotourism and adventure tourism.

In the development of this sector, Romania has competitive advantages that also provide it with unique characteristics:

- various landscape forms with a concentrated, symmetrical and gradual disposal, from centre to edges (mountains, hills, sea and delta);
- Danube's river inferior flow, the Danube Delta and access to the Black Sea, with a generous 70 km of sea shore;
- richness of the mineral water resources (1/3 of the total Europe mineral water resources);
- the largest continental virgin forests surface, with natural essences components and ecological grass lands ;
- natural environment preserved, not altered by human activities, rare wild flora and fauna, that has been extinct, or animals which can be seen only in captivity in other countries; temperate continental climate with Mediterranean influence in south west;
- rural areas preserving the cultural and heritage traditions in daily life;
- cultural patrimony of national and international interest, part of the universal patrimony, under UNESCO protection (fortified churches, churches with exterior frescoes, wood churches from Transylvania, Maramures, Salaj, Saxon fortified citadels, Dacian fortresses, archaeological parks, and so on.
- large accommodation capacity, built before 1990, which in those times allowed Romania, to be an important supplier on the European tourist market, contributing both to Romania's international image promotion and to advertising for Romanian' products.

After 1990, the tourism sector has crossed two periods, with distinct characteristics, both being marked by acute instability of institutional framework, which determined an uneven rhythm in the progress of measures, programs and projects for long and medium term tourism development.

The 1990-2000 period was characterized by a slow privatization process, covering only 55.3% of the accommodation infrastructure; tourism development was mainly due to profit from other activities, reinvested in tourism sector. Although referred to as a development priority by all the governments of the period, the tourism sector was confronted with a lack of incentives and state subsidies, and particularly with insufficient funding of tourism promotion. As a result, Romanian tourism industry was characterized by major weak points, such as: insufficient tourism promotion; poor valorisation of the natural and antropic resources; loss of international market segments from Eastern states and of big tour operators from international tourism market; decrease of internal market share and strong penetration of foreign tourism offers. Additionally, because of the weak promotion of Romania as a tourism destination, the sector insignificantly contributed to correcting the country's negative international image.

The period starting with 2001 means, for Romanian tourism, the beginning of a continuous ascending trend, due to the completion of privatization process (about 92%), the increase of investments in the privatised companies, and green-field investments growth (Annex 5). As a result, the turnover increased 2.3 times in 2003 in comparison with 2000. Along with a slight

increase of tourism weight in GDP and of foreign currency income from tourism. Nevertheless, both indicators are very low compared to the Romanian tourism potential (2.19% of GDP in 2003 and 700 mil USD foreign currency income from tourism).

At the same time, big international tour operators entered the Romanian tourism market (Marriot, Hilton, Best Western, Howard Johnson, Golden Tulip, Accor, Cendant, IBIS, Ramada, Sofitel, Hunguest etc), producing a significant impact both on the consolidation of Romanian tourism development and on the growth of tourism services quality. In 2004 accommodation in 5 and 4 stars hotels has increased 2.6 times in comparison with 2000 (10,880 in 2004 in comparison with 4,244 in 2000), and in 3 stars hotels it increased about 2 times (36,216 in 2004 in comparison with 17,928 in 2000).

Along with increasing awareness of the principles of sustainable development, accommodation capacity in the Danube Delta and Tulcea city, the most concentrated area of ecotourism development in Romania, increased by about 28% in 2004 compared to 2000, respectively from 2,485 beds to 3,180. The Reservation of Danube Delta Biosphere is a protected area of world importance ecotourism development is carefully monitored.

The evolution of arrivals in tourism accommodation structures, by main tourism forms, reflects five relevant characteristics of the Romanian tourism market:

- MICE (meetings, incentives, congress, exhibition) and business tourism is the main generator of tourist arrivals (2.63 million tourists in 2004, respectively 46.6 % of the total number of accommodated tourists, but with short stay duration;
- Mountain tourism had a revival in 2004, with an increase of 10.6 % in comparison with 2000. This increase was due to investments in developing and improving the ski area (increase of surface/number of ski slopes, new installations for artificial snow, more après-ski services, a.s.o.)
- Spa tourism accounted for 12.1% from total tourists in accommodation establishments. Due to investments made in this area, national interest spa resorts, as Eforie Nord, Băile Felix, Covasna, Băile Herculane are now up to international tourism standards.
- Seaside tourism - although it recorded a growth of 12.5% in 2004 compared to 2000, its development is still low in terms of Black Sea coast valorisation, one of the reasons being the weak and sporadic promotion, corroborated to the loss of important tour operators (TUI, Neckerman, Thomas Cook etc.)

The trends of external tourism demand suggest that there is a market share where Romania can become competitive. The great number of German tourists (especially in the seaside resorts), the Italian, French, Russian and Israelian tourists preference for mountain and spa tourism may turn to a great advantage in improving the business relationship with these countries and in developing a marketing policy for this market share.

Moreover, the large number of foreign tourists visiting Bucharest and other big cities as a consequence of urban tourism, business and congress (MICE) tourism development could be an indicator of business people interest for Romania and a good way of promoting Romania's economy through tourism.

The current situation analysis reflects an insufficient financing of tourism promotion (two national programmes for tourism development - i.e. “Development of tourism products” and “Marketing and promotion”) and the subsequent lack of an appropriate infrastructure for tourism promotion and information – currently only promotion points of local interest. There are no specialized tourism promotion and information centres to provide updated, complete and well structured data on the country and tourism attractions. The information is also very poorly promoted on Internet, which is why foreign tour operators are faced with difficulties in creating their Romanian tourism programmes.

2. SWOT ANALYSIS

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Macroeconomic stability • Sustained GDP growth at an average of 6.1% per year between 2001-2004, due mainly to industry's contribution (5.2%) and services' (5.5%) • Positive trend of private sector contribution in Romanian economy (70.8% of GDP in 2004) • Advanced restructuring and privatization processes of enterprises • Acceptable skilled workforce • Positive trend of foreign direct investments • Natural and energy resources (oil, gas, salt, wood, sands, clays, marble) of good quality • Positive trend of SMEs development in various fields of activity • Positive trend of SMEs development as weight of industry and services sectors' turnover in total SMEs turnover • Highly skilled human resources in R&D sector • Sustained growth of ICT sector • Energy sector liberalization in advance of other European countries; privatisation -oil sector - totally privatised, energy distribution - partly privatised, energy production - soon to be privatised) • Well-skilled workforce in energy sector with low migration to other sectors • Liberalization of telecommunications market) • Significant tourism potential 	<ul style="list-style-type: none"> • Competitiveness and technological gaps compared to EU • Low investments in modernization • High concentration in low added value sectors • Low productivity • Reduced number of certified enterprises ISO 9000, ISO 14000, EMAS • Export mainly based on low and medium value-added products • Low development of business infrastructure and consulting services • Low SMEs capital and access to finance • Low promotion of companies' brands • Insufficient financing of R&D activity from public or private sources • Low R&D demand orientation • Enterprises competitiveness based on low costs, not on innovation capacity • Reduced absorption capacity of research results and, consequently, low innovation of enterprises • Insufficient cooperation between research centers /universities and industry • Weak development of TT and RD infrastructure • Reduced performance level compared to EU25 average terms of patenting • Low IT spending (per GDP and person) • Insufficient IT infrastructure (hardware, software, communication) • Low Internet penetration rate and small number of PCs

	<ul style="list-style-type: none"> • Significant gap between urban and rural areas regarding ICT infrastructure • Insufficient use of e-commerce and e-banking services in the business community • Low use of electronic public services • Outdated and polluting energy production technologies • High energy intensity • High losses in electricity/thermal energy, oil and gas transport and distribution networks. • Low valorisation of RES, other than big hydro capacities • Insufficient tourism information and promotion • Low development of complex tourism products
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • New EU member state • New investment sources, including Structural Instruments • Second largest country (population) of NMS • High absorption potential of domestic market • Supply chain for foreign companies 3% objective for R&D according to Lisbon Strategy • Participation in European research programs and implementing the European Research Space • Potential regional hub in gas and energy transport • Integration of the national energy system within regional networks • Increased access to global market by ICT and e-commerce development 	<ul style="list-style-type: none"> • Continuous increase of natural resources and energy costs (including imported ones) • International economic slowdown • Exposure to global markets • Industrial sectors outsourcing to locations with lower workforce costs • Romania's identity as a low value-added economic system • Migration abroad of high-skilled workforce • Growing trend of energy consumption on medium and long term • Increase of pollution due to industrial processes, especially the energy ones

3. STRATEGY

The Sectoral Operational Programme - Improvement of Economic Competitiveness (further referred to as **SOP IEC**) is the main instrument for achieving the first national thematic priority of NDP 2007 – 2013, i.e. **Improvement of Economic Competitiveness and Development of Knowledge Based Economy**. It also contributes, although to a different extent, to the implementation of all five Priorities of the NSRF.

Romania is targeting not only political integration in EU, but also the convergence with the development of EU countries, both in nominal and in real terms. This process of reducing gaps involves for Romania sustained growth rates in the period 2007-2013, maintaining at the same time macroeconomic equilibrium. The driving factor of economic growth when acting on a market open to strong competition is the increase of economic competitiveness. Moreover, increasing the competitive advantages should be a permanent objective, taking into account both the European trends and the challenges of globalisation.

Hence, improving competitiveness should not be seen as a process of taking advantage of short term opportunities (e.g. lower labour cost), but more as a process of building of an economic structure based on capital investments and on research, development and innovation. In other words, the prospect of convergence on medium and long term relies on the development of the knowledge-based economy.

Although Romania has registered substantial progresses in the last years, the competitiveness gaps when compared with the states of Western and Central Europe are still very large. The reasons for this lagging behind are connected with all the supporting factors of competitiveness. Synthetically, these are reflected by low productivity, which can be seen as the emblematic issue of the Romanian competitiveness. The level of GDP in PPP³ stands at 50% of new member states average.

The assessment of the current situation shows unfavourable development of certain factors supporting competitiveness. Despite the progress in privatisation, in increasing the efficiency and the regulation of the financial sector, the access of companies to capital remains limited. Also, the use of outdated physical capital, with high energy-intensity, is drastically influencing the productivity in most economic sectors.

The SME sector is probably the most affected, given its relatively low orientation towards productive activities, reflected in recent analyses. Despite a certain positive evolution, which proves the potential of entrepreneurship at national level and an increasing participation in the manufacturing sector, the contribution of SME to GDP remains low, calling for stimulation of both the quantitative and qualitative dimension of SME sector. SME's access to capital, technology and infrastructure is much below the level enabling a proper role played by SME for economic competitiveness, mostly in what regards their expected adaptability to market needs, including by innovation.

As for enterprise strategies, the low level of managerial skills raises serious concerns. Most of the companies are basing their strategies on reducing costs, and not on increasing productivity. The

³ Purchasing Power Parity

business infrastructure is weak and business support services are in the early stages of development. The SME sector, although covers half of employment, has limited access to dedicated consultancy.

The level of sophistication and the purchasing power of domestic demand are low in many fields. Hence, the domestic market is not pushing the companies towards certification, affecting their ability not only to penetrate external markets, but also to adapt to the standards imposed by EU integration and by global competition.

Scientific research is affected by a long period of under-financing, both from public and private sector; by the reduced number of highly qualified specialists; and nonetheless by the low efficiency of technological transfer. With regard to the latter, it has a double source: the insufficient orientation of research towards demand and the lack of a proper infrastructure for enabling research results to be transformed in applied innovation.

The share of innovative companies is three to four times less than EU average. The protection of property rights has registered progresses at the level of regulations, but the implementation is still lagging behind. There is no structure supporting innovative start-ups and the initiatives from the past (e.g. business incubators) did not have the necessary continuity because of inefficient planning and management.

As regards industry and supporting services, the Romanian economy shows little development. Many economic fields are based on natural resources (e.g. wood industry, construction materials, tourism), or historically resulted from the artificial state push for industrialisation (e.g. machinery, metallurgy, chemistry, oil industry). Both driving factors did not stimulate a strong cohesion and cooperation inside these industries, affecting the reliability of the production chain and the ability to create added value.

Moreover, there are certain factors that are not the subject of this strategy, but which have a large impact on competitiveness. Transport infrastructure and environment protection are in very poor conditions, as a result of decades of under investments. Access to tertiary education and life long learning remains below the regional average, the situation being worse when it comes to rural population (also confronted with the lack of minimal urban-like facilities).

The SWOT analysis confirms the weaknesses identified by the current situation assessment, but also reveals some of the strengths and opportunities, which Romania can take in order to increase its competitiveness. For instance, the liberalisation of certain sectors, even beyond the EU level, as in energy or telecommunications would enable larger investments, stimulating also horizontal development.

The available human capital represents an important asset for Romanian competitiveness, taking into account not only the low labour cost, but also the level of qualification that creates the basis for developing high-skilled specialists.

The SWOT analysis reveals also other positive evolutions as the increasing foreign investments, macroeconomic stability, the expansion of ICT sector and the significant potential for tourism, suggesting opportunities in this direction for increasing the potential.

The priority axes of Romania's competitiveness strategy are in full concordance with the lines of action of the Commission's proposal regarding the framework for Competitiveness and Innovation 2007-2013⁴, and take into account the guidelines put forward by the European Commission for the Cohesion Policy for 2007-2013⁵.

The above-depicted context of competitive development, based on the current situation and SWOT analyses, represents only the first pillar or the starting point of the programming exercise and of the elaboration of the SOP IEC strategy. A second pillar consists in choosing the competitiveness model for Romania to follow in its convergence effort. After analysing the available theoretic and empirical models, the SOP IEC has been structured in order to follow both Porter's diamond model and the guidelines provided by the European Commission. Last but not least, a third methodological pillar was consolidated by calculating the competitiveness gaps between Romania and the EU25 average, based on a complex series of both quantitative and qualitative context indicators (see Annexes 6-9).

3.1. Objectives

General objective

Competitiveness may be defined as a set of institutions, policies and factors that determine the actual level of productivity of a country. Productivity determines both the level of an economy's well being at a certain moment, and its growth potential in the future. Economic literature and practice point to the fact that the development of a knowledge based economy stands for a key factor of competitiveness increase of an economy.

The present situation analysis as well as the conclusions of the SWOT analysis also showed that Romania's economy competitiveness is much lower than the EU-25 average and Romania has to recover the significant disparities with regard to the knowledge-based society.

The **general objective** of SOP is **the increase of Romanian companies' productivity by reducing the disparities compared to the average productivity of EU**. The target is an average annual growth of GDP per employed person by about 5.5%. This will allow Romania to reach approx. 55% of the EU average productivity by 2015 (see Annex 6 for the methodology used).

Specific objectives

a) Consolidation and growth of the Romanian productive sector

The key point of this specific objective is the support to the upgrading and innovation of existing enterprises and the creation of new ones, especially SMEs in the manufacturing and business services sectors. The valorisation and the qualification of the productive equipment, based on its enlargement, the innovation of productive processes, and the support for the adoption of international standards, foster the increase of the products range. Improvement of specialized

⁴ Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a Competitiveness and Innovation Framework Programme (2007-2013), Brussels, 6.4.2005, COM(2005) 121 final;

⁵ COMMUNICATION FROM THE COMMISSION, Cohesion Policy in Support of Growth and Jobs: Community Strategic Guidelines, 2007-2013, Brussels, 05.07.2005, COM(2005) 0299;

advisory offer and the support to internationalisation give a contribution to the process of increasing the market share.

b) *Establishment of a favourable environment for enterprises' development*

The key point of this specific objective is to provide a favourable framework for entrepreneurship by reducing the existing constraints in the areas of market failure - access to finance, innovative financial instruments, availability of business infrastructures and services – for the creation of new enterprises and for the development of the existing ones.

The fulfilment of the two above objectives may be quantified by the increase of SME's contribution to GDP by 20% in 2015.

c) *Increase of the R&D capacity and stimulation of the cooperation between RDI institutions and the productive sector*

The key points of this objective are the funding of R&D projects that will generate results directly applicable in the economy, the upgrading and development of RDI capacity and infrastructure, the improvement of the quality and range of the supply of innovative services, the stimulation of the potential demand of innovation coming from the productive sector.

The achievement of this objective will contribute to the increase of the gross domestic R&D expenditures (GERD) to 3% of GDP by 2015 as Romania expects.

d) *Valorisation of the ICT potential and its application to the public (administration) and private sector (citizens, enterprises)*

The key points are the full use exploitation of qualified human resources and know-how and the improvement of infrastructure endowment, especially in market failure areas. The scope is to promote the introduction of innovation in the productive system, in the administrative processes, in day-to-day life, and to develop a market for a new generation of products and services.

The target is the increase of Internet users' number (enterprises' access to on-line services) from 52% in 2003 to 70% in 2015.

e) *Increased energy efficiency and sustainable development of the energy system.*

The key points are to contribute to reducing the energy intensity through the implementation of new technologies in order to increase productivity; to improve energy efficiency within the whole cycle; to increase the use of renewable energy. An important support will be given to implementing new technologies in order to reduce emissions of energy plants.

The envisaged objective is to contribute to the following national targets: the reduction of the primary energy intensity by 40% compared to 2001, the 33% share of electricity produced from renewable energy resources in the gross national electricity consumption by 2010 and the reduction of emissions in the energy sector according to the National Programme for the reduction of sulphur dioxide (SO₂), Nitrogen Oxide (NO_x) and dust emissions from large combustion plants.

f) *Promotion of Romanian tourism potential*

The key point of this specific objective is the promotion of the image of the country in order to promote Romania abroad and to increase its attractiveness and the creation of an integrated system of Romanian tourism offer.

3.2. List of Priority Axes

Taking into account both the identified possibilities for improvement of the competitive position of Romanian enterprises to cope with the challenge and to be able to use the opportunities arising from operating on the European Single Market and the areas eligible for the ERDF support, the following Priority axes, key areas of intervention and operations have been identified in the SOP IEC:

Priority Axis 1: An innovative productive system

Priority Axis 2: Research and Development for competitiveness

Priority Axis 3: IT&C for private and public sectors

Priority Axis 4: Increased energy efficiency and sustainable development of the energy system.

Priority Axis 5: Romania, an attractive destination for tourism and businesses

Priority Axis 6: Technical Assistance

3.2.1. Priority Axis 1: An innovative productive system

Objectives

- Consolidation and growth of the Romanian productive sector
- Establishment of a favourable environment for enterprises' development

Rationale

Enterprises are the engine of economic growth and their performance is decisive to the entire economy competitiveness. Increasing productive investments and improving access to market according to the principles of sustainable development are the key conditions of the competitive functioning of Romanian economy in the European Union.

The second part of the accession economic criterion established in Copenhagen in 1993 highlights the imperative necessity that Romanian enterprises must be prepared to face the competition pressures within the Internal Market. The Internal Market competition may be beneficial to local enterprises only if they will manage to profit from the advantages created by the free movement of goods, services, people and capital. The market liberalization puts new competitive pressure on enterprises, especially in the traditional industrial sectors. SMEs will be exposed to most of the changes in the business environment. Therefore, the access to the market, by productive investments and to quality financing and services becomes a *sine qua non* condition for the competitive success of enterprises.

Despite certain progresses in the SMEs sector Romania registered in implementing the European Chart for Small Enterprises, difficulties are still encountered, due to limited access to capital for the small enterprises, poor access to financing, significant technological gap and the lack of know-how in business development, which hinder the capacity of SMEs to rapidly adapt to European Market requirements.

It is obvious that, at present, most SMEs in Romania are not well prepared to answer their mission of economic engine. The low competitiveness is caused by the limited capacity to adapt to European standards, limited access to financial sources for investments in new technologies

and implementing the quality systems as well as to the poor access to consultancy services supporting their adequate orientation on the market.

The new document published by the European Union in November 2005 - **Implementing the Community Lisbon Programme - Modern SME Policy for Growth and Employment**" (COM (2005)551, recommends the national decision making factors to integrate the policy instruments designed for SMEs, especially the European Charter for Small Enterprises and of **Think small first** concept, in order to maximize the SMEs growth potential from innovative start-ups to dynamic SMEs, which must not be blocked on local market and have real possibilities to integrate on the market segments offered by an ever-changing global economy.

The present strategy aims at joining the efforts to implement the Romanian policy of SMEs to EU ones meant to increase the competitiveness and entrepreneurship capacities of enterprises, especially SMEs and the increase of their contribution to economic growth.

This priority axis refers to the efforts to support enterprises, especially SMEs, and will concentrate both on improving the market conditions linked to the development of the industrial base, in order to revive the business environment, to generate new innovative enterprises and the development of business in the productive sector improving the access to capital and the fostering of technological development.

Within this priority axis, the support will be granted to tangible and intangible competitiveness factors, trying to promote the capital accumulation of enterprise, especially SMEs, specialized services, know-how, management and access to loans and technological innovation, in order to be able to meet the market requirements in terms of quality and types of offers.

In the above presented context the target beneficiaries are both the existing enterprises that need to modernize and develop their products and technological processes, and new enterprises, especially from processing industry and specialized services, that need qualified and integrated assistance by properly developing the business infrastructure.

Considering the significance of large enterprises in both turnover and employment in processing industry, the operation addressed to direct productive investments will also target large enterprises, together with SMEs.

Key Areas of Intervention

- Productive investments and preparation for market competition, especially of SMEs
- Access to credit and financing instruments for SMEs
- Entrepreneurship development

Indicators

„Output” Indicators	Target 2015	Data sources	„Result” Indicators	Target 2015	Data sources
Assisted SMEs per type of investment (number)	1000	MET	Jobs created/assisted enterprises (number)	5000	MET
Assisted SMEs per type of certification (number)	1500	MET	Firms that implemented ISO 9001 (number) Firms that implemented ISO 14001 or EMAS (number)	500 1000	MET
SMEs that participated in international fairs (number)	1300	MET	Weight of SMEs export in total volume of Romanian export	40%	MET/INS
Local guarantee funds participating in the grant scheme (number)	10	NCGF for SMEs	Volume of guaranteed credits (Euro) SMEs recipients of guarantees (number) Volume of granted guarantees (Euro)	50 MEuro 40 MEuro	NCGF for SMEs
Newly created/or empowered incubators and business infrastructures (number)	20	MET/NIS	Incubated start-ups (number)	700	MET/NIS
			Firms benefiting of consulting services (number)	100000	MET

3.2.1.1. Productive investments and preparation for market competition, especially of SMEs

The consolidation and development of enterprises largely depend on the permanent acquisition of new equipment and technologies to allow the adaptation of production to the requirements of Internal Market. The support granted to enterprises in order to develop the tangible and intangible productive investments is a key element in the acceleration of the process of convergence, on condition of observing state aid rules. Given the tough competition on the Internal Market and the increasing level of consumer protection, the Romanian enterprises will have to improve the quality of their products and services offered contributing to the assurance of an increased level of consumer and environment security and protection.

The voluntary implementation of European standards by enterprises represents an example of good practice that has proved its efficiency on the developed markets and contributed to the increase of commercial exchanges.

The implementation of the environment/quality management and of product certification represents an investment to ensure the entry of Romanian products and services to the Internal Market and to third markets.

Obviously, the existence of an adequate certification infrastructure is an essential condition to overpass the financial difficulties involved by the certification process and implementation of environment and quality management systems.

The following **indicative operations** are envisaged:

- a) Support for strengthening and upgrading the productive sector by tangible and intangible investments
- Support of investments in plants, equipments, machineries, outfits.
 - Support for intangible investments, for acquisition of patents, trade marks, licences and know-how

For operation a), two separate state aid schemes will be designed, for SMEs and for large enterprises.

- b) Support for acquisition of qualified services in the implementation of European standards
- Support for implementing and certification of quality management systems
 - Support for implementing and certification of environment management systems (or EMAS registration);
 - Support for voluntary certification and eco-labeling of products, and services (if the case).
 - Support for developing and accreditation of calibration and testing laboratories
- c) Support to access to new markets and internationalization
- Consultancy services to SMEs for management systems improvement (logistic services for promoting products and services and identification of external suppliers / clients, websites, access to business networks)
 - Support for participation to international fairs and exhibitions and economic missions.

The indicative operations of this priority axis will be complemented by activities implemented within the Regional Operational Programme (priority axis 2 - Enhancement of the regional and local business environment-) that sustains investments in micro-enterprises and start-ups from manufacturing sectors and services.

3.2.1.2. Access to credit and financing instruments for SMEs

Assistance for the new enterprises is crucial for the increase of their competitiveness. The innovative ideas, products and services, business models are in most cases generated by start-ups activity. These innovative enterprises without tangible profits to be collaterally used bear considerable risks, which prohibit the cost of a typical bank loan financing. The credit granting

conditions imposed by banks are hardly accessible to SMEs due to their under capitalization and to the absence of the required collaterals. These are major obstacles in the increase and development of the new businesses.

Within this area of intervention, the present solutions offered by the loan guarantee funds for the SMEs shall be developed. The loan guarantee must be developed in an efficient financial risk management system aiming at the innovative instruments of risk capital guarantee. Because financial markets do not cover high risks for certain SME categories, the guarantee system needs to be part of the economic policy for SMEs support.

The creation of a business financing favourable on a competitive financial market represents a step forward compared to approaches which are mainly based on direct investment support.

The financing of investments projects required by enterprises and maximizing the effects of their implementation through financial institutions selected on commercial competence and transparency criteria, assures the involvement of expertise and competence in the selection and validation process of competitive business models proposed by enterprises, as well as the monitoring of results of projects implementation.

Therefore, there is a need of intervention instruments for certain categories of SMEs, such as innovative financial means offered by risk capital funds.

The **indicative operations** are:

- support to development of the counter guarantee function of National Guarantee Fund;
- set up and development of local guarantee funds;
- innovative financing instruments (risk capital, equity, venture).

Resources will be provided for an awareness/promotion campaign regarding the opportunities of enterprises access to finance.

3.2.1.3. Entrepreneurship development

An important factor in strengthening the existing enterprises and in supporting start-ups is the development of an adequate business infrastructure. The development of *soft* and *hard* instruments is envisaged, tuned with SMEs needs. Thus, they will benefit of the advantages of corporate management, of proper financing sources, associated guarantees, technical advantages of information society services and of the active cooperation with the university and research sectors.

A key element of business infrastructure is the development of support services for consulting and entrepreneurship education. The support services market for enterprises has to be large enough competitive and diversified to allow enterprises, especially SMEs to benefit of consultancy, both general and specialized, to become more competitive on a market open to opportunities.

According to the final beneficiaries, the **indicative operations** envisaged can be classified as follows:

a) Development of business incubators and other business infrastructures.

Institutional support will be granted for the developing the infrastructure and administration services within incubators, business development centers, hard and soft investments (e.g.: building consolidations/ rearrangements, modernization, equipments acquisition) best practices exchange, mentoring and coaching activities, know-how transfer, seminars, workshops;

- Support to incubees (focused on advanced economic sectors)
- Support to integration and development of SMEs competitive capacity within business structures, by initial investments in new enterprises and short term training for incubees.

b) Consultancy support for elaboration of business projects/plans, dissemination and information.

SMEs will be supported for products/services and enterprise strategies development, general consultancy for cooperation between enterprises and joint investments, investments and financial consultancy, marketing and promotion activities, HR management, modern technologies, information technology and e-business, innovation and intellectual property rights and, SMEs management assistance in their development process.

c) Support for enterprises' integration in supplier chains or clusters.

The support shall be granted to the concentration process both horizontally and vertically that may lead to important competitive advantages (e.g.: logistics, trade mark promotion at international level, support of labour market access.)

Resources will be provided for an awareness/promotion campaign regarding the modern business infrastructure such as clusters, incubators, business centers etc.

Complementarity with other Operational Programmes will be ensured as follows:

- Regional Operational Programme (priority axis 2: Strengthening of the regional and local business environment), will support business development infrastructures such as industrial and technology parks;
- SOP Human Resources Development will support the promotion of vocational education for SMEs' employees and the development of entrepreneurial abilities.

3.2.2. Priority Axis 2: Research, Technological Development, and Innovation for Competitiveness

Objective

- Increase of R&D capacity and stimulation of cooperation between RDI institutions and the productive sector.

Rationale

The low level of funding (both public, and private) for research, technological development, and innovation (RDI) had as direct results the obsolete RDI infrastructure, the decreasing number and increasing average age of researchers, and the low performance of RDI activities.

The lack of funding also hindered enterprises' access to RDI activities and technology transfer.

These weak points together with the low participation of the private sector in funding RDI activities resulted in a large technology deficit of Romanian companies and in a low innovation score in enterprises.

In order to address these weaknesses the following aims will be pursued:

- the increase of research capacity by investing in the development of R&D infrastructure and attracting young researchers and high-level specialists both in R&D institutions (universities, and research institutes) and in companies with research departments,
- the strengthening of knowledge supply from universities and research institutes,
- the stimulation of the technology transfer based on the cooperation between R&D institutions, and enterprises,
- the stimulation of innovation demand of enterprises,
- the creation and reinforcement of high-tech firms and the development of poles of excellence.

Key Areas of Intervention:

- R&D partnerships between universities/research institutes, and enterprises (industry) for generating results directly applicable in economy
- Investments in RDI infrastructure
- RDI support for enterprises

Indicators

«Output» indicators	Target 2015	Data source	«Result» Indicators	Target 2015	Data source
Joint projects realized by R&D institutions and enterprises (number)	200	SMIS	New jobs created (number)	200	SMIS/beneficiaries
Total funded projects (number)	800	SMIS			
Enterprises involved (number)	300	SMIS			
Public expenditures in RDI projects (mil EUR)	495	SMIS	Direct private expenditures in RDI projects (mil EUR)	240	SMIS/beneficiaries

3.2.2.1 R&D partnerships between universities/research institutes, and enterprises (industry) for generating results directly applicable in the economy

The enterprises' technological development, as prime factor for increasing their competitiveness, is supported through R&D activities that will generate results directly applicable in economy with the aim of creating new or improved products, technologies and services of high added-value.

Support for technological development through industrial research and pre-competitive development will be offered within this key area of intervention in fields with high technological-development potential.

The enhancement of the R&D cooperation between research institutes/universities, and industry is the basis for the future development of enterprises' international competitiveness.

Indicative operations

- **Joint R&D projects between universities/research institutes and enterprises**

This operation will fund mainly industrial research and pre-competitive development (demonstration) activities that will generate results of economic interest and will initiate the transformation of the research results into new or improved products, technologies and services with high demand on the market.

Different forms of collaboration between enterprises and R&D institutions will be encouraged with the aim of enhancing their R&D activities and fostering the technology transfer (research provider-beneficiary partnerships, networks, etc).

The projects will ensure the knowledge transfer from R&D institutions to the personnel applying the research results in enterprises. At the same time the enterprises can apply for training support through SOP Human Resources Development, within the priority axis "Increasing the adaptability of the labour force and enterprises", which finances training programmes for the development of entrepreneurial and managerial skills, as well as consultancy services, and assistance for development of new businesses.

- **Complex research projects fostering the participation of high-level international experts**

This operation has the same general aim as the previous one, namely to generate results of economic interest and to initiate the transformation of the research results into new or improved products, technologies and services.

The projects will be designed together by the host institutions and the high-level international specialists. The host institution must fulfil certain selection criteria like having a high-tech field of activity and being able to ensure all the necessary conditions for performing R&D activity.

3.2.2.2. Investments in RDI infrastructure

The research infrastructure in public universities and research institutes is in general old from the technical point of view and does not cover many of the new research fields and technological areas of interest. The development of the knowledge base is closely related to the development of R&D infrastructure, which contributes directly to the increase of research capacity, and further on to the technological development of enterprises.

This area of intervention will contribute to an increased efficiency of R&D activity in universities and research institutes by supporting the procurement of new modern equipment, instruments, software, the development of the existing R&D infrastructure and the creation of new infrastructures (laboratories, excellence centers, etc), the development of international R&D

partnerships (especially within Europe), and the development of the technological fields of economic interest for Romania.

Indicative operations

- **Development of existing R&D infrastructure and the creation of new infrastructures (laboratories, excellence centres)**

This operation will support the development of R&D infrastructure in public non-profit universities and R&D institutes by modernization of the existing laboratories, the accreditation of testing laboratories, etc, and by the creation of new infrastructures (laboratories, research centres/institutes).

- **Development of poles of excellence**

The operation will support investments in the development and strengthening of the relationships between universities, research institutes and high-tech SMEs in technological fields of high economic potential. The operation is focused on developing poles of excellence grouping together enterprises, research institutions, training centres, etc, which by active partnerships will perform activities with the same market objective, guided by a common development/business strategy.

- **Development of networks of R&D centres, nationally coordinated and linked with European and international networks (GRID, GEANT)**

Support is offered for connecting the R&D centres to European and international networks supported by electronic platforms of GRID and GEANT-type through procurement of hardware and specific software applications.

3.2.2.3. RDI support for enterprises

With a view to reducing the high technological and competitiveness gaps mainly expressed by the low level of innovation in enterprises, the reduced capacity of enterprises to absorb R&D results, as well as the slow development of R&D activities in enterprises, the following **indicative operations** will be supported:

- **Support for new high-tech micro-enterprises and spin-offs**

The operation will support the innovation activities of high-tech micro-enterprises and spin-offs (based on R&D results obtained in universities or research institutes) in order to ensure the transfer of knowledge and technology and to assist the respective enterprises in marketing the products and services derived from research.

The enterprises can apply for training support through SOP Human Resources Development, within the priority axis „Increasing the adaptability of the labour force and enterprises”, which is promoting training programmes for the development of entrepreneurial and managerial skills, as well as consultancy, and assistance services for initiating new businesses.

The young researchers up to 35 years old can apply for training under SOP HRD, within the area of intervention „Competitive human capital in education and research”, part of the priority axis „Education in support for employment, and development of a knowledge-based society”.

- **Development of R&D infrastructure in enterprises and creation of new R&D jobs**

Support is provided for the development of the research capacities in enterprises, in order to raise their level of innovation and their market competitiveness and to create new R&D jobs. The procurement of instruments, equipment, computers, software, etc necessary for R&D activity will be financed.

- **Promoting innovation in enterprises**

Innovation through R&D is supported in enterprises in order to apply in production new or improved products, technologies and services. The operation will finance the acquisition of R&D services and application rights of R&D results and will stimulate the R&D activities in enterprises and their further development into technologies, products, services.

The enterprises involved in these projects can apply for training support through SOP HRD, if new jobs are created. Within the priority axis „Increasing the adaptability of the labour force, and enterprises”, support is provided for promoting training programmes for the development of entrepreneurial and managerial skills, as well as consultancy, and assistance services for initiating new businesses.

3.2.3. Priority Axis 3: ICT for private and public sectors

Objective

- To support the economic competitiveness and to promote the interactions between the public sector and enterprises/citizens by improving and fully exploiting the ICT potential and applications.

The main actions to be carried out in order to achieve this objective address the need to improve the ICT infrastructure, particularly in market failure areas and the process of efficiently managing more qualified human resources and know-how. From this perspective, it will be necessary to introduce and sustain innovative productive systems to be used in the administrative process, as daily life behaviour, also developing a competitive market for a new generation of products and services.

Rationale

In the new global economy, taking into consideration the need of reinforcing competitiveness at different levels, the Romanian companies, public administrations and other economic and social players are facing major challenges. Productivity growth may be considered a decisive factor for a successful market development and the positive impact of the ICT on this is well known.

In accordance with the specific objectives established by the Lisbon Agenda and the i2010 Strategy, it is essential to underline the crucial importance of the accessibility and the broadband infrastructure development as main priorities for developing the Information Society in Romania. The National Broadband strategy that will be adopted this year is supposed to design a complete set of proper measures aimed to ensure the sustainability for implementing the Information

Society development, in accordance with the objectives established by the NDP and the NSRF in terms of economic competitiveness increase. All these actions will be in line with the “Guidelines on Criteria and Modalities of Implementation of Structural Funds in support of electronic communication”.

The main contribution of the ICT sector to economic growth is mainly sustained through the companies’ uptakes. The ICT usage stimulates extensive and intensive growth for goods and services production. Concerning the extensive growth, ICT provides, for the Romanian companies, the opportunity to access new regional and global markets and to promote and commercialize goods and services inland by electronic means. An intensive development is also due to the decrease of production, administration and marketing costs, deriving from ICT use, which can determine a significant increase of productivity.

Even if in the last years Romania has reduced the gap in implementing the Information Society through a more developed ICT industry, infrastructure (hardware, software, means of communication) and specific applications and services, the ICT penetration is still low due to the insufficient development of infrastructure, determined by low investments and low purchasing power of population, as well as the small number of applications, both for the business environment and for citizens.

The major disparities regarding Internet access have been pointed out in the situation analysis. Although the European policies are mainly directed towards the market liberalization, a delay in ensuring the appropriate infrastructure is observed in some cases, which suggests the need for public intervention.

In order to sustain the economic growth and competitiveness in Romania, interventions should also be addressed to the development of E-Government, E-Health and E-Learning’ applications. These actions, by improving and increasing the interactions between the different social and economic players, will contribute to creating a positive environment for the deployment of innovative products and services.

The E-Commerce sector provides benefits for a wide range of activities that are specific to the business environment. At companies’ level, the ICT applications are essential for the corporation internal and external communication, as well as a more efficient management of resources and customers. Thus, the reduced value of the electronic commerce percentage in the total turnover (2004 – 1.3% in Romania, as compared to 2.1% in EU25) reflects the companies reduced efficiency rate. In order to reduce disparities, it will be necessary to support companies’ ICT uptake along with measures for increasing the electronic transfer security.

Key Areas of Intervention

- Supporting the Information Technology use
- Developing and increasing the efficiency of modern electronic public services (E-Government, E-Education and E-Health)
- Sustaining the E-Economy

Indicators

Output	Results	Target 2015		Data source
		Output	Results	
Number of broadband infrastructure projects supported in the market failure areas	Number of SMEs that benefited from Internet access	2,000	3,000	SMIS
Number of financed E-Government projects	Number of users of broadband networks and public access points	*	200,000	SMIS/beneficiaries
Number of inter-operability projects supported	Number of local authorities that are using supported E-Government applications	1	*	SMIS/beneficiaries
Number of financed E-Learning projects	Number of users for the financed E-Learning projects	**	**	SMIS/beneficiaries
Number of financed E-Health projects	Number of users of e-health projects	***	***	SMIS/beneficiaries
Number of financed E-Business projects	Number of SMEs using the financed E-Business projects	200	1,000	SMIS/beneficiaries
Number of financed projects for adopting integrated management solutions	Number of new integrated management solutions	300	300	SMIS

* To be determined following the e-government strategy finalization.

** To be determined together with the Ministry of Education and Research

*** To be determined together with the Ministry of Health.

3.2.3.1. Supporting the Information Technology use

The access to broadband connections will be supported in the market failure areas (e.g. rural and small urban areas) complying with the regulations concerning structural funds use in the electronic communications field, together with the extension of broadband connections and data security increase, which are compulsory conditions for the knowledge based economy existence. Also, interventions aimed at supporting the broadband infrastructure development will address the competitiveness consolidation as a target for higher potential areas.

The following **indicative operations** will be pursued:

- Supporting SMEs access to Internet and to connected services
- Supporting electronic communications network providers in order to build broadband network, especially in the market failure areas.
- Supporting public authorities to set up a broadband network, especially in the market failure areas.
- Supporting local authorities for setting up public access points, especially in the market failure areas, through broadband connections.

Complementarities between these operations and those set out by the Regional Operational Programme will be ensured, avoiding any overlapping between them.

3.2.3.2. Developing and increasing the efficiency of modern public electronic services (E-Government, E-Education and E-Health)

The indicative operations which are to be supported in this major intervention field will pursue the implementation of E-Government, E-Learning and E-Health solutions.

Implementing the E-Government solutions will lead to a significant reduction of the administrative costs, will improve the information quality, will reduce the time for information dissemination and will increase the citizens and business access level.

By adopting E-Education applications, also by ensuring the services' availability, the citizens' access to the Internet educational resources will be promoted. This fact will generate a better trained work force, more flexible and more adapted to the market requirements.

The E-Health services implementation will bring benefits both in terms of savings in the medical system and the improvement of medical services offered to the citizens, and ultimately will contribute to a healthier workforce.

To support the development of modern public electronic services, the following **indicative operations** will be taken into consideration:

- Supporting broadband connections for schools (primary, secondary and high schools)
- Setting-up E-Learning portals
- Supporting the creation of a portal to inform the citizens on the jobs available through some public access points to it
- Sustaining the setting-up of electronic medical services system
- Setting up E-Health portals
- Supporting public administration connection to Internet
- Supporting the integration of informatics systems at the local administration level, needed for increasing the online presence
- Setting-up GIS systems in order to increase the informatics systems' interoperability

Schools Internet broadband connection is correlated with operations within the Regional Operational Programme (computers acquisitions) and within the Human Resources Development Operational Programme (applications used for educational purposes).

The operation concerning the support granted to local administration for building up integrated Information Systems is correlated with the supply of general training for the E-Government field in the SOP "Administrative Capacity Development". Projects aiming at more efficient electronic services through E-Government, E-Education and E-Health will integrate specific human resources training components, if needed.

The operation concerning the support to the local administration in order to build Integrated Systems will be correlated with the E-Government strategy under SOP "Administrative Capacity Development".

3.2.3.3 E-Economy Development

In the framework of this key area of intervention, actions will aim to pursue co-financing ICT applications and their interoperability, to adopt integrated solutions for companies leading to cost-cutting on long term, to facilitate the access to the Internal and international market and to sustain more efficient management process. In the same time, it will be a requirement to increase the security of the electronic networks and to adopt anti-fraud solutions in order to develop a secure and dynamic E-Business sector.

For sustaining the e-economy development, the following **indicative operations** are foreseen:

- Increasing innovations in business processes, production and organizational models. Through the projects some Integrated Systems for business management (e.g. ERP, CRM) and also Information Management Systems will be introduced and developed
- Sustaining electronic applications for businesses
- Introducing electronic tender systems
- Ensuring more secured electronic transactions.

3.2.4. Priority Axis 4: Increased energy efficiency and sustainable development of the energy system

Objective

- Reduction of primary energy intensity in order to meet the national target (40% decrease by 2015) and pollution reduction in the energy sector.

Rationale

The objectives of the Romanian Energy Policy are in line with the Lisbon Strategy, the Green Paper for “A European Strategy for Sustainable, Competitive and Secure Energy” and the obligations undertaken during the accession process and are focused on the security of energy supply, the improvement of energy efficiency, the environmental protection, all these factors taking into account the need for economic development.

Economic competitiveness and sustainable development are based also on the efficient use of energy and energy resources.

Romania is characterized by high primary and final energy intensity compared to the EU 25 average (approximately 4 times higher). Moreover, the comparative analysis of the specific competitiveness indicators proves that the energy intensity is the indicator where Romania has the biggest gap compared to EU members. This gap could be an important impediment for the competitiveness of the national economy, especially in view of the gradual increase of energy prices (alignment to European levels).

Within its national strategies for energy efficiency and valorisation of renewable energy, Romania’s targets are to reduce the primary energy intensity and to increase the share of electricity produced from renewable sources in the national gross energy consumption. These

objectives are achievable only through significant investments in the rehabilitation and extension of production capacities, in transport and distribution grids and in environmental protection.

Although Romania has a significant technical potential for the use of RES, only a small part is economically capitalized, excepting hydro resources used in large plants.

Consideration should be also given to the supporting capacity of the environment – the quantity and quality of the energy resources and the pollution problems generated by the energy sector. In order to minimize the impact of energy production on the environment it is necessary to reduce emissions from large combustion plants, the main polluters in the energy sector.

The proposed actions for increasing energy efficiency, better valorisation of RES and reducing the negative impact on environment are core objectives of the “National Energy Policy” (NEP) for the next period, this document being elaborated in compliance with the Green Paper “A European Strategy for Sustainable, Competitive and Secure Energy”. The Green Paper envisages: ensuring competitiveness on internal energy markets and diversifying the energy supply sources/energy mix, taking into account the environment protection, building up consensus of partners for strengthening the regional energy markets and cross-border exchanges, increasing innovation capacity and technological development for using RES, major axes compatible with NEP objectives.

Key Areas of Intervention

- Improvement of energy efficiency
- Valorisation of renewable energy sources
- Reducing the negative environmental impact of the energy system

Indicators

“Output” Indicators	2015 Target	Data source	“Result” indicators	2015 Target	Data source
Number of projects for improving energy efficiency	Min.10		Decrease of energy intensity in assisted beneficiaries	10%	SMIS
Number of projects for the valorisation of RES	Min.5		Production levels from RES in assisted enterprises (MWh)		
Number of projects for reducing the negative environmental impact in large combustion plants	Min.5		Reduction of polluting emissions (%)	50%	

3.2.4.1. Improvement of energy efficiency

Romania intends to reduce the energy intensity by increasing the energy efficiency over the whole chain – natural resources, production, transport and distribution of electricity and heat according to the commitments undertaken during EU accession negotiations. The implementation of projects targeting the increase of energy efficiency will lead to a decrease of the primary energy intensity, contributing to the achievement of the national target of decreasing by 40% until resources allocated for the acquisition of primary energy resources. Last but not least, innovative technologies will be put in place.

Taking into account the estimated increase of energy consumption in Romania and the wear of equipment currently in use, there is a need for rehabilitation and modernization of the existing plants and building new production capacities with a significantly longer lifetime.

The expansion and modernization of the energy distribution grids will lead to the creation of the necessary infrastructure for developing economic activities and at the same time will lead to a decrease in energy losses, energy supply blackouts, avoiding crisis situations and will meet the economic performance and quality standards required by electricity consumers.

At the same time, it is necessary to expand the interconnections of electricity, oil and gas networks with European networks in order to facilitate the access of Romanian companies and consumers to the European energy market.

Indicative operations

- supporting investments in building new power capacities, in modernization and upgrading of existing ones in order to increase the energy efficiency (power plants/units for power and heat production, co-generation plants/units, turbine equipment).
- supporting investments in expanding and upgrading energy distribution networks in order to reduce distribution losses and secure the continuity and safety of energy distribution services.
- supporting investments for interconnecting the national energy, oil and gas transport networks to European networks.

3.2.4.2. Valorisation of renewable energy sources (RES)

Romania has an important exploitable potential of RES (mainly hydro, wind, solar, biomass and geothermal resources). The valorisation of RES may offer a long term competitive advantage.

While the EU target for 2010 is to achieve 22% of the overall electricity consumption from RES, Romania sets out an even more ambitious goal of 33% of the gross electricity consumption from renewable energy resources and subsequently must intensify its efforts to use these resources (as defined according to the Directive EC/2001/77).

Furthermore, the valorisation of renewable energy resources is needed for introducing into the economic system some isolated areas by using the relatively important technical potential of the country and to reduce the environmental impact by producing green energy. More over the various locations of renewable resources in Romania lead to a diversification of the energy production capacities/sites and to increasing employment opportunities in less economically developed areas. An important number of jobs can be created locally for the production, installation and maintenance of RES capacities. The valorisation of RES will also significantly contribute to the technological progress.

Indicative operations

- investments in upgrading and building new power and heating production capacities by valorisation of renewable energy sources: wind, hydro, solar, biomass, geothermal.

3.2.4.3. Reducing the negative environmental impact of the energy system

The energy sector is one of the main polluters in economy (see Annex 1, Table 4) and needs substantial financial resources for environment protection.

Romania has to make significant efforts in order to comply with the commitments undertaken during the accession negotiations and to make the environmental investments for emissions' reduction in large combustion plants according to Directive EC / 2001/80.

In this respect, it is necessary to introduce modern technologies for the reduction of flue gas emissions, to endow power and heating plants with flue gas desulphurization installations, to install electro filters for reducing powder emissions and to replace existing burners with new ones that could reduce the NOx emissions. The financial resources needed for these investments exceed by far the current possibilities of companies.

If these investments are not made, there is a perspective of closing down the energy production capacities of large combustion plants and that could be a risk for the safe operation of the National Energy System. Furthermore, there might be distortions on the energy market, an increase of energy price, staff layoffs with negative social impact and the impossibility to provide heating to the population.

Indicative operation

- investments in flue gas de-sulphurization installations, burners with reduced NOx and filters for large combustion plants.

3.2.5. Priority Axis 5: Romania, an attractive destination for tourism and business

Objective

- The major objective of this axis is to sustain the growth of economic competitiveness through improving Romania's image by promoting the tourism potential and the development of Romanian tourism's competitiveness. In this respect, the specific objectives are the increase of the interest in Romania as a tourism destination, the development of domestic tourism through promotional activities matching the country's tourism potential.

Rationale

Romania has to promote a tourism potential of great diversity, which offers all tourism products and for all seasons. Privatization in tourism has contributed to investments for tourism infrastructure modernization and, as a result, to improvement of quality and diversity of tourism services offers. New tourism services/products and types of tourism, such as rural/agro, adventure tourism, wellness tourism and other niche types of tourism are under development. The business tourism is also developing due to different activities like congresses, symposia, exhibitions, diplomatic meetings based on Romania accession to EU or NATO, cultural-scientific events, business meetings (MICE products).

On the other hand, the awareness of Romanian products through tourism is an important factor for international promotion of Romanian economy and for the development of its national market. The development of the tourism brand is a priority considering both its effect on attracting foreign businesses and on the expansion of domestic tourism with its beneficial economic leverage impact.

Romania does not have yet a well defined profile as tourism destination and domestic promotion is insufficient and undersized compared to the demand.

Currently, neither foreign tourists nor Romanian ones may get information from specialized tourism promotion and information centres on news concerning the country, tourism attractions, cultural events or other business activities, archaeological sites, accommodations, restaurants, recreation possibilities, or any kind of facilities they can enjoy. In the same context, foreign tour operators also need this information available on internet or web-sites for creating their Romanian tourism programs.

Key Areas of Intervention

- Promotion of Romanian tourism potential
- Development of the national network of Tourism Information and Promotion Centres

Indicators

«Output» indicators	Target 2015	Data source	«Result» Indicators	Target 2015	Data source
Number of promotional activities for advertising the tourism brand at an international level		National Authority of Tourism	Increase of international tourism: a) arrivals of non-resident visitors at national borders-number; b) average length of stay in all accommodation establishments-number of days	a) 11.5 mil. b) 6.4	National Authority of Tourism National Research Institute for Tourism Development
Number of promotional activities for advertising the tourism brand at the national level		National Authority of Tourism	Increase of national tourism: a) domestic tourists arrivals in all accommodation establishments-number; b) average length of stay in all accommodation establishments-number of days	a) 7.5 mil. b) 7.2	National Authority of Tourism National Research Institute for Tourism Development
Number of Tourism Information and Promotion Centres	10	National Authority of Tourism	Number of tourists visiting the Information and Promotion Centres	5-7 mil	National Authority of Tourism; National Research Institute for Tourism Development
			Number of site visitors	5-7 mil	National

«Output» indicators	Target 2015	Data source	«Result» Indicators	Target 2015	Data source
					Authority of Tourism; National Research Institute for Tourism Development

3.2.5.1 Promotion of Romanian tourism potential

This key area of intervention addresses the intensification of activities so as to make Romania an attractive destination for tourism and business, together with the sustainable development of tourism products, the increase of internet use in promoting and booking tourism services (e-tourism).

The **indicative operations** envisaged are:

- creation and promotion of the national tourism brand: introducing new promotion methods, diversifying promotion materials, disseminating promotional instruments through national and international events.
- promoting specific tourism products and supporting specific marketing activities, in order to develop and consolidate domestic tourism. The aim is to develop the concept of tourism recreation in Romania and to increase the number of holidays in Romania.

3.2.5.2 Development of the national network of Tourism Information and Promotion Centres

This key area of intervention will support the tourism information and promotion infrastructure in the country and the supply of tourism information to and from tourists and tour operators.

Indicative operations

- investments in TIPCs set up –activities such as construction, purchase of equipment, IT and software, to create a unitary tourism information and statistics system with public on-line access
- setting up a national tourism information database
- setting up an integrated national system, with on-line access, for collecting and distributing tourism information.

3.2.6. Priority Axis 6: Technical Assistance

Objective

The objective of this priority axis is to provide support for the programme implementation process and effective use of the Community financial input and domestic co-financing through:

- ensuring high quality and coherence of key areas of intervention aimed at programme implementation,
- providing compatibility of the realised projects with the *acquis* and the EU policies,

- organisation of a system of information and promotion of programme objectives and operations.

Rationale

The technical assistance under the SOP IEC is complementary to the scope of support of the Operational Programme Technical Assistance 2007-2013 and, pursuant to the Council Regulation....., will be applied to strengthen the system of management, monitoring, control and evaluation of implementation of the SOP, in accordance with the provision of the Commission Regulation

The expected result is the establishment of an efficient system of implementation, conducing to the fulfilment the SOP objectives.

Key Areas of Intervention

- Support to SOP management, implementation, monitoring and control
- Support for communication, evaluation and IT development

Indicators

«Output» indicators	Target 2015	Data source	«Result» Indicators	Target 2015	Data source
Number of SOP monitoring committee meetings	14	SMIS	Number of participants	420	SMISs
Number of IT equipment purchased (copiers, faxes, computers ...)	300	SMIS			SMIS
Number of staff training actions	4/year 28-30/action	SMIS	Number of participants	500-600	SMIS/beneficiaries
Number of events focused on exchanging information	40-50	SMIS	Number of participants	2000-2500	SMIS
Number of communication campaigns (TV, radio, press ...)	20	SMIS	Number of people reached		SMIS
Number of connexions on the web site/month Number of pages downloaded on the web site/month	200000		Evolution of the connections		Annual basis (Annual Implementation Report, on going evaluation)
Number of assistance actions towards beneficiaries (beyond communication: finalization of projects, rules to respect ...)	70	SMIS	Number of beneficiaries assisted	700-1000	SMIS

3.2.6.1. Support to the SOP management, implementation, monitoring and control

The objective of this key area of intervention is to provide technical and financial assistance for the process of designing, monitoring, evaluation and control, aimed at reaching an effective implementation of the SOP and the efficient use of the European Regional Development Fund.

The support is mainly designed to address the following processes:

1. The projects' selection and verification process, with a particular focus on:
 - providing expertise, studies, evaluations and advice in the scope of tasks of the SOP IEC to support the process of selection and verification of projects;
 - supplying technical assistance for promoters of projects regarding project's design, evaluation of projects and group of projects for their eligibility (selection rules and indicators), compatibility with the *acquis communautaire* and the EU policies;
 - providing assistance in the area of consulting and specialised training exclusively for projects under the SOP IEC while eventually establishing a consortium structure (or another form of partnership) responsible for implementation and financing of the project on the regional and local levels;
 - providing service to the Steering Committees as bodies supporting the Managing Authority in project selection and verification;
 - organising training (including supplementary training) in project selection for the staff of the Managing Authority, Intermediate Bodies and Implementing Institutions as well as other institutions involved in the SOP implementation and the members of the Monitoring/Selection Committee.

2. The Management process, in particular aiming at providing:
 - expert assistance to Managing Authority in project verification methods;
 - advice to Managing Authority, Intermediate Bodies and Implementing Agencies on improvements to the OP management and correctness of operations;
 - exchange of experience for the staff involved in soft management;
 - supplementary training for the staff engaged in OP management and implementation (civil servants and other employees engaged in OP management and implementation);
 - remuneration costs, including social insurance contributions for:
 - o civil servants within the Managing Authority, Intermediary Bodies and Implementing Agencies of the SOP to implement the tasks relating to preparation, selection, verification, audit and monitoring of measures,
 - o other employees dealing with performance of the above mentioned tasks.

3. The Monitoring process, focusing on supporting:
 - technical service to the Monitoring Committee of the SOP IEC and its sub-committees (including administrative costs, organisation of meetings of persons and institutions engaged in implementation of a specific project and other costs related to the Committee activities),
 - expert service to the Monitoring Committee,
 - training and supplementary training of members of the Monitoring Committee regarding monitoring,
 - expertise regarding the monitoring system improvements,
 - preparation and submitting to the European Commission, upon approval of the Monitoring Committee, of the SOP IEC implementation reports by the Managing Authority,
 - collecting data from sources other than national statistics (expertise on the methodology of effective and efficient monitoring of elements of the SOP IEC).

4. The Control process, in particular aiming at:

- carrying out an external audit (organisational and financial) by independent auditors as commissioned by the financial control unit of the OP Managing Authority,
- carrying out on-site checks.

The institution responsible for realisation of this priority axis will be the Ministry of Economy and Trade as the Managing Authority of the SOP. Beneficiaries are the Ministry of Economy and Trade as the Managing Authority of the SOP, Intermediate Bodies of the SOP, Monitoring Committee, Steering Committees, and Implementing Agencies of the SOP.

3.2.6.2. Support for communication, evaluation and IT

The objective of this key area of intervention is the implementation by the SOP Managing Authority of obligations arising from Article ... of Council Regulation and Commission Regulation concerning the promotion of the Programme and its operations and informing entities interested in receiving support from the Funds, as well as the general public, about the opportunities afforded by the assistance and its outcomes.

The key area of intervention also targets to support the evaluation of the SOP, as well as setting up operational standards for each type of evaluation. Under this key area of intervention, financial sources will be provided for external evaluators to elaborate reports, analyses, studies and outlines etc, in order to support the Evaluation unit to fulfil its task.

Another objective is to build administrative capacity for the management of the SOP through the provision of a sufficient amount of computer and office equipment, including software, for the purpose of management, monitoring, control and evaluation, complementary to the SMIS system.

Indicative operations

Communication

- issuing and distributing information, promotional and educational material (publication and distribution of the official texts of the SOP IEC with a manual containing guidelines for the use of the OP assistance package, as well as information on the scope of intervention and the effects of aid);
- establishing of a system for an on-going information about OP implementation, the changes made and reallocations;
- organising conferences, training and workshops (training and workshops for Intermediate Bodies and Implementing Institutions of the SOP IEC, training and workshops for recipients, press conferences, regional conferences and information meetings for representatives of business associations, groups and organisations, media workshops for the staff of the SOP Managing Authority, who will carry out promotion and external communication tasks; these workshops are dedicated to professional contacts with the media);
- setting up an information exchange system (through the media, brochures, folders, CD, the Internet, etc.) for potential beneficiaries, economic, commercial, professional and other institutions on the contents of the assistance package and accessibility of the structural funds for implementation of specific projects.

Evaluation

- covering eligible administrative costs for the operations of the Evaluation Unit (excluding salary costs),
- supporting costs of evaluations carried out by external evaluators,
- covering translation costs for the purpose of SOP IEC evaluation process,
- bearing costs of expert assistance for, including experts' fees, drawing up of expertise, analyses, studies and ideas to develop and improve methods and standards.

IT

- purchase of computers and other office equipment for management, monitoring, control and evaluation purposes, other than SMIS;
- purchase of computers and necessary office equipment, such as copiers, faxes, audiovisual conference equipment (including overhead projectors, equipment for presentations);
- purchase of software for management, monitoring, controlling and evaluation purposes.

The institution responsible for implementing the key areas of interventions will be the Ministry of Economy and Trade as the Managing Authority

3.3. Coherence and compliance with Community and national policies

Main provisions of EU Policy	National development policies	Policy reflection in SOP IEC
<ul style="list-style-type: none"> • Community Strategic Guidelines - Cohesion Policy in Support of Growth and Jobs, 2007-2013 	<ul style="list-style-type: none"> • National Development Plan - Priority 1 “Increase of Economic Competitiveness and development of knowledge based economy” • National Strategic Reference Framework -Economic Priorities in line with EU Lisbon Strategy: <ul style="list-style-type: none"> - develop basic infrastructure to European standards - increase long-term competitiveness of the Romanian economy - development and more efficient use of Romania’s human capital. 	<p>Priority Axis 1: An innovative productive system Priority Axis 2: Research and Development for competitiveness Priority Axis 3: IT&C for private and public sectors Priority Axis 4: Increased energy efficiency and sustainable development of the energy system. Priority Axis 5: Romania, an attractive destination for people and businesses</p> <p>Priority Axis 4: Increased energy efficiency and sustainable development of the energy system.</p> <p>Priority Axis 1: An innovative productive system Priority Axis 2: Research and Development for competitiveness Priority Axis 3: IT&C for private and public sectors Priority Axis 5: Romania, an attractive destination for people and businesses</p> <p>Priority Axis 1: An innovative productive system Priority Axis 2: Research and Development for competitiveness Priority Axis 3: IT&C for private</p>

Main provisions of EU Policy	National development policies	Policy reflection in SOP IEC
	<ul style="list-style-type: none"> - strengthening administrative capacity 	and public sectors Priority Axis 4: Romania, an attractive destination for people and businesses Priority Axis 6: Technical Assistance
Provisions related to SMEs		
<ul style="list-style-type: none"> • 2000/819/CE Decision concerning „Multiannual programme for enterprise and entrepreneurship”, and in particular for small and medium-sized enterprises (2001-2005) - main actions: <ul style="list-style-type: none"> – Enhancing the growth and competitiveness of business in a knowledge-based internationalized economy; – Promoting entrepreneurship; – Simplifying and improving the administrative and regulatory framework for business so that research, innovation and business creation in particular can flourish; – Improving the financial environment for business, especially SMEs; – Giving business easier access to Community support services, programmes and networks and improving the coordination of these facilities; • The implementation of European Charter for small enterprises: 	<ul style="list-style-type: none"> • Government Strategy for period 2004-2008 for supporting small and medium-sized enterprises (GD no.1280/2004) structured on 5 strategic priorities: <ul style="list-style-type: none"> – Creating business environment for encouraging SME’s set up and the development – Enhancing SME’s competitiveness – Improving SME’s access to finance – Improving SME’s access on external market – Promoting entrepreneurial culture and managerial performances strengthening • Yearly budgetary allocation for the Euro Info Centres • The allocation of 0.2% of GDP for programmes supporting the Strategy for SME’s set up and development (Law nr. 346/2004, on encouraging the set-up and development of SME’s , art. 26) • GD 656/2002 for approving European Charter for small enterprises. Annual implementation of the Action Plan for Charter has as main results: <ul style="list-style-type: none"> - one-stop-shops set up and organization at the Commercial Registry Offices; - the national multi annual NASMEC programmes for training and consultancy in export promotion; Start programme; investment programme; development of business incubators; - the school of arts and crafts, the ECONET network; - GED 75/2004 on reducing the registration time for enterprises; 	Priority Axis I: An innovative productive system <i>Key areas of interventions:</i> <ul style="list-style-type: none"> - Productive investments and preparation for market competition, especially of SMEs - Access to credit and finance for SMEs - Entrepreneurship development

Main provisions of EU Policy	National development policies	Policy reflection in SOP IEC
<ul style="list-style-type: none"> • 2003/361/CE Decision on the Definition of SME's 	<ul style="list-style-type: none"> - the new Fiscal code; Bankruptcy law, the taxation of micro-enterprises; e-taxes programme, launched by MCTI; - Sunshine law nr. 52/2003 - Campaign on the impact of EU joining; - Consultative Committee on Development of SME's set up and organization. • GD 27/2006 concerning the amending and completion of the Law no. 346/2004 on Encouraging SME's set up and development 	
Provisions related to Industrial Policy		
<ul style="list-style-type: none"> • Council Decision 96/413/EEC on implementation of a Community action programme to strengthen the competitiveness of European industry. • Commission Communication COM(2002) 714 "Industrial policy in an Enlarged Europe" • Commission Communication COM(2003) 704 "Some Key Issues in Europe's Competitiveness - Towards an Integrated Approach" • Commission Communication COM(2004) 274 "Fostering structural change: an industrial policy for an enlarged Europe" 	<ul style="list-style-type: none"> • GD 1172/2005 approving the Industrial Policy of Romania and the Implementation Action Plan 	<p>Priority Axis 1: An innovative productive system <i>Key areas of interventions:</i></p> <ul style="list-style-type: none"> - Productive investments and preparation for market competition, especially of SMEs - Entrepreneurship development
Provisions related to research-development-innovation (RDI)		
<ul style="list-style-type: none"> • Commission Communication COM (2002) 499 „More Research for Europe- Objective 3% of GDP” 	<ul style="list-style-type: none"> • National RDI Strategy • National Plan for RDI • INFRATECH programme 	<p>Priority Axis 2: Research, Technological Development, and Innovation for Competitiveness</p>

Main provisions of EU Policy	National development policies	Policy reflection in SOP IEC
<ul style="list-style-type: none"> • Commission Communication COM (2005)141 „Integrated Guidelines for Growth and Jobs 2005-2008” • Proposal for a „Decision of the European Parliament and of the Council establishing a Competitiveness and Innovation Framework Programme (2007-2013)” {SEC(2005) 433} • Proposal for „Competitiveness and innovation framework programme (2007-2013)“ with specific: „The Entrepreneurship and Innovation Programme” 		<p>Key areas of intervention:</p> <ul style="list-style-type: none"> - R&D partnerships between universities/research institutes, and enterprises (industry) for generating results directly applicable in the economy - Investments in RDI infrastructure - RDI support for enterprises
Provisions related to information technology and communication (ITC)		
<ul style="list-style-type: none"> • Commission Communication COM(2002) 263 „eEurope 2005: An information society for all” • Council Resolution 5197/2003 on the implementation of the eEurope 2005 Action Plan which has as main targets: <ul style="list-style-type: none"> - modern online public services <ul style="list-style-type: none"> ○ e-government ○ e-learning services ○ e-health services - a dynamic e-business environment and, as an enabler for these - widespread availability of broadband access at competitive prices - a secure information infrastructure • Commission Communication COM(2005) 229 „i-2010 A European Information Society for growth and employment” • Proposal for „Competitiveness and innovation framework programme (2007-2013)“ with specific: „ICT Policy Support Programme” 		<p>Priority Axis 3: ICT for private and public sectors</p> <p>Key areas of intervention:</p> <ul style="list-style-type: none"> - Increased Information Technology use - Development and increased efficiency of modern public electronic services (E-Government, E-Education and E-Health) - Development of E-Business

Main provisions of EU Policy	National development policies	Policy reflection in SOP IEC
Provisions related to the energy sector		
<ul style="list-style-type: none"> • EU Treaty – Art. 174, underlines that one of the objectives of community policy is to ensure the prudent and rational use of resources • Commission Communication COM (2000) 247: „Action Plan to improve Energy Efficiency in the European Community“ • Commission Communication COM(1998) 246 „Energy Efficiency in the European Community - Towards a Strategy for the Rational Use of Energy“ • Commission Communication COM (2005)265 „Green Paper on Energy Efficiency or Doing More with Less“ • Proposal for a „Directive of the European Parliament and of the Council on energy end-use efficiency and energy services“ COM(2003) 739 • New Framework Programme “Intelligent Energy for Europe” Programme (2003 – 2006), COM (2002)162 Decision no. 1230/2003/EC; • The Treaty of Amsterdam (1995) concerning the community initiative in the energy field, the „Trans-European Energy Networks (TENs)“; • Council Decision 96/391/EC concerning a series of measures aimed at creating a more favourable context for the development of trans-European networks in the energy sector. • Decision No 1229/2003/EC concerning a series of guidelines for trans-European energy networks which repealing Decision No 1254/96/EC • „Energy for the future: renewable energy sources” - White Paper laying down a Community strategy and action plan. • Commission Green Paper “A European Strategy for Sustainable, Competitive and Secure Energy” 2006 • Directive no. 2001/77/EC of the European Parliament 	<ul style="list-style-type: none"> • Roadmap for the energy sector in Romania, approved by Government Decision no. 890/2003; • National Strategy for energy efficiency, approved by GD no. 163/2004; • Law 199/2000 regarding the efficient use of energy; • Provisions of the Draft GD for approving the National Energy Policy 2005-2008 and of the Draft Law for amending Law 199/2000 regarding the efficient use of energy. • Strategy for the utilization of renewable energy resources, approved by GD no. 1535/2003, • GD 443/2003 regarding the promotion of energy production from renewable energy resources. 	<p>Priority axis 4: Increased energy efficiency and sustainable development of the energy system</p> <p><i>Key areas of intervention:</i></p> <ul style="list-style-type: none"> - Improvement of energy efficiency - Valorisation of renewable energy sources (RES) - Reducing the negative environment impact of the energy system

Main provisions of EU Policy	National development policies	Policy reflection in SOP IEC
<p>and of the Council on the promotion of electricity produced from renewable energy sources in the internal electricity market</p> <ul style="list-style-type: none"> • Directive no. 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants • Directive no. 96/61/ EC concerning integrated pollution prevention and control 		

Every effort has been made to ensure that interventions under SOP IEC comply with European horizontal principles such as: sustainable development and equal opportunities. Similarly, the co-financed operations will be implemented in strict compliance with public procurement and state aid regulations.

Sustainable development

Sustainable development assumes satisfying the needs of the present without jeopardizing the capacity of the future generations of satisfying their own development needs.

The SOP IEC includes a set of measures which will contribute to the achievement of Romania's sustainable development objectives. These measures are meant to support part of the activities recommended at the Johannesburg UN Summit referring to sustainable development, such as: cooperation between the R&D sector and companies, production of clean energy, higher use of renewable resources and of alternative technologies.

Priority Axis 1 aims to promote high value added innovative activities using advanced technologies and equipment. These activities, as opposed to traditional industries, will promote the development of industries that have a lower impact on environment. An indirect support will be granted to those activities and projects that promote the upgrading of existing technologies in order to mitigate their environmental impact and the introduction of environmental-friendly technologies.

- Priority Axis 1, through its key areas of intervention, provides support for investments, especially in SMEs, that are expected to produce also a positive and direct impact on environment protection. The operation supports not only the acquisition of new equipments and technologies that have a lower impact on the environment but also activities of implementation of European environment standards and of environment management systems by enterprises.
- Priority Axis 2, through its key areas of intervention that aim to stimulate the transfer of modern technologies, adapted to the European environmental standards, will lead not only to an improvement in the competitiveness of Romanian enterprises but also to a reduction in the environmental pollution.
- Priority Axis 3, through its key areas of intervention indirectly contributes to sustainable development by the reduction of resources consumption.
- Priority Axis 4, through its key areas of intervention directed at improving energy efficiency and at increasing the use of renewable resources will contribute to the mitigation of green-house effect and will promote the use of green energy. The third key area of intervention addresses directly and specifically environment-related issues in the energy sector.
- Implementation - In order to become eligible for co-financing, the projects should be environmentally friendly, a minimal requirement being the conformity with the environment protection laws in force. Additionally, environment protection will be considered a project selection criterion (where applicable) so as to encourage initiatives related to the environment protection. Therefore, the selection will favour the projects which will have a minimum negative impact on the environment or which will take

special account of environment protection when developing technologies, services and products.

Equal opportunities

The SOP IEC will promote the principle of equality of chances not only for women but also for other disadvantaged categories: young people, older workers, ex – offenders, ethnic minorities, in full compliance with the European strategies with respect to employment and social inclusion.

Wherever possible, the projects will be assessed with respect to their strategic impact on equal opportunities based on four criteria: improvement in living conditions of excluded or disadvantaged categories; improvement in access to labour market and training of excluded or disadvantaged categories; improvement in the situation at work and promotion of disadvantaged categories to create social and economic activities. Given the specificity of competitiveness programme a higher weight will be given to the last criterion.

- Priority Axis 1 will promote equality of chances by encouraging the inclusion of this principle, where possible, as a selection criteria. For example, the selection will encourage projects that promote the employment of disadvantaged categories (e.g. by allowing part-time and flexible work schedules, working from home etc).
- Priority Axis 3 through the promotion of information society will support equality of chances through the inclusion of specific selection criteria.

Additionally, the development of information society, particularly of broadband infrastructure, will support the equality of chances by facilitating the access of small and/or isolated communities and of disadvantaged social groups to information and labour market.

In general, the operations under Priority Axis 3 will generate an increased access of all social categories to information, education, professional qualification, managerial consultancy. Indirectly, these measures will contribute to the creation of new opportunities for all disadvantaged categories. For example, the development of the information society and of the ICT sector can offer women or disabled persons new opportunities for working at home, in a flexible regime or to continue their education and professional qualification during the periods of absence from the labour market.

Competition Policy and State Aid

This Operational Programme has been developed having regard to the Commission's Guide to the Community rules on State aid. The provisions of Articles 87 and 88 of the Treaty in relation to competition rules are fully respected.

Acting according to its competence set out in the national legislation, the Competition Council, the national State aid authority⁶, has provided support to the SOP IEC Managing Authority and its Intermediate Bodies in respect of State aid applicable rules and it is providing on-going operational advice and guidance. A special Task Force has been created at the level of the Competition Council in order to undertake these activities on a permanent basis.

⁶ Competition Law no. 21/1996, republished and the Law no. 143/1999 on State aid, republished.
SOP IEC – Ministry of Economy and Trade

The Competition Council, acting as the Contact Point with the European Commission, shall ensure the strict observance of the notification requirements and of the “*standstill principle*”. For those operations covered by a Block Exemption Regulations, the Competition Council shall provide the European Commission with all the information required by the relevant regulations. For the operations supported by State aid measures that, according to the Romania’s Accession Treaty, can be considered as existing aid, the Competition Council shall use the Interim Mechanism, once this mechanism is opened.

In accordance with Article 36 of the Council Regulation (EC) no....., the Operational Programme contains a table with an indicative list of the proposed aid schemes (see Annex 10), under Article 87 of the Treaty. These schemes are expected to be submitted to the Commission within the programming period, whenever the EC rules request an *ex-ante* approval from the Commission. Specific obligations with regard to individual notification of aid granted under aid schemes, which apply to certain sectors and for certain large investment projects will be respected.

Authorities will have the responsibility to ensure compliance with State Aid rules. The actual implementation will be the responsibility of the Managing Authority. In case the responsibility for implementation of the state aid rules is delegated to the Intermediate Bodies the Managing Authority will discharge its responsibility for compliance with state aid aids by ensuring that appraisal systems include the analysis of potential state aid issues and the compliance with the relevant notification or block exemption as appropriate. Questions demanded of applicants and guidance given will ensure that the applicants understand the limitations on assistance given and provide sufficient information to highlight any potential issues. Procedures will ensure that compliance is checked during claim checks and on the spot checks during certification and verification. Where delegated, spot checks on the work of the Intermediate Bodies will ensure compliance and consistency.

The Annual Implementation Reports will detail the measures undertaken in order to ensure the compliance of all operations with State Aid rules with respect to the provisions of block exemptions, “*de minimis*”, aid for Small and Medium-Sized Enterprises, regional aid, risk capital aid and environmental aid. In addition, the information required by the Commission for each block exemption and the information required by the Commission and by the World Trade Organization for notified schemes will be provided annually as required.

Public procurement

The National Authority for Regulating and Monitoring Public Procurement (N.A.R.M.P.P.) has as mission the creation at conceptual level, the promoting and implementing of the policy in the public procurement field.

N.A.R.M.P.P. is organised as a public institution with legal personality, being subordinated to the Government and being directly coordinated by the Prime – Minister.

It ensures a fully harmonised legal framework with the community provisions in the field of public procurement, and also the application of the legal provisions in the context of managing the Structural Funds and the Cohesion Fund.

N.A.R.M.P.P. has the following responsibilities:

- elaboration of the strategy in the public procurement field;
- ensuring a coherent and harmonized with the community acquis legal framework in the field of public procurement by regulating the procedures for awarding public procurement contracts;
- ensuring a consistent enforcement of the legislation in the field of public procurement by developing the implementing capacity at the level of the contracting authority;
- fulfilment of the correlative obligations derived from applying the provisions of the E.U. Directives in the field of public procurement;
- monitoring, analysis, evaluation and supervision of the methods used for awarding public procurement contracts;
- ensuring a permanent communication channel with the structures within the European Commission, with the correspondent institutions from the Member States of the European Union and with the national public interest bodies and representing Romania within the Consultative Committees, working groups and communication networks organised by the European Commission;
- methodological counselling of the contracting authorities in the process of awarding public procurement contracts, having a supportive role in order to ensure the correct application of the legislation in this field;
- initiation/sustaining projects or actions for training the personnel involved in specific activities related to public procurement, having a supportive role in developing the implementation capacity of the legislation at the level of the contracting authorities;

Ex-ante control

The proposed mechanism for the ex-ante control will be established at the level of the Ministry of Public Finance; this mechanism shall function as an independent observatory system which will ensure the analysis and quality review of the tendering and contracting documents for all public procurement contracts (services, supply and works contracts) above the thresholds to be established by the main stakeholders.

3.4. Complementarity with other Operational Programmes and operations financed by EAFRD and EFF

SOP IEC is one of the instruments identified at national policy level in order to implement **NSRF and NDP** 2007-2013. The long term objectives of SOP IEC are strongly related to other SOPs objectives and may be fulfilled only in a well tuned cooperation.

Thus SOP IEC's strategy aims to provide an efficient intervention and also to ensure the complementarities of **ERDF** used for co financing both with other structural funds operations (**ESF**) and **EAFRD**, within **National Strategic Plan for Rural Development**.

Overlapping avoidance and complementarities of interventions are essential in ensuring coherence and efficiency in the management of financial instruments during the programming period.

SOP Human Resources Development

The global objective of SOP IEC must be considered in correlation with human capital development that offers a long term and sustainable value to operations to be co financed. The staff ability to adapt to the changing economic environment is becoming a crucial factor for economic strength. To improve enterprises competitiveness, it is necessary to ensure highly qualified staff, including management staff.

SOP HRD comprises major fields of intervention oriented towards employers, employees and their associations that complement the operations of:

- **Priority Axis 1:** An innovative productive system (3.2.1.3. Entrepreneurship development) – by supporting the promotion of vocational education for SMEs' employees and also the development of entrepreneurial abilities
- **Priority Axis 2:** Research, Technological Development, and Innovation for Competitiveness

3.2.2.1. R&D partnerships between universities/research institutes, and enterprises (industry) for generating results directly applicable in the economy- enterprises can apply for training support through SOP HRD within the priority axis "Increasing the adaptability of the labour force and enterprises", which finances training programmes for the development of entrepreneurial and managerial skills, as well as consultancy services, and assistance for development of new businesses;

3.2.2.3. RDI support for enterprises- enterprises can apply for the same priority axis of SOP HRD, which is promoting training programmes for the development of entrepreneurial and managerial skills, as well as consultancy, and assistance services for initiating new businesses.

The young researchers up to 35 years old can apply for training through SOP HRD, within the area of intervention „Competitive human capital in education and research”, part of the priority axis „Education in support for employment, and development of a knowledge-based society”.

- **Priority Axis 3:** ICT for private and public sectors

3.2.3.2. Developing and increasing the effectiveness of modern public electronic services (E-Government, E-Education and E-Health). Schools Internet broadband connection is correlated with operations in the SOP HRD (applications used for educational purposes)

3.2.3.2. Developing and increasing the effectiveness of modern public electronic services (E-Government, E-Education and E-Health). Projects under this intervention area will integrate specific training components.

Regional Operational Programme

Aiming to reduce socio economic development disparities between regions in Romania, operations within SOP IEC complement ROP cofinanced interventions:

- **Priority Axis 1:** An innovative productive system

3.2.1.1. Productive investments and preparation for market competition, especially of SMEs - The indicative operations are complemented by activities implemented under ROP (priority axis 2 - Strengthening of the regional and local business environment) that sustains investments in micro enterprises and start-ups from manufacturing sectors and services.

3.2.1.3. Entrepreneurship development: Within ROP (priority axis 2: Strengthening of the regional and local business environment), other types of business infrastructure, as industrial and technology parks are going to be supported.

- **Priority Axis 3 :** ICT for private and public sectors

3.2.3.1. Supporting the Information Technology use

The access to broadband connections, complementary to operations set-out by ROP will be ensured, avoiding any overlapping between them.

3.2.3.2. Developing and increasing the effectiveness of modern public electronic services (E-Government, E-Education and E-Health). Schools Internet broadband connection is correlated with computers acquisition under ROP Priority axis 1.

- **Priority Axis 5:** Romania as an attractive destination for tourism and business. The indicative operations of this axis complement both the operations under ROP (development of regional and local tourism) and those financed under **EAFRD** (development of rural economy and increase of agriculture sector). Priority axes and operations under ROP and **National Strategic Plan for Rural Development** will finance mainly projects of valorisation of natural and anthropic tourism resources and development of tourism infrastructures, while SOP IEC will concentrate on national promotion.

SOP Strengthening Administrative Capacity

In the context of supporting operations towards strengthening the institutional management capacity of the central and local administration and developing a government strategy, SOP ACD will complement:

- **Priority Axis 3:** ICT for private and public sectors 3.2.3.2. Developing and increasing the effectiveness of modern public electronic services (E-Government, E-Education and E-Health)

The operation concerning the support granted to local administration for building up integrated Information Systems is correlated with the supply of general training for the E-Government field in the SOP “Administrative Capacity Development”.

SOP Environment

The objective of improving the air quality of SOP Environment in accordance with the requirements of relevant EC Directives, is complementary with SOP IEC's **Priority axis 4 - Increased energy efficiency and sustainable development of the energy system**, namely with 2 out of the 3 key intervention areas: 3.2.4.3. Reducing the negative environmental impact of the energy system (cutting down pollution from large combustion plants) and 3.2.4.2. Valorisation of renewable energy sources (clean energy).

OP Technical Assistance

Priority Axis 6 under SOP IEC is complementary to the scope of support of the Operational Programme Technical Assistance 2007-2013 and, pursuant to the Council Regulation, will be applied to strengthen the system of management, monitoring, control and evaluation of implementation of the SOP.

4. FINANCIAL PLAN

The ERDF contribution to the SOP IEC is 2,240 million Euro, representing about 63.57% of the total budget.

Estimated EU contribution to SOP Improvement of Economic Competitiveness 2007-2013, by Fund and by year

- Mil. Euro -

Fund	2007	2008	2009	2010	2011	2012	2013	2007-2013
ERDF	80	180	380	470	470	370	290	2,240
ESF	0	0	0	0	0	0	0	0
CF	0	0	0	0	0	0	0	0
TOTAL	80	180	380	470	470	370	290	2,240

Indicative financial table of SOP Improvement of Economic Competitiveness 2007-2013, by Priority axis

	Community funding (Mil. Euro)	National funding (Mil. Euro)			Total OP	EU co-financing rate (%)	EIB, other financial instruments
		Public	Private	Total			
1	2	3	4	5=3+4	6=2+5	7=2/6x100	8
Priority axis 1 ERDF	694.40	30.64	280.43	311.07	1,005.47	69.06	-
Priority axis 2 ERDF	470.40	24.76	241.57	266.33	736.73	63.85	-
Priority axis 3 ERDF	336.00	28.25	86.63	114.88	450.88	74.52	
Priority axis 4 ERDF	560.00	0.00	560.00	560.00	1,120.00	50.00	
Priority axis 5 ERDF	112.00	19.76	0.00	19.76	131.76	85.00	-
Priority axis 6 ERDF	67.20	11.86	0.00	11.86	79.06	85.00	
TOTAL	2,240.00	115.26	1,168.63	1,283.90	3,523.90	63.57	-

Based on the methodological approach laid out in Annexes 7-9, the following allocation (ERDF), including technical assistance, was established:

- Priority Axis 1: 31%
- Priority Axis 2: 21%
- Priority Axis 3: 15%
- Priority Axis 4: 25%
- Priority Axis 5: 5%
- Priority Axis 6: 3%

The allocation maintains the same relative allocations among the first five Priority Axis, as resulted from the analysis; funds to be allocated to Priority Axis 6 (technical assistance) were set at 3%, by reallocation from the other axis, proportionally.

Priority Axis 1

Priority Axis 1 benefits from the most substantial financial allocation, counting for 31% of total ERDF funds allocated for Competitiveness OP. Such share is justified by two main arguments:

- The envisaged key areas of intervention (and, inherently, the indicators selected for initial lagging behind calculation) are among the actions targeting factors (financing, human resources) and investment conditions (technological improvement, certifications). Therefore, they are the best match with Romania's competitive development stage and should be considered priorities in improving competitiveness.
- Concomitantly, key areas of intervention under Priority Axis 1 are converging with existing EU policies. Thus, the Union's preoccupation with a unitary action framework and a common vision is captured in the corresponding weighting of the priority axis. Main fields of intervention such as supporting the development of SMEs, better access to financing, or encouraging business support services are priorities set by the present agenda of the EU.

Priority Axis 2

With a 21% allocation, Priority Axis 2 targets:

- Setting the stage for a qualitative leap forward as regards the competitive development stage for Romania, towards an innovation-based competitiveness (research and development, patenting,).
- Linking the Romanian competitiveness agenda to that of the Union (Lisbon Strategy), with a high degree of compatibility and convergence (public spending on R&D, involving enterprises in cooperation for innovation).

Priority Axis 3

The allocation of 15% of ERDF funds is justified by the fact that the global objective, i.e. productivity growth - a decisive factor for a successful market development may be empowered by:

- the positive impact of ICT on competitiveness
- In accordance with the specific objectives established by the Lisbon Agenda and the i2010 Strategy, it is essential to underline the crucial importance of the accessibility and broadband infrastructure development as a main priority for developing the Information Society in Romania

Priority Axis 4

Initial lags – of medium magnitude – between Romania and EU countries were adjusted according to specificities of the field:

- In principle, energy sector interventions are susceptible of changing the competitive environment for the worst; private capital should be allowed to correct market failures, within an established regulatory framework.
- Proposed key areas of intervention are implemented in parallel with the Romanian energy sector liberalisation, as a direct consequence of the European integration process. Operations covered by priority axis I will have a positive impact on this priority axis as well, in terms of increased energy efficiency.
- Most importantly, compliance with environmental EU directives implies significant efforts for Romania to undertake environmental related investments for emissions' reduction in large combustion plants.

Priority Axis 5

The small financial allocation for tourism is justified by the fact that the operations envisaged cover only national level promotion activities; moreover, this particular sector will be supported also by interventions under the Regional Operational Programme and National Strategic Plan for rural development.

5. IMPLEMENTATION

This Chapter contains arrangements with respect to the system of implementation of the Sectoral Operational Programme *Improvement of Economic Competitiveness* pursuant to requirements defined in Art..... of Council Regulation No... laying down the general provisions on the Structural Funds.

5.1. Management

Overall responsibility

The Romanian Government, represented by the Ministry of Public Finance and the Managing Authorities, has overall responsibility for the commitments embodied in the documents concerning Structural Funds and its correct and efficient implementation. In particular, it will ensure the availability and system of access to the financial and other resources necessary to target the key areas of interventions described in the Sectoral Operational Programme IEC.

Managing Authority for the SOP IEC

Management and implementation of the SOP IEC is subject to Council Regulation laying down the general provisions on the Structural Funds and Commission Regulation, laying down detailed rules for the implementation of Council Regulation as regards the management and control systems for assistance granted under the Structural Funds.

The function of Managing Authority for the SOP IEC is performed by the Ministry of Economy and Trade – Directorate for Programmes with International Organisations based on Government Decision 738/2004 and 497/2004 amended by 1179/2004 and 128/2006.

The SOP IEC Managing Authority is responsible for the efficiency and correctness of management and implementation of the SOP, through the specific requirements of Article ... of Council Regulation No ...:

- assurance of compliance with Community policies of all operations carried out within SOP, as well as assurance of adherence to the rules being in force in Community as regards concluding public contracts, and forwarding relevant information,
- preparation of possible adjustments and amendments to the SOP and submitting these documents for approval by the SOP IEC Monitoring Committee and then forwarding these documents to the European Commission,
- ensuring preparation and implementation of the Action Plan for Information and Publicity,
- collection of statistical and financial data necessary for monitoring of the SOP implementation progress and course, and forwarding thereof to the European Commission,
- drawing up and, after obtaining the approval of the SOP IEC Monitoring Committee, submitting to the Commission the annual implementation reports.

In addition to above-mentioned responsibilities, the SOP IEC Managing Authority is responsible for:

- ensuring overall co-ordination and progress in the implementation of the SOP IEC,
- monitoring, in co-operation with the Certifying Authority, the flow of funds necessary to implement the ERDF interventions effectively,
- transfer to the European Commission, in co-operation with the Certifying Authority, of data on the progress in implementing the SOP - IEC,
- ensuring that EU funded expenditure is properly accounted for and managed,
- ensuring that all institutions involved in the management of the SOP IEC have, from the start of eligibility of Structural Funds expenditure, sufficient technical and administrative capacity to ensure full compliance with their designated responsibilities,
- submitting payment claims to the Certifying Authority in compliance with any instructions which this authority may issue,
- implementing management and control systems based on the procedures described in the Commission Regulation
- chairing and providing the secretariat for the SOP IEC Monitoring Committee,
- ensuring the availability of all documentation connected with projects within SOP IEC implementation,
- organisation, in co-operation with the European Commission, of the programme's evaluation after completion of its execution (ex-post evaluation),
- preparation of annual reports on SOP IEC implementation based on reports provided by Intermediate Bodies and Implementing Agencies, and forwarding thereof to the SOP IEC Monitoring Committee,
- preparation of final reports on SOP IEC implementation based on final reports provided by Implementing Agencies and Intermediate Bodies. Final reports are submitted for approval by the SOP IEC Monitoring Committee and then forwarded to the Commission,
- chairing and providing the secretariat for the SOP IEC Steering Committee,
- participation in selection of members of the working groups for projects assessment, established at the level of the Intermediate Bodies for respective SOP - Competitiveness priority axes,
- verification and effecting payments (for grant schemes) to beneficiaries on the basis of the submitted documentation,
- preparation of applications for financing the technical assistance projects and submitting them to the SOP IEC Steering Committee for final approval,
- collecting TA projects submitted by Intermediate Bodies and Implementing Agencies and granting subsidies for the selected projects.

Intermediate Bodies

The SOP IEC Managing Authority delegates the implementation of designated SOP priority axes/key areas of intervention to Intermediate Bodies (as construed by Article of the European Commission Regulation No

The Intermediate Bodies are also responsible for:

- management of the system of collection of financial and statistical information concerning the implemented projects, and transmitting them to the SOP IEC Managing Authority, Certifying Authority using the SMIS system of electronic data gathering and processing,

- implementation of operations in accordance with all applicable national and community rules
- preparation of applications for financing of technical assistance and forwarding them to the SOP IEC Managing Authority,
- preparation of required reports on the implementation of operations and forwarding them to the SOP IEC Managing Authority.

An agreement is established between the Managing Authority and the Intermediate Bodies to define and detail the responsibilities of the Intermediate Body resulting from the delegation for selected SOP IEC operations.

Where tasks are delegated to Intermediate Bodies, the Managing Authority retains overall responsibility and is fully responsible for the efficiency and accuracy of management and implementation of the Programme.

- Based on Government Decision No.497/2004 establishing the institutional framework for co-ordination, implementation and administration of Structural Funds, amended by Government Decision 1179/2004, and 128/2006, the intermediate bodies designated for SOP-IEC are:

Intermediate Body	Priority Axis
National Agency for SMEs and Cooperation	Priority Axis 1: An innovative productive system (except for the scheme for large enterprises under “Productive investments” key area of intervention.
Ministry of Education and Research (National Authority for Scientific Research)	Priority Axis 2: Research and Development for competitiveness
Ministry of Communications and IT	Priority Axis 3: IT&C for private and public sectors
Ministry of Economy and Trade – General Directorate for Energy Policy	Priority Axis 4: Increased energy efficiency and sustainable development of the energy system
National Authority for Tourism	Priority Axis 5: Romania, an attractive destination for tourism and businesses

Implementing Agencies

For selected operations, implementing agencies may be designated by the Managing Authority, in consultation with Intermediate Bodies, to carry out activities like, but not restricted to: receipt of applications from potential recipients, formal eligibility check, recording project-related data in the SMIS, monitoring, collection of payment applications, preliminary verification of eligibility of expenditure, preparation of reports, storage of documentation, etc.

Details on activities to be carried out by Implementing Agencies will be provided in the SOP Operational Manual and Guide to beneficiaries.

Beneficiaries

The beneficiaries under the SOP IEC are the entities applying for ERDF support to implement projects.

Working Groups for project assessment

Working Groups for project assessment are established in agreement with the SOP IEC Managing Authority and chaired by the Intermediate Body representative. Members of the Working Group for project assessment and invited experts (if their participation is necessary) carry out detailed assessment of projects on the basis of the selection criteria as approved by the SOP Monitoring Committee. To ensure objectivity of project assessment, members of the Working Group and experts who are in any way connected with the assessed application, do not participate in the assessment process.

Steering Committee

In the case of SOP IEC a Steering Committee for projects' selection is appointed by the SOP Managing Authority with respect to the partnership principle. The SOP Managing Authority chairs the Steering Committee and supports its operations. The Committee meetings are called each time a ranking list of projects is presented by the Working Group for projects assessment submitted in a given application round.

The Steering Committee consists of:

- representatives of SOP-ICE Managing Authority,
- representatives of Intermediate Bodies,
- representatives of Implementing Agencies,
- representatives of other institutions/ministries involved in project implementing of SOP IEC,
- representatives of socio-economic partners.

5.2. Monitoring and Evaluation

Monitoring

Under Art....of Council Regulation Nomonitoring includes both tangible monitoring, which is a tool for management through objectives defined in the operational programme and financial indicator monitoring, as a function of financial management of projects and programmes.

In order to obtain efficient monitoring and evaluation of all public expenditures (both EU and national), dedicated units– monitoring expenditures and tangible effects of public intervention will be located in the long term within the SOP Managing Authority.

There are monitoring and control units within the Managing Authority. Units involved in the process of the ERDF flows at all levels of management shall apply uniform monitoring principles, both in tangible and financial monitoring, limited to certain indicators and present information and reports in agreed format.

Monitoring of the SOP IEC is the responsibility of the SOP Managing Authority under the control of the SOP IEC Monitoring Committee.

Monitoring is carried out under the partnership principle. The Monitoring Committee shall be set up by the Member State, in agreement with the Managing Authority after consultation with the partners and in accordance with its own institutional arrangements and practice. The partners shall promote the balanced participation of women and men.

Membership and role of the SOP IEC Monitoring Committee

Membership of the SOP IEC Monitoring Committee will comprise representatives of SOP - IEC Managing Authority, representatives of the Ministry of Public Finances, of Certifying Authority, Intermediate Bodies, other managing authorities, the National Equal Opportunities Agency, Competition Council, social partners, relevant NGOs, among them representatives of national organizations interested in active participation in SOP's implementation. Representatives of the European Commission, and the European Investment Bank when appropriate, participate in an advisory capacity in the committee. The composition of the SOP Monitoring Committee will meet the requirements of equal participation of men and women.

Subsequent changes in the membership or composition of the Committee may be agreed by the Committee, subject to national legislation, without any requirement to amend the SOP.

Under Articleof the Council Regulation the SOP IEC Monitoring Committee shall satisfy itself as to the effectiveness and quality of the implementation of the Structural Funds. This will include, as appropriate:

- examining and approval of selection criteria for each operation,
- periodical review of progress with regard to achieving the specific objectives of the ERDF assistance,

- examining the results of the Programme implementation especially by examining achievement of the specific objectives/targets appointed for different key areas of intervention as well as any evaluations carried out during the programming period,
- approval and any adjustment of (Programme Complement) together with basic financial and physical indicators, that are to be used for monitoring of the assistance,
- examining and approval of the Annual Report and the Final Implementation Report before they are submitted to European Commission,
- examining and approval of all proposals of changes to the content of the European Commission decision on the contribution of the ERDF,
- proposing to the Managing Authority adjustments or revisions of the ERDF assistance, that enable achievement of the objectives or improvement of the assistance management, including financial management,
- approval of amendments arising from a proposal to the Managing Authority on its own initiative.

The SOP IEC Monitoring Committee may decide the reallocation of co-funded expenditure between operations within the same priority axis . Where a Monitoring Committee makes a decision to reallocate ERDF from one key area of intervention to another, the corresponding matching national expenditure will, in principle also be reallocated. Any amendment to the contribution of the ERDF and transfers among prioritys axis within or between OPs is decided by the European Commission, in agreement with the Member State.

The Monitoring Committee is chaired by a representative of the SOP IEC Managing Authority. The Monitoring Committee is set up no later than three months after the decision on the contribution of the ERDF. Subject to compliance with the principles set out in the foregoing paragraph, Monitoring Committee is responsible for drawing up its own rules of procedure and agreeing them with the Managing Authority.

For adequate evaluation, the SOP IEC Monitoring Committee shall appoint permanent working groups, particularly for monitoring activities of horizontal nature and seek opinions of independent experts. These groups will monitor projects in terms of their consideration for horizontal issues. In addition, they will promote/disseminate consideration of horizontal issues in projects.

Quantification of objectives, monitoring indicators

The SOP IEC Managing Authority together with the Monitoring Committee pursuant to Article ... of Council Regulation No, carry out the monitoring of the ERDF intervention on the basis of a set of indicators. Indicators defined in the SOP IEC serve to measure the progress of operational programmes, priorities axes, key areas of interventions and projects as well as for evaluation of their effectiveness.

The indicator system reflects the objectives of SOP IEC. Criteria of indicators choice take into account rules recommended by European Commission (correctness, appropriateness, availability, reliability, measurement, comparability). The indicators will show:

- the specific targets, quantified where they lend themselves to quantification, for the Priority Axes and key areas of intervention and their mutual consistency

- results
- the progress of the financial plan

Evaluation

Regulatory framework

Evaluation of Operational Programmes is an activity inseparable from the overall OP management and implementation arrangements, as a tool for assessing the relevance, efficiency, effectiveness of the financial assistance deployed, as well as the impact and sustainability of the results achieved.

The requirement to conduct systematic evaluation activities of the Operational Programmes and the general rules for those activities are determined in the Council Regulation (EC) No/2006, laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund (Articles 36, 45 – 47), hereinafter referred to as the “Council General Regulation”.

Types of evaluation to be carried out

In accordance with Articles 45-47 of the Council General Regulation, three main types of evaluations will be carried out for SOP IEC:

- *An ex-ante evaluation* (before SOP implementation commences)
- *Ongoing evaluations* (during the period of implementation of the OP)
- *Ex-post evaluation*.

Ex-ante evaluation for the programming period 2007-2013 will be carried out for each OP by an external evaluator (a single contractor).

Where relevant, the ex-ante evaluation shall also include the Strategic Environmental Assessment, done in compliance with the requirements of the Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment.

The management of the ex-ante evaluation contract will be ensured by the (MACSF – new name) through the Evaluation Central Unit in close cooperation with the Managing Authorities and other main stakeholders.

Ongoing evaluations carried out during the period of implementation of the SOP IEC shall be of three types – *a) interim, b) ad hoc* and *c) with a cross-cutting theme*, as follows:

The Interim Evaluation will aim at improving the quality, effectiveness and consistency of the assistance and the strategy and implementation of operational programmes. The interim evaluations will support the OP management process by analysing problems which occur during the implementation and propose specific solutions to improve the operation of the system.

There will be 2 interim evaluations of the OP: one evaluation to be carried out in the end of 2009 or beginning of 2010 and one in 2012. The first interim evaluation will examine progress to date

in implementing the OP, looking particularly at issues such as management of the OP, whereas the second interim evaluation will focus more on priorities, looking towards the next programming period.

Ad-hoc evaluations will be carried out where programme monitoring reveals a significant departure from the goals initially set or where proposals are made for the revision of operational programmes. Ad-hoc evaluations can also address either implementation or management issues of an individual Priority Axis or Key Area of Intervention, or can be “thematic”.

Interim and *ad hoc evaluations* will be managed by the evaluation function of the Managing Authority and will be conducted externally, by independent evaluators.

Evaluations with a cross-cutting theme will be carried out where the evaluation is of a horizontal nature and completion of the evaluation demands involvement from more than one operational programme. These evaluations may examine the evolution of all or a group of Operational Programmes in relation to Community and national priorities. They may also examine particular management issues across all OPs.

Evaluation with cross-cutting themes will be managed by Evaluation Central Unit of the (Managing Authority for Community Support Framework/new name) and will be commissioned to external consultants.

Specific objectives, evaluation questions, tasks and expected results of *interim*, *ad-hoc* and *cross-cutting evaluations* will be defined separately for each evaluation to be conducted.

Ex-post evaluations shall be carried out by the Commission, for each objective, in close cooperation with the Member State and the Managing Authority, according to art. 47 par. 3 of the Council General Regulation.

The Commission may also carry out *strategic evaluations*, as well as evaluations linked to the monitoring of operational programmes, in accordance to art. 47 par. 2 of the Council General Regulation.

Institutional framework for evaluation

The national institutional framework for evaluation comprises 2 levels:

- an overall coordination level, ensured by the **Evaluation Central Unit** established within the MACSF structure, Ministry of Public Finance
- a functional level, composed of the **evaluation units established within each MA.**

The **coordination role** of the Evaluation Central Unit can be summarized as follows:

- (i) Carrying out cross-cutting evaluations;
- (ii) Providing capacity building activities to support and develop the operational capacity of the evaluation units established in the Operational Programmes - Managing Authorities.
- (iii) Providing overall quality assurance activities to ensure the quality of all evaluations.

The evaluation unit established within the SOP IEC Managing Authority will be responsible for managing the following types of ongoing evaluations:

- (i) *Interim evaluations* and
- (ii) *Ad hoc evaluations*.

The evaluation unit will act in co-operation with the Monitoring Committee and will interact on a constant basis with the Evaluation Central Unit.

Evaluation Plans

The MA evaluation unit will draft an Evaluation Plan, which will comprise the indicative evaluation activities it intends to carry out in the different phases of the programme implementation, the indicative human and financial resources allocated for each evaluation activity, the actions aimed at capacity building, as well as the incumbent responsibilities. This planning shall be done in accordance with the new Regulations on Structural Instruments, the methodological working papers on evaluation issued by DG Regio, and the methodological working papers on evaluation issued by (MACSF- new name) - Evaluation Central Unit.

Operating arrangements

Steering Committees will be established for each evaluation, in order to fulfil, as a minimum, the following tasks: set the terms of reference for individual evaluations, facilitate the evaluator's access to the information needed to perform his/her work; support the evaluation work, particularly from the methodological standpoint; ensure that the terms of reference are correctly respected and followed; exercise quality control in relation to evaluation performed.

Under the coordination of Evaluation Central Unit, a follow-up mechanism of the evaluation recommendations will be set-up in the SOP IEC Managing Authority.

As concerns the **availability for the public** of the evaluation results, the executive summary of the evaluation reports will be made publicly available. The means of communication will be readily identifiable and accessible.

5.3. Financial management and control

The Ministry of Public Finance is designated by the Member State to fulfil the role of National Certifying Authority for all OPs, responsible for certifying declarations of expenditure and applications for payment before they are sent to the Commission in line with the provisions of Article 60 of the General Regulation The **Certifying Authority** is built on the National Fund structure making use of the pre-accession experience.

A separate unit of the National Fund (FN) structure is designated by the Member State to act as the **Competent Body for Payments**, responsible for receiving all payments of ERDF, ESF and Cohesion Fund resources made by the Commission in respect of all OPs and for transferring payments of Community resources to the Beneficiaries (as defined in Article 75(2) of General Regulation).

An associate body of the Romanian Court of Accounts has been designated as **Audit Authority** for all OPs. In line with the requirements of Article 58 of the General Regulation, this Audit Authority is operationally independent of the Managing Authorities, Certifying Authority and Competent Body for Payments.

Certifying Authority and Competent Body for Payments – shall be responsible in particular for:

- 1) *Certification* – draw up and submit to the Commission certified statement of expenditure and payment claims in computerized form;

Is certifying that:

- the statement of expenditure is accurate, results from reliable accounting systems and is based on verifiable supporting documents;
- the stated expenditure complies with applicable Community and national rules and was incurred in respect of operations selected for funding in accordance with the criteria applicable to the programme and complying with Community and national rules.

Within this purpose, the tasks of the Certifying Authority are as follows:

- to ensure that the received information on the procedures and verifications carried out in relation to expenditure and included in expenditure statements provides an adequate basis for certification, which entails:
- to verify the compliance of the claimed figures with the database;
- to verify the correct calculation of the total amount of eligible expenditures;
- to take account of the results of all audits carried out by or under the responsibility of the Audit Authority/internal audit body or European Commission.

2) *Payments* – with this purpose will be performed the following activities:

- receives the ERDF, ESF and CF instruments;
- transfers the ERDF, ESF and CF instruments and the co-financing amounts (if is the case) to the beneficiaries/paying units;
- draws up and submits the estimation of expenditures to the EC;
- based on MA assessment, compiles and submits to the EC updated payment forecasts;
- returns the EC non-eligible expenditures or the instruments that were not used, including interest of late payment;
- keeps a debtor ledger.

Each OP Managing Authority is responsible for managing and implementing its Operational Programme efficiently, effectively and correctly in line with the provisions of Article 59 of the General Regulation, Each OP Managing Authority will work closely with the designated Certifying Authority and Competent Body for Payments in fulfilling the responsibilities of financial management and control to ensure that:

- Money is used most effectively to achieve the objectives of each OP;
- Use of resources is publicly accountable to the EU and the Member State;
- Budgetary control is effective so that commitment is sustainable within each OP and financial planning profiles are adhered to;

- Contracting is within budget;
- Procurement of goods and services under projects financed:
 - takes place;
 - conforms to EU and Member State rules;
 - represents value for money;
- Financial statements sent to the European Commission and other bodies are correct, accurate and complete:
 - correct - funds are applied correctly;
 - accurately – free from errors;
 - complete – all relevant items have been included;
- Payments to Beneficiaries are made regularly and without undue delay or deductions;
- Co-financing resources are provided as planned;
- Payments are properly accounted for;
- Irregularities are notified in line with EU regulations;
- Any sums wrongly paid out are recovered swiftly and in full;
- Unused or recovered resources are re-committed within the respective OP;
- De-commitment is avoided – particularly in relation to the n+3/n+2 rule;
- Closure of each OP takes place smoothly and on time.

Within the purpose of expenditure certification to the European Commission verifications are carried out on four levels:

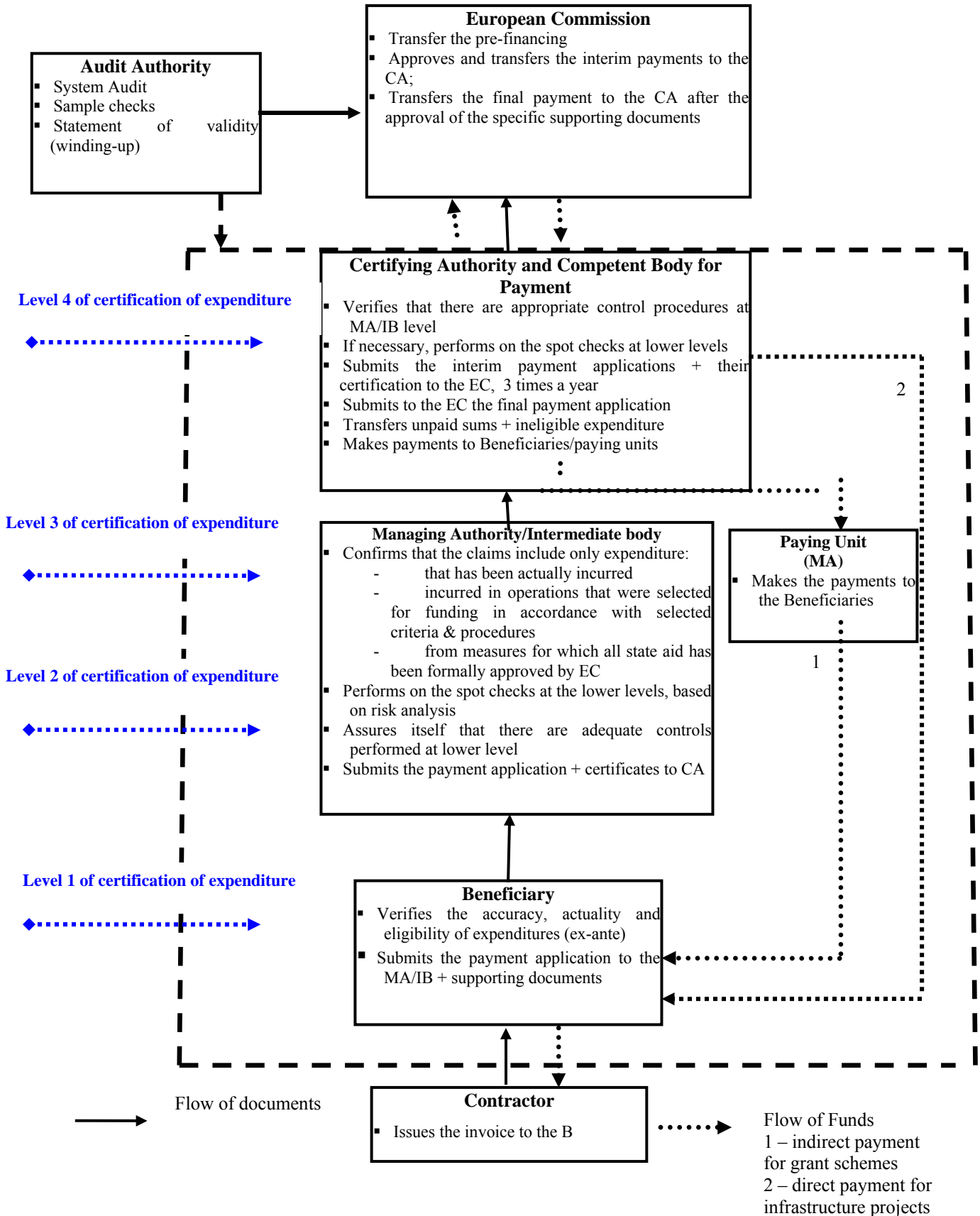
- 1) certification of expenditures at the Beneficiary level;
- 2) certification of expenditures at IB level;
- 3) certification of expenditures at MA level;
- 4) certification of expenditure at Certifying Authority level.

Verifications carried out at the IB level are delegated tasks from MA, based on its assessment regarding administrative capacity. The MA will remain responsible for the tasks delegated to the IB. The tasks performed in that sense will not duplicate checks carried out at IB level.

Regarding the payment process, at the Ministry of Public Finance level, the decision was made to have two payment flows:

- a) direct payment for European Union financial contribution and co-financing amounts (where applicable) from Competent Body for Payments to the beneficiaries, in the case of infrastructure/individual projects and,
- b) indirect payment, through the paying units that are established near Managing Authorities, for the grant schemes.

Financial flow of the SOP IEC



Identification and reporting of irregularities

The legal basis is represented by Commission Regulation no. 1681/94 concerning irregularities and the recovery of sums wrongly paid in connection with financing of structural policies, the Council Regulation no. 2988/95 on the protection of the European Communities' financial interests and the Romanian Government Ordinance no. 79/2003 which settles the ways of control and recovery of sums resulted from non-reimbursable EU financial assistance.

The objective of this section is to describe the identification and reporting of any suspected fraud or other irregularity. This section will also deal with the importance of the immediate implementation of corrective action (including sanctions and launching of civil or criminal proceedings) deemed necessary as a consequence of the investigation of an irregularity.

Irregularities involving loss of EU funds of less than 4,000 Euro are not required to be reported to the Commission under Commission Regulation (EC) No 1681/94 unless the Commission requests it.

Therefore, irregularities of over €4,000 and all irregularities committed intentionally must be reported to the European Commission. These reports are accumulated and checked by the Certifying Authority and then are forwarded to the Anti-Fraud Coordination Service (AFCOS) for transmission to OLAF on a quarterly basis. The Certifying Authority receives the reports from the MAs and it must include any reports on irregularities within the Certifying Authority itself.

In order to allow a proper process of prevention, detection and reporting of irregularities, at the level of the MA, IB and Beneficiary (B), an irregularities officer is appointed to this purpose. The irregularities officer appointed at the level of the B prepares quarterly and ad-hoc reports and submits them to the IB. The irregularities officer appointed at the level of the IB prepares quarterly and ad-hoc reports and submits them to the MA. The irregularities officer appointed at the level of the MA prepares quarterly and ad-hoc reports and submits them to the Certifying Authority.

The irregularities officer takes action both from own initiative and on the complaints received. The irregularities officer carries out its activity based on the Irregularities Manual that will be prepared at the level of each structure involved (MA, IB and B).

Internal audit

Within all ministries involved in the implementation of the Operational Programmes have been established Internal Audit Units that are independent from the structures performing the tasks of Managing Authorities (or Intermediate Bodies) and are directly subordinated to the head of the institutions concerned.

The methodological coordination of these Units is ensured by a special unit within the Ministry of Public Finance, namely the Central Harmonizing Unit for Public Internal Audit.

Attributions of Central Harmonizing Unit for Public Internal Audit

- Developing and implementing uniform procedures and methodologies based on international standards agreed by the European Union, including internal audit manuals and audit trails.
- Developing risk management methodologies.
- Developing the Ethical Code of the internal auditor.
- Endorsing the methodological norms on PIA, specific to the different domains of activity in the field of public internal audit.
- Developing a reporting system for the results of all public internal audit activities and elaborating an annual report.
- Verifying whether norms, instructions, as well as the Ethical Code are respected by internal audit services in public entities; it may initiate the necessary corrective measures in co-operation with the Head of the respective public entity.
- Co-ordinating the system of recruiting and training in the field of public internal audit.

Tasks of the Public Internal Audit Unit

Public Internal Audit Units within the ministries that implement Structural Funds and Cohesion Funds, have specific audit manuals for the European Funds.

According to the law, the tasks of the Internal Audit Unit are the following.

- Performing internal audits activities in order to assess whether the financial management and control systems of the public entity are transparent and comply with the norms of lawfulness, regularity, cost-effectiveness, effectiveness and efficiency;
- Informing CHUPIA on the recommendations not followed- by the head of the audited public entity and of their consequences
- Reporting periodically on the findings, conclusions and recommendations resulted from its audit activities.
- Preparing an annual overview of its activities in the annual report.
- Reporting immediately to the Head of the public entity and to the inspection unit in case of detecting any serious irregularities or fraud cases.

Audit Authority

Romania has established an Audit Authority for all Operational Programmes through Law no 200/2005. The Audit Authority is an associated body to the Court of Accounts, without legal capacity, operationally independent from the Court of Accounts and at the same time independent from all the Managing Authorities and Certifying Authority.

In accordance with to the provisions of the Law 200/2005, art. 14², the Audit Authority has the following responsibilities:

- system audit, sample checks and final audit;
- checks and external audit for the structural funds;
- annual checks of the management and control systems;
- checks of the statements of expenditure, on the basis of an appropriate sample;
- carries out appropriate checks in order to issue winding-up declarations at the closure of measures and programmes;
- checks the existence and correctness of the national co-financing.

5.4. Information and publicity

The access to the information relative to the interventions of the Funds is essential for the effectiveness of the co-financed operations. In accordance with art. 68 of the Council Regulation laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and Title II – *Information and communication* of the implementing Commission Regulation, the MA of the SOP-Increasing Economy Competitiveness will ensure that appropriate action will be undertaken *to highlight the role of the Community and to ensure that the assistance from the Funds is transparent.*

Operations envisaged are specified under the Technical Assistance priority axis of the programme. SOP-Increasing Economy Competitiveness includes a budgetary allocation to cover costs of information and publicity for SOP-IEC according to the *Communication Action Plan*.

The *Communication Action Plan* will include the detailed information and publicity operations planned by the MA and addressed to potential beneficiaries, recipients and the public.

The promotion of activities is supported by using and developing information tools adapted to specific target groups as they are defined in the *Communication Action Plan*.

The *Communication Action Plan* will be managed by the Information and Publicity Unit of the MA in partnership with those involved in the SOP-IEC management, the MAs of the others OPs, particularly the Technical Assistance OP

In the SOP IEC Managing Authority, a special Unit responsible for information and publicity has been appointed. The tasks of this unit include mainly:

- preparing the *Communication Action Plan*;
- informing the Commission about amendments made to the *Communication Action Plan* concerning communication activities made during the implementation of the SOP-IEC;
- managing the communication activities of the Plan and related budget;
- participating to the working group promoted by the Ministry of Public Finance;
- participating to the *Structural Funds Information Team* (SFIT) promoted by the Information and Communication Unit of DG Regio;
- managing the contents of the SOP-IEC focus on the Ministry website;
- preparing timely publication of materials related to SOP IEC – newsletter, leaflets, reports, etc;
- supervising general public awareness researches;
- monitoring the communication actions undertaken by Intermediate Bodies, Implementing Institutions and beneficiaries and providing advice to support compliance with EU publicity requirements;
- supporting the organisation of conferences and other information events in partnership with the key stakeholders of the SOP and the other MAs;
- managing the media aspects of such events;
- responding to requests for information from the media and general public;
- organizing and implementing a monitoring system to verify the effectiveness of the plan;
- preparing the monitoring reports on information and publicity activities for the SOP Monitoring Committee and for the European Commission.

The working group promoted by the Ministry of Public Finance will ensure coordination of communication activities among institutions engaged in OPs information and publicity activities.

Information and publicity activities are subject to a regular evaluation made by the MA SOP-IEC and by the SOP Monitoring Committee.

The annual reports, the mid-term report and the final report on implementation of the SOP will include examples of information and publicity operations for the operational programme adopted in order to ensure the effective implementation of the communication plan and the assessment of the implemented operations.

The task of the SOP-IEC Monitoring Committee includes:

- adopting the information and publicity strategy;
- monitoring the way in which the arrangements concerning information and promotion, contained in the Communication Action Plan, are implemented;
- providing information of its activity and informing on the progress achieved in implementing the assistance in areas for which it bears joint responsibility.

Intermediate Bodies should ensure compliance with information and publicity requirements and in particular the topics on which potential beneficiaries must be informed are:

- the conditions of eligibility to be met in order to qualify for financing under the operational programme;
- procedures for examining applications for funding and of the time periods involved;
- the criteria for selecting and evaluating the operations to be financed; names of persons or contacts at national, regional or local level who can explain how operational programmes work;
- the list of beneficiaries to be financed under the operational programme, as well as the name of the operation and the amount of the public funding allocated to the operation

Also the beneficiaries must be informed that the project for which they are responsible forms part of a priority axis in an operational programme co-financed by the ERDF and that their name, the name of the operation and the amount of public funding that is allocated to the operation will be published.

Intermediate Bodies should provide the necessary information for the annual implementation reports.

5.5. Single Management Information System

Concept of the Single Management Information System

The Single Management Information System is a nation-wide web-based information system, supporting all Romanian organisations implementing the National Strategic Reference Framework and Operational Programmes. The system is addressing the needs of all management levels (Managing Authorities, Intermediate Bodies, Certifying Authority etc.) and through all the stages of the programme cycle (programming, tendering, contracting, monitoring, evaluation,

payments, audit and control). SMIS main characteristic is that it provides its users with a single mechanism for assisting them in accomplishing their everyday tasks.

SMIS design and functionalities

The SMIS design follows three main principles: data *availability* (data are directly available following the request of an authorized user); data *confidentiality* (data are provided only to those users authorized for accessing that specific piece of information); data *integrity* (data processing should occur only by authorized users under authorized means). As means for implementing the three aforementioned principles, the system supports multiple users categorized into a number of user groups/roles. In that way user permissions are easily organized and managed and the access to information can be thoroughly audited and logged in a flexible way.

In order to provide an effective management tool, the functional model of the SMIS is based on a set of subsystems, which together reflect the broad range of functionalities the System is designed to perform, as follows:

- *Programming* which allows the registration and the modification of the main information on the NSRF broken down at lower levels on OPs, priority axis, key area of intervention and operation;
- *Project accession and modification* (registration and the modification of the main information on projects, including the contracts⁷);
- *Monitoring* which allows observing the NSRF progress at all levels, where appropriate against targets previously set; It also allows automatically bottom-up aggregation of the *actual value* of the core data which are registered at lower levels of the System
- *Audit* which registers the control and audit findings and generates the audit reports;
- *Funds flow management* which deals with payment request forecasts, inflows, project revenues, suspensions and recoveries of funds.

Electronic data exchange with the European Commission will be done through an interface between SMIS and the EC management information system which is currently under development within the project SFC2007 – Electronic Data Exchange.

⁷ A contract is a legal commitment concluded between the Beneficiary and the Grantee or Provider of the services, works or supplies necessary to implement a part of a project.

6. PARTNERSHIP

SOP IEC meets the partnership requirements formulated in the Council Regulation (Chapter, Article ...).

The principle of social consultation on the operational programme is to offer the information to the broadest possible public, to collect and evaluate opinions and suggestions and to receive feedback in order to ensure the largest possible social support for SOP-IEC in accordance to the relevant EC Regulations. Consequently, the primary goal of consultations was to make the programme documents accessible for comments and to integrate relevant suggestions in the programming document.

The formal consultation process was launched in March 2005 by setting up the SOP IEC elaboration working group, under the coordination of the Managing Authority for SOP IEC (Ministry of Economy and Trade). The permanent working group includes representatives of all intermediate bodies and other involved institutions, whose main responsibility lies in identifying the SOP priority axes and key areas of intervention. The working group's meetings were held periodically and, according to the schedule, they produced the draft versions of the various chapters of the SOP-IEC: socio-economic analysis, SWOT analysis, strategy, implementation, financial allocation, etc.

The intermediate outputs, i.e. the consultative documents, have been published on the web page of the Ministry of Economy and Trade for comments, observation and large socio-economic consultation. This allowed keeping track of the stages of the partnership consultations and the resulted documents (several drafts).

At the next institutional level, the Intermediate Bodies proceeded to a large consultation of numerous relevant partners for their specific field of activity and responsibility under the SOP.

There are five Intermediate Bodies nominated for the SOP-IEC:

- National Agency for Small and Medium Enterprises and Cooperative
- Ministry of Education and Research
- Ministry of Communication and Information Technology
- Ministry of Economy and Commerce – Energy Policy Directorate
- National Authority for Tourism

Each Intermediate Body has set up active consultation programme and working groups, including a large socio-economic partnership basis: professional associations, employers' and employees' organizations, territorial offices, Regional Development Agencies, territorial Chambers of Commerce, NGOs, enterprises, as well as partners and organizations from the scientific and academic environment with relevant profile within the coordinated field. Each Intermediate body organised several such consultation over the period March 2005-March 2006.

During the consultation meetings, the documents/different drafts of SOP Competitiveness have been presented and discussed. Whenever possible, the Intermediate Bodies and other partners published on their web pages links to the site of the Managing Authority.

As a result of the partnership consultation at all levels, suggestions and opinions were received, more of a general than a very specific nature, which testified to the interest and commitment of partners at the early programming stage. As a result, several changes to the structure of the documents were made both in terms of the evaluation of the competitive position of the economy as well as the set-up of the priorities and means for the attainment of the proposed objectives.

Starting with the very beginning of programming activities, the SOP-IEC Managing Authority had also frequent consultations with other Managing Authorities for OPs from fields connected to economic competitiveness, with the objectives both to identify the appropriate operations and intervention fields and to avoid overlapping in intervention actions: Ministry of European Integration (Regional Operational Programme – SMEs, R&D, tourism), Ministry of Environment (SOP Environment – energy). The enlargement of the SOP-IEC inter-institutional working group (Ministry of European Integration, Ministry of Environment, Competition Council, Ministry of Administration and Interior, Ministry of Labour, Social Solidarity and Family etc).

The result was both the justification of strategic options within SOP-IEC and the creation of premises for a consistent pipeline of mature projects, from the perspective of potential beneficiaries of projects co-financed through Structural Funds.

The SOP IEC draft was also the subject of presentations/consultations during several targeted events.

At the first stage (August – December 2005) the Managing Authority for SOP-IEC participated at the communication/consultation campaign organized by the Ministry of Public Finances in the 8 Development Regions and presented in details the priority axes, key areas of intervention and indicative operations to be co-financed by SOP-IEC through Structural Funds.

Next, within the territorial information and consultation activities scheduled by the Managing Authority for SOP-IEC, in November 2005, the Ministry of Economy and Commerce started its own campaign to present the SOP-IEC strategy in the 8 development regions. Up to the end of 2005 this campaign took place in three regions: South Muntenia, South-West Oltenia and West. The dissemination of information regarding structural funds and the projects to be co-financed was developed in partnership with RDAs, local authorities, other institutions and organizations with territorial representation and were addressed to economic and social partners, civil society organizations and general public. The consultation/information activities ensure, on one side, the transparency of the programming/implementing process and, on the other, the feedback necessary to justify the orientation of structural funds co-financing towards specific economic needs and the timely preparation of the project pipeline to allow the absorption and impact of funds.

At the same time, the Managing Authority for SOP-IEC created a link on the MET homepage that includes a large set of information (programme presentation, suggestions from partners to a dedicated e-mail address, a questionnaire to check the level of information of potential beneficiaries and the degree of interest in structural funds-related issues and proposed SOP Strategy).

Based on to the above-mentioned questionnaire posted between November 2005 and February 2006, MA SOP-IEC, made an analysis with the objective to focus on the target group of potential

beneficiaries for this programme and to build a database. To this questionnaire have answered 225 respondents- mainly SMEs, NGO's, universities, professional associations, The quantitative and qualitative data analysis revealed among others, a level of awareness about structural funds of about 50%, a 100% interest in the issue and a marked preference (60%) for the enterprise-dedicated priority axis.

In future it is important to create a multilevel partnership among all the subjects involved that could interact mainly in the next phases of the SOP implementation and to ensure a high level of implication of the administration in partnership and the appropriate input of various partners to programme implementation.

MA of the SOP-IEC will organise a "Forum of Partnership" between the institutional partners (i.e. ministries, governmental structures) and the representatives of relevant social and economic partners. This body should meet regularly at least twice a year, normally before the meeting of the Monitoring Committee of the OP. The documents to be discussed in the meeting of the MC should firstly be presented to the members of the Forum so that during the meeting of the Forum the partnership could produce observations and could provide eventual comments and recommendations that could be discussed by the MC of the OP.

The MA of the OP will present, on the occasion of the first meeting of the Monitoring Committee, the modality of detailing the involvement of socio-economic and institutional partners, with special reference to the role played by the different parties in the phases of supervision and evaluation of the interventions.

Last but not least, the steering committee and Monitoring Committee themselves, through their composition including representatives of relevant social and economic partners and NGOs will prove to be a powerful means for the direct implication of partners in all significant issues related to the co-financed interventions.

7. ANNEXES

Table 1
Evolution of Industrial production indices

(% change compared to previous year)

	2001	2002	2003	2004
TOTAL INDUSTRY	108.4	106.0	103.2	105.3
Mining and quarrying	105.0	96.1	98.6	102.4
MANUFACTURING	109.9	107.9	103.9	106.3
Food industry	114.6	112.9	113.6	95.4
Textile industry	103.2	101.5	93.0	103.5
Clothing articles	115.1	110.0	100.3	95.8
Leather goods and footwear	104.1	103.3	101.0	97.8
Wood and wooden products manufacturing	108.1	104.2	114.6	142.0
Pulp, paper and paper products	111.3	110.5	102.3	97.1
Crud oil processing	110.5	112.7	92.5	106.2
Chemical substances and products	102.7	105.0	102.8	134.4
Rubber and plastic products	126.3	103.0	140.8	109.9
Manufacturing of construction materials and other products of non-metallic minerals	100.3	94.4	95.3	116.8
Metallurgy	116.2	129.7	78.8	113.5
Metallic constructions and metal products	99.5	100.6	97.6	99.6
Machinery and equipment	115.1	100.5	95.9	107.1
Electrical machinery and appliances	110.7	107.4	106.0	115.8
Radio, TV and communication equipment and apparatus	92.6	83.3	160.8	113.6
Medical, precision, optical instruments and apparatus	108.7	88.5	90.0	90.1
Means of road transport	98.8	109.1	112.7	124.3
Means of transport not included in road transport	104.5	101.7	112.6	93.9
Furniture and other	1021	110.7	103.4	89.7
Electric and thermal energy	98.7	98.3	101.1	96.8

Table 2
Export Evolution on activities

(mil. Euro)

Activity	2000	2001	2002	2003	2004
Total EXPORT	11,273	12,722	14,675	15,613.7	18,935
AGRICULTURE, HUNTING, SYLVICULTURE AND FISHERY	289	324	311	334.1	361.5
TOTAL INDUSTRY	10,978	12,391	14,355	15,250	18,560
Mining and quarrying	37	42	44	45.5	49.3
MANUFACTURING	10,890	12,280	14,205	15,135	18,432
Clothing articles	2,258	2,787	3,079	3,224.9	4,254.2
Leather goods and footwear	908	1,176	1,343	1,391.8	1,368.5
Crud oil processing	758	724	1,050	947.9	1,196
Chemical substances and products	687	982	697	744.9	1,030.8
Rubber and plastic products	98	126	218	340.9	434.6
Metallurgy	1,725	1,565	1,679	1,818	2,647
Manufacturing of construction materials and other products of non-metallic minerals	178	208	244	266.6	355.5
Machinery and equipment	562	750	858	939.7	1,354.8
Electrical machinery and appliances	403	575	825	1,029.4	1,366.2
Furniture and other activities not elsewhere classified	560	668	767	841.7	1,005.1
Electric and thermal energy	51	69	106	69.7	78.4
Other activities {Informatics, services for enterprises, entertainment, sportive and cultural activities)	6	7	9	28.9	13.7

Table 3
Structure of export and import

(%)

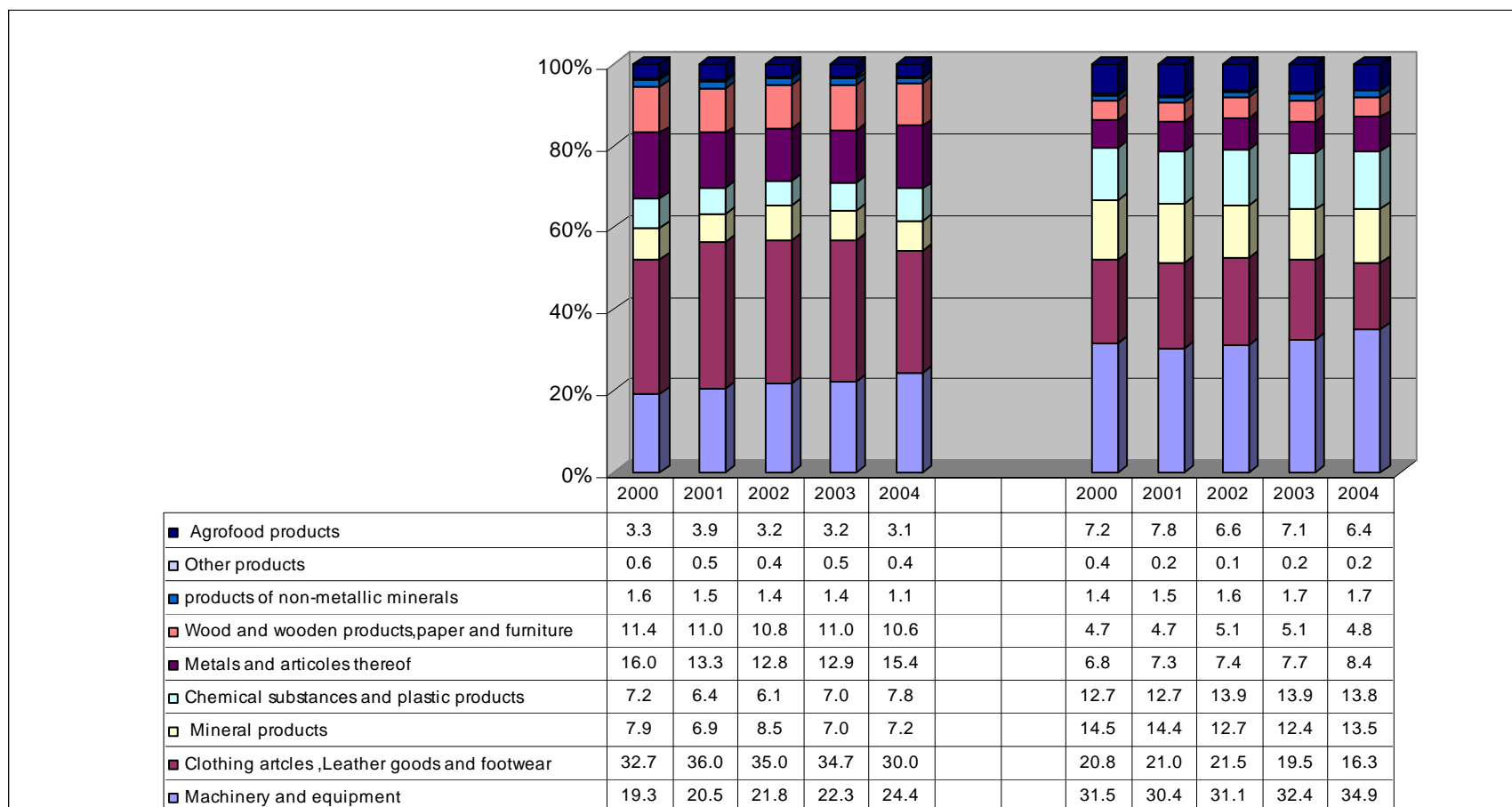


Table 4
Labour productivity index in industry per employee, by sector (%)

	2000=100			
	2001	2002	2003	2004
TOTAL INDUSTRY	106.7	112.0	118.0	132.0
Mining and quarrying	105.1	102.9	109.1	117.1
MANUFACTURING	107.8	114.4	119.4	135.3
Food industry	126.6	139.4	148.3	140.6
Textile industry	97.2	107.8	163.7	186.5
Clothing articles	105.6	105.6	106.7	107.9
Leather goods and footwear	91.3	92.1	94.3	101.6
Wood and wooden products manufacturing	86.1	72.7	76.5	106.9
Pulp, paper and paper products	114.9	123.2	127.9	132.0
Crud oil processing	110.0	155.8	162.4	178.8
Chemical substances and products	96.6	107.1	123.9	188.3
Rubber and plastic products	1.9	119.8	145.6	162.3
Manufacturing of construction materials and other products of non-metallic minerals	103.1	116.5	123.4	162.6
Metallurgy	113.6	153.9	139.8	187.3
Metallic constructions and metal products	92.4	86.8	76.9	81.7
Machinery and equipment	121.2	125.2	116.1	138.3
Electrical machinery and appliances	107.0	107.6	112.8	118.0
Radio, TV and communication equipment and apparatus	111.6	112.3	128.9	183.3
Medical, precision, optical instruments and apparatus	135.3	120.1	140.1	136.3
Means of road transport	97.5	112.0	149.6	209.4
Means of transport not included in road transport	101.4	91.6	108.4	105.9
Furniture and other	106.1	121.4	118.2	109.5
Electric and thermal energy	98.8	100.6	118.7	119.3

Table 1
Number of active SMEs by size

Size	1999	2000	2001	2002	2003	2004
Micro	294,597(90.2%)	279,893(88.5%)	280,448(87.9%)	285,207(87.7%)	313,485(87.9%)	358,242(89%)
Small	25,987(8.0%)	29,417(9.3%)	31,249(9.8%)	32,010(9.84%)	34,883(9.8%)	36,080(8%)
Medium	6,102(1.8%)	6,864(2.17%)	7,455(2.3%)	7,989(2.45%)	8,342(2.3%)	8,674(2%)
Total	326,686(100%)	316,174(100%)	319,152(100%)	325,206(100%)	356,710(100%)	402,996(100%)

Source: Ministry of Public Finance and NIS

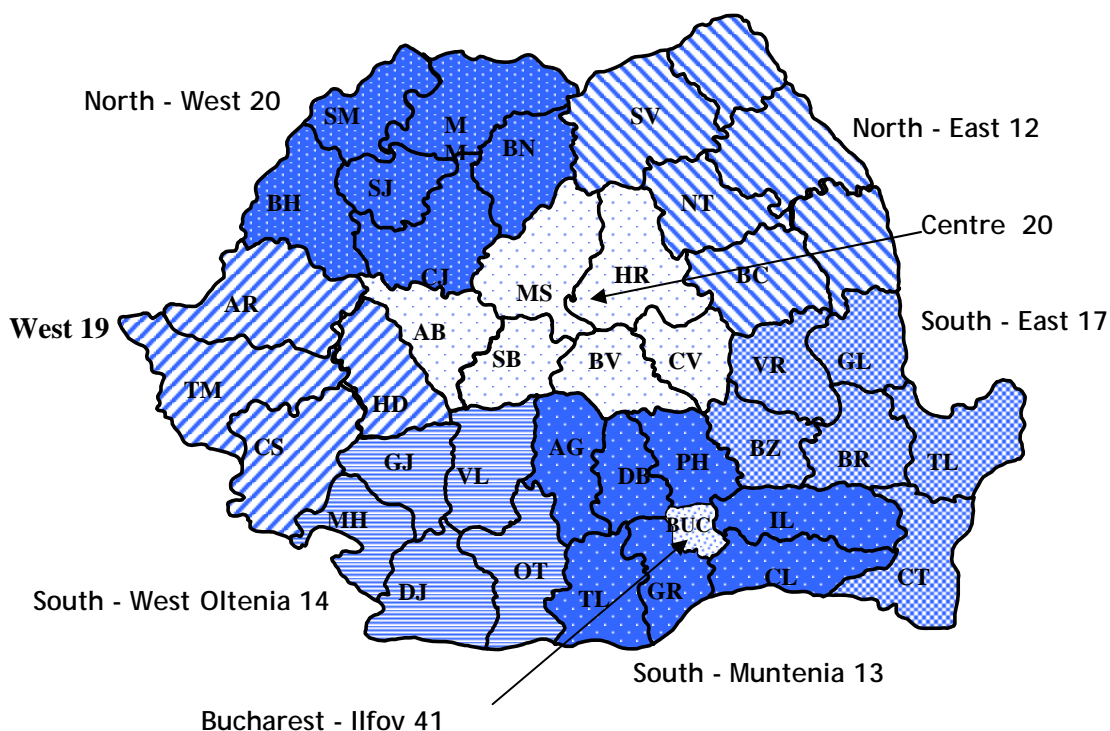
Table 2
Number of private active SMEs by sector

Activity	1999	2000	2001	2002	2003	2004
Agriculture	10,055	9,494	8,929	10,011	10,430	11,390
Industry	39,457	40,252	41,609	45,586	50,117	54,657
Construction	10,956	11,705	13,990	16,312	20,378	25,115
Services	266,218	254,723	254,625	253,297	275,785	311,834
Total	326,686	316,174	319,152	325,206	356,710	402,996

Source: Ministry of Public Finance and NIS

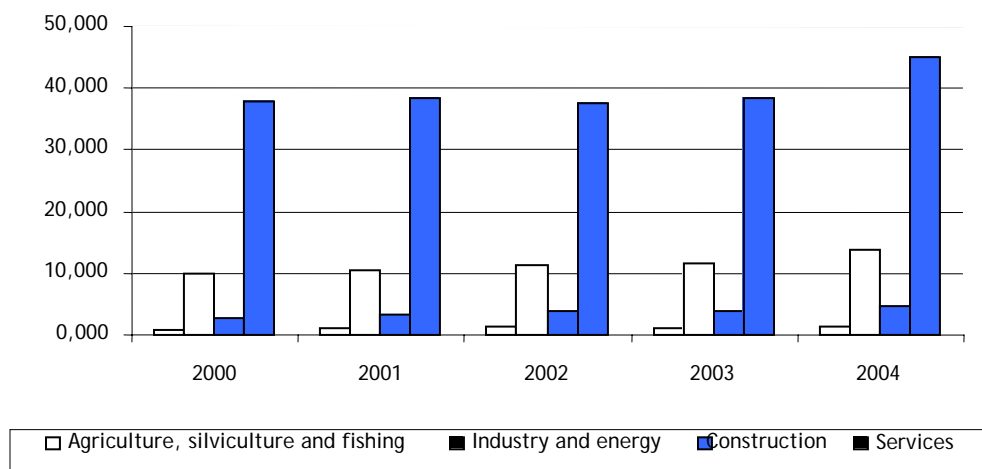
Map 1

Number of SMEs / 1000 inhabitants per development regions, in 2004



Graph 1

SMEs turnover per economic sectors, million Euro, 2000-2004



Source: Ministry of Public Finance, NIS and NASMEC

Map 2
Geographical distribution of business incubators, 2004

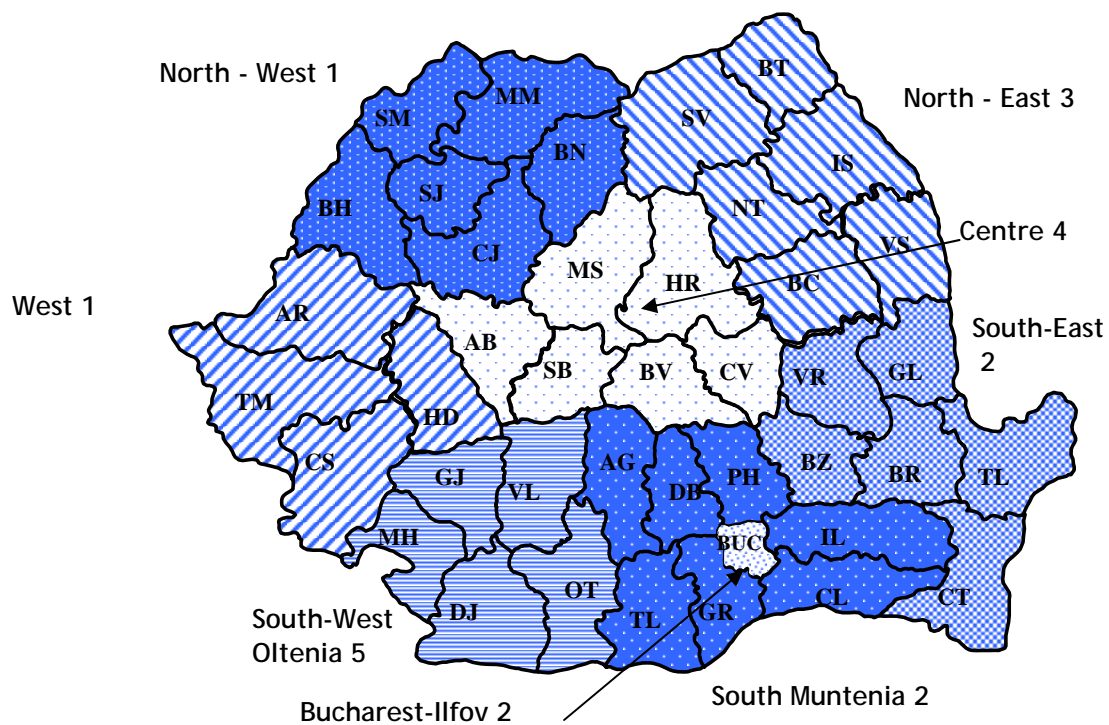


Table 1
The weight of sales of new or improved products (%)

Country	The weight of sales of new or improved products, new for enterprises							
	but not new for market, as % from total turnover				and new for market, as % from total turnover			
	Manufacturing	Services	High technology	High Technology services	Manufacturing	Services	High technology	High Technology services
Denmark*	26.0	25.4	14.0	13.8	11.0	3.6	21.1	12.7
Finland*	27.0	5.0	78.0	13.0	7.0	3.0	11.0	8.0
Poland	17.4	1.7	33.3	1.0	3.9	2.9	10.5	26.2
Holland*	4.5	1.6	20.5	13.5	9.3	1.2	17.2	6,7
Italy*	7.6	4.0	13.4	4.2	9.8	6.5	17.4	13.3
Czech Republic	5.0	6.6	6.4	12.1	1.4	1.3	2.8	6.4
Estonia*	10.6	3.2	11.5	10.0	4.7	1.2	10.0	2.5
Slovenia*	5.5	1.3	7.8	2.9	4.2	2.6	9.6	8.0
Slovakia	4.4	1.8	4.1	2.7	18.7	4.7	8.0	13.1
Romania*	2.0	1.0	4.0	4.0	11.0	5.0	10.0	12.0

Source: Eurostat, Statistics in Focus, Science and Technology , 8/2005, August GÖTZFRIED

Note: reference year is 2003; for countries with * reference year is 2002

Sectors of activity :

Manufacturing: NACE code d;

Services: NACE codes g-k;

High Tech Industries: NACE codes 24.4, 30, 32, 33, 35.3

High Tech Services: NACE codes 64, 72, 73

Table 2
Innovative activities in 2002

- Euro -

	No of enterprises with innovation activities	Innovation expenditure	of which:				
			Expenditure for internal R&D	Expenditure for external R&D	Equipment	Licenses, patents	Other expenditures*
ROMANIA	3,983	782,736,679	173,490,829	19,348,195	418,332,059	51,282,360	120,280,879
North-East Region	607	61,481,178	12,072,198	728,917	39,527,978	2,685,283	6,466,803
South-East Region	395	69,451,450	15,792,189	385,197	48,011,589	1,131,511	4,130,964
South Region	391	88,310,505	24,110,561	3,561,595	47,726,042	1,389,396	11,522,912
South -West Region	247	56,999,971	12,557,108	1,436,726	36,171,693	2,987,908	3,846,535
West Region	291	35,911,409	8,008,935	431,312	16,131,079	691,180	10,648,903
North-West Region	440	73,379,246	11,232,247	864,447	40,194,821	1,769,828	19,317,902
Centre Region	764	70,824,248	15,150,449	496,359	37,930,457	3,413,144	13,833,839
Bucharest Ilfov Region	848	326,378,667	74,569,120	11,444,018	152,638,401	37,214,108	50,513,021

Source: The National Institute of Statistics, the Innovation investigation 2003

Notes: - the statistic data per development region are related to the legal entities registered according to the central unit.

- the number of enterprises with innovation activity corresponds to the period 2000-2002, for which the investigation took place according to CIS III (EU) rules. 9,500 units were investigated out of a total of 23,404 units;

*) - other expenditure includes: personnel development, product design and development, marketing of new products resulting from R&D activities.

Table 3
Structure of innovative enterprises

Activities according to NACE	Enterprise size (no of employees)	Number of enterprises	Innovative enterprises		Enterprises innovation (products and processes)		with activity
			No	% of total	No	% of total	
Total	Total	23,404	3,983	17%	2,968	13%	
	10-49	16,235	2,137	13%	1,580	10%	
	50 - 249	5,547	1,183	21%	868	16%	
	>250	1,622	663	41%	520	32%	
Total industry (excluding constructions) of which:	Total	15,122	2,907	19%	2,229	15%	
	10-49	9,556	1,411	15%	1,067	11%	
	50 - 249	4,171	911	22%	694	17%	
	>250	1,395	585	42%	469	34%	
-quarrying industry	Total	174	23	13%	21	12%	
-manufacturing industry	Total	14,629	2,832	19%	2,174	15%	
	10-49	9,381	1,406	15%	1,061	11%	
	50-249	4,000	882	22%	669	17%	
	>250	1,248	545	44%	443	35%	
-thermo and electric energy, gas, water	Total	319	52	16%	34	11%	

Activities according to NACE	Enterprise size (no of employees)	Number of enterprises	Innovative enterprises		Enterprises innovation (products and processes)		with activity	
			No	% of total	No	% of total	No	% of total
Services(excluding public administration) of which:	Total	8,282	1,076	13%	739	9%		
	10-49	6,679	726	11%	513	8%		
	50 - 249	1,376	272	20%	174	13%		
	>250	227	78	34%	51	22%		
- trade	Total	4,853	485	10%	334	7%		
-transport, storing, and communications	Total	2,061	187	9%	135	7%		
- financial intermediaries	Total	319	23	7%	13	4%		
real-estate transactions, and other services	Total	1,049	382	36%	257	24%		

Source: The National Institute of Statistics, the innovation investigation 2003

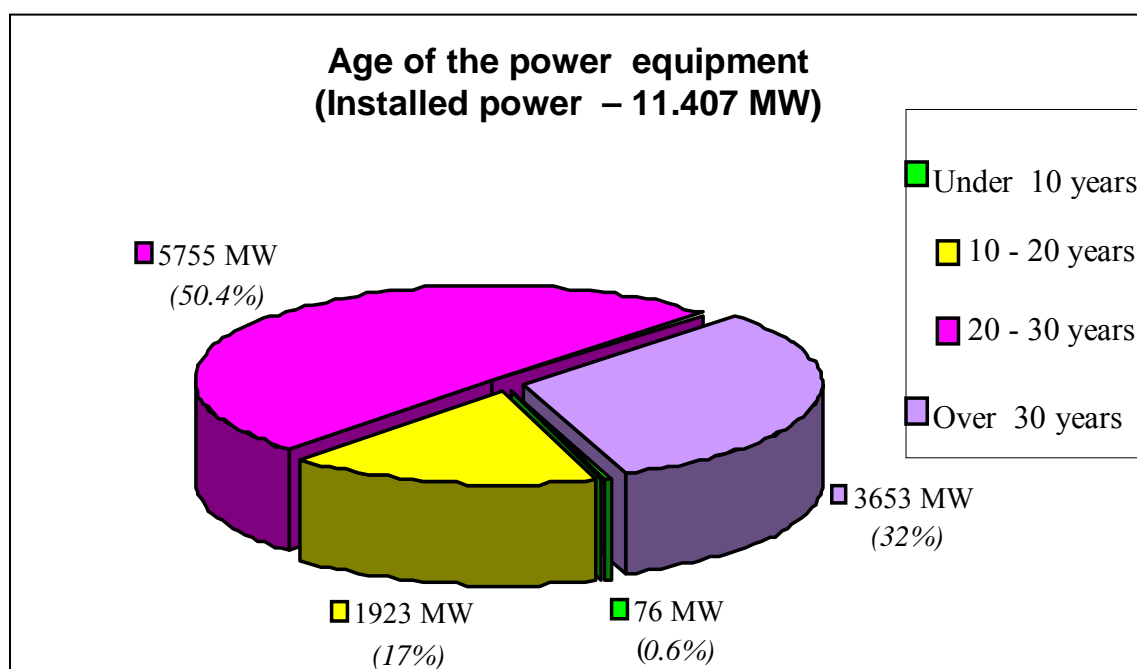
Table 1
Electricity production and structure by type of fuel

	2003	2004	2004 (value %)
Total internal gross consumption	54,821	55,710	
Balance import/export	- 2,085	- 1,189	
Total production, of which:	56,906	56,899	100%
- coal	25,816	23,478	41%
- oil and natural gas	12,922	11,274	20%
- hydro	13,262	16,591	29%
- nuclear	4,906	5,556	10%

Source: National Energy Dispatcher (2004)

Graph 1

Production capacities in thermoelectric sector



Source: Termoelectrica SA

Table 2
Final energy intensity - EU, 2001

Energy Intensity (toe/ 10 ³ USD ₉₅)	Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Holland	Portugal	Spain	Sweden	UK	Romania
Final	0.095	0.135	0.073	0.151	0.096	0.091	0.139	0.105	0.109	0.120	0.149	0.129	0.119	0.121	0.637
Industry	0.024	0.055	0.014	0.068	0.025	0.027	0.032	0.024	0.035	0.039	0.052	0.044	0.045	0.030	0.282
Transport	0.027	0.030	0.022	0.028	0.030	0.024	0.052	0.039	0.035	0.029	0.051	0.048	0.028	0.039	0.120
Agriculture	0.003	0.002	0.005	0.005	0.002	0.001	0.008	0.002	0.003	0.008	0.006	0.003	0.002	0.001	0.009
Residential	0.027	0.031	0.021	0.030	0.023	0.026	0.033	0.024	0.029	0.021	0.022	0.017	0.026	0.033	0.217
Tertiary	0.009	0.012	0.009	0.010	0.013	0.009	0.010	0.014	0.004	0.016	0.012	0.010	0.015	0.013	0.039

Source: Energy Balances of OECD Countries 2000-2001, International Energy Agency, 1999-2002 Editions, Paris, France, 2002

Table 3
Necessary investments for implementing environment directives in the power sector
(heating power plants under MET's coordination), 2005-2017

Implementation plan for directive :	Expenditure (euro)
2001/80/EC Directive on the limitation of emissions of certain pollutants into the air from large combustion plants	1,514,920,000
96/61/ EC Directive concerning integrated pollution prevention and control	358,400,000
99/31/EC Directive on the landfill of waste	496,900,000
Total	2,370,220,000

Source: Chapter 22 „Environment protection “

Table 4

EMISSION TARGETS FOR SULPHUR DIOXIDE (SO₂), NITROGEN OXIDES (NO_x) AND DUST

National Coordinator or Owner	EMISSION TARGETS																				
	ton																				
	2007			2008			2010			2013			2015			2016			2017		
	SO ₂	NO _x	Dust	SO ₂	NO _x	Dust	SO ₂	NO _x	Dust	SO ₂	NO _x	Dust	SO ₂	NO _x	Dust	SO ₂	NO _x	Dust	SO ₂	NO _x	Dust
MET	387,969	90,137	21,915	367,303	84,422	17,845	183,945	82,179	11,442	61,360	81,855	10,926	62,317	69,412	11,014	69,597	58,396	10,864	62,317	52,260	10,864
MAI	138,673	22,159	11,517	136,684	21,471	10,649	136,593	17,310	9,720	75,051	15,966	2,621	25,375	14,685	2,621	25,374	14,326	2,621	25,374	14,264	2,621
others agents	8,056	4,868	1,367	8,056	4,615	1,367	7,514	4,244	1,286	7,589	3,393	1,114	7,589	3,393	1,114	7,589	3,393	1,114	7,589	3,393	1,114
EMISSIONS TARGETS Sulphur Dioxide (SO ₂), Nitrogen Oxides (NO _x) and Dust	534,698	117,164	34,799	512,043	110,508	29,861	328,052	103,733	22,448	144,000	101,214	14,661	95,281	87,490	14,749	102,560	76,115	14,599	95,280	69,917	14,599

Source: National Programme for the Reduction of Emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and dust from Installations of flue gas desulphurization approved by Order of the minister of MEC no.545/2005 (the same Order was approved by MEWM – no.833/2005 and MAI – no.859/2005)

Evolution of main tourism indicators

Indicators	1999	2000	2001	2002	2003	2004
Arrivals of foreign tourists in Romania (thousands)- visitors to the border	5,224	5,264	4,938	4,794	5,595	6,600
Departures of Romanian visitors (thousands)- registered on the border	6,274	6,388	6,408	5,757	6,497	6,972
Turnover of hotels, other tourism accommodation units and restaurants included in these units structure (bil. ROL)	4,612	6,143	8,700	11,637	14,133	-
Tourism agencies and tourism assistance turnover (bil. ROL)	2,514	5,154	6,557	7,071	7,010	-
Number of accommodation units – total, of which:	3,250	3,121	3,266	3,338	3,569	3,900
- private propriety (%)	353	55.3	60.3	92.0	92.0	92.0
Places in the accommodation units in operation (thou places-days)	51,275	50,197	51,882	50,752	51,632	53,989
Average index of using the tourism accommodation capacity in operation (%)	34.5	35.2	34.9	34.0	34.6	34.3
Tourists in accommodation units, of which:	5,109	4,920	4,875	4,847	5,057	5,639
- Romanian (thou)	4,314	4,053	3,960	3,848	3,952	4,279
- foreign (thou)	795	867	915	999	1,105	1,359
Tourists in hotels, of which:	4,074	3,882	3,829	3,835	3,984	4,341
- Romanian (thou)	3,337	3,086	3,000	2,935	2,990	3,125
- foreign (thou)	737	796	829	900	994	1,216
Employment in hotels and restaurants (thou. peoples)	100	93	79	95	105	-

Source: National Institute of Statistics (exhaustive research)

ANNEX 6: Methodology for setting the general objective of the Competitiveness SOP

“The general objective of POS is to increase Romanian labour productivity in order to reduce the productivity gap with respect to EU. The measures included in this OP will generate a 5.5% average annual increase in GDP per population employed and, by 2013, will allow Romania to reach a GDP per employee level of about 55% of the EU average.”

The impact of competitiveness OP can be assessed as the increase in labor productivity, calculated as changes in GDP per population employed. The increase in labor productivity per person employed can be expressed as:

$$\% \Delta \text{ labor productivity} = \% \Delta \text{ real GDP} - \% \Delta \text{ employed population}$$

The increase in labor productivity per employee can also be theoretically decomposed in the variation of two factors: the change in capital per employee and the change in the Solow residual, also known as total factor productivity.⁸ The latter reflects the effect of other factors than capital and labor on the growth of GDP per employee. As a result, this indicator shows the changes in the efficiency with which the factors are employed in the economy.

The increase in GDP per employee is an indicator often employed in the international practice. The National Commission for Forecast (CNP) calculates this indicator as the *increase in GDP per employee in comparable prices*.

Eurostat calculates for UE-25 an indicator called “GDP in PPS per person employed (EU25 = 100)” that is the fraction of countries’ GDP per employee, in equivalent purchasing power parity, in the EU-25 average. This indicator is also calculated and forecasted for Romania. However, the forecast is calculated only up to 2006 and its based on 2003 or earlier data.

CNP has forecasted that Romanian GDP per employee will increase at a rate of 5.6 per year during 2007-2013⁹. This forecast does not take into account the impact of structural funds on the Romanian labor productivity. The assessment of this impact is a difficult task that will not be undertaken here. However, a recent analysis from World Bank¹⁰ estimates the growth potential of Romanian GDP for the next few years around 4.5 percent per year, without further improvement in total factor productivity, and around 5.5 percent per year, with improvements in total factor productivity. Assuming a change in the employed population in Romania between +/- 0.5 percent per year; an increase in total factor productivity due to the impact of structural funds and extrapolating a 5.5 percent annual increase in GDP to the next 10 years we can expect Romanian GDP per employee to increase between 2007-2013 at a pace of 5-6 percent per year.

If the labor productivity in European Union will increase until 2013 at pace of about 1 percent per year, the *relative* increase in Romanian GDP per employee would be between 4 to 5 percent

⁸ The decomposition is too technical to be provided here;

⁹ The forecast can be found in the current situation analysis;

¹⁰ Romania, restructuring for EU integration, Country Economic Memorandum, World Bank Report No. 29123- RO, June 2004, p. 18;

per year. This rate would allow Romania to reach about 55 percent of the average GDP per employee in the European Union by 2013. ¹¹

	2004	2007	2008	2009	2010	2011	2012	2013
Total active population	+0.5	+0.1	-0.2	-0.2	-0.2	-0.2	-0,2	-0,2
Total employment	+0.6	+0.3	-0.1	-0.1	-0.1	-0.1	-0,1	-0,1
Employees	+1.0	+0.6	+0.5	+0.7	+0.8	+0.8	+0.9	+1.0
- %								
Rate of activity	46.0	46.8	46.9	47.1	47.3	47.5	47.60	47.8
Rate of employment	42.9	43.9	44.1	44.3	44.5	44.9	44.8	45.0
Labour productivity	6.9	5.0	5.7	5.4	5.6	5.7	5.9	5.7
Unemployment rate ILO	6.8	6.1	6.0	6.0	5.9	5.9	5.80	5.8

Source: NIS

¹¹ An accurate forecast of the increase in the labour productivity in the European Union over the next 8 years is a difficult task. The level of 55 percent in 2013 assumes a relative increase of 4.5 percent per year in the GDP per employee in Romania and a relative level of Romanian GDP per employee in 2006 of 38.8, as forecasted by EUROSTAT.

ANNEX 7: Methodology for the programming exercise within the SOP Competitiveness

Methodological premises

It is impossible to formulate a national competitiveness strategy while lacking clearly defined and applied methodological criteria. Such a methodology must be economically justified, fitting at the same time the theoretical framework described in the analysis part.

The chosen methodology sought to provide an objective criterion for the prioritization of competitiveness enhancing measures, by calculating the gaps between Romania and the EU average at the level of indicators and sub-indicators. This was the main methodological premise.

The second methodological premise consisted of the fact that a greater gap points at a greater necessity for intervention and financing. Of course, there are some limitations to this premise. For example, a smaller gap may not indicate a Romanian performance, but an EU underperformance. Still, the initial assumption was that all indicators are equal and they all have the same level of *ab initio* importance.

The third methodological premise was the connection between hard indicators (statistical data) and soft indicators (survey answers). In this way, statistical data – which may sometimes be two or three years old, is combined with the way reality is perceived by those directly interested in enhancing competitiveness: the managers.

The fourth and last premise is that one cannot skip the stages of the competitiveness growth process, for all sectors. Considering that the methodological approach (see below) was horizontal (not sector-oriented), the weight characteristic to Romania's current development stage (according to the Porter model) was used in the calculations. Given to the fact that Romania's economy is largely based on factors and to a certain extent on investment, while innovation has only a scarce presence, the weight chosen for the indicators in use will take into account the existent situation by observing the transition from factors to investment rather than the idealist shift from investment to innovation.

Methodological approach

In the priorities setting process, similar competitiveness strategies from most of the EU countries have been reviewed, leading to the conclusion that there is no single unitary methodological approach. Under these circumstances, The European Commission Proposal regarding “The establishment of a Framework Programme for Competitiveness and Innovation 2007 – 2013” dating from 6th of April 2005 was used as main document. It was a natural choice: if EU is to assign funds depending on this framework programme, Romania must have comparable and compatible priorities in order to be able to access European funds. According to the above-mentioned document, four crucial domains have been identified: enterprise competitiveness, especially SMEs; innovation; information society; energetic efficiency. In order to simplify, the four priorities have been reduced to three, by merging innovation and information society into a single one.

The same above-mentioned document of the European Commission named the statistical indicators specific to each priority. The favorite information source were Eurostat (Eurobarometer, European Innovation Scoreboard, Structural Indicators, etc), OECD and various

national data bases. The analysis included those statistical indicators whose values could be compared at the EU and Romania level, not older than 2002. Then the soft indicators, based on surveys, were introduced. Their purpose was not only to replace the statistical indicators for which no data was available, but also to supplement the necessary information for each crucial domain. These soft indicators were selected and took from the Global Competitiveness Report 2004-2005, done by the International Economic Forum, one of the most frequently cited sources at a worldwide scale and one of the most reliable as well. This soft indicators source was also a natural choice, as the Global Competitiveness Report has the same theoretical framework as the one used in this strategy, namely Porter's work. All indicators have been selected so that they would be financed through structural funds.

After obtaining the data for each indicator, both at Romania and EU level, the EU-25 average was calculated. Then, the same scale used for the soft indicators was applied to the hard indicators in order to compare them. The following formula was used for scaling:

$$\text{Scaled indicator} = 6 * (\text{original value} - \text{minimum}) / (\text{maximum} - \text{minimum}) + 1$$

The minimum and maximum values included the data on Romania. The next step consisted of calculating the gap between the values characteristic to Romania and the EU-25 average. Finally, the indicators were arranged in accordance to the determined gaps.

In accordance with the methodological premises, all indicators have been equally weighted within each of the priorities. Regardless their hard or soft nature, all indicators were weighted with $1/n$, where n is the total number of indicators. This method is the most statistically-neutral, in the absence of conclusive econometric tests (allowing the calculation of regression coefficients).

The prioritisation is then resulting from the calculation of indicator-based gaps. As all indicators are financeable, the starting premise will be that the largest amount of funds will be allocated to measures covered by indicators with largest gaps. Moreover, as all indicators are equally weighted within each priority, a top of priorities may be established according to the weight of the aggregated priority gap in the total SOP gap.

In conjunction with the determining the relative lag on the basis of indicators, a more sophisticated, double weighting system was used:

- weighting according to the competitive development phase
- weighting according to the economic development priorities set by EU for itself (program convergence weighting)

The first weighting procedure takes into account the development stage of the Romanian economy. Each measure of the SOP is related to a certain factor endowment, which in turn corresponds to a specific development stage (according to the theoretic framework, based on Porter's competitive diamond, there are three stages: factor-based economy, investment-based economy and innovation-based economy). These development stages have a specific weight (set as part of the model used by Porter in the Global Competitiveness Report), in function of the current level of the analysed economy (the Romanian economy is currently in transition from a

factor-based stage to an investment-based one. The weights vary between 50% for the investment related indicators and only 10% for innovation related indicators. The rationale is given by the difficulty of Romania to focus on innovation directly, without proper investments and a sound economic base. Burning stages is possible, but in terms of absorbing structural funds, it is by far more likely to absorb funds with investment-type measures, rather than with innovation-type measures.

The second weighting procedure provides the following procedure:

- more than par weight of 115% (coefficient of 1.15) for measures that coincide with current EU priorities (coordination of competitiveness policy, research and development, SMEs, information society)
- par weight of 100% (coefficient of 1) for measures that lead to convergence with existent EU policies (quality certification etc.)
- below par weighting of 85% (coefficient of 0.85) for measures which do not constitute EU priorities (e.g. tourism, energy – horizontal sectors where interventions are susceptible of damaging the competitive environment; private capital plays the main part here)

Initially, the existing lags are captured by way of indicators. Subsequently, the double weighting system reconciles Romania's standpoint, as a candidate state in a different competitive phase than the Union, with that of the EU, which has in place a series of priorities set within the existing policies or the approved agenda, as part of the Revised Lisbon Strategy.

ANNEX 8: Gap indicators used in the programming exercise

Priority Axis 1: An innovative productive system

Nr.	Indicator	Romania	EU 25	Gap compared to EU 25
I1	ISO 9001(2003) certification [quality standards] / 1000 inhabitants	0.077	0.840	-2.5
I2	Number of ISO 14001(2003) certifications [environment standards] / 1000 enterprises	0.0002	1.8	-2.3
I3	Weight of risk capital for <i>start-up-s</i> in GDP ¹²	0.003	0.025	-1.7
I4	Financial market development degree (sophistication)	3.4	4.9	-1.5
I5	Clusters' development stage	2.7	3.7	-1.0
I6	Access to credits/loans	3.2	4.1	-0.9
I7	Local existence of research services and specific training	3.9	4.8	-0.9
I8	Access to financing on capital market	4.6	5.2	-0.6
I9	Efforts' coordination for increased competitiveness	3.9	4.0	-0.1
I10	Rate of new companies' registration	12.58	10.1	0.9

Priority Axis 2: Research and Development for competitiveness

No.	Indicator	Romania	EU 25	Gap compared to EU 25
IIA1	Sales of new-to-firm, but not new-to-market products (% of turnover)	1.61	16.80	-4.2
IIA2	Employment in high-tech services (% of total workforce)	1.45	3.19	-3.2
IIA3	Business R&D expenditures (% of GDP)	0.23	1.27	-2.6

¹² This is an EUROSTAT statistics indicator (hard) that is also confirmed, as priority, by a pool indicator (soft) [2.06 *Venture capital availability* – gap -1.3] from Global Competitiveness Report (GCR 2004) drawn up based on Porter methodology;
 SOP IEC – Ministry of Economy and Trade

IIA4	EPO patent applications (per million population)	0.85	133.59	-2.6
IIA5	Sales of new-to-market products (% of turnover)	0	0.03	-2.1
IIA6	USPTO patent applications (per million population)	0.17	59.92	-1.9
IIA7	Level of usage of own trade marks	3.1	4.7	-1.6
IIA8	SMEs involved in innovation co-operation (% of all SMEs)	2.92	7.08	-1.5
IIA9	Protection of intellectual property	3.3	4.8	-1.5
IIA10	Level of usage of marketing techniques	3.9	5.1	-1.2
IIA11	Research co-operation between universities and industry	2.7	3.8	-1.1
IIA12	Innovation capacity	3.4	4.4	-1
IIA13	Employment in medium-high, and high-tech manufacturing (% of total workforce)	5.32	6.60	-0.8
IIA14	Co-operation level between clusters	3.5	4.3	-0.8

Priority Axis 3: IT&C for private and public sectors

Nr.	Composite Indicator ¹³	Gap compared to UE 25
IIB1	ITC usage in the private sector	-3.1
IIB2	Citizens' access and Internet use	-1.9
IIB3	e-Government	-2.5
IIB4	e-Education	-1.0
IIB5	e-Health	-0.3
IIB6	Electronic commerce	-0.7
IIB7	Informatics security	-0.5

¹³ These composite indicators have been calculated by aggregating a number of 29 sub-indicators taken up from EU statistics (Eurostat). Dates for Romania and for EU 25 cannot be presented in the table because of the composite character of indicators;

Priority Axis 4: Increased energy efficiency and sustainable development of the energy system

Nr.	Indicator	Romania	EU 25	Gap compared to EU 25
III1	Economy's energy intensity ¹⁴	1,266.5	209.9	-5.5
III2	Eco-efficiency development in energy consumption field (million EUR/ktoe), 1990-2002	0.9	4.2	-1.4
III3	Energy efficiency's prioritization at society level	3.4	4.5	-1.1
III4	Renewable energy weight –Contribution of electricity from renewable sources in total energy consumption (%)	24.3	12.8	1.2

Priority Axis 5: Romania, an attractive destination for tourism and business

I11	Tourism weight in GDP	1.4	4.6	-1.5
I12	Tourism weight in exports	3.6	11.7	-1.0

Priority Axis	Indicators	Gap (not weighted)	Weighting				Gap (weighted)	Financial allocation (%)
			Weighting competitive phase		Weighting agenda convergence			
			Competitive phase	Phase weighting	Convergence degree	Coefficient		
Pr.A 1	Indicators - enterprises						-0.54	41.1%
Interv. Field 1	Organized efforts for increasing competitiveness	-0.1	Composite	45%	High	1.15	-0.1	
Interv. Field 1	Number of ISO 14001(2003) certifications at 1000 enterprises	-2.3	Investments	50%	Par	1.00	-1.1	
Interv. Field 1	Number of ISO 9000(2003) certifications at 1000 inhabitants	-2.5	Investments	50%	Par	1.00	-1.2	

¹⁴ Energy gross domestic consumption reported to GDP (constant prices, 1995=100) – kg oil equivalent to 1000 euros
 SOP IEC – Ministry of Economy and Trade

Interv. Field 1	Final energy intensity	-2.8	Composite	30%	Low	0.85	-0.7		
Interv. Field 2	Development degree (sophistication) of financial market	-1.5	Factors	40%	Par	1.00	-0.6		
Interv. Field 2	Access to financing on the capital market	-0.6	Factors	40%	High	1.15	-0.3		
Interv. Field 2	Access to credits/loans	-0.9	Factors	40%	Par	1.00	-0.4		
Interv. Field 2	Venture capital invested in start-ups (% in GDP)	-1.7	Investments	50%	High	1.15	-1.0		
Interv. Field 3	Stage of clusters development	-1.0	Composite	45%	High	1.15	-0.5		
Interv. Field 3	Ratio of new enterprises registration	0.9	Composite	45%	High	1.15	0.5		
Pr. A 2	Indicators - R,D&I						-0.51	39.1%	
	R,D&I						-0.6	53.7%	
Interv. Field 1	Sales of new-to-firm, but not new-to-market products	-4.2	Investments	50%	Low	0.85	-1.8		
Interv. Field 1	Local availability of research and specific professional training services	-0.9	Factors	40%	Par	1.00	-0.4		
Interv. Field 1	Capacity for innovation spreading, and exploitation	-1.8	Composite	25%	Par	1.00	-0.5		
Interv. Field 1	Innovation capacity	-1.0	Innovation	10%	High	1.15	-0.1		
Interv. Field 1	Sales of new-to-market products	-2.1	Innovation	10%	High	1.15	-0.2		
Interv. Field 2	Business R&D expenditures (% of GDP)	-3.2	Composite	30%	High	1.15	-1.1		
Interv. Field 2	Public R&D expenditures (% of GDP)	-1.2	Composite	30%	High	1.15	-0.4		
Interv. Field 3	Research co-operation between universities and industry	-1.1	Composite	25%	High	1.15	-0.3		
Interv. Field 3	SMEs involved in innovation co-operation (% of all SMEs)	-1.5	Innovation	10%	High	1.15	-0.2		

Pr. A 3	ITC						-0.5	46.3%	
Interv. Field 1	ITC use in the private sector	-3.1	Composite	45%	High	1.15	-1.6		
Interv. Field 1	Citizens' Internet access and use	-1.9	Factors	40%	High	1.15	-0.9		
Interv. Field 2	e-Government	-2.5	Innovation	10%	High	1.15	-0.3		
Interv. Field 2	e-Education	-1.0	Innovation	10%	High	1.15	-0.1		
Interv. Field 2	e-Health	-0.3	Innovation	10%	High	1.15	0.0		
Interv. Field 3	Electronic commerce	-0.7	Composite	33%	High	1.15	-0.3		
Interv. Field 3	Information security	-0.5	Composite	33%	High	1.15	-0.2		
Pr. A 4	Indicators - energy efficiency and renewable resources						-0.26	19,8%	
Interv. Field 1	Making energy efficiency a priority of the Romanian society	-1.1	Composite	30%	Low	0.85	-0.3		
Interv. Field 1	Energy intensity	-2.8	Composite	30%	Low	0.85	-0.7		
Interv. Field 1	Developing the eco-efficiency in the energy consumption field	-1.4	Factors	40%	Low	0.85	-0.5		
Interv. Field 2	Weight of electricity produced from renewable resources within the national gross electricity production	1.2	Factors	40%	Low	0.85	0.4		
Pr. A 5	Indicators - tourism								
Interv. Field 1	Tourism weight in exports	-1.0	Composite	45%	Par	1.00	-0.5		
Interv. Field 1	Tourism weight in GDP	-1.5	Composite	45%	Par	1.00	-0.7		

ANNEX 9: Methodology for gap calculation in IT sector

In order to calculate the gaps for Priority Axis III, the Eurostat database was used – chapter: “Information society”, “Policy indicators”. In addition to this source, indicators from the Global Competitiveness Report (GCR) have been included. The use of these two sources aimed to provide a full coverage of the domain, as well as create the option of continuous update.

Despite all this, the lack of data for Romania in the case of some indicators brought on the use of SIBIS and eEurope+ reports. Considering that eEurope+ indicators are available only for candidate countries (referring to 2003), and in order to maintain comparability to the EU group, a correction factor was applied to the average, the maximum and the minimum value. Thus, using a very similar Eurostat indicator, the gap between the candidate countries’ average and that of EU was determined. For the cases where the similarity between eEurope+ and Eurostat indicators was not good enough, but even the difference between Romania and the candidate countries was significant, the gap was estimated only with reference to these countries. During future exercises, the data series will be rebuilt on the basis of Eurostat indicators available at that time.

Corrections were applied to the following indicators:

Indicator	Correction
Share of population owning a PC	The Eurostat indicator’s calculation method differs. The difference relative to the candidate countries has been maintained.
Share of population owning a PC connected to the Internet	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar Eurostat indicator. (The share of households with Internet access in 2004). The average value is multiplied by 1.145; the maximum value multiplied by 1.3.
The share of individuals using the Internet to interact with public authorities (official documents download)	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar EU25 indicator (the same indicator, but observing those who have accessed the Internet during the last 3 months) The average value is multiplied by 1.213; the maximum value multiplied by 1.41. Observation: Luxembourg was not considered the maximum value.
The share of individuals using the Internet to interact with public authorities (persons who returned filled-in forms)	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar EU25 indicator (the same indicator, but observing those who have accessed the Internet during the last 3 months) The average value is multiplied by 1.116; the maximum value multiplied by 1.06.
Number of protected Internet servers/million of inhabitants	With the average value of both EU15 and the candidate countries (of 2003) available, the EU25 average was calculated as a weighted average depending on the

	population of the two entities.
The share of individuals owning an Internet connection who have encountered problems caused by computer viruses during the last 12 months	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar Eurostat indicator. (The share of households with Internet access in 2004). The average value is multiplied by 1.17; the maximum value multiplied by 4.62 and the minimum is multiplied by 0.92.
The share of Internet users who took measures regarding computer security	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar Eurostat indicator. (The share of households with Internet access in 2004). The average value is multiplied by 1.02; the maximum value multiplied by 1.27 and the minimum is multiplied by 0.61.
The share of physicians who keep electronic records of their patients	The Eurostat indicator's calculation method differs. The difference relative to the candidate countries has been maintained.
The number of computers/ 100 school students	The Eurostat indicator's calculation method differs. The difference relative to the candidate countries has been maintained.
The number of computers/ 100 high-school students	The Eurostat indicator's calculation method differs. The difference relative to the candidate countries has been maintained.
The number of computers connected to the Internet/ 100 high-school students	The Eurostat indicator's calculation method differs. The difference relative to the candidate countries has been maintained.
The share of Internet users (during the last 3 months) who purchased goods electronically	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar Eurostat indicator. (The share of households with Internet access in 2004). The average value is multiplied by 1.19; the maximum value multiplied by 4.27.
The share of firms who received on-line trade order	The gap between the candidate countries and the EU25 average was calculated on the basis of a similar Eurostat indicator. (The share of households with Internet access in 2004). The average value is multiplied by 1.145; the maximum value multiplied by 2.45.
The share of firms with e-commerce accounting for more than 1% of the turnover	The Eurostat indicator's calculation method differs. The difference relative to the candidate countries has been maintained.

State-aid scheme by notification

State aid scheme	Legal basis	Key areas of intervention covered
Regional investment state aid scheme	Draft block exemption regulation on regional investment aid	1.1 Productive investments and preparation for market competition, especially of SMEs
		2.2 Investments in RDI infrastructure
		2.3 RDI support for enterprises
		3.1 Increased Information Technology use
		3.3 Development of E-Business
Regional aid scheme	Regional Aid Guidelines 2007 - 2013	1.3 Entrepreneurship development
		3.2 Development and increased efficiency of modern public electronic services (E-Government, E-Education and E-Health)
		4.1 Improvement of energy efficiency
		4.2 Valorisation of renewable energy sources (RES)
		4.3 Reducing the negative environment impact of the energy system
SMEs Aid scheme	- Commission Regulation (EC) No 70/2001 of 12 January 2001 on the application of Articles 87 and 88 of the EC Treaty to State aid to small and medium-sized enterprises, as amended by the Commission Regulation (EC) No 364/2004;	1.1 Productive investments and preparation for market competition, especially of SMEs
		1.3 Entrepreneurship development
		2.2 Investments in RDI infrastructure
		3.1 Increased Information Technology use
		3.3 Development of E-Business
Training aid scheme	- Commission Regulation (EC) No 68/2001 of 12 January 2001 on the application of Articles 87 and 88 of the EC Treaty to training aid, as amended by the Commission Regulation (EC) No 363/2004	1.1 Productive investments and preparation for market competition, especially of SMEs
		2.2 Investments in RDI infrastructure
		3.3 Development of E-Business
De minimis aid scheme	- Commission Regulation (EC) No 69/2001 of 12 January 2001 on the application of Articles 87 and 88 of the EC Treaty to de minimis aid	1.1 Productive investments and preparation for market competition, especially of SMEs
		2.3 RDI support for enterprises
		3.1 Increased Information Technology use
		5.1 Promotion of Romanian tourism potential
Credit guarantees for SMEs scheme	Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees	1.2 Access to credit and finance for SMEs

State aid scheme	Legal basis	Key areas of intervention covered
Risk Capital aid scheme	Commission communication on State aid and risk capital	1.2 Access to credit and finance for SMEs
R&D aid scheme	Community framework for State aid for Research and Development	2.1 R&D partnerships between universities/research institutes, and enterprises (industry) for generating results directly applicable in the economy
		2.2 Investments in RDI infrastructure
		2.3 RDI support for enterprises