



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG

# NATIONAL PLAN FOR INNOVATION AND FULL EMPLOYMENT

NATIONAL REFORM PROGRAM OF THE  
GRAND - DUCHY OF LUXEMBOURG

2005

**(Unofficial English translation)**

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Report by the Grand - Duchy of Luxembourg to the European Union

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### **Foreword**

The integrated guidelines below do not appear in this National Reform Program (NRP). Nevertheless, various related issues of the guidelines listed below are discussed in other parts of the NRP:

- Promote an efficient allocation of resources, which is geared to growth and jobs (3)
- Ensure that the development of salaries contributes to macroeconomic stability and growth (4)
- Strengthen the consistency of macroeconomic, structural and employment policies (5)
- Contribute to the dynamism and smooth operation of EMU (6)

## ACRONYMS

<b>ADEM</b>	Labor Administration
<b>CASES</b>	Cyberworld Awareness and Security Enhancement Structure
<b>CDA</b>	Development and Attraction Center
<b>CEDAW</b>	Committee on the Elimination of Discrimination Against Women
<b>DIRD</b>	Internal Expenditure for R&D
<b>EIG</b>	Economic Interest Grouping
<b>ESA</b>	European Space Agency
<b>FEDER</b>	European Regional Development Fund
<b>GDP</b>	Gross Domestic Product (PIB)
<b>GMI</b>	Guaranteed Minimum Income (RMG)
<b>ICT</b>	Information and Communications Technologies
<b>IMI</b>	Internal Market Information system
<b>IVL</b>	Integrated approach to transportation and spatial development
<b>NRF</b>	National Research Fund
<b>NRP</b>	National Reform Program
<b>PKI</b>	Public Key Infrastructure
<b>PRC</b>	Public Research Center
<b>R&amp;D</b>	Research and Development
<b>SQAP</b>	School Quality Action Protocol
<b>SMW</b>	Statutory Minimum Wage
<b>SNCI</b>	National Loan and Investment Company
<b>UdL</b>	University of Luxembourg

# INTRODUCTION

Luxembourg's growth and employment performances over the past fifteen years have very often been deemed exceptional. However, since the stock bubble burst at the beginning of 2000, the country's economic vitality has flagged, even though comparisons to adjacent countries have remained favorable. It is no longer possible to attribute weak economic performance solely to unfavorable conjunctions of circumstances in the economy. Structural transformation linked to globalization is progressively changing the rules of the game and imposes new restrictions.

Although Luxembourg is far from experiencing an irreversible crisis, a study of the foundations for long-term economic and also social development in the country is essential. A series of reforms, drafted through studies seeking national consensus, should provide a basis for adapting and increasing the longevity of the social model to which the inhabitants of the Grand Duchy are very rightly attached.

## **A Plan for Innovation and Full Employment**

The reform plan for the Grand Duchy of Luxembourg sets the basis for a genuine Plan for Innovation and Full Employment, which seeks to involve all participants of society with the country's social partners to the foremost.

Innovation and full employment are two equal, inseparable elements. All types of innovation - social, technological, environmental or structural - promote heightened productivity and allow for rapid progress. Innovation enables Luxembourg goods and services to attain a competitive position in European and international markets. Full employment provides the cement for lasting cohesion in social structures. Sustained growth is the motor for job creation. This reduces unemployment, which is the best antidote for insecurity.

The Plan for Innovation and Full Employment is fully compliant with the Lisbon strategy. Its aim is to arrive at a knowledge-based economy. Luxembourg must renew its link with the spirit of initiative, taking advantage of new opportunities while building on existing bases. In order to arrive at this, it is imperative that the country modernizes in all sectors. The tools of this modernization are innovation, transformation and integration.

The measures under review may require choices and difficult decisions. The Government is nonetheless confident that by applying the strengths cultivated in the past to the challenges of the future, Luxembourg will fulfill its eminent ambitions.

The services sector, particularly the financial services sector, has been the most powerful force behind growth over the last twenty years. Performance in this sector has caused both the economic and social structural landscapes to evolve. Luxembourg must continue to diversify its productive base. It should specially promote the development of new areas of industry by implementing advanced technology.

The economic success of Luxembourg over recent decades is also the success of its social model, which is based on seeking social cohesion within an open and diverse society. This objective will not be compromised; in fact the intent is to guarantee the access of the greatest number of citizens to this social model, not only today but tomorrow as well.

Competitiveness is an instrument; it is not an end in itself. As defined in Luxembourg, “*competitiveness consists in an increase of productivity at the same or a greater rate than that of its principal trading partners having similar development levels*”. While remaining true to the Lisbon strategy, the Plan aims to achieve more than strictly economic success in terms of innovation and full employment. The ultimate objective of the Government is to achieve and maintain a high and sustainable quality of life for the population of the country. Economic competitiveness will consequently be a tool for men and women living and working in Luxembourg. These are the key principles that have guided the drafting of this Plan.

### **Objectives and priorities in preparation for an information society**

**Innovation** and the elimination of artificial barriers will stimulate the development potential of companies. By connecting the world of research and corporate entities to a network, SMEs especially will be encouraged to delve into innovative processes. The Government will provide an attractive framework for this type of activity. Public and private research will be encouraged to diversify and to take on a national, regional and European dimension.

With its objective of **full employment** sharply in focus, the Government will ensure the participation of the greatest number of people possible in the working world. It will seek to match family and professional life to the greatest extent possible. All portions of the Guidelines are to be implemented using as the underlying principle an integrated approach promoting equality between women and men. The steps being taken on the strength of the Plan promote the insertion of unemployed persons into good jobs and keeping career paths of working people secure, while simultaneously maintaining the critical adaptive capabilities of companies.

The degree to which our society is competitive is played out mainly in our schools, through high quality **education and training**. Whether through professional training or university studies, Luxembourg will intensify its efforts to train responsible people who are prepared to fully assimilate the working world. It will also ensure that just value is attributed to professional experience by providing appropriate training throughout the working lives of its citizens. The country will maintain its competitiveness by relying on the expertise of men and women living and working in Luxembourg.

The Government will ensure that the **integration of Luxembourg’s economy** into the European and world economic structure will continue by taking advantage of the wide range of opportunities available through globalization.

The Government will maintain an **attractive economic environment** through dialogue, for both local business entities and those that it hosts within its borders. It will support economic development by making high quality infrastructure available to all. Here it is appropriate to acknowledge the role of cities as motors for sustainable economic development and to give credit to the specificities of the cities of Luxembourg as idea and activity centers in the area of innovation and research. Cities also provide the guarantee of consistent urban development upon which ultimate work and living settings are based, a factor of evident importance to economic development.

It is the responsibility of the Government to offer a **stable macro-economic environment** to economic players as an essential condition to pursuing high and non-inflationary growth. Luxembourg will implement an active budget policy while guaranteeing balanced public financial conditions in the medium-term, in conformity with

the Stability and Growth Pact. It will maintain a high level of public investment while improving efficiency and effectiveness.

The principles of a **sustainable development** will form the basis of the Government's political initiatives. Indeed, economic development cannot be seen as a matter apart while Luxembourg's population is growing steadily, and while it hosts tens of thousands of cross-border workers whose numbers continue to grow. It is therefore necessary to provide integrated solutions to numerous issues facing the nation, the regions and communities with regard to land use planning, transportation, housing and the rational use of natural resources. In this area it is critical to link communities with the guidelines and implementation of the Plan. The town reforms will contribute to optimizing decisional structures and create economies of scale on the local and regional levels. The reform of Luxembourg towns will occur by means of the tools for supra community cooperation and by developing regional plans with the participation of various constituents.

In order that the full effect of the reforms and the impact of public policies implemented through the Plan may be evaluated, a "Competitiveness" scoreboard has been drawn up with the close collaboration of social partners. This reporting system is based on the structural indicators of the Lisbon strategy.

#### **The fruit of extensive consultation on the national level**

It came out at the European Council meeting held in March 2005 chaired by the Luxembourg presidency that one of the main obstacles to achieving the Lisbon strategy has been a certain national inability to seize upon the goals and ambitions outlined in that document. In order to rectify the situation, the Government of Luxembourg has ensured that the Plan for Innovation and Full Employment plan resulted from wide consultation and concerted action.

Luxembourg's lengthy tradition of social dialogue made it natural that representatives of the social partners actively participate in the drafting of the Plan, the initial phases of which date to 2003. The Chamber of Deputies also closely followed the drafting process, and the final version of the Plan was debated in a plenary session.

Consequently, the principal tenets and specific measures outlined in the national plan were determined in the framework of an extremely wide consultation effort between the executive and legislative branches, as well as with other public authorities and the nation's social partners. In addition to the economic players, the Government will invite the whole of Luxembourg to participate in the modernization effort currently underway in the country.

If the goals set by the Plan for Innovation and Full Employment are to be achieved, a significant modernization of the country must occur. The adaptation process required for this will not necessarily be easy. The Government remains nonetheless entirely confident that the commitments undertaken together with all social partners and the representatives of the population will strengthen confidence in the future of the country's social model. The challenges faced by society, the economy and the environment can be overcome and even offer new opportunities for growth and employment.

# 1. BROAD ECONOMIC POLICY GUIDELINES

## *A. Macroeconomic policies for growth and jobs*

### **LDI 1: Guarantee the economic stability for sustainable growth**

Since 2004, the public budget balance has begun to worsen. While in 2004, the budget deficit amounted to 0.6% of GDP, better than initially predicted, in 2005 the budget situation continued to deteriorate and the nominal deficit could reach 2.3% of GDP, while it would be -2.1% of GDP when corrected for the impact of the business cycle.

In accordance with the reformed Stability and Growth Pact, Luxembourg will present a medium-term budgetary objective of -0.8% of GDP corrected for fluctuations in the economy and accounting for temporary or unplanned measures, in its seventh update of its stability plan. This medium-term objective reflects the low rate of public indebtedness and the high potential of growth compared to European Union and Euro zone averages. It also maintains an adequate security margin with respect to the benchmark of -3% of GDP.

The Government is clearly committed to implementing the consolidation measures required to rapidly achieve its medium-term budgetary objectives. The draft budget for 2006 is an important initial phase since the public budget deficit should fall from 2.3% in 2005 to 1.8% in 2006. Improvements of a similar scale will be required for 2007 and 2008 and consolidation is not restricted to the central government apparatus, extending to town budgets as well.

In addition to the short-term consolidation measures presented in the 2006 budget, the Prime Minister announced additional structural consolidation measures in his statement of 12 October 2005 concerning the Government's political priorities. These structural measures will mainly concern social expenditures, but will not be limited to them. In fact, the Government has announced that it will seek a fundamental re-evaluation of government action priorities and a reallocation of budget resources in order to achieve its strategic goals, while bolstering budget constraints.

Between 2001 and 2004 the Government reacted to the economic slowdown by implementing an accommodative and counter-cyclical policy. At the same time, the Government maintained an extremely high level of public investment in order to establish guidelines for economic recovery. The effort to consolidate public finance is therefore also pursuing the strategic goal of making private sector initiatives the main driver of economic activity with a view to generating balanced and sustainable growth.

**Table 1: Budget Situation of the Public Administration**

As a % of GDP	2003	2004	2005	2006
	<b>Financing balances by sub-sector</b>			
Public Administration	0.2%	-0.6%	-2.3%	-1.8%
Central Government	-1.7%	-2.5%	-4.2%	-4.1%
Local Administration	0.0%	-0.1%	0.0%	0.3%
Social Security	1.9%	2.0%	1.9%	2.0%

Source: Draft Budget for 2006

## **LDI 2: Safeguard economic and budgetary sustainability, a prerequisite for more jobs**

Luxembourg is in a generally favorable position for meeting the economic and social challenges of the future, one of the greatest of which is the aging of the population, a phenomenon somewhat attenuated by immigration and a relatively high birth rate. Unemployment is low, there is continued strong growth in employment, public finance is sound and pension coffers have large reserves, over 25% of GDP.

The high degree of funding by taxation of the social security system, by which the State, contributes approximately one third of its funding, enables the system to provide a generous and universal system, while keeping other tax pressures on the labor factor low, allowing better conditions for job creation.

Nevertheless, the longevity and inter-generation equity built into the social security system, which is essentially a pay-as-you-go scheme with strong reserves, depend on strong economic growth in the long term ( $\geq 3\%$  per year), while expenditures for health care and an ageing population exert additional stress on the ability to maintain the social security system.

The Government will continue, as in the past, to adapt the social security system to the social requirements of the population. It will guarantee the population adequate and high quality services while providing for the financial viability of the social security systems. The system in Luxembourg is essentially based on the job status of insured persons. For this reason the Government attaches particular importance to proper co-ordination between employment and social security policies and promotes integrating people into the labor market and keeping them employed.

Changes in the financial situation of the health scheme in Luxembourg require that concrete measures be adopted in a concerted fashion in order to maintain financial equilibrium. Rather than to cast doubt on the issues of free access to the system and its character of joint financing, all parties have agreed to work in a spirit of solidarity to guarantee the longevity of the social security system. In this framework, measures have been adopted in all areas, including prevention, early detection, information, quality, quality control and control criteria, as well as sanctions when abuse of the system occurs and is duly verified. This has been done to inspire change in user attitudes and a sentiment of responsibility for both active and passive players, purchasing advisors and service providers, beneficiaries and financiers of the health care system. The action plan for the health care and health insurance systems seeks to analyze what possibilities

exist for adapting it to ensure both progressive improvements in quality care and financial equilibrium of the health insurance system.

With regard to pensions, steps have been taken recently to improve the financial situation of the general pension scheme. A new law was enacted in 2004 that allows for investing assets of the general pension scheme in a strategic fund aimed at maximizing returns. In addition, tax incentives have been introduced over the course of recent years that promote complementary pension schemes and individual retirement savings plans. The current actuary status of the general pension scheme, to be presented at the end of the current coverage period, will provide the occasion for discussing ways to prolong the long-term viability of the system.

Consequently, the Government has announced a wide-reaching review of social transfers and the manner in which social services are financed in its statement regarding political priorities. This review will be carried out in full collaboration with the nation's social partners. Following talks with the social partners, the Government will produce an overall strategy for guaranteeing the longevity of the social security system by mid-2006, that will maintain a judicious balance between intra-generation and inter-generation equity.

## ***B. Microeconomic reform aimed at increasing growth potential***

### **LDI 7: Increase and improve investments in research and development, in particular in the private sector, with a view to establishing a European area of knowledge**

According to a 2005 report drawn up by Luxinnovation GIE, the national research and innovation agency, the majority of input indicators, including innovation expenditures, number of researchers, employment in high and medium-high level technology, R & D expenditures and government subsidies, put the Grand Duchy at the rear, or at best in the middle, of the pack of E.U. member states. On the other hand, output indicators such as productivity and patent applications are more favorable, save for the highly indicative figure showing the share of new products in overall sales.

It is important to note that several large players dominate the private R&D landscape in Luxembourg who rely heavily on the allocation of resources from large, multinational entities.

In concrete terms, growth objectives of the Internal Expenditure for Research and Development will go from 1.8% of GDP in 2004 to 2.4% of GDP in 2008 and will exceed 3% of GDP in 2010. Researchers per 1,000 jobs will rise from 6 in 2005 to over 10 in 2010.

In order to **bolster and expand R & D facilities**, the Government will:

- Promote the expansion of private research centers and the development of infrastructures for public research in a limited number of state-of-the-art areas, such as plastic materials and plastics, production processes and treating or coating of

surfaces, automobile applications, information technologies and communications, environmental technologies, logistics, biotechnology, law, economics and finance

- Pursue the goal of obtaining the best possible fit for the requirements of the country in medium and long-term science and technology skills and future development paths.
- Increase promotion activities abroad for establishing public and private R&D activities and centers, mainly in the domains listed above
- Use the instruments cited in the 27 July 1993 law benefiting the creation of private R & D facilities
- Review the tax incentive related to R&D investments.

#### In the area of **increasing the pool of human resources**

- In the short-term, the Government will:
  - Ensure that the pool of human resources originating within the country is increased and becomes more mobile, through the promotion of science and technology, and with a special attention given to the training of young teachers in order to arouse the future researchers' interest starting from the youngest possible age
  - Promote immigration of researchers (especially at the master, PhD and post-doctorate level) and technically skilled personnel, including persons from outside of the E.U. This will be done by means of facilitating work and residency permit acquisition processes for researchers and their families, at the request of in-country employers (intra-group mobility), of the University of Luxembourg and the Public Research Centers (PRC). It will also encourage the anchoring of R&D skills in Luxembourg by offering dual nationality status.
  - Transpose without delays the directives related to the labor market access of university students and researchers, and look after a faster homologation of foreign diplomas based on the BMD (Bachelor, Master and Doctorate) cycle as it is planned by the Bologna process
- In the medium-term, the Government will:
  - Promote mobility between sectors and between public and private entities by means of simultaneous opening of the public sector to persons not having Luxembourg nationality
  - Enact changes in legislation and regulations concerning work and residence permits to allow adaptation to new economic conditions.

#### In order to **increase R&D actions,**

- With regard to the public sector, the Government, based on the conclusions of a prospective to be published by the *Fonds National de Recherche (FNR)*, on a review analysis by the OECD on Luxembourg's public research apparatus and its links with the private sector, semi-annual development programs of the PRC and the University of Luxembourg and on economic development priorities in the various sectors of the economy, will ensure the following:

- A coordinated approach in determining the implementation of public research in Luxembourg in a limited number of areas and will provide financing on the basis of clearly stated strategic and operational objectives
  - The specialization of PRC facilities into centers with specific skill sets in a limited number of activities while providing appropriate investment levels
  - Complete preparatory work for the development of Science, Research and Innovation parks on the industrial wasteland of Belval West, consolidating some infrastructure of the University of Luxembourg as well as that of various PRCs, with the goal of creating a genuine technological campus to promote public-private partnerships.
- With regard to the private sector, the Government will:
- Support the continued general trend of increased public expenditures benefiting private R&D projects by vigorously publicizing a message of partnerships and support. These resources should be augmented by consulting and information efforts.
  - Introduce additional instruments to stimulate the R&D effort in companies, especially SMEs, either to develop their own R&D resources and skills or to step up efforts to contract outsourced expertise.

In **promoting strategic fits and synergies between public and private R & D capabilities**, the Government will:

- Ensure the development of genuine skill centers growing within the University of Luxembourg and in the PRCs in priority sectors and on the basis of a public-private partnership model containing processes for linking the private sector with mission statements and research agendas as well as the management and financing of skill centers
- Implement efficient co-ordination between financial support mechanisms for public (Research FNR) and private R&D projects, in order to supervise the creation of common skill sets and to co-finance shared R&D programs and projects in a spirit of adherence to E.C. provisions relative to government subsidies
- Task Luxinnovation GIE with leading and providing efficient management of technological clusters and platforms, in a wider context of public-private partnerships involving the University of Luxembourg and the PRCs
- Set up monitoring committees to supervise the activities of the technological clusters, which will be made up of experienced corporate and public and private sector research professionals, whose mission will be to leverage, involve in structural discussions and generate sustainable commitments in a greater number of companies
- Motivate the Luxinnovation GIE, the University of Luxembourg and the PRCs to strengthen their prospective partnerships to obtain effective information about technological expertise available in the Grand Duchy from companies, and emerging needs in the domain.

## **LDI 8: Facilitate all forms of innovation**

To reach its objective of obtaining tangible results in terms of creating and developing companies, increasing growth and employment and hoisting the nation to the ranks of the leaders in the field of R&D, the Government will provide new vigor to the innovation process that will lead to heightened intensity of innovation efforts in existing companies and create new innovative companies - around 15% of all new industrial operations created - leading to several thousand new jobs by 2010. To this end, the Government will set out and implement a multi-year nationwide program promoting innovation and the creation of companies, dubbed PNIC.

To **promote investment in R&D and innovation**, the Government will launch an initiative entitled "Innovation Alliance", committing companies to a proactive process stressing the aspects of innovation management, to spur multi-year innovation programs that stipulate goals and human and financial resources to be implemented.

To **promote intellectual property rights**, the Government will:

- Continue to make companies and the general public aware of the importance of intellectual property and strengthen its efforts of fighting plagiarism
- Improve access to information concerning patents through the digitizing of national patents and simplify recording procedures

To **strengthen national and cross-border cooperation between companies and research establishments**, the Government will:

- Encourage the development of technological clusters existing in public research facilities in Luxembourg and, if needed, in the Greater Region, as well as their collaboration with similar initiatives outside of the country
- Reinforce supervisory resources of technological clusters with a view to providing greater efficiency and better structuring of work
- Carry out studies on the creation and supervision of new technological clusters in priority areas of economic development such as biotechnology, ecology technologies and logistics
- Increase the promotion of European R&D programs such as PCD, EUREKA and ESA, by introducing a program called "Horizon Europe" that is intended to encourage companies to participate in setting up projects involving international collaboration. It will also analyze allocations of aid within the context of carrying out R&D cooperative efforts
- Ensure that the Economic Activities Zone sector plan contributes to the creation of centers of innovation and research.

To **promote the creation and development of new companies**, the Government will:

- Continue to promote entrepreneurial spirit within companies through its own initiatives and supporting various private initiatives
- Encourage the implementation of programs through a chair in entrepreneurial projects with particular emphasis on SMEs, the internationalization of SMEs and intra-entrepreneurial projects within large corporations at the University of Luxembourg that would take the form of public-private partnerships. It will also support managerial and even entrepreneurial training modules in the curricula of the Science, Technology and Communications department of the University.

- Intensify its search for high tech investors abroad with a view to attracting them to Luxembourg
- Encourage the SCNI and other financial establishments in the marketplace to increase funding to CD-SMEs with a view to taking on more risk and increasing the scope of such financing
- Examine other tax options to attract investments for new, innovative companies
- Promote working through networks, especially the Government - SNCI/CD-PME - Luxinnovation triad and the Chamber of Commerce, which specialize in subsidies for creating innovative companies
- Maintain its support of the Technoport Schlassgoart and expand accommodations for start-ups in the Ecostart I complex in Foetz and in the Ecostart II national incubator at the *Cité des Sciences* in Belval-West, based on the conclusions of the Inno-Tsd feasibility study ordered by the Government in June, 2002 and provide adequate human and logistical supervision..
- Facilitate the immigration of scientific and technical skills to provide human resources to advanced technology companies
- Facilitate access of E.U. nationals with scientific, technical and administrative skills to public administration jobs.

### **LDI 9: Facilitate the spread and effective use of ICTs and build a fully inclusive information society**

While Luxembourg possesses high quality infrastructure and is ranked among the leaders in the world in terms of market penetration of IT and communications tools, the country nevertheless does not seem to be among the leading students in the class when it comes to using the extensive Internet resources available.

Luxembourg, where 59% of households are connected to the net, easily surpasses the E.U. average of 38% of households using the Internet. The country's 90% corporate use rate also exceeds the E.U. average of 89%. However, high-speed access was not introduced until 2001 and by 2003 only 16% of households used this product. In 2004, 28% of households were using broadband, while in the same year over half of the country's companies, 54%, used it, just under the average use rate of 58% recorded for the E.U.

In terms of e-commerce, 18% of the population had made purchases or conducted transactions in 2004, while 17% of companies used the Internet to secure a part of their 2003 sales.

Just how widespread e-commerce actually is in Luxembourg depends not only on connectivity but also on the confidence of consumers in the system. Getting e-commerce certified and creating a public key infrastructure for electronic signatures will certainly augment net-based transactions.

Most government portals and sites are for information only. Interactive or transaction-oriented sites such as e-TVA or INTRASTAT are increasing constantly in number.

The Government seeks to make the Grand Duchy a first choice destination for using IT and communications technology, both on the corporate and consumer levels.

The Government fully supports Objective 1 of the E.U. initiative i2010, which seeks to develop a unique European information area that offers secure and affordable communications and first class diversified content as well as digital services. It will ensure that no obstacle to the development of networks will exist from either a regulatory or technical viewpoint, or to the flow of information, including toward rural regions.

In order to **make ICT use widespread by all players in the economy**, the Government recommends the following:

- Awareness, information and assistance mechanisms for all parties, to include a single-window interface for companies and private citizens and ICT project methodologies for the Government.
- Implementation of a nationwide plan for security of information networks. This includes CASES type awareness projects for private citizens, SMEs and administrative bodies to handle higher risks related to network security. The LUXTRUST project seeks to implement a public key infrastructure (PKI) for electronic signatures with online transactions, including business with government entities such as VAT issues, tax returns and registration and validation actions.
- Using ICT to simplify administrative formalities thus reducing administrative workloads for companies.

In order to **develop high performance and fully integrated infrastructures in international electronic communications networks**, the Government recommends the following:

- Rapid development of broadband and cellular networks, especially 3G networks. These must be made rapidly available to companies and set up with competitive pricing. They should feature the new regulatory framework with competition rules, modernized networks and accelerated connectivity to main European hubs, as well as a regulatory framework for 3G networks
- Adopt a proactive approach to managing radio electric spectrums. Develop innovative uses of radio frequencies in the area of wireless connections, identify new frequencies for innovative operators, and make maximal use of capacity freed up by transition to digital space, keeping in mind that the move to digital terrestrial television is planned for 2007 and that the cable network operators are being urged to abandon analog transmission by 2010.

The Government **will ensure that regulatory requirements applicable to the media will be adopted** so as to promote the circulation of content independent of the technology being used, be it transmission by radio or Internet.

In order to **vigorously promote Luxembourg's presence in ICT and electronic business**, the Government recommends the following:

- Promote Luxembourg as a destination for ICT, electronic commerce and content companies
- Promote high quality security and overlay infrastructure;
- Permanently improve basic legal, regulatory and administrative prerequisites
- Facilitate access to human expertise by providing work permits and residence cards

## **LDI 10: Strengthen the competitive advantages of Europe's industrial base**

In Luxembourg, the development of the industrial base has lagged so far behind services that its contribution to GDP and to employment is at an all-time low. Yet the role of a strong, exporting industrial base as a motor for the rest of an economy remains an undeniable fact.

While guaranteeing an optimal coordination and integration between the sectors that determine the most the spatial development and the soil occupation, and in agreement to the transversal approach dictated by the IVL, the "industrial waste land" can also be developed.

The goal of Luxembourg's industrial policy should be to provide a first class presence among others in markets of the future with companies capable of competing on a world scale. This goal requires that a highly efficient industrial sector exist, and that this be combined with a will to implement structural change proactively through innovation and competition.

In this context, the Government **will promote the following:**

- **Better understanding of Luxembourg's competitiveness** through sector-based analyses and scoreboards (competitive poles). With regard to improving information about Luxembourg's competitiveness, the Government will be investing in sectors of the future by carrying out more thorough studies on competitiveness within sectors as well as indications in the following sectors: electronic commerce and ICT, financial clusters, logistics, biotechnology and industry.
- **Bolstering the concept of a knowledge-based society** through investments in the science base, in skills, innovation, productivity and entrepreneurial activities, as well as in host infrastructures, with special attention given to the training of young teachers in this field.
- **A more flexible labor market** that reacts more smoothly to requests from companies. The Government will allow supervised access to the labor market to nationals of the ten new Member States of the European Union. It will ease access to the Luxembourg labor market for qualified persons, to jobs in the government and in public organizations for European Union nationals, it will involve the private sector more in training young, unqualified workers under the age of 25 by introducing a mandatory minimum training wage by means of an SMW allowance, depending on the training. It will also immediately switch directives concerning access to the labor market for university students as well as researchers
- **An environment that promotes competitiveness by means of reducing the overall administrative workload**, simplifying the existing regulatory framework and making systematic evaluations of the impact of competitiveness on legislative and regulatory proposals.

## **LDI 11: Encourage the sustainable use of resources and strengthen the synergies between environmental protection and growth**

The sustainable development principle requires economic growth, environmental protection and social security that do not endanger the goals of future generations in these areas.

Ignoring or addressing environmental issues such as climate change and atmospheric pollution too late risks harming life quality and leading to irreversible environmental damage and generates rectification costs that are significantly higher than those of preventive measures. This stymies economic growth and exerts a negative effect on public treasuries.

The Government believes that environmental protection and rational use of resources presents an economic opportunity. The tool used in the “Activities Zone” sector plan can guarantee a connection between economic and environmental objectives. The concepts of environmental protection and competitiveness are not conflicting efforts, but rather complementary efforts that can result in a win-win situation.

### **Promote a balanced environmental policy**

The Government will make the following principles priorities:

- Improve the “Kyoto Balance” by striving to contain emissions of greenhouse gases to the maximum degree, by means of an action program to fight climate change and by applying the gas emission quota exchange system. The proposed paths to follow are based on both consistency of policies and formal studies. One possible way of financing the cost of fighting climate change using tax tools would penalize behavior that shows no respect for the environment. For example, a modulating tax will be considered for private vehicles depending on the quantity of CO<sup>2</sup> emitted per kilometer and the pollution rate of fine particles.
- Remove the link between economic growth and environmental pollution:
- By offering tax incentives, state aid and subsidies that reward behavior that is sensitive to environmental and natural resource issues
- By considering the adaptation of tax laws with a view to internalizing negative externalities and progressively instituting a price system that reflects the true cost of certain natural resources.
- Pursue the objective of halting the loss of biodiversity between now and 2010, by means of the National Plan for the protection of nature and grants <sup>1</sup> for maintaining biodiversity and ecological functions in agricultural activities.

### **Promote a competitive energy policy**

The Government will make a priority of efficient energy use, of developing new (co-generation concept) and sustainable energy sources, especially renewable sources, and the rapid spread of eco-efficient technologies that observe environmental protection practices. These measures are fully compliant with current Community energy policies.

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<sup>1</sup> See the grand-ducal regulation dated 22 March 2002 instituting a grants scheme for safeguarding biological diversity

At the national level, it can only be beneficial to count on rational use of energy, energy efficiency and promoting new and renewable energy sources. This approach allows us to reduce our energy dependence and, coincidentally, improve security of supply. Reducing energy imports and developing proprietary sources also affords the opportunity to attract and create manufacturing and services companies that innovate in the areas of renewable and energy efficient sources, and therefore to generate new jobs in a local market that is sheltered from possible relocation of the industry.

### **Promote eco-efficiency**

Energy and environmental policies must be observant of both ecological and economic interests and are therefore evaluated according to the concept of eco-efficiency.

In view of the relatively stringent standards required by the administration with regard to operating use permits, indicators for energy intensity, waste disposal or environmental certification of sites indicate that Luxembourg has relatively high marks in eco-efficiency or, at the least, in comparison to the Community's average. Nonetheless, the high rate of growth in the economy and the population several years ago, as well as the amount of fuel purchased represent true challenges for determining eco-efficient policies.

The policy adopted in the area of electrical production from renewable energy sources and cogeneration processes have had a significant impact on medium voltage customers in the corporate world recently. Electricity costs have increased noticeably for these companies because of the compensation fund.

The Government will maintain a high level of environmental protection at an optimal economic cost by setting out eco-efficiency goals such as:

- Promote the rational use of energy in industrial production, transportation and in the residential sector, to include eco-efficient public and municipal buildings
- In the medium-term, formulate a new energy policy that accounts for supply, competitiveness and eco-efficiency requirements that is based more on market instruments
- Utilize all the possibilities of renewable energy: production and use
- Draw up a program benefiting bio-fuels such as wood and other vegetal substances
- Promote R&D, innovation and production of eco-technologies, products and services, and promote new technologies for eco-efficient production for both the protection of the environment and for energy. Possible instruments for this include the following:

- Measures benefiting "green marketplaces", by means of public markets and grants or subsidies, as initiated by the grants scheme for energy economies and the use of renewable energy, will be considered (See grand-ducal regulation dated 3 August 2005 instituting an aid scheme for physical persons in the area of promoting the rational use of energy and the valorization of renewable energy sources). Also under consideration are incentives for supporting ecological initiatives (See grand-ducal regulation dated 3 August 2005 instituting a bonus for ecological promotion through electrical production from windmills, hydraulically, through biomasses or using biogas). Subsidies for energy audits will be analyzed as well

- Restructure or rationalize various grants having a direct or indirect impact on the spread of environment-friendly technologies, promoting eco-technologies or the rational use of resources in a framework setting precise objectives in this area will be restructured or rationalized
  - Public-private synergies in research and innovation will be strengthened
- Improve the transparency and predictability of rules applicable for environmental protection by means of a more systematic consultation of pre-established standards and of checks on whether the standards are being adhered to.

Most of the actions cited above are in accordance with the major guidelines stated in the Action Plan in favor of Environmental Technologies (APET) set out by the European Union.

In order to attain environmental technologies objectives, the Government will implement a series of measures that either encourage or dissuade certain types of behavior:

- Continue to promote voluntary reduction of consumption with the major sectors of the economy
- Encourage increases in use of public transportation, in particular by improving service and discouraging use of private vehicles
- Implement a nation-wide program in the area of energy savings in the residential sector that will accentuate investments in energy savings (as with the modification to grand-ducal regulation dated 28 November 1995 concerning thermal insulation in buildings) and energy substitution through new and renewable energy sources

With regard to promoting the production of environmental technologies and eco-efficient products and services and new production technologies, the Government will do the following:

- Continue to apply instruments benefiting expenditures and investments for environmental protection
- Encourage R&D and innovation in environmental technologies and products and services, especially in alternative energy sources
- Carry out an analysis to identify the areas in which Luxembourg could develop eco-technologies and products and services, including efficient use of energy and the promotion of new and renewable energy sources

With regard to improving the transparency and predictability of environmental protection rules, the Government will evaluate the country's standards in concert with the concerned organizations and measure them against current and future E.U. standards.

### **Promotion of sustainable patterns of consumption**

While industry plays a primary role in using resources in a sustainable fashion, individual consumers wield significant purchasing power as economic players and are capable of providing positive support to the efforts of companies in the use of resources.

The heightened awareness of individual consumers with regard to patterns of production of goods and services available is well known. The Government has already carried out

actions to promote sustainable patterns of consumption. In the future, the Government will:

- Pursue information programs aimed at giving an additional sense of responsibility to consumers to attain sustainable, ecologically sound and equitable consumption patterns with regard to third world countries
- Expand the scope of the process currently in effect, keeping to information printed on labels and to other domains with a view to exploring the possibility of actions intended to educate young people in the area.

## **LDI 12: Extend and deepen the internal market**

### **Promote accurate and timely transposition of directives and proper functioning of the internal market**

Luxembourg has traditionally been a poor performer in the area of transposing directives to national legislation and remains far behind in its intermediary objective of reducing to a 1.5% deficit as set by the European Council in 2002. The transposition deficit went from 3.2% to 4% in 2005, resulting in Luxembourg occupying the 24<sup>th</sup> rank in the E.U. Likewise, the number of directives not yet transposed that are currently the subject of an infraction procedure went from 24 in 2004 to 70 at the current moment.

The Government has decided to monitor the volume of European Community legislation to be transposed more rigorously. The Government needs to send a strong signal to turn this trend around and attain objectives set at the Community level. In addition, using the Commission recommendation of July 2004 concerning transposition into national legislation of directives impacting internal markets as a reference, it must:

- Ensure improved co-ordination of transposition to the national level, by implementing an Internal Market Scoreboard and co-ordination meetings
- Acquire the resources necessary to meet the growing need for transposition and carrying out the National Council reform
- Notify Parliament and the Government when deadlines have been missed
- Bolster communication upstream regarding proposals for directives, especially with the Parliament
- Refrain from adding conditions and requirements in national implementing measures that do not directly support the ends of the directive being transposed
- Evaluate existing national implementing measures in the framework of administrative streamlining
- Set up closer cooperation between involved parties for preliminary analysis of directive proposals dealing with Internal Markets in order to prepare the way for the eventual transposition of the directive
- Appoint a national coordinator for transposing directives within the country
- Make focused use of the SOLVIT and IMI (Internal Market Information Systems) instruments

### **Promote open, transparent and non-discriminatory public procurement markets**

Public procurement processes on line will improve, through better information and heightened transparency, the application of European and national regulations relating to procurement. Administrations will have a wider choice of bidders and there will be

better quality-price ratios for taxpayers because administrative costs on bidding companies will be reduced.

In the electronic procurement market, the Government will:

- Pursue its project of getting procedures relating to government procurement on line
- Adapt procedures as required

### **Take advantage of the growth potential in the services sector**

In Luxembourg, the sector's weight in total GNP and employment is slightly over 80%. Through their changing and multiple characters, services offer remarkable growth and employment potential. This potential however, remains stymied by a large number of obstacles to cross-border trade<sup>2</sup>, which affect confidence in companies and citizens.

The European Council has repeatedly stressed the importance of a fully operational internal services market in order to achieve the Lisbon objectives. To this end, the Commission put forth a proposal for a directive in January 2004 concerning services in the internal market that is currently in the European Union review process. It should be noted that the services covered by the scope of this proposal represent about 30% of GNP, according to the calculation method used<sup>3</sup>.

In view of the exceptional proportion of services comprising Luxembourg's economy and the country's significantly specific geographic situation, the country fully supports the objective of creating a true interior market for services. It is nevertheless appropriate to ensure that Luxembourg's social model is preserved and that sensitive sectors including services of general interest and health services be excluded from the effort. Furthermore, the directive must take full account of the particular nature of services of general economic interest (SEIGs), which are extremely important to the people of Luxembourg. The principle of national origin, which the Government supports, must not impact labor law. The application of the labor law must remain strictly territorial, in conformity with existing directives. The Government will consult with the social partners regularly throughout the evolution the directive undergoes in the legislative process.

With regard to the proposed directive concerning internal market services, the Government intends to:

- Pursue coordination efforts at the national level by linking all the ministry departments with the social partners
- Fully support the legislative work in progress so as to improve the proposed directive and to obtain wide consensus on it, with a view to guarantee that it will have no negative impact on the social model, will not apply to sensitive sectors such as the services of general interest and health, will take full account of the particular nature of SEIGs and will not impact labor laws
- Carry out discussions for obtaining a fully operational internal market for services keeping the benefit of citizens and companies in mind

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<sup>2</sup> Commission report on the status of the internal market for services (COM(2002) 441 final)

<sup>3</sup> This is especially true after exclusion of the financial services, transportation and communications sectors, which are not included the scope of the proposed directive on internal market services.

## **LDI 13: Ensure open and competitive markets inside and outside Europe, reap the rewards of globalization**

Luxembourg has taken on new institutions responsible for ensuring that competition remains fair on the markets. The main institution of this type are the Competition Inspection and the independent Competition Council, which intervene in cases of failing to observe legislation pertaining to free price formation, with the objective of interdicting private arrangements and abuse of dominant position in markets.

Free competition policies also require awareness campaigns directed at all economic players involved in competition and the regulatory structure must be updated. Detailed analyses will be carried at the sector and professional levels to identify competition restrictions and submit recommendations to the Government

A selective review of markets and regulations will be made to detect and remove any obstacles to competition and market access, in conjunction with regulatory bodies in such sectors as telecommunications and energy or banks and insurance.

## **LDI 14: Create a more competitive business environment and encourage private initiative by improving regulations**

### **Carry out impact studies**

The Government will make a priority of simplifying administrative formalities that impede progress in companies, in particular SMEs: a National Committee for the simplification of administrative processes in favor of enterprises (CNSAE) has been set up. Its objective is to identify and propose measures aimed at improving competitiveness of companies and in the economy in general, while putting value on integrated administrative approaches that have been proven efficient and necessary. The Government will proceed as follows:

- Initially, it will perform an analysis of current standards and produce a list of those presenting the greatest administrative obstacles by analyzing the situation with organizations involved. It will do so by presenting the current status of the administrations involved and establishing an action plan based on the preceding points.
- Secondly, it will carry out an impact analysis on draft legal and regulatory texts.
- Next it will propose analytical systems or methodologies to apply to the new texts containing administrative workloads for companies. It will base its actions on ongoing Community projects in this field, such as the impact study or the standard cost model (SCM)
- Finally, it will propose an analysis of an administrative simplification model that will benefit companies.

### **Analyze administrative procedures**

Analyzing legislative texts only offers a partial view of the procedures and formalities that weigh on companies. It is therefore essential that some additional time be devoted to reviews of the procedures implemented by the administrations themselves, evaluating circulars, individual administrative decisions and even standard administrative practices.

## **Codify legislative texts**

The adoption of legislative texts has given rise to excessive complexity and inconsistencies, which are sources of legal insecurity for citizens and companies. Following completion of the codification process in domains of the working code, which is near, the same process for consumer law will likely be taken up.

## **Optimize information exchanges between administrative bodies and companies**

Restructuring of the process for dealing with administrative files will be undertaken in full cognizance of the opportunities afforded by new technologies. Information exchanges between the various administrative bodies involved on a like file will be put into electronic form by stages in order to become more transparent for companies while guaranteeing the confidential nature of the data.

Apart from services currently offered on line such as filings with the Social Security Administration, VAT returns and duty declarations, the following projects were identified and will be carried out as priority items:

- Computerization of business set-up procedures
- Electronic assistance for companies in the industrial sector
- Electronic assistance for accessing state aid
- Electronic communication between companies and the ADEM
- Procurement management on line
- Establishment of a central destination for balance sheets and a synchronized chart of accounts allowing a series of administrative processes to appear in electronic form
- Procedures for listed establishments (law requiring public notice)

## **LDI 15: Promote a more entrepreneurial culture and create a supportive environment for SMEs**

The business demography indicators (2000) show that new companies are springing into existence at a vigorous pace in Luxembourg, putting the country at the head of Europe in the area of new establishments. Recent polls have shown that starting a business and the image of the entrepreneur's status is around average for the Union. However, the Grand Duchy has few independent workers, ranking it among the lowest.

### **Promote an effective entrepreneurial policy**

Coordinating the entrepreneurial spirit policy will be carried out in a national committee for the promotion of entrepreneurial spirit in order to federate existing actions and to stimulate new projects. The Government will provide:

- Communications presenting a favorable image of entrepreneurs
- Promotion of an entrepreneurial culture and a taste for measured risk, especially targeting young people
- A strengthening of the links between the education and professional sectors, at both the primary and secondary education levels. This approach carries with it a special attention to linking teachers and students with the economic sphere

## **Promote the creation of companies, especially innovative companies**

The Government aims to:

- Continue Government support of private initiatives intended to stimulate entrepreneurial spirit
- Extend capabilities for assisting one stop shops in professional organizations and Luxinnovation for innovative companies
- Develop capacities for accommodating start ups through ongoing programs such as Ecostart and Technoport, within the *Cité des Sciences* for research and innovation, as well as extend accommodation capabilities in the Ecostart center at Foetz and the implementation of supervisory services in the form of training, coaching and logistics
- Review the execution of differentiated and implementation measures for assisting in the start up of small projects
- Increasing financing capabilities for CD-SMEs in order to allow the establishment of greater numbers of innovative companies in the startup or development phase and to be able to allocate more substantial financing amounts.

## **Guarantee more favorable basic conditions for SMEs**

The Government will:

- Promote an urban policy that contributes to the creation of an attractive environment that is adapted to the specific requirements of SMEs
- Review in conjunction with SNCI the resources available to perfect existing instruments intended to facilitate taking up existing companies
- Ensure that all have equal opportunities of accessing the profession and creating companies through training and through assistance in using financial instruments
- Improve legislation concerning bankruptcies by including more appropriate recovery and restructuring mechanisms while attempting to limit damages caused by such bankruptcies
- Fight fraudulent and intentional business failures while reducing the stigmas attached to such failures
- Monitor changes in wage costs and non-wage costs of SMEs

## **LDI 16: Expand, improve and connect European infrastructures and complete priority cross-border projects**

### **Improve Luxembourg's connectivity with respect to the European and international environment**

The Government is considering several major projects in the area of transportation infrastructure, including the TGV-East link with the Strasbourg-Paris line, the Eurocap-Rail linking Brussels, Luxembourg and Strasbourg and finally an increased and better use of the country's airport.

All these projects can only be efficient if they are integrated with the country's secondary infrastructure and if spatial development in Luxembourg is guaranteed. This would be accomplished through IVL, a concept integrating transportation systems and spatial development in the country. Cross-border, transnational and interregional cooperation in

the framework of territorial cooperation through FEDER play a great role in this idea's success.

- Luxembourg requires having good communication lines with the other major European centers of activity to fit properly in the European dimension. This must be achieved by creating high performance transportation networks that adhere to the principles of sustainable development in order to invigorate relationships between the Grand Duchy and the other major capitals that surround it. This would contribute to the consistency of the socio-economic entity made up by the Greater Region through better communications systems
- In view of Luxembourg's strong economic growth and resulting subsidiary impact, including the some 115,000 cross-border workers coming into a country of 452,000 residents, there is a need to anticipate mobility requirements. At present, these can no longer be met by a progressive adaptation of the road networks to growing individual traffic needs. Rather, a significant improvement in the supply of public transportation facilities, especially trains, must be achieved. In addition, it is important to improve access to the public transportation facilities by setting up parking facilities at the borders and in a zone closer to the capital. At the same time, Luxembourg must extend its rail system in the southern part of the country and around the capital to better accommodate the avenues of employment developing more strongly in this part of the country;
- To arrive at a transportation policy that is more observant of sustainable development that shows higher economic performance, it is in everyone's interest to support more extensive use of hybrid vehicles and to arduously pursue revitalizing rail, maritime and river transportation methods by integrating external costs in road transport partly through the use of efficient rates. In order to offset the disadvantage that alternate means of transportation face because of reduced accessibility to the market compared to road traffic, intermodal systems of transportation must be promoted by means of technical synchronization and interoperability between systems. In this framework, the railway-highway project allowing rail transport of loaded tractor-trailers must be brought to the forefront.

### **Ensure maximum coordination and integration between sectors that weigh most heavily on spatial development and land use**

The challenges facing the Grand Duchy in terms of development are such that a new instrument must be found to manage land use, transportation and environmental issues. To this end, the integrated transport and spatial development (IVL) concepts were introduced in March of 2004. The main instruments available to the Government are the following: sector plans, including industrial areas, land use plans, conversion projects and promoting certain principles for use of space.

The development areas to be created as part of the territorial reform plan will be inter-communal cooperation areas. They will serve as devolution areas for the State of its administrations and services, in the interest of providing greater proximity and a better quality of services provided to both citizens and municipalities.

Centers of development and attraction as defined by the concept of "concentrated devolution" and reconverted industrial wastelands can provide appropriate infrastructure

to attract and develop SMEs. The new law on municipal development allows for municipalities introducing instruments such as development zones or restructuring zones

The reform of municipalities will contribute to maximizing decision structures and will allow local and region economies of scale to unfold. This reform will be accomplished through existing instruments for supra-municipality cooperation and by developing regional plans in concert with various entities.

### **A proactive policy in connectivity of electronic communications networks**

The Government intends to carry out concrete actions in the area of telecommunications infrastructure based on results of an ongoing study. This will ensure:

- Connectivity of electronic communications infrastructures to worldwide networks
- Speed levels everywhere that meet the expectations and real needs of users in the ICT domain
- Heightened competition through more fixed or radio infrastructures.

## **2. GUIDELINES FOR EMPLOYMENT POLICIES<sup>4</sup>**

### **LDI 17: Implement employment policies aiming at achieving full employment, improving quality and productivity at work and strengthening social and territorial cohesion**

#### **All participants must assume their responsibilities**

The labor market in Luxembourg has undergone fundamental change over the past several decades. Labor policies implemented since the steel crisis in the seventies will be re-evaluated for effectiveness and adapted to current circumstances.

In the past, employment policies were often guided by a strictly remedial approach, with the objective being to alleviate the symptoms of a problem as opposed to diagnosing and addressing the cause of problems themselves.

To successfully implement a wide-reaching and preventive approach to problems a common commitment must be formed between public authorities, companies and employees.

Investment in human capital is an essential factor for developing a competitive economy and for promoting a democratic society that is based on the three pillars of social cohesion, equity and participation in the process.

The “Education and Training 2010” work program was a vehicle for the Ministries involved in discussions to present the important challenges, strategies to adopt and specific measures to be implemented.

In this plan the emphasis is placed on guidelines 23 and 24 regarding access to education and training and on the adaptation of these actions to skill requirements.

#### **Getting a measure of full employment by taking in wider employment rate criteria**

The general employment rate for persons aged 15 – 64 is a rather frustrating indicator for gauging full employment rates of persons actually working. Over the past five years, the overall employment rate has stagnated in the region of 62.5%, near that of the European average. The employment rate depends on growth in the population of workers arriving at working age, which is determined by demographic factors and employment rates fluctuating with economic trends.

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<sup>4</sup> In accordance with Luxembourg's tripartite tradition, this part of the Plan was principally discussed with and adopted by the Permanent Labor Committee, which is chaired by the Ministry of Labor and Employment. Representatives of the Ministers for the domains of economic policy and small and medium businesses, education and training, family, integration policy and equal opportunities all sat on the Committee.

This document summarizes the major challenges, and answers given by the Luxembourg Government in relation to the implementing of the integrated guidelines, for heightened investment in human capital and improvements in education and skill levels, as well as the nation's responses to them.

More specifically in the areas of increasing the investment in human capital and in improvements in education and skill levels, the strategy adopted resulted from discussions with the nation's social partners that were held in a tripartite professional training committee forum. The tripartite responsibility existing between the Government and the social partners is important in implementing all measures dealing with professional training.

Luxembourg has a small economy that is extremely open to exchanges of goods and services and is solidly integrated in a cross-border employment system, with 40% of the labor force coming from adjacent areas. These workers are therefore not considered in determining the employment rate.

The employment rate should thus be perceived in its particular context and considered in parallel with workers in the economy from outside the country counted with internal workers. The national plan's objective is to increase the general employment rate by means of women coming on-stream into the job market. The proportion of persons between the ages of 15 and 24 should increase over coming years due to the requirements of the knowledge-based economy. Lastly, the rate of older workers is one of the rare indicators that has undergone slow but steady growth since 2001. The increase in the employment rate of older women of both Luxembourg and foreign nationality in the economy confirms that women are working longer from generation to generation. The portion of older workers still on the job should increase progressively from 30.8% in 2004.

In addition, factors such as continuing education, the institutional and regulatory situation and heightened efficiency in ADEM efforts ought to combine to retain the 40%/60% proportion between Luxembourg residents and cross-border workers in the economy.

**Table 2: Breakdown of young workers according to status in the labor market**

<b>Total working population</b>	
- Active	21.4%
- Unemployed	4.8%
<b>Inactive working population</b>	
- Pupils and Students	71.5%
- Other inactive workers	2.3%
Total population between 15-24 years old	100%

Source: Labor force survey / STATEC (2004)

Efforts to attract the largest number of persons possible to the labor market will be continued in the framework of an overall approach integrating all aspects of education, training and continuing education and reconciling professional and family life, as well as safety and health at work and working conditions in general.

The stated initiatives falling under the various national action plans benefiting labor, regarding quality, work productivity and social cohesion will be carried out. These include:

- Reform of the education and continuing education systems, with a view to promoting academic success
- Development of entrepreneurial spirit in companies
- Development of IT and communications skills
- Discussions concerning the social responsibilities of companies
- Combating all forms of stress and mobbing at work
- Reform of the Labor and Mines Inspectorate General
- Reform of legislation concerning accident insurance
- Bring persons currently outside of the labor market back into it

## **LDI 18: Promote a lifecycle approach to work**

The social policy of the Government will be based on the imperative of attaining sustainable development, just like economic policy and environmental protection policy. The aim is to meet the needs of the current generation without compromising the ability of future generations to meet their own needs.

### **Assuming more responsibility for young people**

The Government has identified several reform efforts likely to have a beneficial impact on the problem of young people leaving school. These include the following:

- Reform of professional training, i.e. vocational preparation training for young people
- A readjustment in language training methods
- More qualified advancement measures and remedial opportunities
- Preventing stalls in academic progress
- Measures ensuring fairer access of children born to foreigners in all types of academic training
- Transition from a knowledge-based teaching program to a skills-based program.

The law dated 12 February 1999 currently provides for three measures benefiting employment for young job seekers enrolled in the ADEM. These include the government auxiliary aid program, the private sector auxiliary aid program and the private sector internship program. The Government has submitted a bill to the Chamber of Deputies that will reduce the number of measures to two and that will modify processes with the primary objective of increasing integration effectiveness with regard to getting young people permanently back on the labor market.

### **Proactive counseling, training and continuing education programs that fit the requirements of the labor market**

As one of the particularities of the labor market in Luxembourg is the inadequacy of supply and demand of labor, training and continuing education will continue to play a fundamental role in this domain<sup>5</sup>.

For training and continuing education to be successful the effort exerted by the entire range of entities in the process must be integrated. The determining factors in this context will be : an optimal human resources forward planning by companies ; responsible choices and an using, respectively a make available of skills by the workforce ; the capacity of the Government to react rapidly and in a flexible manner to the demand for new types of worker profiles.

Based on the findings of a study conducted by a group of OECD experts, the section concerning “lifelong guidance, counseling and professional orientation” that are managed by academic and professional counseling departments should be closely coordinated.

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<sup>5</sup> See Guidelines 23 and 24 for a description of the reforms under consideration in this area.

## Re-evaluation of assuming responsibility for school-age children outside of classroom hours

Re-evaluating the principle of taking charge of school-age children outside of classroom hours is a measure that promotes participation in employment issues, the number 1 objective of the Nice accords, and is part of the second action plan for the 2003-2005 umbrella inclusion policy dealing with reconciling family and professional life.

The Governments statement of August 2004 recommends increasing efforts to extend structures for accommodating children outside of classroom hours, as part of improving harmonization between professional and family life.

As part of the reconciliation between professional and family life, it is appropriate to increase the number of available spaces in care facilities and flexibility of services offered.

In this context, the Government has developed a new concept in accommodating school-age children with new financing concepts, which are now being referred to as “maisons relais” school children reception centers.

As part of achieving the school children reception centers concept, 5,321 new places have been projected in 44 facilities between now and 2008.

In addition, with regard to further publicly financed day nurseries, additional capacity is being planned for between 2005-2007.

**Table 3: Rate of increase in public financed day nursery places**

Year	Rate of increase in places
2004-2005	+7.3%
2005-2006	+6.9%
2006-2007	+4.7%

Source: Ministry for Family and Integration

With regard to booked chairs, an additional capacity of 33.3% booked chairs is being projected per year between 2005-2007, compared to places available on 1 January 2005.

The new school children reception centers concept is finalized in the framework of a grand-ducal regulation dated 20 July 2005 concerning approval requirements for managers of these types of facilities. The regulation provides for a series of new measures to meet the objectives of the policy for reconciling family and professional life, as well as the conditions for obtaining government approval.

The Government will ensure the following:

- Longer operating hours

To best meet the requirements of families and single parents, the Government is aiming at increasing operating hours of the facilities. For minimum operating periods of at least 200 days and 500 hours per year, facilities are to be open up to a maximum of six days per week between 6 and 20 hours.

- More services available

School children reception centers are entities in which certain mandatory activities apply, such as accommodating children outside of classroom hours, providing a lunchtime meal and managing a study period during which the children do homework. Other services may be offered by decision of the managing entity. Additional services may include caring for children that are ill, training for parents, social-educational, intergenerational and social/trans-cultural events within the communities that host the services.

- Include synergies in the process

Promote close collaboration between all persons dealing with the children, including families and schools.

- Collaboration between graduate personnel and those with a certain life experience

School children reception center staff may include persons qualified by life experience only, in addition to staff with degrees, under the condition that these persons have followed a minimum of 100 hours of socio-educational training recognized by the Government.

- Lightening of the administrative burden

Administrative simplification will be apparent in the following domains:

- A single management structure requires one approval for several branches of the same school children reception center
- Communes may be able to outsource pedagogical supervision, food service and cleaning activities.

### **The struggle to decrease the wage gap between men and women**

The average ratio of gross hourly wages paid to women as opposed to gross hourly wages paid to men rose from 84.4% to 85.3% in 2003.

The draft directive for reshaping this structure will merge seven directives dealing with equal treatment of men and women in the areas of work and employment into a single directive. It has been proposed that at the time Directive 2004/113/EC is transposed (deadline for transposition is 21 December 2007), a basic law be drafted in the area of equality between men and women in the domains of work and employment, as well as in access to goods and services. The purpose of this would be to provide improved transparency and accessibility for persons subject to jurisdictions of law. This effort would also result in imbedding equal wages in a law of the nation. The Government has decided to impose the principle of obligation by resources in determining wages for an unspecified time period, which could later be replaced by an obligation by results to eliminate discrimination that is not easily explained in objective terms.

The Government will respond to the CEDAW Committee recommendations and carry out a more in-depth study of the fundamental reasons for salary gaps between the sexes.

The Government will collaborate with the Chamber of Commerce and the Chamber of Private Employees in renewing its educational program intended for corporate managers on evaluation and classification of neutral functions with relation to gender.

## **Flexible instruments for entering and exiting the labor market**

The principal challenge facing current employment policies is to insert young unemployed persons, especially those without qualifications, into the labor market while simultaneously retaining older workers with the objective of maintaining their skills. Coexistence of the two types of population requires flexible instruments for entering and exiting the market.

As part of the survey for maintaining employment, the Government asked the social partners what arrangements they propose to increase the effectiveness of progressive pre-retirement and conventional reductions in working time as considered in the legislation on the employment fund, the only proposals that allow the combination of reducing working time and remaining on the job.

Based on the responses to this survey expected in the fall of 2005, the Government will draft a bill to increase the effectiveness of these instruments.

With regard to older workers continuing in their careers, the Government will set up discussions with the social partners based on the conclusions of a study on the subject to appear before the end of 2005 as well as on the results of a theme-based analysis carried out by the OECD: The OECD report specified four priority action areas for Luxembourg, as follows:

- Encourage employers to review their human resources management practices with regard to age
- Leave the tradition of early retirement behind
- Reform the mechanisms in place for early retirement
- Continue to promote the employability of older workers.

Searching out more flexible models for exiting working life with the possibility of combining some salary benefits if needed with social security services will be considered a priority.

## **Continued adaptation to the social security system**

The Government will continue to adapt the social security system to the evolving social protection needs of the population, while guaranteeing access of the people to appropriate and high quality social services and ensuring the financial viability of social security systems.

The latest reform of the general pension scheme in 2002 brought out incentives to extending active working life, while providing for progressive replacement rates depending on what age a person retired and the length of that person's career. Legislative modifications in 2002 related to disability pensions provide for keeping persons with partial disabilities on the job. With regard to the issue of interruptions in careers, especially for women, the Government will determine which solutions to adopt in order to guarantee appropriate pensions for the persons in question, basing their determinations on the individualization and rights group's work.

The Government will decide which modifications to apply to legislation concerning accident insurance on the basis of the pertinent opinion of the Economic and Social Council. In addition, it is considering extending insurance benefits to accidents occurring while doing volunteer work.

It will undertake to strengthen insurance cooperation for accidents, the Labor Inspectorate, companies and safety representatives in order to improve prevention of accidents at work.

## **LDI 19: Ensure inclusive labor markets, enhance work attractiveness and make work pay for job-seekers, including disadvantaged people and the inactive**

### **Improve the effect of activating measures benefiting employment**

On 26 June 2005, the Government placed a bill in the Chamber of Deputies to make minor changes to the mechanism of active measures benefiting employment in order to make it more compatible with the labor market. The entire range of proposed modifications is seen through the filter of as early an activation possible of unemployed persons registered with the ADEM so as to prevent them from remaining on the rolls for lengthy periods. The emphasis is on young and older unemployed persons.

In this context, efforts must be made to avoid that unemployed persons, especially young job seekers, are stuck in measures to promote employment. The Government will discuss the possibility of entering or re-entering the “premier” job market more rapidly with the social partners. Here particular attention will be paid to maintaining the attractive aspects of a common law work contract, especially the financial part, with regard to measures benefiting employment.

Once the State Council opinion regarding the draft law on social unemployment is available, the Government will introduce timely amendments to take into account, in as much possible, the remarks contributed by the people involved in the process. The goal is to seek an acceleration of the transition from inactivity to long-term employment on the “premier” job market.

There will also be discussions regarding the possibility of using temporary workers and temporary loans of labor by ADEM services in order to facilitate contacts between job seekers and employers.

A research institute experienced in the Luxembourg job market was mandated in early July 2005 for the purpose of evaluating the effectiveness of employment-friendly measures, with the agreement of the social partners. It will present a report at the end of 2005.

The research will proceed according to three phases:

- Analyze the consistency of the entire range of measures
- Analyze the realities behind the Luxembourg unemployment situation
- Provide a gross and net analysis of measures, beginning with those in favor of the young

### **Make work pay**

The inter-ministerial work group set up in 2005 to outline ways to make work more attractive to inactive or unemployed persons will continue its work.

Discussions will center on the following points:

- Dropping the concept of interdependence between the guaranteed minimum income (GMI) and changes in the statutory minimum wage (STW)

- Improvement of existing collaboration between public social aid entities and unemployment services in order to guide/activate persons with potential for obtaining qualification levels more rapidly into the “premier” job market
- More detailed determination of motivating and non-motivating factors for performing in a job
- Re-evaluation of non-motivating factors, including the length of time in the occupation, in measures benefiting employment<sup>6</sup>.

### **Reinvigorate the solidarity economy concept<sup>7</sup>**

Beginning with the 2006 financial year, the Government intends to reinvigorate the solidarity economy concept by participating financially in the developing of solidarity economy initiatives.

In parallel to this aid, a proposal for instituting an inter-ministerial working group has been put forth that would be responsible for submitting proposals to the government for promoting a solidarity economy.

It has been suggested that a mini-promotion agency for the solidarity economy managed by a private law entity be considered as an option for assisting the inter-ministerial working group.

## **LDI 20: Improve matching of labor market needs**

### **Analyze and optimize the functioning of the Labor Administration**

The government has submitted an official request to the OECD to draft a report containing a detailed analysis of the functioning of the Labor Administration.

The purpose of the report is to study what strategies exist, the interaction between the various departments, the multi-disciplinarity, the training of the staff, the management roles, the organizational chart, the effectiveness of services provided to unemployed persons and to companies, the degree of individualization in processing jobless people, the cooperation between companies, the collaboration with the temporary worker industry and the social initiatives benefiting employment.

The conclusions of the report will serve as a basis for discussions with the social partners.

### **Implement a national information, directional and guidance strategy**

The requirements of the labor market and the increase in unemployment require greater adaptability and flexibility of workers, with information and guidance playing an essential role in the employment process. Obtaining better guidance toward opportunities in the labor market represents a key element in aiding jobseekers to adapt to changes as rapidly as possible.

From a perspective of lifelong learning, the professional training and education system asks of the academic and professional counseling apparatus to provide high quality informational,

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<sup>6</sup> This item of the response to LDI 19 originates with the update of the NAPs on social inclusion for 2003-2005 and deals with the first action area of the Luxembourg umbrella inclusion strategy.

<sup>7</sup> This response to LDI 19 originates with the update of the NAPs on social inclusion for 2003-2005 and deals with the first action area of the Luxembourg inclusion strategy.

directional and guidance programs. Therefore, this system must first understand what types of directional, informational, guidance and counseling actions an individual can benefit from throughout that person's youth and passage to adult life, and then establish a career-long training link for the person with the labor market.

Based on the thematic study carried out by the OECD in July 2002, the following recommendations will be re-examined:

- The establishment of a national information and guidance services entity
- The development of a life-long national information and guidance strategy
- Increases in training and qualifications for information and guidance personnel.

### **Increase professional mobility and combat segregation in the labor market**

A certain degree of flexibility from the labor force is essential to effectively face off against changes in the economy. Efforts to promote shorter work relations nevertheless risk bringing about heightened job insecurity.

In Luxembourg, efforts to improve the professional mobility of workers will not be sought by means of dismantling work conditions components but rather through initiatives centering on education, training and continuing education on a career-long basis.

Optimizing the links between education and continuing education on one hand and the requirements of the labor market on the other, constitute a key factor in professional mobility. There are two priority actions to be carried out with regard to this in Luxembourg:

- Encourage companies to improve forward planning for labor requirements. Identifying needs for qualified employees early on is a critical element to the success of public policies for guidance, qualification and professional training
- Improve the capabilities of training and continuing education personnel to react to the requirements of the economy, especially against a backdrop of corporate restructuring. The capabilities and flexibility of public continuing education institutions must be augmented to implement training and retraining programs with sufficient speed.

Trends in labor market segmentation are as diverse as the mechanisms that benefit it. Mobility requirements differ widely depending upon sector of the economy, nationality, sex and professional status. The low attraction for some sectors of the economy and the high rate of rotation within them appear to be explained by the gap between working conditions and salaries and the expectations of those who work in them.

In view of the divide between the public and private sector, the government program includes more openings for non-Luxembourg nationals in certain job categories of government work with respect to recruiting requirements within them.

To address the professional segregation existing between men and women, an awareness and information day has been implemented for an audience of girls in school to present a more diversified career option range for boys and girls in secondary schools. In addition, the information and awareness effort for diversifying career options for boys and girls directed at teaching and professional counseling staff will be extended.

## **LDI 21: Promote flexibility combined with employment security and reduce labor market segmentation, having due regard to the role of social partners**

### **Retain jobs**

In order to fuel the debate on this subject, a detailed questionnaire was sent to the social partners by the Government in January 2005. It contained four sections:

- Forward planning for employment and social audits of employment that provide analyses of a company's situation, especially with regard to employment and steps to take to prevent layoffs before any restructuring or planned redundancy scheme is implemented
- The outplacement system a company has in place
- Prolongation of legislation pertaining to the temporary loan of workers, to make it apply to an entire sector of the economy
- Modulating work time as an instrument for saving jobs. The Government will examine the possibility of temporary financing a scheme for the reduction of working hours - determined through mutual agreement of the social partners - to avoid layoffs sparked by companies adhering to mandatory employee training requirements that augment individual employment perspectives

The Government will propose the required modifications to the legal and regulatory framework while pursuing dialogue with the social partners on this subject.

### **Set out new forms of labor organization**

Ongoing discussions center on the introduction of new forms of labor organization such as compensatory time accounts convertible to cash, teleworking and homeworking.

Inter-professional bipartite negotiations are currently underway on the national level dealing with teleworking and part-time employment contracts. The Economic and Social Committee is serving as a platform for discussions on the theme of on-the-job stress, a subject that is the object of a European level inter-professional agreement. If no agreement is reached in due time, the legislator will assume its obligations.

The discussions among the social partners resulted in the issuing of an opinion in 2004 with regard to the compensatory time accounts convertible to cash. A bill is currently being drafted on the subject. This transposition effort calls for the participation of both the legislator, who sets out the general legal framework, and the inter-professional social partners, who will come up with a nationwide agreement on the issue.

A framework of actions has been established on the inter-professional level Europe-wide concerning gender equality in the labor market. The social partners will be consulting at the national level on this issue shortly.

The Government is considering as an administrative simplification measure the replacement of the ministerial authorization system for overtime as existing in the so-called tripartite law, with the principle of prior notification that should continue to have the approval of the personnel representative group. The Government will continue to analyze the practice of

overtime on an *a posteriori* basis with the objective of discussing, as required, with companies concerned about their employment policies.

### **Continue to promote positive action on gender equality**

In the 4 August 2004 declaration by the Government, it was decided that “positive actions in the area of gender equality in companies will be continued.”

The Government will continue to support companies in the private sector in their efforts to further promote gender equality in terms of the law and in actual practice. An overall evaluation, supported by individual evaluations from companies, will take place. Collaboration with the social partners will be continued.

### **LDI 22: Ensure employment-friendly labor costs developments and wage-setting mechanisms**

With regard to the direct costs of labor:

- The Government and the social partners agree that wage policies must take account of changes in the general productivity level of the Luxembourg economy. They re-emphasize their commitment to a wage policy that takes into consideration specific situations of different sectors and companies that is carried out in total autonomy by the social partners involved.
- The government wishes to retain the automatic wage indexation concept to the cost of living, without opposing partial modifications to the adaptation mechanism

With regard to indirect costs of labor, the Government, drawing on the tax reforms enacted in the 1990s as well as the tax reform of 2001-2002, which included a substantial reduction in taxes for both individual citizens and companies, will ensure that it maintains a competitive tax environment. The level of the welfare costs are the joint responsibility of the Government and the social partners. Nonetheless, the Government will ensure that indirect labor costs remain at a competitive level.

### **LDI 23: Expand and improve investment in human capital**

#### **Promote the consistency and effectiveness of adopting lifelong learning strategies**

In Luxembourg, lifelong learning processes are strongly decentralized and spread out among the various public, union, salary, corporate management and private institutions. There has been a significant increase in the supply and demand in this area over recent years. Legislative reforms carried out, and initiated, include incentives and cost sharing mechanisms for public authorities, companies and individuals, as with the outline law on continuing professional training, the draft law on leave for training and the reform project for professional training.

The challenge for the years 2005-2008 consists in increasing consistency in the effectiveness of lifelong learning systems.

As part of the framework of professional training reform, Luxembourg will implement a validation of experience concept taking into account all forms of apprenticeship, meaning

formal, non formal and informal work experiences. The 12 August 2003 law formalizing the establishment of the University of Luxembourg includes validation of professional patrimony. This mechanism will be in place over the academic year of 2005-2006. In this context, cooperation between the University of Luxembourg and the Government has been planned.

The issue of certifying acquired skills in areas through informal education in volunteer or youth work will be approached through a pilot project.

As part of a lifelong learning system, the Government will provide high quality guidance, information and counseling.

From the vantage point of a lifelong learning system, the professional training reform project also provides for the creation of the position Adult Trainer as well as the implementation of appropriate teaching and evaluation methods.

Apart for individual training leave, supplementary measures have been proposed for promoting and improving individual access to lifelong learning systems by means of financial incentives, awareness campaigns and new ICT-based learning methods. Measures along the lines of labor organization chosen by the social partners also promote individual access to continuing professional training.

### **Optimize access to initial professional training**

Two facts are evident with regard to the problem of getting access to professional training. Firstly, each year a number of spaces in programs are unfilled because of a lack of sufficient candidates. Secondly, young people with low qualification levels and adult trainees have difficulty accessing professional training.

In order to guarantee improved adaptation of supply to demand and to improve the image and attraction of professional training, several measures and reforms were initiated that will be pursued in-depth in upcoming years.

A national action plan to promote professional training with the objective of making apprenticeships a path to excellence in the framework of a learning society is currently in drafting. Guidance measures and focused promotion of apprenticeship issues will be undertaken on the basis of a detailed analysis of the current situation concerning apprenticeships.

Professional initiation training will be offered to meet the needs of young people with few qualifications or without direct access to the middle level of secondary technical instruction. Its purpose will be to provide basic professional training to specific groups that should increase their chance of insertion in the labor market and provide access to the middle level of secondary technical instruction.

### **Promote success in academics**

A major challenge facing academic instruction in Luxembourg is in the strong dependence of academic success on social status, on native language skills and on the sex of the children.

To remedy this, diversified language instruction, more qualified advancement criteria and more in-depth measures were implemented.

In the same way, the Government will pursue actions benefiting the integration of immigrant children into the national system. Pertinent measures such as information and awareness campaigns for foreign parents, courses taught in native languages, involvement of intercultural mediators, revision of the educational linguistic policies and the implementation of new French-speaking fields of apprenticeships will all ease access for all to available training.

This type of second chance at academic success as well as individualized monitoring of young people in transition from school to working life, tutoring, transition classes, relay classes, language skills classes for illiterate young people and recovery and guidance classes are intended to prevent academic lassitude and significantly reduce the number of young people who leave school prematurely.

The national education administration has implemented a skills unit responsible for implementing the concept of gender mainstreaming that should fix respect for gender perspectives at the decision level, promote a pedagogical style that is gender-aware and reduce differences between boys and girls in the area of options for study and academic success.

## **LDI 24: Adapt education and training systems in response to new skill requirements**

### **Increase the scope of options for non-formal apprenticeships**

The Government will pursue the following leads:

- Encourage young people to apply for vacation jobs

The number of requests for vacation jobs, often the initial contact with the working world that results in a certain learning experience, is far in excess of the number of positions offered. Young persons from disadvantaged backgrounds often have the most difficulty obtaining jobs of this type. To facilitate contacts a job exchange will be set up for vacation jobs in collaboration with the working world and youth centers.

- Develop the concept of volunteering

The law dated 28 January 1999 will be re-examined so as to offer to more young people the possibility of taking advantage of this measure, which aims at both providing non formal apprenticeships and mobility for young people.

The number of young people participating in this program will be increased.

- Facilitate the dissemination and effective use of information and communications technology

Many young people use IT tools for leisure, but not all can take advantage of the possibility of realizing their full potential. The new version of the youth portal will be more interactive in that young people can, under certain conditions, actively contribute to the development of specific modules adapted to their needs.

This will rouse interest among young people in ICT showing them all the possibilities available in advanced technology and consequently encourage some of them to pursue this training track.

### **Review the program for training young people as part of certain measures for starting to work**

As part of youth employability, the national Youth Service collaborates very closely with the youth center networks. Young job seekers will be hired on temporary auxiliary contracts, or in the framework of a "Community Information Center" project or as an "Assistant Team Leader"

The tasking plan for young people and the type of training provided are currently being revised. This evaluation and adaptation process will continue throughout upcoming training cycles with the objective of young people acquiring more key skills to be able them to enter the job market.

Cooperation with other organizations that are working with young job seekers or young people in difficult situations will be intensified with regard to training.

### **Certify acquired skills in the area of non-formal education**

The question of certifying skills acquired through non-formal education will be broached by means of a pilot project. This project will provide a certificate of volunteer work performed by the holder, describing the functions fulfilled, tasks completed and skills acquired.

The Minister of youth affairs will sign the certificate. The project will be carried out in close coordination with employers and with the working world in general. The certificate will become part of the holder's personnel file when that person is ready to seek work. Because of rapid changes in the labor market, the basic approach of the project deems skills that participants may acquire during the volunteer work period as key qualifications to be considered in the young person's employability profile.

The pilot project will occur in 2006 and 2007 in the form of a phase open to ten youth organizations. A possible opening toward other domains of volunteer work and youth work programs will be achieved following evaluations of the results of this pilot phase.

### **Adapt the education and training systems to new requirements in the area of skills**

Various national and international studies and key national education indicators have made it clear over recent years that the strengths and weaknesses of the education and training system must be better apprehended.

The country is only at the outset of conceiving a concept in the area of quality management and must still exert significant efforts to arrive at a consistent quality management system. The reforms initiated concern both the structure and content of instruction and training.

The Government has launched several actions in the area of quality management. A mechanism for evaluating and assisting schools, the School Quality Action Protocol (SQAP) was implemented on the basis of an annual report that each school or establishment could consult to draft a development plan for the school and to improve the quality of its instruction.

In addition, primary schools that have participated in nationwide testing can shortly compare their students' results against national averages.

A pilot secondary school has been established as an innovative project for pedagogy, while simultaneously allowing new instruction structures to be developed and providing full-time acceptance of students.

In the area of training content, the Government intends to move from a knowledge-based instruction method to a skills-based method.

In this format, skills bases are determined at different primary and secondary instruction levels. The benchmark to be used for language training - initial and adult education programs - is the Common European Framework for Reference of Languages. In the reform of professional training, instructional planning is supported on the principles of skills-based approach as well as a modular teaching structure.

In the area of ICT, the Government will collaborate with the Chamber of private sector employees and the Luxembourg Association of engineers to promote the European computer driver license (ECDL) as a reference of skill level.

The reforms of training content go side by side with the introduction of European references and instruments at the national level such as the national benchmark, EUROPASS, ECVET professional training credits and the establishment of a national qualifications framework. This also applies to the implementation of the concept of validation for acquired professional skills and experience as well as the offer of high quality guidance, information and counseling on a lifelong basis. This approach should allow for heightened qualifications and skills transparency and to promote greater mobility for both professional and educational objectives

The Sector Plan for Secondary Schools contributes to guaranteeing optimal access to training programs.

## APPENDICES

### Evaluation and monitoring of economic and employment policies

The first attempt to implement a consistent system of economic indicators that described a worsening of the economic and social situations and the lowered competitiveness of companies was the grand-ducal regulation dated 5 April 1985, which was based on the 24 December 1977 law. The Government is basing its analysis on the nine indicators enumerated in these documents:

1. Difference in internal inflation rates with relation to the weighted average of Luxembourg's four principal trading partners (Belgium, France, Germany and the Netherlands)
2. The effective rate of exchange of the franc weighted by import and export market
3. Changes in imports and exports of goods
4. Rates of exchange, calculated by reference to unit import and export values
5. The competitive position of Luxembourg's industry expressed by the unit labor cost
6. The industrial producer's price
7. Business indicators of the main economic sectors
8. Changes in unemployment and in short-time working
9. Changes in purchasing power of salaried workers

This nine-indicator system has been used since then and the data pertaining to it are regularly calculated and published by the central economic statistics entity STATEC in its report on Luxembourg's competitiveness.

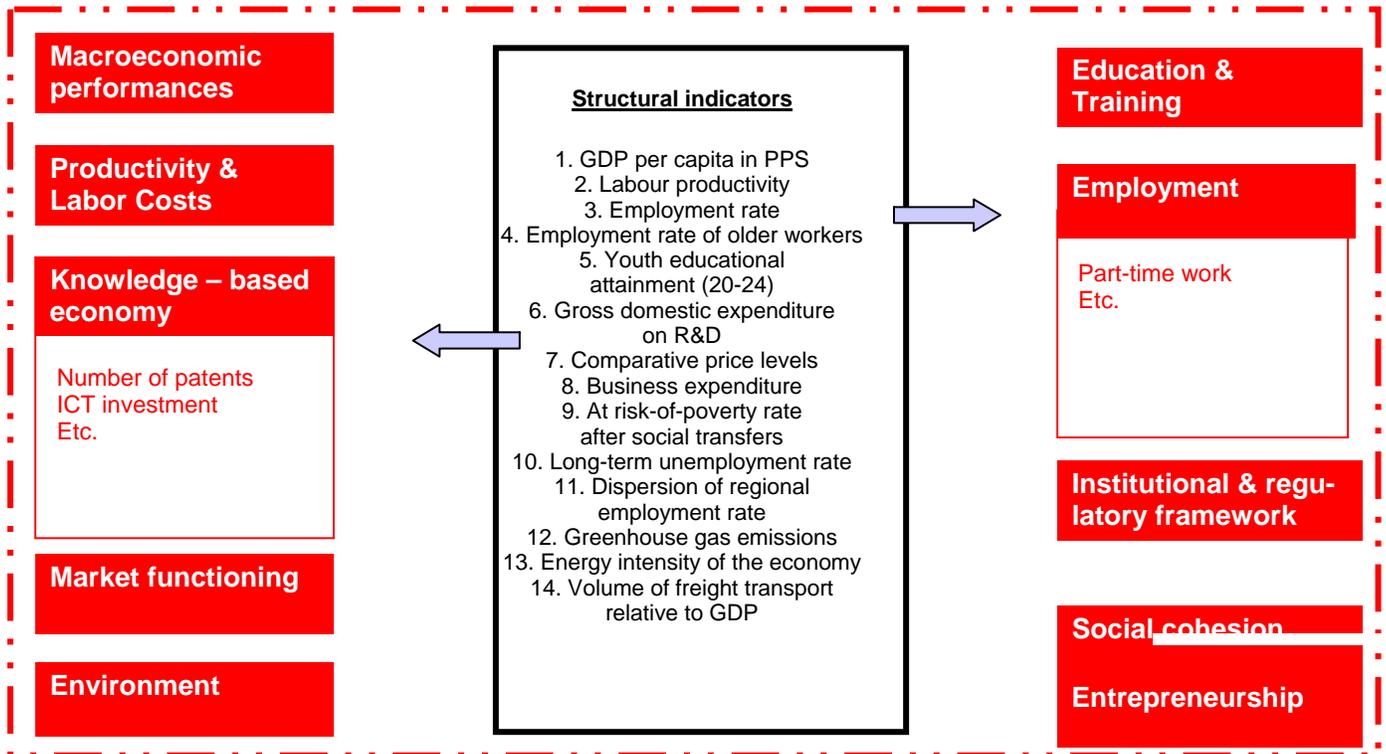
In order to better appreciate the political work undertaken and the results obtained, the Government has followed the suggestion of Professor Fontagné and proceeded with the work of producing a scoreboard of key indicators for competitiveness, in close collaboration with the social partners, with the objective of providing Luxembourg with a tool for measuring and analysis.

The work started following a decision in the "Competitiveness" tripartite coordination committee held on 20 April 2005, during which the "Competitiveness Indicators" working group was charged with coordinating a scoreboard of key competitiveness indicators.

To this end it was decided that the future key indicators for competitiveness would include two categories of indicators, meaning the short list of structural indicators of the Lisbon strategy, as well as a list of national indicators that takes better account of the specificity of Luxembourg's economy. These two categories of indicators will have equal importance.

## Conceptual Competitiveness Indicators

### National economic indicators



### Lisbon Structural Indicators (1995-2004)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1. GDP per capita in PPS (EU-25 = 100)	177.6	176.6	183.5	191.7	207	216.8	211.3	211.1	213	221.9 (f)
2. Growth rate of GDP at constant prices (1995).	1.4	3.3	8.3	6.9	7.8	9	1.5	2.5	2.9	4.5
3. Productivity per wage earner	138.7	136.8	140.6	144.6	152.3	154.9	145.4	142.6	142.2	145.9
4. Overall employment rate	58.7	59.2	59.9	60.5	61.7	62.7	63.1	63.4	62.7	61.6
Employment rate for women	42.6	43.8	45.3	46.2	48.6	50.1	50.9	51.6	52	50.6
Employment rate for men	74.4	74.3	74.3	74.5	74.5	75	75	75.1	73.3	72.4
5. Employment rate of older workers	23.7	22.9	23.9	25.1	26.4	26.7	25.6	28.1	30	30.8
Employment rate of older workers – women	12.6	10.8	12.9	15.5	17.2	16.4	15.2	18.4	20.9	22.9
Employment rate of older workers – men	35.1	35.5	35.4	35.2	35.8	37.2	35.9	37.7	39.1	38.5
6. DIRD (Internal expenditure for R & D) as a % of GDP	:	:	:	:	:	1.71	:	:	1.78	:
7. Youth educational attainment (20-24) - total	51.9	49.5	53.1	:	71.2 (b)	77.5	68	69.8	69.8 (p)	:
Education level of young people - women	52.3	47.8	53	:	72.8 (b)	75.8	69	65.5	65.5 (p)	:
Education level of young people - men	51.5	51.2	53.2	:	69.6 (b)	79.2	67	74	74.0 (p)	:
8. Comparative price levels	115.5	110.6	107.5	106.8	102.3	100.9	103	102.5	105.3 (p)	:
9. Business investment	17.1	16.8	18.1	18.1	19.2	16.9	18.4	16.8	14.9	14.3
10. At risk-of-poverty rate after social transfers - total	12	11	11	12	13	12	12	:	10	:
Poverty risk rate after social transferswomen	13	11	12	13	13	12	13	:	11	:
Poverty risk rate after social transfersmen	11	11	11	12	12	12	12	:	9	:
11. Long-term unemployment rate	0.7	0.8	0.9	0.9	0.7	0.6	0.6	0.8	0.9	1.1
Long-term unemployment rate - women	1	1.1	1.3	1.1	0.8	0.6	0.6	0.9	0.8	1.5
Long-term unemployment rate - men	0.6	0.7	0.7	0.7	0.6	0.5	0.5	0.6	1	0.8
12. Total greenhouse gas emissions	78.8 (b)	79.8	73.8	65.1	70.9	74.7	76.9	84.9	88.5	:
13. Energy intensity of the economy	241.18	238.02	216.52	197.91	192.88	186.59	190.68	196.67	201.51	:
14. Volume of freight transport relative to GDP	100	66.6 (s)	75	78.0 (s)	88.9	96.5	106.4	107.3	109	:

(s) Estimated by EUROSTAT; (r) revised value; (b) break in series; (f) forecast