

Directorate General for Enterprise
Ministry for Economy and Innovation

**PART III. NATIONAL REPORT FOR the 14^a COMMISSION OF SUSTAINABLE
DEVELOPMENT - THEMATIC AREAS**

C. INDUSTRIAL DEVELOPMENT

Focal Government point: Dr Nuno Lúcio

Responding Ministry/office: Ministry for Economy and Innovation/Directorate General for Enterprise

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C. INDUSTRIAL DEVELOPMENT

INDEX

- 1. Macroeconomic framework**
- 2. Measures of Policy**
 - 2.1 Industrial Activity Regulatory Framework**
 - 2.1.1 The licensing of the Industrial Activity**
 - 2.1.2 Enterprise Localization Areas (ALE)**
 - 2.2 Support Instruments to the Enterprise Development (2001 to 2005)**
 - 2.2.1 Program for the Economic Productivity and Growth (PPCE)**
 - 2.2.2 POE/PRIME - Operational Program of the Economy/ Incentive Program to the Modernization of the Economy**
 - 2.2.3 New Developments**
 - 2.2.4 Measures of Energetic Policy**
 - 2.3 Initiatives considering the Promotion of the Sustainable Development – Sustainable Production and Consumption**
 - 2.3.1 Environmental value-added supplement (“Majoração Ambiental”)**
 - 2.3.2 Public-private Enterprise partnerships**
 - 2.3.3 Environmental Continuous Improvement Contracts**
 - 2.3.4 Environmental certification By ISO 14001 and EMAS – Eco-management and audit Scheme**
 - 2.3.5 Eco-label – Community Eco-label Award Scheme**
 - 2.3.6 Eco-efficiency and Enterprise Sustainability (CENDES/INETI)**
 - 2.3.7 Ethics and Social Responsibility**
- 3. References**
- 4. Annex**

1. MACROECONOMIC FRAMEWORK

Following the trends of the last twenty years, the structure of Portuguese economy still continues to change, with transferences of employment and value added from industry to the services sector.

While in 1995 the manufacturing industry accounted with 21,5% for the total employment, that figure has decreased to 19,4% in 2002¹. The share of manufacturing industry value added in the total gross value added has changed from 20% in 1995, to 17,1% in 2002, and 16,3% in 2004².

Although the structure of Portuguese industry is still based in low-technology manufacturing industries (such as leather and footwear, manufacture of dressing and textiles, wood and products of wood and cork and pulp, paper and paper products), there is a trend for the reduction of its share in the manufacturing industry value added. In 1995 this group of industries weighed 62% in the manufacturing industry value added and 70% in the employment, while in 2002 those figures have changed respectively to 56% and 67%¹. There have been also some productivity gains in this group of sectors (the annual percentage change of productivity was 2,4% between 1982 and 2002, above the figure of 2,1% for the EU15)³.

On the opposite side, a dynamic pole of medium-high-technology and high-technology manufacturing industries have been proved. It includes motor vehicles and other transport equipment, machinery and equipment, electrical machinery and apparatus and radio, television and communication equipment and apparatus. In 1995 this group of industries accounted for 20% of manufacturing industries value added and for 14% manufacturing industries employment, while in 2002 those figures have changed to 26% and 15%, respectively¹. The productivity gains in this set of sectors were the same as in the EU15, sectors (the annual percentage change of productivity was 4,3% between 1982 and 2002)³.

These structural changes have been influenced by the implementation of several measures to improve education, skills and knowledge, to develop new technologies, namely ICT, and to increase private business investments in innovation, by the various governments.

Improvements can be seen through a set of several indicators:

- Portugal is one of the European leaders of trend performance in the population with tertiary education (% of 25-64 years age class)⁴ (increase of 23,3% between 2000 and 2003).
- Portugal is one of the European leaders of trend performance in the business expenditures on R&D(% of GDP)⁴ (increase of 88,2% between 1999 and 2002).
- Portugal is one of the European leaders of trend performance in the EPO patent applications (per million population)⁴ (increase of 46,6% between 1998 and 2000) and in USPTO patents granted (per million population)⁴ (increase of 34,7% between 1998 and 2000).

¹ Source: INE, Contas Nacionais Anuais.

² Source: INE and GEE, Base de Dados das Contas Nacionais Trimestrais; Note: Calculations were made at current prices; SIFIM included.

³ Source: GEE, based in Groningen Growth and Development Centre "60-Industry Database", O'Mahony and van Ark.

⁴ Source: GEE, Temas Económicos-Inovação, Janeiro 2005, based in EU, 2004-European Innovation Scoreboard.

Directorate General for Enterprise
Ministry for Economy and Innovation

- The Internet penetration rate had a high increase in the last years, going from 1,7% in 1998, to 69,3% in 2003⁵. The broad band penetration rate was 6,3% in 2004⁵. The percentage of business access to Internet has been increasing, reaching 70% in 2003⁵.
- Since 2000, the venture capital in percentage of GDP, has been reduced, but it has recovered in 2003, specially in expansion and substitution stages⁶. The share of venture capital investment in high-technology manufacturing industries has been increasing, from 12,6% in 2000 to 50,5% in 2003⁷.
- The share of high-technology manufacturing industries exports in the total Portuguese exports has been increasing (from 4,5% in 1995 to 7,4% in 2004), along with a diversification of destination markets⁸. The high and medium-high-technology manufacturing industries exports, have increased 16,4% and 1%, in 2003, from the late year. The most exported products were electronic chips (20%) in the high-technology and diesel motor vehicles for passengers in medium-high-technology manufacturing industries (19%). The main destination markets belong to the EU (Spain, Germany and France) and the USA⁹.

These trends are expected to maintain, as one of the main objectives of the new Government in force since February, is the implementation of a Technological Plan with the aim of transforming Portugal in a modern and knowledge based society, in the medium run. The Plan incurs in four main areas: knowledge society, business innovation, science and technology and human resources. Apart from the Plan, the economic policy includes a focus on the efficiency of the investments and businesses, namely through partnerships for industrial innovation clusters, reduction of red-tape and improvement of business environment.

As this structural changes lead to the development of value added manufacturing industries, along with less energy production processes, they will contribute, in the medium and long run, to the reduction of energy intensity and the sustainable development of the Portuguese economy.

2. MEASURES OF POLICY

2.1. INDUSTRIAL ACTIVITY REGULATORY FRAMEWORK

2.1.1. INDUSTRIAL ACTIVITY LICENSING

The System for Industrial Licensing, while instrument of public policy, is one of the privileged instruments of the relationship between the State and the companies, concerning the promotion of the economic and social development, whose role is raised within the National Strategy of Sustainable Development framework.

The new System for the Industrial Licensing, instituted through the Decree-law nº 69/2003, of 10 April, contributes to a more global aim of sustainable development and enterprise competitiveness, and comprises the following fundamental and strategical domains:

⁵ Source: GEE, Barómetro da Produtividade, based in ANACOM, EC and EUROSTAT, Structural Indicators and UMIC/INE, Inquérito à utilização das TIC nas Empresas, 2002-2004.

⁶ Source: GEE, Barómetro da Produtividade, based in EUROSTAT, Structural Indicators and APCRI

⁷ Source: GEE, Temas Económicos-Inovação, Janeiro 2005, based in UE, 2004-European Innovation Scoreboard.

⁸ Source: GEE, Barómetro da Produtividade, based in INE.

⁹ Source: GEE, Análise do Comércio Internacional de Portugal – Produtos Industriais Transformados por Grau de Intensidade Tecnológica, 2001 a 2003, Janeiro de 2005.

- Integrated approach concerning the prevention and control of the risks associated to the activities, including the interlinkage reinforcement to connected legislation, in particular, on environment, security and hygiene and health at work place domains;
- Connecting the System to voluntary measures, concerning eco-efficiency and enterprise sustainability promotion, reflecting innovation and technological development dynamics, while industrial competitiveness factors, essential to the pursuing of these activities in terms of quality, security and environment protection;
- Taking as important guidelines for the industrial activity pursuing, the adoption of best available techniques, eco-efficiency, rational use of energy, management systems concerning security and environment, and measures connected to the accidents risks prevention and limitation of its effects.

2.1.2. ENTERPRISE LOCALIZATION AREAS (ALE)

The regulatory framework concerning the creation and development of ALE was brought up to date through Decree-law n°70/2003 of 10 of April. Preparatory promotional actions are in course, at the main industrial activity associative structures concerning initiatives that will lead to the creation of the first infrastructures of this type.

The Enterprise Localization Areas are intended to up-grade the companies installation infrastructures and promote inter-companies cooperation, maximizing the simplification and speed of the licensing process.

The promotion of this type of infrastructures assumes, *inter alia*, the following specific objectives:

- Better environmental qualification of the productive activity areas;
- Promoting a better land use planning, eliminating the pressure on the urban areas caused by the industrial activities that are located there.

2.2. SUPPORT INSTRUMENTS TO THE ENTERPRISE DEVELOPMENT

2.2.1. Program for the Economic Productivity and Growth (PPCE)

The aims and the structure of programming

The Program for the Economic Productivity and Growth (PPCE), created by the Resolution of the Cabinet of Ministers n° 103/2002, of 26 July, is characterized by a set of innovative, coherent and complementary measures, essentially directed to the companies, but also involving entities whose core-business is innovation and applied research, having, thus, transversal effects in all the economy.

It was intended with this Program to apply a broad and consistent approach, articulating the microeconomic policy to the structural reforms and to the financial policy.

The PPCE foresaw also some modifications in the Operational Program of the Economy (POE) – but adapted to the former framework, in order to foster a new management approach of public funding: to privilege the creation of wealth, a merit based on results approach, the shortening of

Directorate General for Enterprise
Ministry for Economy and Innovation

decision and execution deadlines, to diminish the bureaucratic barriers and to reduce the number of interlocutors.

PPCE is constituted by 44 measures in the followings five areas:

- I —Competition and regulation reinforcement;
- II —Encouragement of productive investment and exports;
- III —Consolidation and revitalisation of the Enterprise sector;
- IV —Support to innovation, research and development;
- V — Better regulation – streamlining, reducing red tape and simplification.

2.2.2. POE/PRIME - OPERATIONAL PROGRAM OF THE ECONOMY/ INCENTIVE PROGRAM TO THE MODERNIZATION OF THE ECONOMY

The aims and the structure of programming

Within the QCA-III (Third Community Framework Aid Program), with a foreseen validity from 2000 to 2006, the Operational Program of the Economy was approved (POE), with the strategical aim to strengthen the competitiveness and productivity of the companies, as well as its participation in the global markets and, to promote potential sustainable development issues concerning the enterprise activity.

The initial structure of PRIME Program

After the creation of PPCE, POE went under a deep reformulation that culminated with the elaboration of PRIME - Incentive Program to the Modernization of the Economy, which was approved by the European Commission, in May 2003.

The structure of PRIME was constituted by four axes as follows:

- **Axe 1** - Companies promotion
- **Axe 2** - human resources qualification
- **Axe 3** – promotion of the enterprise framework development environment
- **Axe 4** - Technical assistance

Until July 2005, PRIME constituted a main instrument, within the medium and long term economic policy of support to the companies and to the productive activity, not only within the framework of QCA III, but also in the set of the foreseen public policy for the enterprise activity development.

2.2.3. New Developments

The XVII Constitutional Government, in functions since March 2005, contemplates in its Program on economic matters, the aim to increase, in a sustained way, the potential growth of the Portuguese economy to 3%, during the current legislature (2005 to 2009).

In order do attain that economic growth it was launched an ambitious Technological Plan, which is a corner stone of the Government economic policy, being constituted by a articulated set of politics and transversal measures, with the vision to transform Portugal into a modern knowledge-based society, in the medium run.

Thus, this Plan is intended to reach the four aims and specific global targets presented below, concerning the period of 2005 to 2009:

Aim 1 - To mobilize Portugal for the information society

- o Generalization of the effective use of the Internet in the educational activities;
- o Generalization of the access to the broad band to all the national territory, in terms of identical prices to the ones of the most developed countries within the European Union;
- o Launching of the common citizen card;
- o Gradual introduction of the principle of the “one stop shop” within the relationships concerning the State, citizens and companies.

Aim 2 - To promote enterprise innovation

- o To promote the creation of 200 new companies of technological base and to incentivate the growth of that type of companies in emergent markets;
- o To duplicate the risk capital funds devoted to support the launching of innovative projects;
- o To create a program that makes young staff available to SME, at the management and innovation field;
- o To re-establish a tax incentives system to the R&D enterprise;
- o To introduce the theme “entrepreneurship” as an obligatory substance of education, as it occurs in the most advanced countries;
- o To actively support the captation of Foreign Direct Investment with a technological base and to reduce the bureaucratic obstacles drastically.

Aim 3 - To win the battle against scientific and technological delay

- o To triple the private effort in R&D enterprises (currently it does not exceed 0,26%), creating the necessary stimulus conditions;
- o To triple the number of registered patents;
- o To duplicate the public investment in R&D, so as it reaches 1% of the GDP;
- o To increase 50% the human resources in R&D and the scientific production referred to internationally. To increase the number of PhDs, obtained in Portugal and abroad, to 1500 by year;
- o To stimulate scientific employment in the public and private sector;
- o To make mandatory the experimental practice in scientific and technical disciplines in Basic and Secondary Education;
- o To organize scientific and technical capacities for the minimisation and prevention of public risks, the security of the Country and the reinforcement of the regulating and surveillance institutions.

Aim 4 - To promote human resources

- o To reduce by half the scholarly failure in basic and secondary educations;
- o To duplicate the youngsters frequency in technological and professional courses of the secondary level;
- o To make mandatory the scientific experimental practice in basic education;
- o To make mandatory the education or vocational training for all the youngsters until the 18 years;
- o To increase the number of graduations and advanced trainings within higher education.

Initiatives to foster the Economy

Having in consideration, on the one hand, that a competitive economy demands strong and dynamic companies, that are social and environmentally sustainable and capable to be competitive in a global economic environment and that, on the other hand, the public intervention and its instruments of policy play a role concerning the fostering of the investment, as well as the creation of the favourable framework conditions to the enterprise activity, we stress the following Government initiatives:

- **Investments Program in Priority Infrastructures (PIIP)**
- **Projects of Potential National Interest (PIN)**
- **New PRIME - Incentive Program to the Modernization of the Economy**

Following below a brief characterization of those initiatives.

- **Investments Program in Priority Infrastructures (PIIP)**

This Program clarifies and stabilizes the framework for relevant public investments, considered as priority for the modernization of the Country infrastructures, the reinforcement of the competitiveness condition and life quality promotion, involving equal partnerships between the State and the private sector.

The macro objectives and foreseen investments, in terms of percentage of the estimated global investment until 2009 (about 25.000 Million Euros), are the following:

- Economic growth and competitiveness: 45%
- Life quality and social cohesion: 19%
- Land use planning and sustainability: 18%
- Knowledge: 18%

- **Projects of Potential National Interest (PIN) and respective Recognition and Monitoring System**

Having in mind the important role that public policy instruments play on the promotion of the right conditions to fostering enterprise investment, associated to activities that diversify the existing economic base, create qualified employment and present innovation characteristics that allows them to generate more added value, the Resolution of the Cabinet of Ministers nº95/2005, of 24 May, adopted new mechanisms of monitoring and procedural development of the projects that are recognized with being of potential national interest (PIN). The qualification criteria of those projects had been established, having in consideration its special value on several levels: economic, social, technological, energetic and of environmental sustainability.

- **New PRIME - Incentive Program to the Modernization of the Economy**

The PRIME - Incentive Program to the Modernization of the Economy, in force since 2003, was strategically reoriented in 2005, having as aims:

- To realign PRIME with the aims of the Technological Plan
- To relaunch the enterprise investment
- To strengthen the companies competitiveness

Consisting, therefore, an instrument of the new policy directed at incentivating the enterprises growth.

Thus, the aims of new PRIME have the followings five lines of action:

- **Line 1 - Innovation and Modernization**
- **Line 2 - SME Internationalization**
- **Line 3 - Energetic diversification and efficiency**
- **Line 4 - Vocational training**
- **Line 5 - Partnerships and support activities**

Directorate General for Enterprise
Ministry for Economy and Innovation

to which it corresponds an effort of concentration at strategical areas, as the innovation, technological development, internationalization, renewable energies and the qualification of the human resources, in simultaneous with a simplification processes concerning the decision process.

The investment at stake will be of about 4.7 thousand Million Euros, from which 1,5 thousand Million Euros are proceeding from public financing.

2.2.4. MEASURES OF ENERGETIC POLICY

The Portuguese Policy for Energy, while an instrument of sectorial policy, has nevertheless a transversal nature, according to Resolution of the Cabinet of Ministers nº 63/2003, of 28 April, and is based on three strategical axes – Energetic Security, National Competitiveness and Sustainable Development –pointing out to the fundamental following objectives :

- Reduction of the energetic intensity;
- Reduction of the energetic invoice;
- Minimisation of the environmental impact;
- Increment of the national productivity.

More specifically in what concerns industrial activity, improvement measures of energetic efficiency aim at:

- Stimulate technological innovation and the improvement of the processes, using biomass and thermal solar energy;
- To replace the consumption of oil through the cogeneration (CHP-combined heat and power generation) and microgeneration.

As measures coming from energetic policy that are of great importance to industrial activity we quote the following:

- To promote the use of clean technologies and the recourse to endogenous sources of energy for energetic production;
- To develop the efficiency of the energetic consumption;
- To promote the use of less pollutant sources of energy in order to minimize the production of greenhouse gases and reducing the weight of the energetic invoice.

2.3. INITIATIVES CONSIDERING THE PROMOTION OF THE SUSTAINABLE DEVELOPMENT – SUSTAINABLE PRODUCTION AND CONSUMPTION

In this section we present important examples of initiatives that promote sustainable production and consumption within the industrial activity, according to Public Policy and voluntary Initiatives, involving strategical performances in the domains of the eco-efficiency, sustainability, ethics and social responsibility (in terms of process, product and management systems):

- **Public policy - Finance support to Companies:**
 - Environmental value added supplement (“Majoração ambiental”)
- **Public policy – Partnerships and Public Initiatives:**
 - Public-private Enterprise partnerships

- **Voluntary initiatives concerning the Environmental Performance Improvement, Eco-efficiency and Social Responsibility:**
 - Contracts of Continuous Improvement concerning the Industrial Sectors: Packaging Glass and Cement
 - The EU Eco-management and Audit Scheme (EMAS)
 - Eco-label
 - Eco-efficiency and Enterprise Sustainability (CENDES/INETI)
 - Ethics and Social Responsibility

2.3.1. ENVIRONMENTAL VALUE ADDED SUPPLEMENT (“MAJORAÇÃO AMBIENTAL”)

The " Incentives System to the Enterprise Modernization" (SIME), fit in the "Incentive Program to the Modernization of Economy 2000-2006" (PRIME) foresees the so called "Environmental Value Added Supplement" ("Majoração Ambiental") which has by aim to impel pro-active dynamics concerning the adoption by the companies of preventive measures and the decreasing of the resulting environmental impacts of the new investments in a vast range of sectors, including manufacturing industry and energy.

The access to the above mentioned supplement implies that projects applying foresee to reach at least one of the following objectives:

- Early adoption of the BATs - Best Available Techniques (in accordance with the IPPC regime of integrated prevention and pollution control);
- to register at the EU Eco-management and Audit Scheme (EMAS);
- to apply to the European Eco-label;
- to achieve a significant reduction of the emission of greenhouse gases and acidifying gases.

In the following table, we present a synthesis of the projects submitted within this scope, respective activities and the amount in euros concerning the environmental value added supplement.

Scope Industrial Activity (NACE)	Nº OF PROJECTS APPLYING	Environmental Value Added Supplement (thousand Euros)
17 – Manufacture of textiles	26	2.881
26 – Manufacture of other non metallic mineral products	17	3.564
28 – Manufacture of fabricated metallic prod., except machinery and equipment	11	1.153
22 – Publishing, printing and reproduction of recorded media	8	1.115
34 – Manufacture of motor vehicles, trailers and semi-trailers	7	1.355
55 – Hotels and restaurants	6	1.113
24 – Manufacture of chemicals and chemical prod.	6	688
15 – Manufacture of food products and beverages	5	1.174
29 – Manufacture of machinery and equipment, n.e.c.	5	658
25 – Manufacture of rubber and plastic products	5	498
36 – Manufacture of furniture; manufacturing n.e.c.	5	377
32 – Manufacture of radio, television and communication equipment and apparatus	4	801
37 – Recycling	4	754
18 – Manufacturing of wearing apparel; dressing and dyeing of fur	4	466
31 – Manufacture of electrical machinery and apparatus, n.e.c.	3	740
27 – Manufacture of basic metals	3	377

Directorate General for Enterprise
Ministry for Economy and Innovation

20 – Manufacture of wood and of products of wood and cork, except furniture	3	316
90 – Sewage and refuse disposal, sanitation and similar activities	2	474
21 – Manufacture of pulp, paper and paper products	2	311
19 – Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	2	291
51 – Whole sale trade and commission trade, except of motor vehicles and motorcycles	2	119
50 – Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel.	2	88
14 – Other mining and quarrying	1	235
Total SIME with More Environmental Value	133	19.547

Source: PRIME, 07/07/2005.

2.3.2. PUBLIC – PRIVATE ENTERPRISE PARTNERSHIPS

Public-private Enterprise partnership	Aim	Partners	Areas of Intervention and expectable Results	Period execution
AMA "Actions of Environmental Improvement"	<ul style="list-style-type: none"> - To promote environmental performance improvement in companies of the ornamental and industrials stones sector, consisting of SMEs - To prepare the sector for the implementation of "Environmental Management Systems (EMS)" 	<ul style="list-style-type: none"> - ASSIMAGRA - Portuguese Association of the Industrials of Marbles, Granites and Similar - DGGE - Direcção-Geral de Geologia and Energia - CEVALOR - Technological Center of Valorization of Ornamental Rocks 	<ul style="list-style-type: none"> -Elaboration of one "Guide of Environmental Management" for the sector -Study of solutions for the waste management at regional level and the development of indicators for environmental evaluation considering the further implementation of an EMS -Certification of 4 companies according to ISO 14001 	November. 2003 to November. 2005
PRERESI "Prevention of Industrial Waste Production"	<ul style="list-style-type: none"> - It is fit in PESGRI - Strategical Management Plan of Industrial Waste - It intends to promote a more efficient performance of industry in matters of resource management, with the inherent advantages in terms of waste prevention and consequent minimisation of the treatment measures and costs associated to its elimination in environmental acceptable conditions. 	<ul style="list-style-type: none"> - INETI - National Institute of Engineering, Technology and Innovation - INR - Institute of the Residues 	<ul style="list-style-type: none"> - Dissemination of PNAPRI ("National Plan for the Prevention of Industrial Wastes") - Creation of a web portal on "Prevention of Industrial Wastes" - Development of training actions concerning experts in technologies - Demonstration actions on prevention technologies with a broader approach, case studies, aiming at its implementation 	January.2005 to December 2006
DEUSA "Sustainable Enterprise and Urban Development in Aveiro"	<ul style="list-style-type: none"> - To foster the industrial development of the Aveiro Region (in the region Center of Portugal) - Diffusion and application of strategies of environmental valorization and competitiveness 	<ul style="list-style-type: none"> - AIDA - Industrial Association of the Aveiro District - IST - Technical Superior Institute - ABIMOTA - National Association of Industries of Two Wheels, Ironworks, Furniture and Similar - EIA - Industrial Association of Águeda 	<ul style="list-style-type: none"> - Implementation of cleaner production strategies in eight industrial companies of the region, as demonstration of the effects of eco-efficiency uses - Accomplishment of a study case that demonstrates the innovation contribution to the products development in the value chain (study case: bicycle) - Analysis of the evolution of the industrial sectors and the possibilities of material flows 	March.2003 to June.2006

			sybioses among different sectors of activities	
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2.3.3. ENVIRONMENTAL CONTINUOUS IMPROVEMENT CONTRACTS

These Contracts had been celebrated in 1999, among the Portuguese Government, represented by the Ministries of the Environment and of the Economy, through two voluntary agreements called "Contracts of Continuous Improvement of Environmental Performance" involving two strategical sectors at national level:

- the sector of the cement (19/January/1999 to 31/December/2004);
- the sector of packaging glass (1/June/1999 to 31/December/2003).

These contracts had as aim the development of a set of continuous improvement actions concerning environmental performance of the adherent companies, in order to register to EMAS, EU Eco-management and Audit Scheme, under the provisions of Regulation EC n.º 761/2001, of 19 March, that incentivates the industrial units to go beyond the mere fulfilment of the legal provisions in environment matters.

It is important to point out the reach of these contracts, given the fact that there are at stake two industrial sectors subjected to a high scrutiny related to its environmental performance, in so far as they are high consumers of energy, whose more significant environmental impacts simultaneously arise from the atmospheric emissions, being sectors within the scope of the European legislation of integrated prevention pollution and control (IPPC), as well as by the recent emission trading market, in functioning since the beginning of 2005.

On the other hand, these contracts had constituted a chance for these sectors to be prepared for the attainment of the IPPC environmental license, mandatory as from 30 October 2007, for the existing installations.

The following table presents a synthesis on the key elements, concerning these two contracts:

Contract	Subscriber entities	Aim	Results
Packaging Glass Sector	<ul style="list-style-type: none"> - Ministry of the Economy - Ministry of the Environment - AIVE – Association of the Industrials of the Packaging Glass - 5 Companies (6 industrial units) 	Contract conceived in the eco-efficiency perspective, i.e., the industrial sector compromised to reach, until the end of 2003 (having regard to the values concerning the base year of 1994, and to the base year of 1997, to the parameter "waste to landfill without cullet waste"), a variation reported to the packed amounts (hectolitres) and referring to the consumption of water, to the atmospheric emissions (CO ₂ , NOx, SO ₂ and particles) and to the solid waste.	<ul style="list-style-type: none"> - Consumption of water (packed g/hl): - 68.2% - CO₂ (packed g/hl): - 29.3% - NOx (packed g/hl): - 33.8% - Particles (packed g/hl): - 67.0% - SO₂ (packed g/hl): - 66.2% - <u>Environmental Management Systems (EMS)</u>: The five companies (six industrial units) within the sector have implemented certified EMS. The company "Saint-Gobain Mondego S.A." is registered in the EU Eco-management and Audit Scheme (EMAS)
Cement Sector	<ul style="list-style-type: none"> - Ministry of the Economy - Ministry of the Environment - CIMPOR - Indústrias de Cimento, S.A. - SECIL - Companhia Geral de Cal e Cimento S.A. - CMP - Cimentos Maceira e Pataias, S.A. 	Contract conceived in a complete cycle of activities perspective, i.e., incorporating all the activities concerning the cement manufacturing process, since the extraction, storage and preparation of raw materials, clinker burning, cement grinding and storage, transport, environmental monitoring and visual impact of the plant.	<ul style="list-style-type: none"> - <u>Environmental Management System (EMS)</u>: Six industrial units had implemented EMS and certified it according to ISO 14001. The three plants of "CIMPOR – Indústrias de Cimentos, S.A." presented a request to register at the EU Eco management and Audit Scheme (EMAS) - <u>Impacts resulting from the quarries exploration</u>: improvement works concerning the visual impact of the plants and landscape recovery of the explored quarries had been accomplished. Developments considering new

			<p>methods for quarrying, including blasting (explosives) and alternative technologies, in order to reduce the dust diffuse emission and vibrations and to increase the safety conditions.</p> <p>- <u>Atmospheric Emission</u>: All the industrial units fulfil the emission limit values of particles, NO_x, SO₂ and CO₂, established in the national law</p> <p>- <u>Noise</u>: minimisation measures had been implemented, in order to guarantee the adaptation of the acoustic conditions of the plants to the prescribed legal requirements</p> <p>- <u>Energy</u>: It occurred a global improvement of the plants at the level of the consumption of thermal energy and electric energy</p>
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2.3.4. ENVIRONMENTAL CERTIFICATION - ISO 14001 AND EMAS – EU Ecomanagement and Audit Scheme

Environmental certification by ISO 14001

Regarding the Environmental Certification, according to ISO 14001 of 1996, there was an accentuated growth of the number of certified companies, as presented in the following table, concerning the companies pertaining to the sectors of activity of eminent industrial character:

1996 ISO 14001 PORTUGAL	2001	2002	2003	2004
Mining and quarrying	0	0	4	12
Food products, beverage and tobacco	2	5	8	13
Textiles and textile products	10	14	18	31
Leather and leather products	0	0	0	2
Wood manufactures of and wood products	1	1	2	4
Pulp, paper and paper products	5	6	9	11
Publishing companies	0	0	1	3
Printing companies	0	3	6	7
Coke manufactures of & refined petroleum products	0	0	0	0
Nuclear fuel	0	0	0	0
Chemicals, chemical products & fibres	7	11	16	17
Pharmaceuticals	2	3	5	12
Rubber and plastic products	5	6	14	20
Mineral Non-metallic products	6	11	19	18
Concrete, cement, rasp, plaster etc.	3	3	9	11
Basic metal & fabricated metal products	8	13	26	28
Machinery and equipment	5	4	9	11
Electrical and optical equipment	10	19	22	33
Shipbuilding	0	0	0	0
Aerospace	0	0	0	0
Other transport equipment	6	6	14	18
Manufacturing not elsewhere classified	0	1	4	6
Recycling	0	1	0	5

TOTAL	70	137	186	262
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Source: ISO Survey 2001-2004

EMAS – EU Eco-management and Audit Scheme

The EU Ecomanagement and Audit Scheme (EMAS), instituted by Regulation (CEE) n.º 1836/93, of 29 June, and later amended by Regulation (EC) n.º 761/2001, of 19 March, is applicable to all sectors and taking into consideration the respective environmental impacts.

The adoption of EMAS implies a register, which demands from industrial organizations a higher environmental performance, if compared to the adoption of an Environmental Management Systems according to ISO 14001, once that register has to demonstrate the commitments and practices concerning the pollution prevention, the fulfilment of the applicable legal requirements in environment matters, as well as the continuous improvement of the environmental performance.

The following table presents a synthesis concerning the number of industrial companies that have registered to the EU Ecomanagement and Audit Scheme (EMAS).

NACE	Branche of Activity	N.º of Enterprises	Website
D17	Manufacture of textiles	4	www.fmoda.pt www.karmann.com www.sonicarla.com
D21	Manufacture of pulp, paper and paper products	2	www.storaenso.com www.renovaonline.net
D22	Publishing, printing and reproduction of recorded media	3	www.fterceiro.pt www.palmigrafica.pt
D24	Manufacture of chemicals and chemical prod	2	www.bluepharma.pt
D26	Manufacture of other non metallic mineral products	1	www.saint-gobain.com
D27	Manufacture of basic metals	1	-
D28	Manufacture of fabricated metallic prod., except machinery and equipment	2	www.mda.pt
D29	Manufacture of machinery and equipment, n.e.c.	1	www.bitzer.pt
D31	Manufacture of electrical machinery and apparatus, n.e.c.	3	www.efapel.pt www.coficab.com
D32	Manufacture of radio, television and communication equipment and apparatus	2	www.delphigrundig.com
D34	Manufacture of motor vehicles, trailers and semi-trailers	2	-
D36	Manufacture of furniture; manufacturing n.e.c.	1	-
E40	Electricity, gas, steam and hot water supply	1	www.pegop.com
TOTAL		25	

Source: Institute of the Environment, 07/07/2005

2.3.5. ECO-LABEL – Community Eco-Label Awarding Scheme

The Community Eco-Label awarding scheme, current disciplined through Regulation (EC) Nº1980/2000, of 17 July, is one of the tools of the Integrated Product Policy, and is based on a life cycle approach, taking into account the performance during the all life cycle of the products and services to which it is applied, with the aim to promote the adoption of sustainable production and consumption standards.

The System, intends to promote the development of products and services with reduced environmental impacts, during all the life cycle, compared to other products and services that fit the same use, and still to provide information to consumers and to guide them in their choices. The awarding of the European Eco-label to products and services, represents for the companies who withhold it a positive factor of differentiation, and implies also the recourse to innovation, to the adoption of "better practices" and to good management practices, indispensable factors to the reinforcement of the enterprise competitiveness.

In Portugal, it was awarded the European Eco-label to a set of products and services, in the sectors of the Indoor Paints and Varnishes, Textiles Products and Tourist Accommodation Service.

2.3.6. ECO-EFFICIENCY AND ENTERPRISE SUSTAINABILITY (CENDES/INETI)

CENDES is the Centre for the Sustainable Enterprise Development headquartered in the National Institute of Engineering, Technology and Innovation (INETI), which develops activity in the domain of the Sustainability and Environmental Management, with the following objective:

- Integration, at the enterprise management level, of the eco-efficiency and sustainability principles;
- Development of new concepts, methods and tools to implement sustainable development in the organizations;
- Promotion of the enterprise eco-innovation (technological and organizational);
- Creation of new competences for the sustainability.

In the time period between 2001 and 2005, CENDES developed actions belonging to the six following domains:

1. Cleaner production, Eco-efficiency and Value Analysis
2. Preventive Environmental Management Systems
3. Ecodesign/ Life Cycle Analysis
4. Production and Sustainable Consumption
5. Valuation of Waste Waters and Environmental Monitoring
6. Training and Information

2.3.7 ETHICS AND SOCIAL RESPONSIBILITY

The Social Responsibility of Companies is a subject whose external evidence to the enterprise organizations is relatively recent in Portugal, constituting the years of 2003 and 2004, the beginning of more significant developments in this domain.

Main Organizations related with RSE

- GRACE - Group of Reflection and Support to the Citizenship
- BCSD Portugal - Enterprise Council for the Sustainable Development/branch in Portugal of *the World Business Council for Sustainable Development (WBCSD)*
- RSE Portugal - Portuguese Association for RSE
- APEE - Portuguese Association of Enterprise Ethics
- ACEGE – Catholic Association of Businessmen and Managers

Some documents published in 2003/2004

- Portuguese version of the Guidelines GRI of 2002 – Guide for the Elaboration of the Sustainability Reports;
- Practical guide for RSE "First Steps", elaborated by GRACE;
- Study on the " Companies Social Responsibility. State of the Art in Portugal ", published by the Center of Professional Training for Trade and Similar (CECOA).

Standardisation

The Portuguese Association of Enterprise Ethics (APEE) is the Organism of Sectorial Standardisation (ONS) in the domain of the Ethics and of the Social Responsibility in Portugal, being the national representative in the International Standards Organization (ISO).

Important activities concerning RSE

- Two companies had been certified by the Standard "SA 8000" for Social Responsibility;
- About 25 companies had published its first Sustainability Reports;
- Inclusion in the contract type for the Collective Negotiation (by the UGT), of a clause on RSE.

Guidelines for the Multinational Companies

Portugal applies the guidelines to the Multinational Companies, constituting a set of voluntary rules applicable to this type of companies, having as aim to guarantee independently that these companies adopt responsible social behaviours, independently of the place where they act.

3. REFERENCES

ALE - Enterprise Localization Areas

Decree-law n.º70/2003, of 10 April, lays down the arrangement of the licensing of ALE

EMAS – EU Eco-management and Audit Scheme

Regulation (EEC) n.º 1836/93, of 29 of June, amended by Regulation (CEE) n.º 761/2001, of 19 March

<http://www.iambiente.pt>

Ethics and Social Responsibility

<http://www.cecoa.pt>

<http://www.sairdacasca.com>

<http://www.grace.pt>

<http://www.apee.pt>

<http://www.bcsdportugal.org>

<http://www.rseportugal.org>

DYNAMO – Promotion of the Textile, Clothes and Footwear Sectors

http://www.icep.pt/apoios/brochura_dinamo.pdf

Guidelines for the Multinational Companies

<http://www.icep.pt>

Directorate General for Enterprise
Ministry for Economy and Innovation

The licensing of the Industrial Activity

Decree-law n.º 69/2003, of 10 April, establishes the norms of industrial activity

Environmental value added (“Majoração Ambiental”)

<http://www.prime.min-economia.pt>

Measures of Energetic Politics

Resolution of the Cabinet of Ministers n.º 63/2003, of 28 April

Public-private Enterprise partnerships

<http://www.prime.min-economia.pt>

Program of the XVII Constitutional Government

<http://www.portugal.gov.pt>

Investments Program in priority Infrastructures (PIIP) – Guidelines and Strategy – Final Report – 29.Junho.2005

Luis Valadares Tavares (IST) and Manuel Victor Martins (ISEG)

PPCE-Program for the Economic Productivity and Growth

Resolution of the Cabinet of Ministers n.º 103/2002, of 26 July

Projects of Potential National Interest (PIN) and respective Recognition and Monitoring System

Resolution of the Cabinet of Ministers n.º 95/2005, of 24 May

POE/PRIME – Incentive Program to the Modernization of the Economy

<http://www.prime.min-economia.pt>

Eco-label

Council Regulation (EC) n.º 1980/2000 of the European Parliament and of 17 July, concerning a reviewed Community Eco-label award scheme.

<http://www.dgempresa.min-economia.pt>

<http://www.iambiente.pt>

Sustainability and Environmental Management

<http://www.ineti.pt>