

# Your access to European markets



● Luxembourg: *WHERE ELSE?*

Five minutes of business testimonials... ● check out the enclosed DVD



# Your location for innovation and tailor-made solutions in Europe





# Table of contents

Editorial	4
Executive summary	7
<b>A. Why address the EU market</b>	<b>8</b>
<b>B. Luxembourg's key advantages for doing business</b>	<b>10</b>
1. A strategic position at the heart of Europe	10
2. Business-friendly and politically stable	12
3. A stable and rewarding tax environment	13
4. A commitment towards R&D and Innovation	16
5. Highly skilled and multilingual workforce with high productivity	21
6. An international country welcoming foreign people	22
7. A tailor-made international school system	24
8. A safe country with a high quality of living	25
9. A country of culture and entertainment	26
<b>C. Luxembourg's unique proposals for your business</b>	<b>28</b>
1. High Value Industry and Environmental Technologies	30
2. Health Sciences and Technologies	34
3. ICT, e-commerce and Broadcasting	38
4. Logistics & Transport	42
5. The automotive Industry	46
6. Financial services	50
How to set up your business in Luxembourg	54
How PwC can help	55
How the Chamber of Commerce can help	56

# Editorial



**Pierre Gramegna**

General Director  
Chamber of Commerce of  
the Grand Duchy of Luxembourg

Within the pages of this brochure you will have the unique opportunity to learn about a country that is as discreet as it is astonishing. Despite its diminutive proportions in terms of geographical size and population, the Grand Duchy of Luxembourg is recognised as a key marketplace at the very heart of Europe.

With historically enviable macroeconomic results, Luxembourg demonstrates a constant commitment to economic and social progress. Government measures taken in collaboration with public and private partners have been both ambitious and reasonable; sketching out the future of the country as a whole and stimulating competition between resident companies.

The Grand Duchy's unique business framework, in particular, has been key in attracting international groups for years. Making the most of EU opportunities, its regulatory context is one of the most attractive in the EU zone. In addition to a stable and competitive tax system, Luxembourg has developed a simple and responsive administrative environment, providing players with the flexibility that is essential in the globalised world.

Luxembourg is also a country with great political stability. This, along with the traditionally close relationship between business and authorities, assists the set-up of new business activities and plays a strong role in their ongoing success.

Fully integrated into the European landscape, Luxembourg is perfectly in line with the development of cross-border activities. Its geographically central position, advanced transportation and impressive logistics and IT networks have made the country a much appreciated business location.

In this brochure, you will discover more about the scope of potential partnerships in Luxembourg to manage projects and to address challenges such as research, innovation or the financing of your activities.

You will also learn about the government measures in favour of economic diversification through the set-up of Clusters and other centres of excellence in promising fields like health technologies, information technologies or environmental technologies. All of which are supported by a research-oriented investment objective of 2% of the GDP in 2012.

Thus, it is with pride that the Chamber of Commerce of the Grand Duchy of Luxembourg and PwC have joined forces to produce this brochure that highlights Luxembourg's assets. Should you wish more details on the possibilities of developing your business in Luxembourg, do not hesitate to visit the website of the Chamber of Commerce ([www.cc.lu](http://www.cc.lu)) or the office, where you will always be a welcome guest.

A stylized handwritten signature in black ink, reading 'P. Gramegna'.

P. Gramegna



**Didier Mouget**  
Managing Partner  
PwC Luxembourg



**Laurent Probst**  
R&D Partner  
PwC Luxembourg

Over the past decades Luxembourg has proven to be an ideal place for doing business. All the efforts made by the various stakeholders has shapen and guided the country over the years and have created a dynamic and collaborative market place.

Indeed, a large part of the credit for Luxembourg's breakthrough must go to its authorities, which have consistently combined a high standard of professionalism and expertise, with a business-friendly and a responsive approach. They have established a simplified and flexible administration procedure and facilitated interactivity between the players on the marketplace. Thus, over the years they have become a trustworthy business partner to Luxembourg companies.

On top of its strategic geographical location at the crossroads of Western Europe, Luxembourg is also endowed with a strong innovative spirit, which continually drives it to seek out new opportunities and attract new people and ideas.

Both economic and social indicators echo this trend. Luxembourg is a popular destination among expatriates; 43% of residents and 67% of the working population are foreigners, which provide Luxembourg with a unique multilingual and multicultural scene in Europe. This means that the Grand Duchy is perfectly suited to act as a gateway to the larger European market; a fact that has encouraged an increasing number of multinationals and SMEs to establish a business in Luxembourg.

Luxembourg reacted with purpose to the crisis and has kept abreast to the changes. The authorities are keen to understand the challenges faced by companies today. As such it seeks to provide a favourable business environment to stimulate development, based on a regulatory framework which is solid and reliable, yet flexible enough to be able to rapidly adapt to change. So, businesses have the chance to take advantage of emerging opportunities.

This proactive policy towards upcoming challenges has also resulted in the set-up of strong measures for supporting R&D and innovation, as well as ongoing efforts to improve Luxembourg companies' competitiveness on the European and international stage.

In addition to these strong business advantages, the high level of social coverage and outstanding quality of life enjoyed in the Grand Duchy are also assets that lend weight to the argument, "Luxembourg: Where else?"

With the Chamber of Commerce, and on behalf of PwC Luxembourg, we are pleased to present this brochure which, we hope, will assure you of the overall appeal of Luxembourg. In this respect, the experts of PwC Luxembourg are at your service for more information and assistance in the potential set-up of your company.

D. Mouget

L. Probst





Luxembourg City, old town



# Executive summary

Located at the heart of Europe, **Luxembourg is a unique gateway to the European market and its 500 million plus consumers.**

Luxembourg has a long established reputation as a favoured location for a wide range of international companies with diverse business models from a variety of sectors.



## **Luxembourg: a soft landing place**

In addition to its experiences in designing adaptive regulatory frameworks around companies, Luxembourg has become an appropriate soft landing place for non-European firms willing to address the European market. Among critical advantages of Luxembourg's value proposition, companies can benefit from:

- an easy access to decision-makers;
- an efficient financial platform;
- a favourable tax framework;
- an international workforce and a high-profile pool of experts;
- a suitable market-size to operate commercialisation tests;
- easy exit processes.

All these specific assets make Luxembourg the ideal open-platform to create new business models, limit risk of investment and rapidly design a competitive positioning on European markets.

## **Luxembourg's success can be attributed to a succession of positive, long-term and innovative government policies aiming to enhance business and diversify the country's economy.**

As a result, several factors have allowed Luxembourg to offer companies exceptional opportunities for doing business in Europe. These include:

- government neutrality;
- close relationships with public stakeholders;
- an attractive legal framework.

This brochure should serve as a guide to discover the opportunities of the European market and the key differentiating advantages of Luxembourg for companies and people. In addition, it describes the business framework offered by specific sectors for setting up local activities and how Luxembourg can support your implementation and development.

# A. Why address the EU market

## 1. A wealthy and politically stable Union

The economy of the EU combines the economies of 27 Member States and generates an estimated nominal Growth Domestic Product (GDP) of about 26% of the world's total economic output<sup>1</sup>. **The EU27 members house more than 500 million citizens who ensure a vast single market where consumers enjoy a high average purchasing power.**

17 Member States<sup>2</sup>, including Luxembourg have adopted a single currency, i.e. the Euro, thereby breaking down the currency exchange rate barrier. The official name of the European single currency zone is the “euro area”. The 27 Member States<sup>3</sup> are committed to meeting the Copenhagen criteria<sup>4</sup> that ensure stable democracy and free trade.

## 2. A highly skilled environment dedicated to High tech and R&D

The High Value industry encompasses all companies which have set up major production plants and highly competitive R&D centres in several domains: aerospace technology, health sciences and technologies, Information and Communications Technologies (ICT), nanotechnologies and robotics. These plants with R&D production centres based in Europe benefit from a direct link to the large consumer market and are certain of a market presence close to the final customers.



Luxembourg-Kirchberg, European Institutions quarter and Philharmonie concert hall

With an average annual R&D expenditure of EUR 220 billion over the past five years representing 25% of the worldwide output, the EU has become an attractive location for added value activities<sup>5</sup>.

Around 500,000 highly-innovative companies already operate in Europe, in ten different industries (pharmaceuticals, aircraft and spacecraft, chemical, machinery and equipment, etc.), enjoying essential advantages like a highly skilled workforce, an entire supply chain and an efficient distribution network.

## Some key figures to size up the EU27's weight in international business and trade

- The EU is the world's largest trader in services accounting for 27.7% of global exports and 24.1% of imports<sup>6</sup>;
- The EU produces more than 37.5% of the world's pharmaceuticals output. It is also the world's largest producer of chemicals with a EUR 580 billion turnover, accounting for more than one third of the global output;
- Western Europe leads the world in retail e-commerce sales. By 2012, online retail sales will have reached the EUR 145 billion threshold<sup>7</sup>. By 2013, almost half of Europeans will have made a purchase online, up from 21% in 2008, providing a huge potential market<sup>8</sup>;
- The European entertainment and media industry generated total revenue of EUR 190 billion in 2010, consolidating its position of second largest market behind the US<sup>9</sup>.

1 "Nominal GDP", International Monetary Fund, 2010

2 The 17 Member States of the Euro area are: Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain

3 EU27 includes: the 17 Member States of the Euro area + Bulgaria, Croatia, Czech Republic, Denmark, Latvia, Lithuania, Poland, Romania, Sweden and United Kingdom

4 "Accession criteria established in 1993 in Copenhagen", European Union

5 "Les dépenses de R&D en quelques chiffres", L'I-tésé, 2010

6 "Statistics in focus", Eurostat, 2010

7 "Europe B2C e-commerce", eMarketer, 2010

8 "E-commerce across Europe", The Future Foundation, 2009

9 "Europe: Media Industry Guide", Research and Markets, 2011

### Some key figures highlighting the importance of R&D investments in the EU

- The automotive sector remained the **main private investor** for R&D in Europe with **EUR 26 billion for innovation** (20% of total EU investments in R&D)<sup>10</sup> in 2009;
- 43.5% of the R&D expenses of the automotive sector are operated in Europe<sup>11</sup>;
- ICT, pharmaceuticals and transport equipment accounted for 60% of total business R&D spending in the EU while constituting only 15-20% of total business added value. It is a measure of the high R&D intensity for these sectors which are expected to outpace others in the coming years<sup>12</sup>;
- The European Investment Bank's average annual lending for R&D in the European Union and partner countries over the past five years has reached EUR 7.6 billion. This amount is expected to increase<sup>13</sup>;

<sup>10</sup> "Automotive sector top R&D investment scoreboard", ACEA, 2010

<sup>11</sup> "EU Industrial R&D Investments Scoreboard", European Commission, 2010

<sup>12</sup> "EU Industrial R&D Investments Scoreboard", European Commission, 2010

<sup>13</sup> EIB, 2010

- There are 1.3 million researchers and scientists in the EU27. Half of them work in the private sector which gathers more than 50,000 R&D specialised enterprises<sup>14</sup>.

Europe's future comparative advantage is more than likely to be in high technology manufacturing. This trend drives the EU's growth strategy for 2020 towards a R&D-oriented transnational perspective.

In this regard, the **European Research Area (ERA)** has been implemented to coordinate R&D policies throughout the EU. Composed of all public and private stakeholders, the ERA enables researchers, research institutions and businesses to increasingly circulate, compete and co-operate across borders. The aim is to give them access to a Europe-wide-open space for knowledge and technologies in which transnational synergies and complementarities are fully exploited.

These collaborative actions aim at designing an innovative-friendly market for business and achieving the R&D intensity objective of 3% of the EU's GDP by 2014.

<sup>14</sup> "Statistics in focus", Eurostat, 2010

### 3. At the heart of goods and manufacturing exchanges

Europe gathers half a billion potential clients and a huge logistics market, with more than 6.5 million wholesale and retail trade enterprises and 2.4 million manufacturing enterprises in the EU<sup>15</sup>.

With total revenue approaching EUR 2,320 billion in 2010, The European logistics sector, including air freight, marine freight, rail freight and road freight, remains the world's largest and most profitable logistics market<sup>16</sup>.

<sup>15</sup> "EU27", Eurostat, 2010

<sup>16</sup> "Europe: Logistics Industry Guide", Datamonitor, 2011

### 4. An attractive place for financial services

With such a large and wealthy population, the EU27 represents a significant area to develop and sell financial products. Financial activities contributed to around 28% of the EU27's gross added value and households' net financial wealth accounted for more than EUR 13.5 billion in 2009. Mainly driven by regulatory harmonisation, new players have emerged and financial integration has increased.

In addition to the advantages brought by the single market, the EU is constantly evolving, with the integration of new Member States bringing new business opportunities. In this fast-changing and growing market, socio-economic trends shape the financial landscape and boost the demand for financial products and related services throughout Europe.

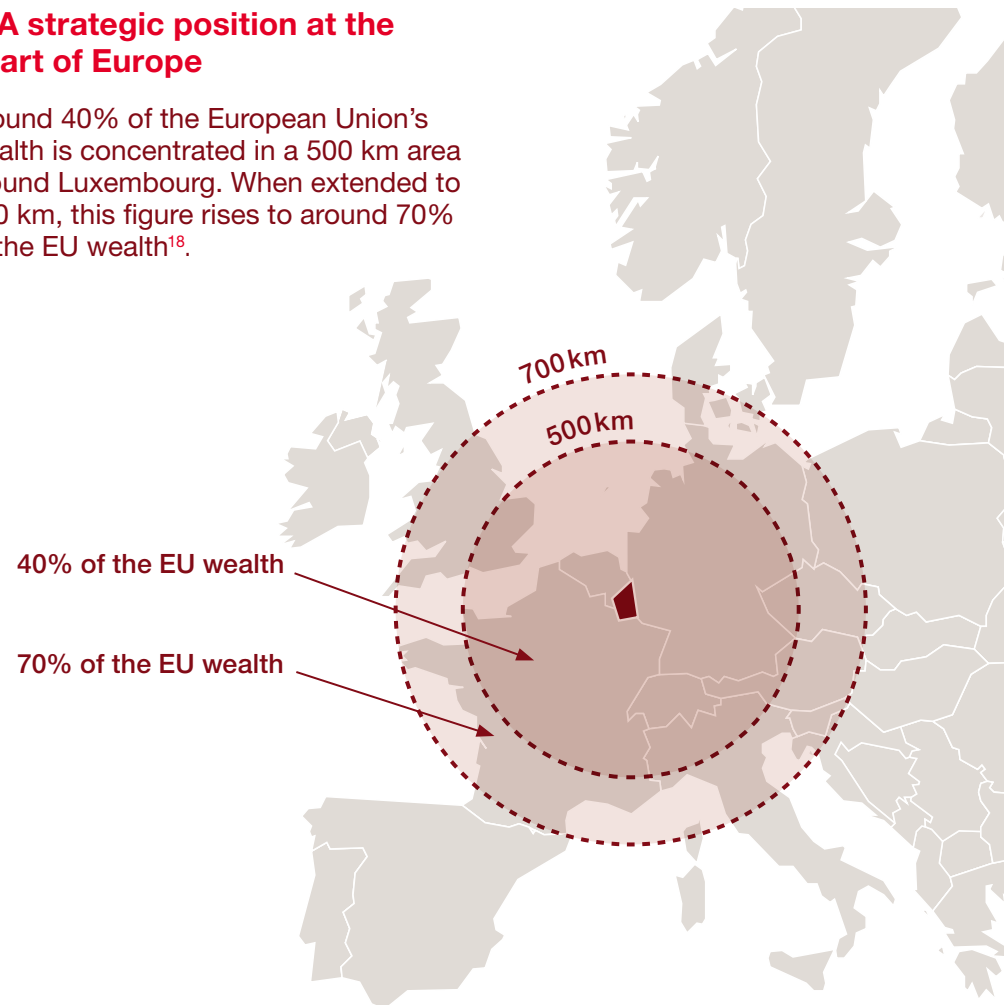
# B. Luxembourg's advantages for doing business

Luxembourg's economic stability and efficient approach to business have attracted many high-profile companies. On top of these benefits, companies take advantage of the country's dynamic and pro-business economic environment. With a 3.5% GDP growth in 2010 and an expected additional 3% in 2011, Luxembourg has experienced a strong recovery by ensuring safe public finances and fiscal stability<sup>17</sup>.

In addition to this favourable profile, Luxembourg's strategic geographical location, excellent infrastructure, rewarding tax environment and an almost unparalleled high quality of living make it a top tier place to live and to develop business. The government's long-term commitment to continually improve the business environment, coupled with extremely solid state finance indicators, is a great guarantee for the future.

## 1. A strategic position at the heart of Europe

Around 40% of the European Union's wealth is concentrated in a 500 km area around Luxembourg. When extended to 700 km, this figure rises to around 70% of the EU wealth<sup>18</sup>.



One of the prime features of Luxembourg's success is its geographical location. Luxembourg benefits from a strategic position at the crossroads of Europe, with direct routes to the most important European cities: Paris (just 2h15 by train), London, Amsterdam, Brussels, Berlin, Zurich, Milan and Geneva.

Sharing borders with Belgium to the west and the north, with Germany to the east and the north, and France to the south, Luxembourg enjoys a high level of cross-border trade, investment and employment.

<sup>17</sup> Statec 2011

<sup>18</sup> "Eu27", Eurostat, 2010



Historically, Luxembourg has always made immigration-friendly policies to embrace diversity. What's more, the country has developed an export-driven industry over the years. **More than 80% of the goods and services produced in Luxembourg are bound for foreign markets<sup>19</sup>.**

**Luxembourg is also well known for its role within Europe.**

As a founding member of major international organisations like BENELUX, the Council of Europe, the European Union, NATO, OECD and the United Nations, the Grand Duchy has influence that belies its size, especially within Europe. Indeed, Prime Minister Jean-Claude Juncker turns out to be the longest-serving head of government in Europe and is well known and respected abroad as he has been President of the Eurogroup since 2005, which is a meeting of the finance ministers of the euro zone.

A number of European institutions, like the European Court of Justice, several EU Commission services, the European Investment Bank, the Court of Auditors and the Secretariat of the European Parliament are based in Luxembourg.

**Schengen, a symbol of European free movement and a Luxembourg village.**

Schengen is a small wine-making village in the south-eastern corner of Luxembourg, near the point where the borders of Germany, France and Luxembourg meet. The village became famous on 14 June 1985, when the Schengen Agreement was signed by the EU members. This agreement provides for the removal of systematic border controls between Member States and allows the free movement of individuals within the EU.



Moselle valley, vineyards

<sup>19</sup> Statec, 2011



“Luxembourg has an important role to play in Europe, both in terms of its business environment and more broadly. It may be a small country but it is not afraid to take its rightful place at the table. Luxembourg after all was one of the founders of the European Union.”

**Lakshmi Mittal**, Chairman and CEO, ArcelorMittal<sup>20</sup>

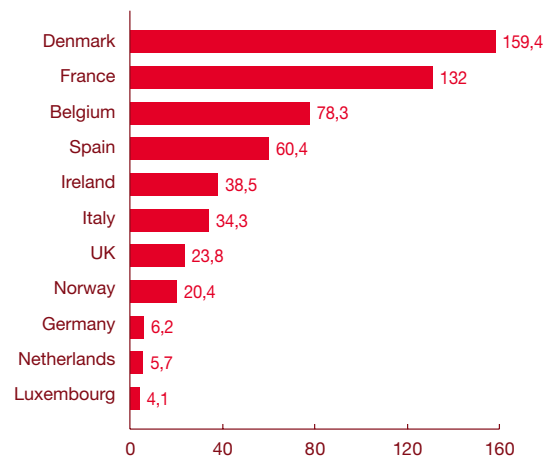
## 2. Business-friendly and politically stable

The Luxembourg political system consists of a parliamentary democracy under the form of a constitutional monarchy. **The political stability of Luxembourg** is marked by a political culture of consensus where the parties coexist within the context of broad agreement on key issues. In this context, a group of key ministers have been allowed to remain in government for a significant period of time **providing continuity in important policy initiatives under successive coalition governments, with an emphasis on economic policies.**

**The business-friendly political environment is conducive to welcoming decision-makers and entrepreneurs.** Indeed, attracting international players is considered paramount in building an efficient business framework and economic growth. This allows Luxembourg to establish a permanent and innovative business community. The size of Luxembourg and its efficient business approach also means that politicians and key civil servants are approachable and open to dialogue.

Luxembourg has a unique system of social dialogue that involves regular meetings between the government, employers’ representatives and unions. This “tripartite instrument” is essential to avoid social conflicts and to reach consensus on important decisions regarding economic and social affairs. As such, **Luxembourg appears to be the country with the lowest number of strike days among OECD countries<sup>21</sup>.**

**Working days lost through industrial action per 1,000 employees, annual average 2005-2009**



Luxembourg City, “La Passerelle” bridge

<sup>20</sup> FEDIL, Luxembourg Business Federation, January 2008

<sup>21</sup> The European Industrial Relation Observatory, 2010

“For SES, the support of Luxembourg’s government has been critical over the history of the company, particularly in its development and expansion, which would not have taken place without it.”

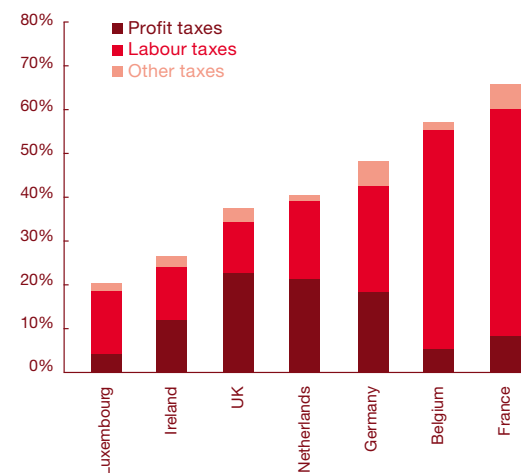
**Romain Bausch**, CEO, SES<sup>22</sup>

### 3. A stable and rewarding tax environment

Luxembourg offers a legal and regulatory framework with a tailor-made approach for business creation. The tax framework is considered to be among the most stable and rewarding in Europe for companies, their shareholders and their employees. This is an essential component of Luxembourg’s development.

Luxembourg’s favourable tax environment for companies can be highlighted by the 2011 Total Tax Rate study. The European comparison is based on a case-study company in a given economic situation. Luxembourg’s low percentage is explained by the availability of important tax credits for investment which offset the corporate income tax liability of this company.

**Total Tax Rate 2011<sup>23</sup>**



### A stable tax regime despite the fiscal impacts of the crisis

In early 2009, most western countries, including Luxembourg, financed stimulus plans to ensure economic recovery and sustain future growth.

Although it was necessary to fight against the short-time consumption downturn, these plans will have a major impact on public finance. This is the case for most European countries as well as the USA, where government deficits and public debt have increased substantially over the last two years.

To stay competitive in the long-term, national economies have to keep their public finances healthy, which means reducing public debt and deficit. In this respect, countries from the euro area must comply with the Stability and Growth Pact, requiring a general government debt of less than 60% of GDP and a general government balance sheet that does not exceed 3% of GDP.

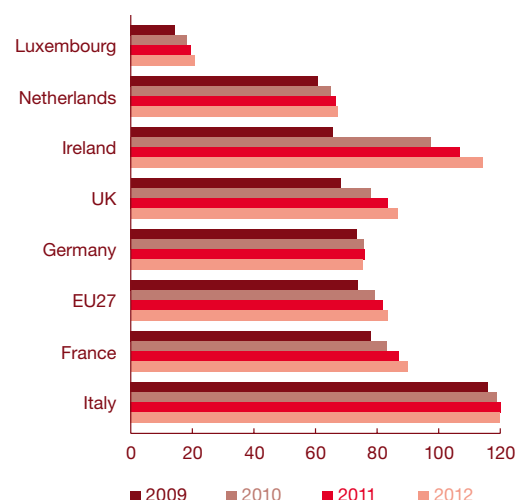
After assessing national stimulus plans and public finances, the European Commission forecasts that over the next few years, government debt from most European countries is going to breach the EU Stability and Growth Pact criteria.

However, Luxembourg public finances are still healthy and constitute the best guarantee of stability for its tax regime.

<sup>22</sup> Interview “Luxembourg: Where Else?” DVD enclosed, September 2008

<sup>23</sup> “Paying Taxes 2011”, World Bank, International Finance Corporation, PwC

## General government debt (in % of GDP)<sup>24</sup>



**With public finances comfortably within EU Stability and Growth Pact requirements, Luxembourg will maintain one of the most attractive tax regimes in Europe.**

## A rewarding tax environment

### Corporate tax rate and incentives

In 2011, **the combined corporate income tax rate in Luxembourg City is 28.8%**. In the next few years, the rate is expected to decrease progressively to 25.5% – provided that there is a sufficient economic recovery. Moreover, capital duty was abolished with effect on 1 January 2009. Luxembourg has **62 treaties, for the avoidance of double taxation with respect to taxes on income and on capital, in effect as of April 2011**. Companies that have set up their business in Luxembourg can benefit from these treaties (additional treaties are currently under negotiation notably with Kuwait, Lebanon, etc.).

### An attractive tax regime for Intellectual Property (IP)

IP has always been a company's most valuable asset. Thus, investments made by companies in terms of invention, creative work and R&D activities should be protected. Companies must be aware of the important role that intellectual property plays in innovation.

Adopted in 2007, the Luxembourg tax regime provides an 80% exemption for net income deriving from certain IP rights and capital gains realised on the sale of IP. The partial exemption applies to income paid to Luxembourg taxpayers for the use and the right to use software copyright, patent, trademark, design, model or domain name under certain conditions. Said IP also benefits from the net wealth tax exemption.

### Investment tax credits

The global investment tax credit provides a credit of 7% of the acquisition value of investments made during the year, subject to a ceiling of EUR 150,000 and of 3% on the balance. For environmentally-friendly investments, said rates increase up to 8% and 4% respectively. The complementary investment tax credit provides a credit of 13% of the complementary acquisition value of investments made during the tax year.

Further to a recent decision of the European Court of Justice, the scope of investments for the investment tax credit has significantly been broadened. Certain sectors like shipping or air freight industries may particularly benefit from this decision.

### New business tax credit

25% exemption (or 50% until 2013) on both corporate income tax and municipal business tax for up to eight or ten years on profits arising from the implementation of new businesses, manufacturing processes and new high technology services under certain requirements.

More generally, various types of incentive regimes are available, notably for developing R&D and innovation (see page 17).

<sup>24</sup> European Economic forecast Autumn 2010, European Commission, 2010

## Indirect tax rate and incentives

### VAT advantages

Since the institution of VAT in the European Union (EU), Luxembourg has always applied the lowest rates in the EU. The different rates applicable in Luxembourg are: 3%, 6%, 12% and 15%, according to the goods or services purchased.

### No VAT pre-financing on imports

Most EU countries ask for payment of the VAT due on imports. In Luxembourg, no cash payment of the VAT on imports occurs because the VAT due only needs to be reported in the VAT return. This procedure applies automatically and unconditionally, whereas application of the same procedure in some other EU countries may be subject to preliminary authorisations and/or guarantees. Therefore, **no cost is linked to the pre-financing of import VAT in Luxembourg**, with a minimum administrative burden.

## VAT representation

A foreign entrepreneur can, for eligible transactions, appoint a third party in Luxembourg to carry out the necessary VAT formalities and pay the VAT due in Luxembourg on his/her behalf, without having to register for Luxembourg VAT himself.

## Personal tax

The personal tax regime is constantly being adapted to the benefit households and people involved in Luxembourg daily life. As such, there are many allowances, deductions and exemptions in the Luxembourg income tax regime, deductions for employment-related expenses, deductions for interest payments, deductions related to share purchase, exemptions for overtime pay and extra pay for working nights, Sundays or public holidays, partial exemptions on dividend income, etc.

## New tax regime for qualifying international employees

In January 2011, Luxembourg authorities introduced a new tax regime for both qualifying international employees and employers. Expatriates who meet the eligibility conditions will benefit from significant tax savings and living benefits. Notably through tax exemption in reimbursement by the employer of certain charges linked to the cross-border transfer of residence like relocation expenses, tax return assistance, tax equalisation, home leave trips, school fees, etc.



The Moselle valley and river



## 4. A commitment towards R&D and Innovation

Luxembourg has confirmed its commitment to make research and innovation a top priority of its national policy agenda and to help it thrive in the Grand Duchy.

Sizing up the weight of innovation in future economic growth, Luxembourg's Ministry of the Economy and Foreign Trade, together with Luxinnovation, the National Agency for Innovation, has deployed a series of Clusters since 2002.

This programme, called Luxembourg Cluster Initiative, aims at establishing both research and business-based structures for innovative companies and institutions and at creating synergies between them.

To enhance the efficiency of this process, the idea is to develop a Cluster for each business sector in accordance with the diversification policy led by the Government. Among all the Clusters, five are managed by Luxinnovation:

- **Biohealth** Cluster for the promotion and development of health science and technologies in Luxembourg;
- **EcoInnovation** Cluster encouraging sustainable development and environmental technologies;
- **Materials** Cluster for the creation of expertise in Luxembourg in the fields of surface treatment and new materials. The Cluster works in a transnational perspective with the collaboration of entities from Lorraine, Champagne-Ardenne and Wallonia;
- **InfoCom** Cluster for all information and communications technology activities;
- **Space** Cluster for all space related technologies like satellite systems, earth observation and space telecommunications.

This proactive policy underlines the government's strong volition, at a time when the future of the world economy is at a turning point, to make Luxembourg a prime location for high value added activities. Other national Clusters are also in force and will be presented later on in this brochure.

### Financial support

Luxembourg offers a full range of custom-made investment incentives designed to give new ventures a head-start and, in particular, to foster R&D and innovation. Financial support may be granted for the funding of specific investment and R&D projects to complement equity and bank financing. Medium and long-term loans from the SNCI<sup>25</sup> are available at interesting rates.



<sup>25</sup> Société National de Crédit et d'Investissement



R&D plays an important role in the innovation process, which is strategically vital to the current and future profits of Luxembourg companies and institutions. In order to support them in this field, the government has introduced a dedicated public incentives framework for R&D, effective since 1 July 2009.

The common incentives framework grants aid of up to 25% of the R&D investment. However, on specific matters the level of aid can be higher.

The following table<sup>26</sup> summarises the maximum aid intensities of all of the aid schemes established by the Law of 5 June 2009 relating to the promotion of research, development and innovation.

Companies of all size and private research organisations which expect to invest in research are eligible for this aid. These incentives aim at enhancing the visibility of Luxembourg as a major centre for the management of technical innovation through research and development by encouraging public-private cooperation and investments in innovative fields.

<sup>26</sup> "State aid for research, development and innovation for the benefit of Luxembourg's economy", Luxinnovation, 2009

Maximum Intensity / Maximum Amount				
Type of scheme		Large enterprise or private research organisation	Medium-sized enterprise or private research organisation	Small enterprise or private research organisation
R&D project or programme	Experimental development*	25% (40%)	35% (50%)	45% (60%)
	Industrial research*	50% (65%)	60% (75%)	70% (80%)
	Fundamental research	100%	100%	100%
Technical feasibility studies	Prior to experimental research	40%	50%	50%
	Prior to industrial research	65%	75%	75%
Protection of technical industrial property	Following experimental development*	n/a**	25% (40%)	25% (40%)
	Following industrial development*	n/a**	50% (65%)	50% (65%)
	Following fundamental research	n/a**	100%	100%
Aid for young innovative enterprises		n/a	n/a	€ 1,000,000
Innovation advisory services and innovation support services		n/a**	€ 200,000 maximum aid per 3-year period	€ 200,000 maximum aid per 3-year period
Temporary secondment of highly qualified personnel		n/a**	50%	50%
Investment in innovation Clusters		15%	25%	35%
Animation of innovation Clusters		50% on average, over a maximum period of 5 years		
"De minimis" measures		€ 200,000 maximum per period of 3 fiscal years		

\* Collaboration with public research centre or any research partner includes a 15% bonus

\*\* De minimis measures may be applied

### What are the eligibility requirements for R&D and innovation incentives in Luxembourg?

The eligibility requirements depend on two major elements, which are the type of beneficiary and the nature of the project. If each incentive's scheme has its own specificities, the beneficiaries generally include enterprises (SMEs or large companies) or research centres that are legally registered in Luxembourg. The type of incentive (generally subsidies or interest-rate subsidies) and the amount will also depend on the types of research programmes. For example, the notion of collaboration between firms with a national public research centre, or with any research partners, is taken into consideration. The type of research (basic research, industrial research or pre-competitive development for example) or the type of innovation (incremental or breakthrough) are among the criteria influencing the nature and amount of the incentive.

For most of the incentive schemes, the beneficiary should enclose a short business plan with:

- a quantified description of the research and development project;
- an overview of the specific regime for IP rights protection (see page 14);
- a description of the possible outcomes of the project;
- the financial plan (with the detail of potential eligible costs).

#### Example of additional incentives: environmental incentives

To promote the development of environmentally-friendly manufacturing practices, investments encouraging the protection of the environment and the rational use of energy may benefit from incentives of up to 25% of related costs.

### Support Organisations

- The SNCI is specialised in the financing of investments and exports. With an approach based on co-financing with the commercial banks, it strives to guarantee an appropriate balance between the different sources of financing.
- The Office of Ducroire works to promote economic and financial relations in favour of Luxembourg. One of the most notable ways it does so is by providing guarantees against export risks.

**“We base our development on Knowledge and Research & Development. Innovation is key for us.”**

**Jeannot Krecké**, Minister of the Economy and Foreign Trade<sup>27</sup>

#### At the heart of a hub of research

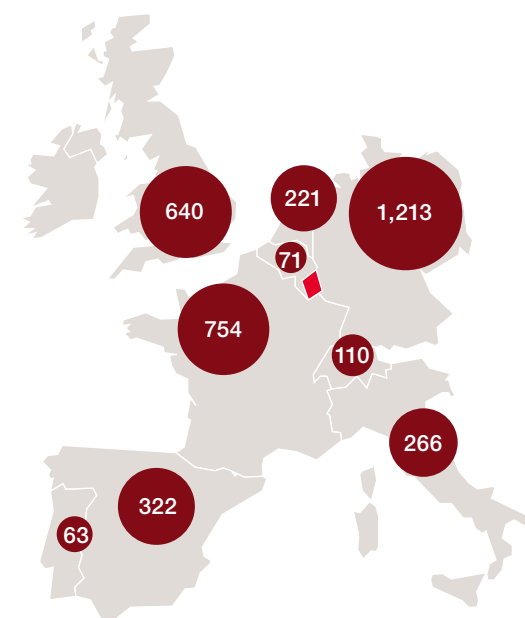
Within a 200 km radius of Luxembourg, an outstanding network of expertise and a first-class pool of resources make the area a preferred location for the development of research and innovative activities in Europe<sup>28</sup>.

<b>90</b>	Universities and Higher Education Institutions
<b>25,000</b>	Academic staff and professors
<b>345,000</b>	Students with half of them studying engineering
<b>25,000</b>	Researchers in public and private sectors
<b>310</b>	Laboratories

#### An attractive location for engineers

In the middle of this area, Luxembourg, which has been heavily investing in high value industry, has become an increasingly attractive location for best talents. In 2011, 71% of 10,440 engineers working in Luxembourg are foreigners and 36% of all engineers commute daily from neighboring countries. Engineers, who enjoy Luxembourg’s dynamic marketplace and high standards of living, account for 2.9% of the active population, representing one of the highest concentrations of engineers in Europe<sup>29</sup>.

#### Pool of engineers around Luxembourg (in thousand of engineers)



In addition, the huge pool of engineers who benefit from full mobility within the EU, constantly fuels jobs created by the fast-growing high value industry in Luxembourg.

<sup>27</sup> Interview, “Luxembourg: Where Else?” DVD enclosed, September 2008

<sup>28</sup> Statistics portal of the Greater Region

<sup>29</sup> “Europe engineering report”, Institut der Deutschen Wirtschaft Köln, 2009

### Esch-sur-Alzette, Belval: the city of knowledge and innovation

Built on the stones of the former industrial site of Belval, a unique Science Quarter is emerging in the south of Luxembourg (15 km from Luxembourg City). Sustained by public authorities and private stakeholders, this ambitious project aims to form both an extremely competitive and innovative community. With its advanced infrastructure, Belval will, in the near future, bring together and connect all the key institutions necessary to become a centre of excellence in knowledge and innovation with direct routes to address the European market:

- the University of Luxembourg;
- the Public Research Centres Gabriel Lippmann and Henri Tudor;
- research centre in biotechnologies and molecular medicine;
- top research and innovative companies;
- an advanced urban living plan;
- about 200,000 sq.m. of new offices;
- incubator for start-ups, etc.

Scientists, students and entrepreneurs will work side by side in a place where the worlds of science and business converge to create an area that promotes the exchange of ideas and communication. By the end of the decade, Belval will attract more than 20,000 professionals among the best talents from the Greater Region and abroad.



© PwC

## 5. Highly skilled and multilingual workforce with high productivity

The labour market in Luxembourg offers a pool of highly skilled and multilingual resources from Luxembourg as well as France, Germany and Belgium. Due to its history, Luxembourg has also a strong potential workforce pool from Portugal and Italy. **Many people in Luxembourg can speak three or more languages**, including Luxembourgish, German, French, English, Portuguese, Italian, Spanish, etc. As the business community puts it: “In Luxembourg, we speak the language of our customers”. Almost 40% of the people in Luxembourg say that they speak English at work<sup>30</sup>.

The high level of professional qualifications held by staff has allowed the Grand Duchy to respond to the requirements of multilingual and multicultural investors.

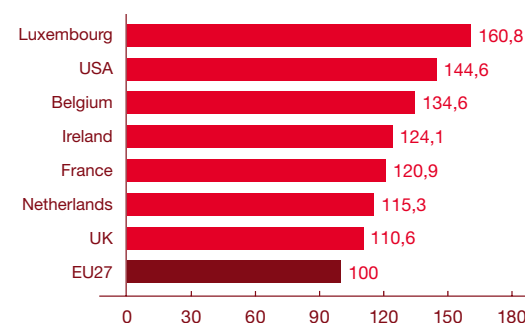
**In 2010, Luxembourg ranked first in terms of productivity per person employed thanks to a pleasant working environment as well as good social relations and a high added-value economy<sup>31</sup>.**

Luxembourg’s people benefit from one of the most attractive social security systems in Europe (social security contributions and coverage) with relatively low rates (both for employees and employers), broad coverage, high benefits and generous packages.

**Another advantage that sustains Luxembourg’s outstanding labour competitiveness, turns out to be its lower taxation and social charges compared to other European countries.** This is an essential feature in attracting European talent.

## Labour productivity per person employed

(EU25<sup>32</sup> = base 100, base on a PPS<sup>33</sup> series)



30 TNS ILReS Survey, 2007

31 “Key figures on Europe”, Eurostat 2011

32 EU25 includes: the 17 Member States of the Euro area + Croatia, Czech Republic, Denmark, Latvia, Lithuania, Poland, Sweden and United Kingdom

33 PPS: Purchasing Power Standards



## 6. An international country welcoming foreign people

Due to its history, Luxembourg is a land of permanent migration. **The capacity of the country to offer to facilitate the economic and social integration of foreigners is fundamental.** Luxembourg City is one of the European Union's three official capitals and situated at the crossroads of France, Germany and Belgium. It is an unparalleled cultural metropolis.

Luxembourg City is characterised by the combination of numerous cultures and languages with over 60% of its residents coming from other countries. In addition, the country welcomes around 166,000 daily commuters. The integration of foreigners is very easy in Luxembourg. Luxembourgish, French and German are the official languages and 75% of Luxembourgers can speak English<sup>34</sup>.

As Luxembourg is a member of the EU and part of the Schengen zone, there are no difficulties for employers to attract European talents. Luxembourg is used to it as **67% of its active population come from a foreign country.** Moreover, in July 2008, the members of the Luxembourg Parliament adopted a new immigration law in order to simplify and accelerate administrative application procedures and modernise the legislation on immigration.

Luxembourg's quality of living, social security coverage, fine public infrastructure, rewarding packages and ideal gateway to European careers have attracted researchers and highly skilled profiles.

All these features have designed Luxembourg as the most cosmopolitan European country where entrepreneurs can enjoy a first-class multilingual pool of executives.



Luxembourg City, Place Guillaume, market

<sup>34</sup> "Une enquête sur un marché linguistique multilingue en pleine mutation", BaleineBis, 2009

## 7. A tailor-made international school system

**Luxembourg provides excellent accessibility to education for foreign children with various renowned international schools** (International School of Luxembourg, European School, St George's International School or Lycée français Vauban). With the steady increase of foreign children within the population, the Luxembourg government recently announced a new investment programme for international schools to meet future demands.

The national public schools in Luxembourg offer the opportunity to learn German, French and Luxembourgish at an early age.

### **The University of Luxembourg: a dynamic institution with prestigious partnerships.**

The University of Luxembourg has international multilingual abilities and has established privileged partnerships with other universities as well as private and public institutions. Since 2003, it has offered Bachelor's, Master's Degrees, and Doctorates in line with the Bologna criteria, as well as other specific courses. The University of Luxembourg has chosen its model to be that of a university led by research and supports a number of scientific research focus areas (like security and reliability of information technology, material science, life sciences, European and business law, etc.).

In addition to the University of Luxembourg, other institutions like Sacred Heart University and the Miami University Luxembourg are present. Luxembourg is also only a couple of hours away from well-known universities in France, Germany and Belgium.



A friendly environment for children. Monterey park, Luxembourg city

## 8. A safe country with a high quality of living

According to Mercer's 2009 survey<sup>35</sup>, **Luxembourg is the city with the highest level of personal safety** thanks to its high scores in the following criteria: relationship with other countries, internal stability, crime and law enforcement. Luxembourg also occupied the 7<sup>th</sup> position out of 149 countries in the 2010 Global Peace Index, drawn up by Vision of Humanity<sup>36</sup>.

Luxembourg's unique metropolitan lifestyle ranked 6<sup>th</sup> out of 194 countries in terms of quality of living in the 2010 International Living survey.

### Luxembourg, high quality and affordable cost of living

The Mercer "Worldwide Cost of Living Survey 2010" shows that Luxembourg is less expensive than most other European cities<sup>37</sup>. The country ranks 55<sup>th</sup> out of 214 and is doing much better than Moscow, London, Geneva, Zurich, Milan, Paris, Dublin, Rome, Vienna, and Amsterdam.

Luxembourg also ranks 7<sup>th</sup> out of 254 cities worldwide in terms of lifestyle and facilities for expatriates, according to an ECA International 2010<sup>38</sup> survey. Luxembourg remains a favourite European destination for immigration due to its peaceful environment.



Castle of Clervaux, Luxembourg

<sup>35</sup> [www.mercer.com](http://www.mercer.com)

<sup>36</sup> [www.visionofhumanity.org](http://www.visionofhumanity.org)

<sup>37</sup> [www.mercer.com](http://www.mercer.com)

<sup>38</sup> [www.eca-international.com](http://www.eca-international.com)



**Luxembourg, with its charming contrasts, is a city loaded with history<sup>39</sup>.** An extraordinary network of 23 km of underground galleries and the famous “casemates” constitute one of the city’s main attractions.

**The old town of Luxembourg City and its Vauban’s fortifications are listed as UNESCO world Heritage sites.**

The medieval houses in the outlying areas harmoniously blend with the avant-garde architecture of the Kirchberg plateau. This new part of the City where the EU institutions have established their headquarters, hosts new buildings like the Museum of Modern Art (Mudam) with a contemporary art collection designed by Pritzker Prize laureate and Chinese American Architect, I.M. Pei, and the Philharmonie concert hall designed by the French Pritzker Prize laureate, Christian de Portzamparc.

The country offers a wide variety of green sceneries. Welcoming villages which have retained their character and picturesque locations, demand to be explored. The Moselle valley with vineyards in the east and the valley of “sept châteaux” invite onlookers to make a journey through history and nature. Vianden, a small village with one of the largest and most beautiful medieval residences of the romanesque and gothic periods in Europe, is also known for its once famous inhabitant, 19<sup>th</sup> century French Romantic writer, Victor Hugo.

**In addition, Luxembourg is the country of nature lovers.** It has one of the largest hiking networks in Europe in relation to the size of the country. Luxembourg offers more than 5000 km of hiking trails. In the north of Luxembourg, the regions of “Ösling”, and in the south the “Gutland”, with thick forests and plenty of small streams are popular with hikers.

The vast green spaces in the Pétrusse Valley, the public parks and the picturesque banks of the Alzette are the ideal setting for relaxation whereas the pedestrian area is a true shopping thoroughfare which includes a wide choice of boutiques and high end shops.

In Luxembourg, **excellent sports facilities** are also available (six golf courses, 39 swimming clubs, first-class spa facilities, 53 tennis clubs, etc.).

Sport car lovers can access two of the most prestigious car racing circuits, Spa-Francorchamps and Nurburgring within a two-hour drive from Luxembourg.

**Luxembourg cuisine** is a mix of French and German culinary specialties. Due to its role as an immigration centre for Portuguese and Italians and it’s a central position in Europe, Luxembourg’s restaurants offer a wide choice of specialties that reflect the City’s cultural diversity. In Luxembourg, you can enjoy excellent cuisine from all over the world: European, Chinese, Indian, Japanese, Latin American, etc.



View of the Grund quarter

<sup>39</sup> Luxembourg National Tourist Office ([www.ont.lu](http://www.ont.lu))

## 9. A country of culture and entertainment

**Luxembourg has a large number of museums, theatres (with a wide range of plays and operas in English, German and French) and cinemas with movies in their original version.**

The Philharmonie Concert hall offers one of the best acoustics in Europe and has been chosen by famous orchestras and conductors, to name but a few: the London Philharmonic Orchestra, Bayerische Staatsphilharmonie, Orchestra Filarmonica de la Scala, Philadelphia Orchestra, as well as Daniel Barenboim, Riccardo Muti and Jonathan Nott.

Luxembourg has hosted some of the world's most prestigious operas, like those played at the International Opera Festival at Aix-en-Provence in France. Moreover, it is one of the few places that offers spectators the chance to discover the famous British theatre and opera director Deborah Warner's latest production, one by the internationally acclaimed American avant-garde stage director and playwright Robert Wilson and the world's greatest ballerina Sylvie Guillem.

The several concert and opera venues of Luxembourg (Rockhal, Grand Théâtre de la Ville and Philharmonie, etc.) are home to outstanding and eclectic programmes. From the New York Philharmonic Orchestra to R.E.M. and from Kylie Minogue to world-renowned saxophonist Ornette Coleman, or Carlos Santana, **Luxembourg provides for every taste.**

Luxembourg City is an unexpectedly active and lively multicultural capital which has however retained a personal charm. The high proportion of foreigners (more than 60% in Luxembourg City) offers the city an unrivalled cosmopolitan atmosphere, designed with a combination of European and international cultures. Luxembourg's nightlife is very much in keeping with the city itself: trendy, varied and sometimes spectacular. Luxembourg City stays up late, there are numerous nightspots, wine bars, theater performances and other after-dark activities which welcome a young and high profile workforce looking to be entertained.

### Contemporary Art in Luxembourg and the Greater Region

The Luxembourg Museum of Modern Art (Mudam), designed by Pritzker Prize laureate Pei, hosts a large collection of contemporary Art. In Metz (France), 45 minutes away from Luxembourg, the new Pompidou centre opened in 2010. This centre, sister of the famous one in Paris and designed by Shigeru Ban, exhibits a part of the 59,000 pieces, that make the Pompidou centre the second most important contemporary art collection in the world after the MoMA in New York City.





Luxembourg Philharmonie concert hall  
Architect: Christian de Portzamparc, 2005

# C. Luxembourg's unique proposals for your business



Luxembourg offers great advantages that make it stand out from other countries as the place to live and develop business. **Luxembourg gives the business community the opportunity to have tailor-made proposals for each enterprise in all industries.** In Luxembourg, a rich pool of resources will help businesses find an open approach to attain solutions with public and private partners.

Perfectly integrated in the European business market, Luxembourg's economy is fully designed towards export activities and global trade. In fact, most of the local firms in Luxembourg address the **European or international market** as a strategic priority.

According to the Fourth Community Innovation Survey (CIS4), only 5% of the firms in Luxembourg regard the national market as their primary market, and the majority of the firms declared that they compete in international markets.

In line with Luxembourg's commitment towards economic diversification, public authorities have set up numerous measures to enhance the country's competitiveness in fast-growing and emerging industrial sectors.

Through a sectorial perspective, this section highlights existing opportunities and key advantages in Luxembourg for every business activity. Whether you address the BtoB or BtoC market, this section also describes how Luxembourg could support the creation, implementation and development of your project in Europe.

### Key business sectors

Capitalising on a long-term industrial expertise and a high-skilled workforce, Luxembourg is investing in high value industries and fostering high technologies initiatives.

Sectors in focus are:

The **automotive industry** in Luxembourg benefits from a competitive business environment. It is a prime location for Tier 1 and Tier 2 suppliers, for setting up a distribution centre and for developing research and innovative projects.

**Logistics** is a key focus area of the economic development in Luxembourg in order to encourage activities with high added-value and the implementation of European distribution centres for companies.

**Information and Communications Technologies (ICT) and business services** are considered as major fast-growing sectors with high potential for any entry-level competitor to set up a global platform for e-commerce or content distribution.

**Environmental technologies** is a thriving sector encompassing several emerging subsectors. Luxembourg is dedicated to developing a competitive position on these future markets.

**Health sciences and technologies**, and in particular research activities, are expected to grow significantly in the long-term and catch up with sectors of higher concentration. There are clear opportunities to develop synergies with leading scientists, projects and infrastructure in Luxembourg.

Finally, the **financial sector** benefits from the strong development of its players and service providers to reinforce its leading position in Europe. Luxembourg offers a highly supportive environment for developing a wealth management strategy, corporate banking functions at group levels and e-financial services.

All the opportunities and Luxembourg's proposals per sector will be detailed in the following sections.

To learn more about the opportunities to implement your activities in Luxembourg, don't hesitate to get in touch with our team of experts at [setupineurope@lu.pwc.com](mailto:setupineurope@lu.pwc.com), or have a look on our website at [www.setupineurope.com](http://www.setupineurope.com)



# 1. High Value Industry and Environmental Technologies

## Luxembourg at the heart of knowledge

At the heart of Europe, with substantial logistics facilities, Luxembourg offers many opportunities for high value industries and is becoming the ideal place for development, production and distribution. With a wide network of Public Research Centres (PRC) and government backing, Luxembourg has been chosen by top tier companies for their R&D activities.

### An eco-district project

Bringing together the competencies of private companies and public institutions, the Luxembourg EcoInnovation Cluster recently initiated the project “Organic City – Organic Life in Dudelange” in the south of the country. It consists of implementing a sustainable urban development project by transforming the former industrial site into an eco-district.

## Luxembourg's opportunities for your business

### Operating R&D activities in Luxembourg

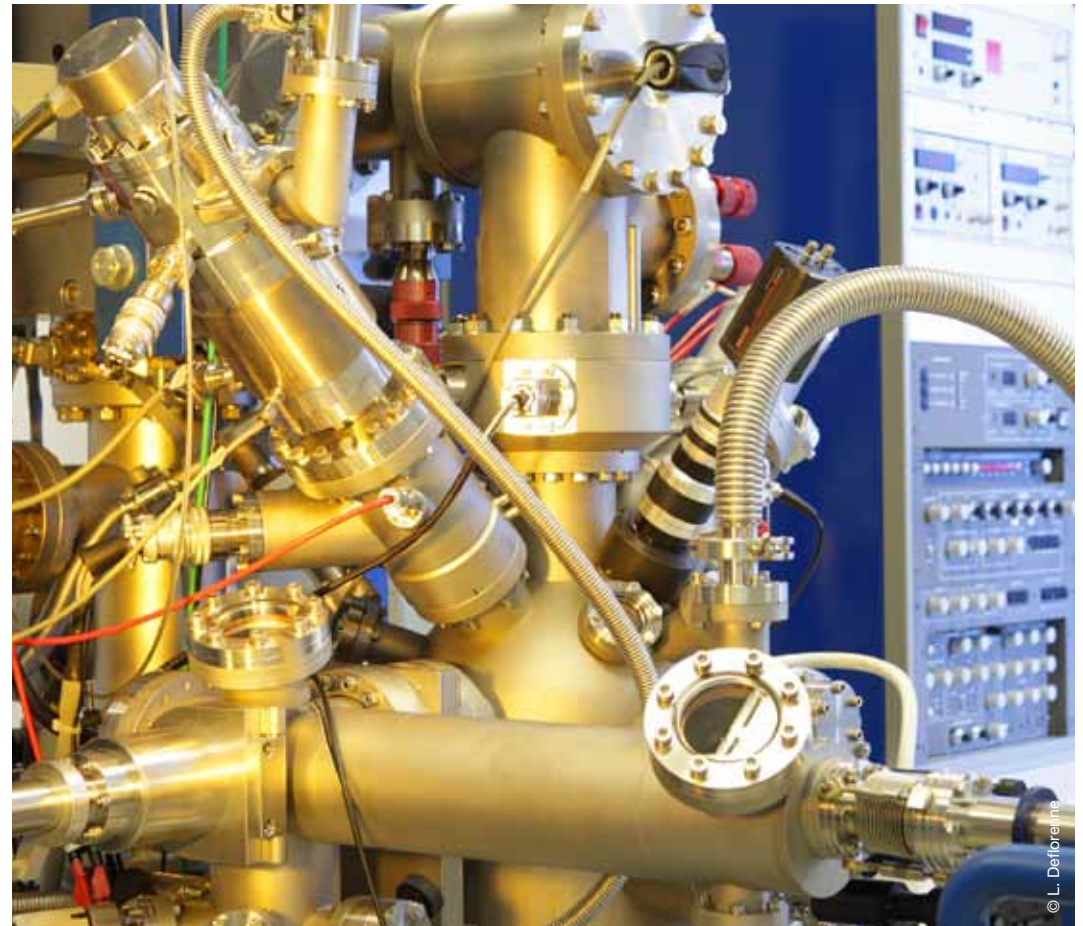
To reinforce the national competitive position, the Luxembourg government's priority is to encourage R&D via financial support. The credit allocated to public R&D is becoming more and more significant.

In fact, it has been multiplied by ten since 2000. In 2010, the government invested EUR 250 million in public research. The objective is to reach a R&D expenditure effort of 2% of the GDP by 2012<sup>40</sup>.

### Setting up high tech production and distribution centres

Due to the low rate of social contributions and the high level of net salaries, Luxembourg is a very attractive country for industrials and highly skilled workers.

**Industrial companies find high productivity and a peaceful environment in Luxembourg, thanks to one of the highest weekly working hours in Europe and the absence of strikes.**



<sup>40</sup> “A knowledge-based innovation economy”, Luxembourg for Business, 2010

Luxembourg ranks 3<sup>rd</sup> out the 40 wealthiest countries in Global Innovation-based Competitiveness<sup>41</sup>.

Many companies and startups based in Luxembourg produce and deliver high tech products to their European clients in a very efficient, secure and consistent way. **Reactivity to clients' needs is optimal thanks to the geographical position, the multilingual workforce and logistics solutions (air freight, roads, railroads and waterways).** In Luxembourg, there is a unique possibility to have production centres linked to distribution centres in one place, as well as being on clients' doorsteps.

### Testing out your technology and marketing strategy from Luxembourg

Luxembourg offers an ideal “test-market” framework for a wide range of high value products. There is enough size and diversity in the market for an effective test. Indeed, the country has the highest level of purchasing power in Europe and a multicultural population keen on innovative products. In addition to these assets, the geographical and business landscape are quite manageable.

#### CERATIZIT, a Luxembourg company leader in hardmetal solution

Founded in 1931, in Walferdange in Luxembourg, CERATIZIT, with its headquarters in Luxembourg, is one of the leading manufacturers of tungsten carbide products worldwide. The hardmetal products are used in woodworking, stoneworking and metalworking applications as well as specific wear parts. Aware of the asset value of R&D activities, CERATIZIT has developed a research centre in Luxembourg with 100 researchers working to find and develop new products. They have registered 400 patents so far.

### Luxembourg's support for your business

#### Ecostart Entreprise and Innovation Centres

The Ministry of the Economy and Foreign Trade offers support services to Innovative businesses in Luxembourg by making facilities available to innovative startups. The mission of Ecostart Entreprise and Innovation centres is first to support promoters of innovative projects by providing them with active guidance until their start-up stage. It also provides businesses at the development stage with temporary accommodation.

This initiative also serves as a knowledge sharing platform, as well as a networking platform.

### Material sciences & analysis expertise

Luxembourg offers a wide range of assets and areas of expertise in the development and optimisation of materials.

The Science and Analysis of Materials (SAM) department of the Public Research Centre (PRC) Gabriel Lippmann is a laboratory that is both an applied and fundamental research facility, as well as an analytical services laboratory. It provides assistance to more than 100 industrial and academic partners worldwide in their technological research and development, with regards to materials and surfaces R&D.

The areas of expertise are:

- characterisation of materials, surfaces and interfaces. The department coordinates the Nanobeams European Excellence Network, the only network dedicated to the characterisation of nanomaterials;
- development of innovative surface treatments;
- elaboration of nano-objects and nanostructured materials;
- design and development of new instrumentations and new equipment for the fields of materials analysis and surface treatment.

<sup>41</sup> According to the Atlantic Century survey of the Information Technology and Innovation Foundation, Benchmarking EU & US, 2009

**The PRC Henri Tudor** has developed a large scale of competencies aimed at the industrial and construction sectors. The PRC works on plasma surface treatment, bulk treatment and further coordinates material trials in several domains (macro mechanical trial, etc.).

The PRC also became the national resource centre for environmental technologies, leading research in the areas of life-cycle analysis, eco-design, eco-construction and renewable energies.

**The “Ecolnnovation” Cluster to reinforce Luxembourg’s competitiveness in environmental technologies and sustainable development activities**

Launched by Luxinnovation in 2009, this is a cornerstone in favour of the Luxembourg environmental-technology Action Plan created by the Ministry of the Economy and Foreign Trade.

This ambitious plan aims to encourage the development of eco-companies in Luxembourg to stimulate both environmental protection and high tech diversification. Entreprises involved in environmental-technology and research laboratories will get in touch with each other, thanks to the Cluster, to monitor innovation and competitiveness and develop research projects in this field. Eco-companies will also benefit from special subsidies and European aid to develop their activities in Luxembourg. In addition, the Cluster will allow its members to share key technological information within a network of cross-technical competencies.

**The University of Luxembourg** hosts a high priority research programme and has developed first-rate partnerships. TDK, in partnership with the University of Luxembourg and the government have created a “Chair for research on semiconductor materials for photovoltaic batteries”. In 2011, this partnership has led to the design of the most efficient photovoltaic cell in Europe.

**Research, tax and Intellectual Property support**

The Luxembourg government provides a range of supportive measures to develop research and innovative activities and has recently introduced new measures to boost Intellectual Property (IP) developments (80% exemption for net income deriving from certain IP rights) (see pages 14 and 17).

**ArcelorMittal steel from Luxembourg contributes to saving Venice from the floods**

Years ago, the high tides in the Adriatic Sea caused big troubles in Venice. Now, an infrastructure project is looking at protecting the city from the floods by positioning gates through the three inlets of the Venetian Lagoon. ArcelorMittal delivered all the foundation solution products that enabled to construct these gates for the project which is known under the name Mose. High value added sheet piles from the production site in Esch-Belval have been used in this project. They are used for underwater steel sheet pile structures, foundation and as pollution barriers. ArcelorMittal has also provided beams from the site in Differdange for the foundation of the Venetian Lagoon. Both the sheet piles and the beams have been developed with strong technological support from ArcelorMittal's R&D Centre in Esch-Alzette.





## 2. Health Sciences and Technologies

### Luxembourg: the development of a health sciences hub

By establishing an internationally competitive health sciences hub, Luxembourg offers a unique and dedicated environment for developing life sciences projects.

In Luxembourg, out of 1,000 working persons, 7.6 are researchers; the average in the EU is 6 researchers for 1,000 working persons<sup>42</sup>.

### Luxembourg's opportunities for your business

#### Developing a project in the field of diagnosis and medical research

Luxembourg is becoming a preferred location in Europe for world leading scientists and industrial players in the field of personalised medicine. This is mainly due to the advanced research projects supported by numerous international partnerships at all levels and a unique public-private interaction environment and strong governmental support of life sciences and healthcare research.

#### Developing and centralising IP

Luxembourg is the ideal location to benefit from an attractive tax regime, as well as to save up to 80% of the net income received (see page 14).

### Developing a complete value chain from R&D to marketing

Take advantage of the pool of highly skilled professionals and modern equipment accessible in Luxembourg to conduct research at the frontiers of science and to use the results to develop a safe and efficient drug production process (covering all important matters, e.g. manufacturing, packaging, regulatory compliance). Luxembourg also offers advanced process technologies for reducing time-to-market and improving process efficiency.

#### Distributing health care products and services all over Europe and beyond

Thanks to its central location, its neutrality and first-class logistics infrastructure, Luxembourg has unique expertise for coordinating the distribution of health products and services in Europe, complying with the highest international standards of safety and security.

### Advanced Biological Laboratories

ABL's vision is to help improve the quality of care for people living with chronic and infectious diseases (HIV/AIDS, viral hepatitis, tuberculosis, oncology, neurology and cardiovascular) by assisting their healthcare providers with dedicated therapeutic decision support and medical record systems that use the latest medical research and expertise in the field.

Among the products offered by ABL, TherapyEdge-HIV is a dedicated HIV client-server application. ABL pioneered the field of "Clinical Informatics" with a system that uses medical records to provide advanced patient management and built-in decision tools with additional set of features like HL7, connectivity and dashboards for a full seamless platform in secured IT environments.

<sup>42</sup> "Luxembourg petit pays, grand nombres", Chamber of Commerce, 2010

Used in more than 32 countries, this system is part of European Union (FP6/FP7) and other research funded-projects to assess antiviral resistance spread in Europe, Africa and Asia. It is also used in 100 clinics in Europe, South Africa, Botswana, Thailand and other countries to contribute towards optimal routine clinical care management of HIV, tuberculosis and viral hepatitis infected patients.

Located in Luxembourg, ABL is leveraging the international talent pool available in the Grand Duchy by combining high-profile scientist and technical experts to develop cutting-edge technologies.

### Ensuring fundraising for start-up companies

As one of the leading European financial centres with a high presence of asset managers, private banking, diverse private equity and venture capitalist funds, Luxembourg emerges as a dedicated location for raising international funds and organising corporate structures. In addition, some public bodies, like the Ministry of the Economy and Foreign Trade, the National Research Fund and the SNCF, may decide to co-finance your project.

### Using IT capacity, a catalyst for discovery

Luxembourg has developed numerous advanced information technology infrastructures with a multitude of services to offer (storage facilities, managed connectivity, IT managed services, etc.) and has one of the best developed national fibre networks within Europe.

### Leading areas of University research competencies in Luxembourg

Luxembourg will be at the centre of a **health sciences and technologies hub**. It will gather in the Greater Region **15 universities and 14,000 medical students** within high profile biomedical research institutions and international research consortia.

### Tapping into the European pool of resources to recruit

The development of international research projects, high salaries for scientific and expert staff and the overall quality of living confer **Luxembourg a special attractiveness in Europe when it comes to recruiting future researchers**. 82% of researchers in Luxembourg are foreigners<sup>43</sup>.

### WaferGen, a pioneer in genome analysis systems

WaferGen Biosystems, Inc. is a leader in the development, manufacture, and sale of advanced systems for genome analysis for the life science and pharmaceutical industries. Based on collaborations established with leading research institutions, WaferGen's SmartChip Real-Time PCR System is positioned as a platform of choice for biomarker identification and validation. This innovative system promises to deliver significant speed and cost advantages to researchers in the gene expression and genotyping markets. In 2010, WaferGen and the Integrated BioBank of Luxembourg (IBBL) signed an agreement to establish a strategic relationship that will expand the use of the WaferGen SmartChip Real-Time PCR system throughout Europe and advance personalised medicine. The two organisations will co-develop molecular signatures for filing and approval in Europe for diagnostic research and commercial applications. As part of WaferGen's commercialisation strategy, the company plans to establish its European Headquarters at the IBBL facilities, in Luxembourg, in the very near future.

<sup>43</sup> Statec, 2011

## Luxembourg's support for your business

Presence of key public research institutions with high tech equipment

**Public Research Centre Gabriel Lippmann** including the Department of “Environment and Agro-Biotechnologies”.

The institution focuses on four primary areas of research:

- **innovative materials technology** (in particular, nanotechnologies and instrument development);
- **sustainable management of natural resources;**
- **technologies of the information society;**
- **automobile equipment.**

**Public Research Centre Henri Tudor** including the “Resource Centre for Healthcare Technologies”.

The PRC Henri Tudor is recognised for its expertise in **medical and biomedical image processing, clinical engineering quality controls and bioinformatics.**

The multi-disciplinary team of the PRC Henri Tudor has proven expertise in diverse technological applications ranging from **image processing** in bioinformatics to security research.

**Public Research Centre for Health (PRC Santé).**

The PRC Santé is recognised for its exploration in the areas of **cancer research, immunology, infectious diseases and cardiovascular pathology.**

**University of Luxembourg**, Faculty of Sciences, Technology and Communication including the “Life Sciences Research Unit”.

The University laboratories are fully equipped for advanced research in the fields of molecular and cell biology, biochemistry and physiology. A new master in **Integrated Systems Biology** was created in 2008 to prepare students for the **challenges of biosciences in the 21<sup>st</sup> century.**

**A newly founded Biobank to promote high quality research in Luxembourg**

**Bringing the next generation of healthcare to the citizens of Luxembourg**

The Integrated Biobank of Luxembourg (IBBL) is a collaborative effort to facilitate medical research for the next generation in healthcare, while establishing new standards in biospecimen research, data protection and technology expertise.

The IBBL is part of the Luxembourg Government's long-term commitment to develop Luxembourg as a centre of excellence in biomedical research, promoting its research capabilities and encouraging collaboration with the international medical community.

By providing high quality biospecimens and data alongside cutting-edge technology, the IBBL will catalyse and integrate the ideas, people and resources needed to translate today's discoveries into personalised medical care innovations to benefit the healthcare, education and economy of Luxembourg.



**The Luxembourg Centre for Systems Biomedicine (LCSB)** develops and applies systems-level approaches to gain insight into the **molecular and cellular mechanisms of human diseases**. Experimental and computational approaches are combined to analyse the complexity of biological systems underlying disease pathogenesis. The LCSB is pioneering the way for a predictive, preventive and personalised medicine. The LCSB is **highly interdisciplinary** and works closely with other departments of the University of Luxembourg, especially those, with an expertise in molecular medicine, IT and mathematics.

Committed to expand Luxembourg's expertise in life sciences, the LCSB is collaborating with worldwide leading institutions like **the Institute for Systems Biology (ISB)** of Seattle or the University of Cambridge. The LCSB also fosters partnerships with industrial partners and offers challenging job experience to attract the best scientists. The LCSB has become a focal point for developing a research and knowledge-based platform in Luxembourg.





### 3. ICT, e-commerce and Broadcasting

#### Luxembourg, a strategic place for e-commerce activities

Luxembourg, with the presence of major key players, is a pioneer in communication technologies and home for several leading brands in media and electronic services. Luxembourg is developing advanced infrastructure and has a pool of highly qualified people. Luxembourg is becoming a preferred place for developing e-business opportunities and in particular for electronically supplied services, TV and radio broadcasting and telecommunication services.

#### Luxembourg's opportunities for your business

##### Setting up a global platform for e-commerce

In a BtoC relationship, a company providing e-services (dematerialised services) from Luxembourg can benefit from one of the lowest standard VAT rates in the EU, regardless of the location of the buyer (i.e. 15% for all private consumers based in the European Union). This regulation will apply until 2015, thereafter, the country of the buyer will determine the applicable VAT rate and will, therefore, be the same for any cross-border businesses in the EU.

##### Leading opportunities in broadcasting, media development and digital content production

In addition to the expertise developed by the country and by the key media and communication players already here (e.g. eBay, iTunes, Microsoft, RTL Group, Skype, Amazon, etc.), Luxembourg offers the possibility to benefit from a reduced VAT rate of 3% for broadcasting services to any EU market as well as for distributing digital content produced in the country.

Luxembourg is also known as a European platform for the production of movies. Besides providing movie-makers with specific incentives, the country offers a favourable legal framework, an easy access to the investor network, high skilled professionals and top tier infrastructure.



### Distributing e-commerce financial services

In Luxembourg, e-commerce companies which aim to develop financial services (e.g. Paypal) may apply for a banking licence. If granted, they are able to deliver financial services, like taking deposits, offering credit, financial advice, issuing credit cards, etc.

Three distinctive banking licences are available in Luxembourg: the universal banking licence, the electronic money institution and the payment institution. Every licence offers specific opportunities to fully complement standard e-commerce services.

### Developing IT services using data centre facilities

The country offers strong communication infrastructure, through, among others, broadband fibre optics networks connected to the major European networks and satellite connections. As of 2011, a network of more than 15 data centres has been present in Luxembourg. This state-of-the-art park is split into Tier IV (the highest existing level), Tier III and Tier II design service levels.

Luxembourg with one of the best data centre parks in Europe, is becoming a strategic place for developing and implementing innovative technologies to improve their energy efficiency and to decrease both environmental footprint and operating costs.

### Leveraging on Intellectual Property's opportunity

Luxembourg has approved a highly favourable IP regime, which applies, among others, to copyrights, patents and trademarks but also to domain names (see page 14).

### **EuroDNS: One of the market leaders in the domain name industry**

Founded in 2002 by Xavier Buck, EuroDNS is a domain name registrar specialised in international domain name extensions and is part of the DCL Group. Based in Luxembourg, with branch offices in Europe, the USA and Asia, the company serves a large variety of clients, ranging from SMEs to some of the world's largest domain investors, and offers dedicated naming solutions to trademark holders. Since 2002, the company has been annually recording strong double digit growth. This success is due in part to its highly successful "one-stop-shop" strategy, which allows customers to consolidate their portfolio in Europe, Asia, Latin America and worldwide under one roof. In addition, following ICANN's new naming conventions, EuroDNS has set up a programme that will ultimately give companies and brand holders the possibility to hold their own space on the Internet. Luxembourg is the first European country to offer an investor-friendly legal environment for domain names, which makes it also an ideal platform for domain names' location. In this way, revenues generated by domain names are exempted from corporate taxes up to 80% as an essential part of intellectual property.

## Luxembourg's support for your business

Luxembourg has well developed modern communication infrastructure and offers a broad range of IT services, responding to the most sophisticated needs of Luxembourg companies (banks, fund administration, e-commerce, etc.).

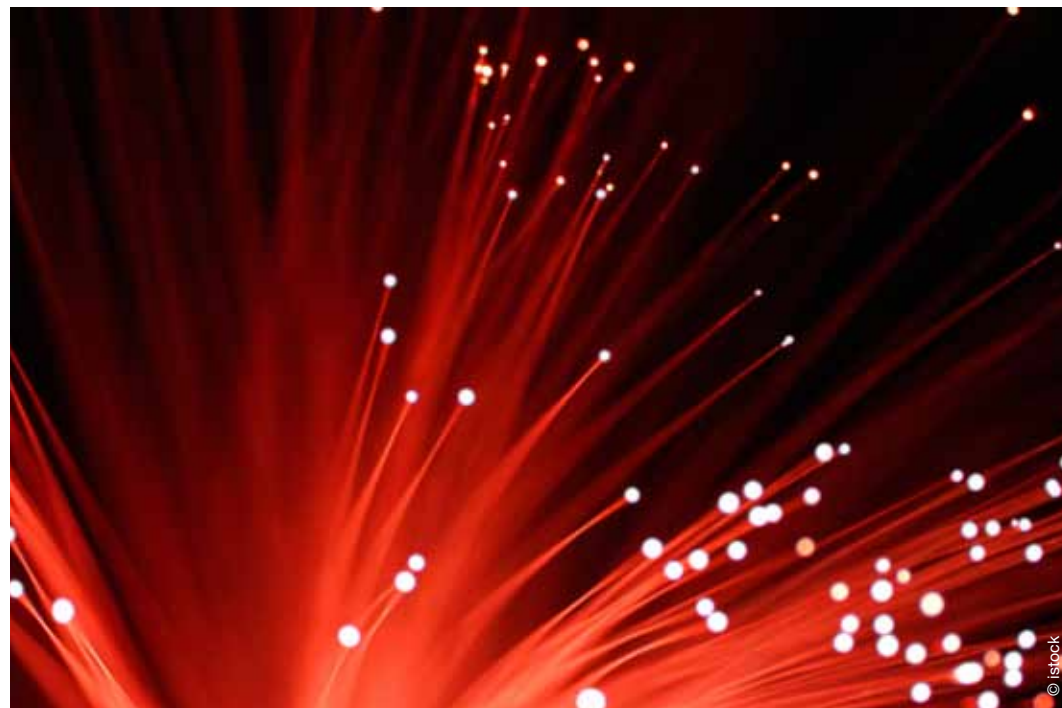
### The TERALINK network, high connectivity to Europe

TERALINK is a trans-European fibre network spanning more than 4,000 km with 16 points of presence (PoP) in six EU countries, linking Amsterdam, Brussels, London, Paris, Frankfurt, Strasbourg and Luxembourg. Each city is connected by redundant fibre routes, provided by different suppliers with cutting edge technology (up to 88 x 100 gigabits, 8.8 (terabits)).

## The University of Luxembourg at the forefront of IT research and education: a step towards innovation

In view of the digital revolution with significant increase of digital communications, the University of Luxembourg has created a research unit including the **Laboratory of Algorithmic, Cryptology and Security** (LACS) to focus on computational number theory, system and network security and information security management.

In 2009, the University of Luxembourg has launched the **Interdisciplinary Centre for Security, Reliability and Trust** (SnT), establishing a crucial instrument for the University to foster interaction and collaboration between academia and industry in the area of interconnected communication networks and systems<sup>44</sup>.



<sup>44</sup> Interdisciplinary Centre for Security, Reliability and Trust, Université du Luxembourg, ([www.securityandtrust.lu](http://www.securityandtrust.lu))

### LuxConnect

LuxConnect is a private company owned by the Luxembourg government. LuxConnect builds and operates fault tolerant data centres, puts dark fibre at the disposal of telecom operators and provides international connectivity to Luxembourg through a performing data and communication centre.

### Initiatives to enhance e-commerce monitoring

**LuxTrust**, Luxembourg's electronic certification services agency is a certification authority that guarantees, as a trusted third party, a highly secured electronic certification service, which allows strong client authentication and digital signatures with legal value via Internet and Intranet;

The **commercial Internet Exchange Point (LU-CIX)**, launched in 2009, is an important step forward for Luxembourg's Internet community as it will further develop the country as a prime e-commerce platform in Europe by substantially increasing connection speed. LU-CIX allows all players (from Internet access suppliers and telecommunication operators, to multimedia content creators) to interconnect in a convenient and efficient way;

**CASES** is a public initiative to enhance information security. Committed to strengthening user confidence, Luxembourg government launched its CASES awareness campaigns in 2011. Dedicated to SMEs and users, this initiative aims at monitoring cyber risks, threats and vulnerabilities on a daily basis. CASES provides a network operating in the area of outreach and prevention for the establishment of a common Internet security culture.

### Most Connected OECD country

Luxembourg is ranked 1<sup>st</sup> out of the OECD countries in terms of the number of communications access path, of which it has 222 per 100 inhabitants<sup>45</sup>. These paths include analogue, ISDN lines, DSL cable modem, fibre and mobile subscribers.

#### Luxembourg's rankings

- |                 |  |
|-----------------|--|
| 1 <sup>st</sup> | 1 <sup>st</sup> / 37 countries for share of ICT-using occupations in the total economy<br>OECD Key ICT indicators, 2010                            |
| 2 <sup>nd</sup> | 2 <sup>nd</sup> / 161 countries for the most advanced ICT economy<br>ITU's ICT Development Index, 2010   |
| 5 <sup>th</sup> | 5 <sup>th</sup> / 161 countries regarding lowest ICT tariffs<br>ITU's ICT Development Index, 2010  |
| 5 <sup>th</sup> | 5 <sup>th</sup> / 70 countries regarding broadband penetration<br>"Broadband leadership ranking", Said Business School and Oxford University, 2010 |

### Public investment for ICT infrastructure

In February 2009, the Luxembourg Ministry of Communications, together with the Luxembourg Ministry of the Economy and Foreign Trade, unveiled an ambitious EUR 100-million action plan aimed at boosting and reinforcing the Luxembourg ICT landscape, in line with the will to keep Luxembourg's competitiveness high.

Despite an impressive broadband penetration rate, Luxembourg continues to invest in high-speed broadband. In 2010, a new strategy plan was launched to bring fiber-to-home to 100% of the population by the end of 2015, while providing 1Gbit to every household in Luxembourg by 2020. In addition, the objective is to connect all commercial activity zones by 2013 through optical fibre.

<sup>45</sup> "OECD Communication Outlook", OECD, 2009

## 4. Logistics & Transport

### Luxembourg for process and delays optimisation

The logistics sector is one of the key focus areas of economic development identified in Luxembourg to create **new added value, sustained growth and new jobs**. Logistics players and high value consumer goods producers and distributors benefit from the central location of Luxembourg, which offers a unique gateway right in the middle of the “Blue Banana”<sup>46</sup> where half of Europe’s GDP is produced.

### Luxembourg’s opportunities for your business

#### Putting the European distribution centre at the heart of Europe

The central location of Luxembourg turns out to be an ideal and efficient distribution hub to the European market with no less than 500 million consumers. Luxembourg confers direct access to the major consumer markets and to a wealthy population within an accessible range and multilingual workforce.

#### Tapping into larger markets thanks to a fast and connected logistics network

Luxembourg’s Airport Cargo Centre is committed to safe, efficient and speedy ground handling allowing jumbo freighter planes to be compliant with customs and able to unload at a record speed of as low as 90 minutes. What’s more, its ideal location enables trucks to reach the open road in a minute and any European city in twenty-four hours<sup>47</sup>.

<sup>46</sup> The Blue Banana is a concept developed by Brunet in 1989. It is a discontinuous corridor of urbanisation, approximately from north-west England (in the north) to Milan (in the south). The curvature of this corridor (looks like a banana) encompasses cities such as London, Brussels, Amsterdam, Cologne, Frankfurt and Milan, and covers one of the world’s highest concentrations of people, money, and industry

<sup>47</sup> “Logistics hub Luxembourg: putting Europe at your fingertips”, Luxembourg for Business

### Being in the competitive location of centralised procurement in Europe

Over the years, companies have increasingly looked for cost and operational efficiencies linked to the centralisation of supply chain related activities like a single procurement and trading entity. The collaborative approach of the Luxembourg government and authorities also makes Luxembourg a preferred place in this field.

#### Developing added-value logistics activities

Luxembourg offers a **competitive environment** and an **attractive place** to develop added-value services, in particular for third party logistics providers or 3PL (product assembling, pick and pack, distribution, cross-docking, etc.), fourth-party logistics or 4PL (planning, freight services, customs brokerage, etc.), reverse logistics operators (for IT equipments, health products, raw materials, etc.) and shared services centres (e.g. for planning, reporting, tax and customs compliance, billing and collection).

Logistics services providers present in Luxembourg are almost all **ISO-certified** and supply a wide range of value-added services like co-manufacturing and co-packaging, organisation and management of the customer service and invoicing treatment. Luxembourg presents a unique value proposition in Europe for high value services thanks to direct routes to more than 90 world destinations. Rapid goods and customs processing ensure a fast delivery to European clients, specialised service providers in high value, luxury and medical devices goods and a favourable regulatory and tax environment.

#### Developing green logistics

The future of logistics is intimately linked with the development of sustainable modelling and environmentally friendly solutions. Since 2007, to comply with ecological constraints, an innovative railway service in Europe has been developed. It permits intermodal (road and freight) transport without unloading between Bettembourg (Luxembourg) and Perpignan (France).



## Luxembourg's support for your business

### No VAT prefinancing on imports

Importing goods into the EU generally triggers a VAT liability in the country of importation, unless the goods are placed under a specific suspensive customs regime. Most EU countries ask for payment of the VAT due on import. In Luxembourg, no cash payment of the VAT on import occurs because the VAT due only needs to be reported in the VAT return. This procedure applies automatically and unconditionally, whereas application of the same procedure in some other EU countries may be subject to preliminary authorisations and/or guarantees. Therefore, **no cost is linked to the pre-financing of import VAT in Luxembourg** with minimum administrative burden.

### The certification agency

The recognised certification agency (SNCH) offers EU wide recognised services that allow manufacturers to access international markets within a minimal period of time and at an affordable cost.

### Simplified administrative tasks with the fiscal representation

Since 1 January 2008, Luxembourg has introduced the system of fiscal representation for VAT purposes. With this particular system, foreign traders do not need a fixed establishment in Luxembourg to import goods in the country. They may use the service of a fiscal representative that carries out the necessary VAT formalities and pays any VAT due in Luxembourg on their behalf, without having to obtain their own VAT number and be confronted with the relating compliance obligations. This system aims to simplify the administrative tasks for the foreign exporter and allows them to benefit from the advantage of no prefinancing for VAT on import (see page 15).



Charles Darwin dredger, Jan De Nul vessel

### Toward a paperless environment

A paperless trade and customs environment has been developed by Luxembourg Customs authorities, in cooperation with the European Commission to reduce pressure on administrative procedures and trade transaction costs.

Luxembourg is also taking part in the IATA e-freight project that aims at removing the paper documents accompanying air freight shipments by replacing them with electronic processes.

### AEO Status: a partnership between authorities and business

The Authorised Economic Operator (AEO) programme is designed to authorise “trusted traders” to benefit from a number of advantages:

- a reduced number of cargo inspections at Community borders;
- a priority treatment at a convenient place for customs control to be performed;
- easier and quicker access to simplified customs procedures.

### At the heart of an excellent communication network

Luxembourg is, on an ongoing basis, developing an advanced infrastructure to improve the efficiency of its logistics capabilities. Firms can benefit from the current synergies with bordering logistical centres, key players or infrastructure.

Every exporter in Luxembourg can rely on **optimised distribution** with advanced logistics parks dedicated to **air freight at the Eurohub centre and to rail-freight at the Eurohub south**.

### Logistics and Maritime Clusters strengthen Luxembourg’s position as the intercontinental logistics hub in Europe

In accordance with all the institutional decision-makers, the Logistics Cluster was launched in 2009. It intends to create an information exchange platform, strengthen collaboration and synergies between the different actors and support R&D and innovation initiatives in the logistics sector.

The Cluster also aims to generate proposals for improving the legislative, regulatory and administrative framework in Luxembourg with the perspective to enhance the country’s competitiveness. In addition, the Maritime Cluster created by the Luxembourg Chamber of Commerce is acting to promote the maritime sector and to support shipping initiatives.

### Jan De Nul Group, the dredging world leader

Jan De Nul Group started its business in 1938 as a civil engineering construction company and then diversified into dredging. It is now its main activity in which it has become the world leader. More than 5,000 employees (450 in Luxembourg), a yearly turnover of EUR 1.8 billion and the most modern and technologically advanced dredging fleet are many aspects that rank Jan De Nul at the top of international dredging industry. Today the main vessels of the Jan De Nul fleet are running under a Luxembourg Flag, which represents 20% of the Luxembourg Maritime Register. The Jan De Nul Group is a founding member of the new Luxembourg maritime Cluster and aims to intensively promote the maritime sector in the Grand Duchy. Jan De Nul Group chose to set-up its head office in Luxembourg, as it offers tailor made solutions in the field of investments, banking and tax, not to mention the easy “reach-ability” of Luxembourg institutions and authorities.

Air freight	Railroads
<ul style="list-style-type: none"> <li>• 5<sup>th</sup> freight airport in Europe and home base of Cargolux, Europe's leading air freight carrier.</li> <li>• Landing strip of 4,000 metres.</li> <li>• 630,000 tons of freight were transported in 2009 (capacity of 1.2 million of tons per year).</li> </ul>	<ul style="list-style-type: none"> <li>• The logistic park "Eurohub south" offers a unique intermodal transport without unloading.</li> <li>• Traffic: 200 million tons/km.</li> <li>• The density of railway is one the highest in the world.</li> </ul>
Waterways	Roads
<ul style="list-style-type: none"> <li>• Port of Mertert (65 hectares) had a traffic of 1 million tons in 2009.</li> <li>• Common goods transported: fuel, steel products, construction material, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Motorways connected to Belgium, France and Germany.</li> <li>• Motorways network highly developed: all European capitals are within easy reach (&lt;24h drive).</li> </ul>



### Cargolux: one of the leading cargo airlines

Cargolux operates in scheduled and charter services on a network covering all continents. The company can rely on over 40 years of experience in air freight delivery services. In Europe, Cargolux is the largest all-cargo airline and it stands at the 9<sup>th</sup> position worldwide. The firm recorded a turnover of USD 1.75 billion in 2010 and employs about 1,500 people, including 1,120 in Luxembourg.

Operating exclusively for freight forwarders, Cargolux has become a key player in many worldwide supply chains. Using a fleet of 11 B747-400 freighter aircraft and 20 trucking contractors, the Luxembourg company moves valuable and time-sensitive commodities throughout its worldwide network, currently covering over 90 destinations. The firm has recently invested in the first-class new Boeing 747-8 freighter which will be more environmentally-friendly while providing increased loading capacity.

Cargolux is constantly adapting its network to changing market demands and trade flows. Cargolux's network links many of the world's most important production centres of industrial, automotive and consumer goods through its hub in Luxembourg. The air freighter has also a strong expertise in the transportation of outsize shipments, perishable goods and live animals.

Flexibility is one of Cargolux's strongest assets and the company successfully builds on long-term cooperation with our customers as well as other airlines in key markets.

## 5. The Automotive Industry

### Luxembourg's automotive Cluster at a glance: there are currently 30 automotive equipment suppliers.

Thanks to the central location and outstanding technologies, car manufacturers based in Europe (like BMW, Daimler-Chrysler, Fiat, Ford, PSA, Renault-Nissan, Toyota, VW, etc.) use products that are “made in Luxembourg”. Automotive components are also exported to assemblers in the USA and in Asia.

### Luxembourg's opportunities for your business

#### Being in the prime location for Tier 1 and Tier 2 suppliers<sup>48</sup>

Luxembourg's highly competitive business environment is particularly favourable for specialised Tier 1 and Tier 2 suppliers, which provide almost two-thirds of an average car's added-value. Luxembourg offers suppliers the ideal strategic location. Close to 50 assembly lines of Original Equipment Manufacturers (OEMs) in a radius of 600 km allow relationships to sprout and collaboration to take place.

### Setting up your European distribution centre

Luxembourg's long-established routes across Europe help optimise distribution performance by allowing to be close and therefore timely in your delivery to a multi-customer base. All car manufacturers in France, Germany and the United Kingdom, as well as assembly lines in Belgium and the Netherlands, can be supplied from Luxembourg **on a same day delivery basis**<sup>49</sup>.



<sup>48</sup> A Tier 1 supplier takes generally responsibility for developing, producing and refining complete components or modules of the car. They make products specifically for one of the OEMs (Original Equipment Manufacturer). A Tier 2 supplier for value adding parts sells to a Tier 1 supplier, while a Tier 3 (steel, raw material) sells to a Tier 2 supplier, and so on

<sup>49</sup> “Luxembourg the automotive specialist”, Luxembourg for Business, 2010



## Developing research and innovative projects

Product and technology changes will be the major drivers of the automotive industry and a key criterion for success in this competitive sector. In this respect, companies can benefit from the expertise of Luxembourg research centres (e.g. the Research in Equipment for the Automobile industry (REA) of the PRC Lippmann) to develop **new raw materials, nanotechnologies, eco-technologies, or simply any innovative project.**

**More than 2,200 employees in the Luxembourg automotive industry work in R&D, accounting for 25% of all employees in the sector<sup>50</sup>.**

## Luxembourg's support for your business

### Benefit from Luxembourg's research expertise

REA, a specialised department of the PRC Gabriel Lippmann, intends "to be fully at the service of the world of automobile equipment manufacturers and attentive to their needs" and is a potential partner of automotive suppliers to develop research projects. The REA department has developed strong synergies with several key public and private players. Its areas of expertise cover:

- the development of new products for the automotive sector;
- the improvement of the quality of products for the automotive sector;
- the development of new production processes;
- the improvement of the production processes of automobile equipment manufacturers.

## Distinctive Intellectual Property environment

Many multinational companies across the board in manufacturing industries need to protect revenues coming from patents and licenses. The legal and regulatory context pertaining to the protection of intellectual property allows international companies to design tailor-made solutions (see page 14).

### Luxembourg: an EU technology platform for developing and testing new generations of hybrid vehicles

The Grand Duchy of Luxembourg gathers all the advantages to become a genuine real-size laboratory for developing and testing new generations of alternative fuel vehicles. Luxembourg has some key distinctive assets: a multicultural environment, the shortest average distance between home and work in Europe, an important commercial vehicle fleet, a very short average vehicle lifetime (about four years), attractive financial incentives, highly supportive authorities, as well as high tech infrastructure.

<sup>50</sup> Industrie Luxembourgeoise des Equipementiers de l'Automobile (ILEA), 2011

## Best practices in automotive R&D in Luxembourg

**Goodyear** is specialised in the production of tyres, steel cords, fabric and moulds. Goodyear has set-up its second research centre in the world, the “Goodyear Innovation Centre Luxembourg” for the development of automotive systems and components.

**Delphi's** site in Luxembourg hosts a customer technology centre and now the global headquarters of the Powertrain division, as well as the regional headquarters of the company. The site is designed to support Delphi customers and to be a full service system development facility, with testing and development capability for Thermal systems and Powertrain systems for automotive applications<sup>51</sup>.

**International Electronics & Engineering S.A.** (IEE) is specialised in the development and mass production of electronic sensors on thin flexible films. IEE has been developing and producing pressure sensors since its creation, and electromagnetic sensing has since been added as an additional function. Major products for car manufacturers are PPD (Passenger Presence Detection), CPOD (Child-seat Presence and Orientation Detection), OC (Occupant Classification) and SBR (Seat-Belt Reminder).

**Guardian Automotive**, in addition to the two main production plants (producing Float Glass, Clear Float, Heat Treated Glass, Laminated Glass, etc.), has set up its Research Centre for Glass and Ceramic (C.R.V.C.) in Luxembourg.



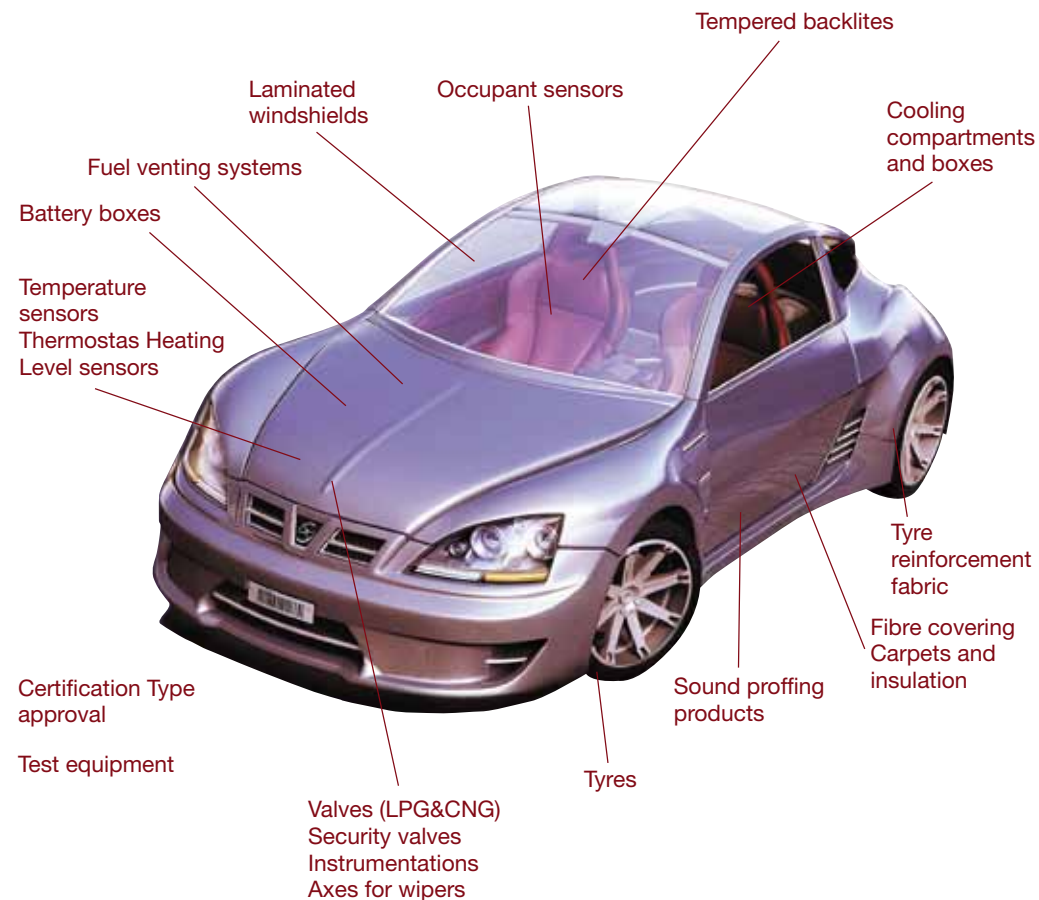
<sup>51</sup> "Delphi opens the new global headquarters of its Powertrain division in Luxembourg", Delphi press release, January 2007



### Automotive homologation for entering new markets

Luxcontrol and the National Homologation Authority (SNCH) are both specialised in the certification and approval of vehicles, components and systems for the European and international markets. They provide a full range of services adapted to the client's needs, from active and passive car safety, to environmental protection or the quality assurance of products and production process.

### Automotive Components made in Luxembourg<sup>52</sup>



52 Industrie Luxembourgeoise des Equipementiers de l'Automobile (ILEA), 2011

## 6. Financial services: a framework designed to widen global distribution capabilities

**Luxembourg is a leading market for financial activities. It is the first private banking centre in the euro area and the world's second largest domicile for asset management, behind the US.**

The financial sector in Luxembourg benefits from the development of supportive local players and service providers which reinforces its leading position in Europe. In addition to its numerous inherent assets for developing business – like a geographically central location, a competitive taxation or the expertise developed in specific businesses – Luxembourg is positioned as an international hub for the development of new financial products and, therefore, the widening of its global distribution capabilities.

**Luxembourg's opportunities for your business**

**Developing your wealth management strategy**

Easy access to European investors

Located at the crossroads of Europe, Luxembourg has developed a strong cross-border financial culture. As such, Luxembourg-based activities can reach a wealthy population of more than half a billion of inhabitants in the EU27. Luxembourg financial products and services target both institutional and individual investors, from retail to High Net Worth Individuals (HNWI). In order to meet these clients' expectations, the Grand Duchy has built and continuously adapted an innovative range of both traditional and sophisticated financial products.

Best range of innovative products in Europe

Thanks to a close dialogue between the authorities and the market, Luxembourg financial products meet the expectations of both the supply and demand. **The long-term expertise in mainstream products has made Luxembourg the fund domicile of choice for international asset managers.**

The country did not only develop the traditional financial segment, but also positioned itself as a leading centre for alternative products: investment vehicles like the SICAR (for private equity) or the Specialised Investment Funds (SIF) for alternative asset classes contribute to the widening of the scope of eligible assets and to the improvement of flexibility of investment for institutional and qualified investors. Luxembourg also offers the opportunity to set up various types of life insurance products giving access to a large scope of eligible assets.

Specialised service providers to ensure strong distribution capabilities

A dense network of service providers exists in Luxembourg in order to support the growth of the financial sector; all along the value chain, from administration to tax, regulatory and distribution services. Specialised and recognised service providers have developed competencies to manage sophisticated products dedicated to European and international distribution. As such, Luxembourg is the domicile of choice for global fund distribution and today, 75% of worldwide fund registrations<sup>53</sup> are allocated to Luxembourg products. In order to manage and administrate 12,900 sub-funds and more than EUR 2,200 billion of assets, Luxembourg-based service providers have developed innovative and reliable IT financial systems.

<sup>53</sup> Refers to true cross-border funds registrations, i.e. fund distributed in at least 3 countries including their domicile



All these opportunities represent essential differentiating factors that make the set-up of international structures in Luxembourg attractive. They contribute to building a dynamic environment in favour of innovation and global distribution. As a result, the biggest international groups, like State Street, J.P. Morgan, CACEIS, BNP Paribas Securities Services and many others, have already chosen Luxembourg as a prime location for their business.

#### A first-class UCITS IV platform

Since the introduction of the **Undertakings for Collective Investments in Transferable Securities (UCITS) Directive** (85/611/EEC) in 1985, the development of the European investment management industry has evolved toward a single market for collective investment schemes, evidenced by the extent of cross-border distribution within the EU and on a global scale. The investment fund industry has made an important step forward with the adoption of the UCITS IV Directive. Luxembourg became the first Member State to transpose the EU directive into its national law in December 2010. Major breakthroughs

are the authorisation of cross-border fund mergers and the set up of the management company passport that will allow the domiciliation of UCITS funds in countries without the necessity of having the management company domiciled in the same jurisdictions. In this context, the Luxembourg UCITS brand as well as the competitive tax and regulatory frameworks will play a crucial role in the reorganisation of the industry and of the funds domiciliation map.

#### A hub for your alternative investment activities

In November 2010, a Directive on Alternative Investment Fund Managers (AIFM) was adopted by the European Parliament. Under this Directive, European investment managers of non-UCITS investment funds will have to comply with a common set of rules in terms of licensing and supervision. In return, alternative investment funds (AIF), or non-UCITS funds, will benefit from a European passport for cross-border distribution to EU professional investors. This new market development will constitute an additional opportunity for Luxembourg as a centre for the redomiciliation of offshore alternative funds.

#### Developing your corporate banking functions at group level

Luxembourg has an attractive regulatory framework adapted for international groups that want to develop their group banking function in order to provide their clients and themselves an easier access to financial facilities. The government is actively facilitating the development of new activities in various sectors like technology, life sciences, private equity, real estate and the establishment of the headquarters of multinational companies. These numerous international firms are seeking first-class corporate banking services, especially cash management and transaction services, as well as short/long-term financing solutions. Some multinational companies have also established their own corporate banks in Luxembourg in order to optimise their internal finance techniques when investing abroad, or in the case of mergers and acquisitions.



Luxembourg-Kirchberg, European quarter

## Developing e-financial services

Luxembourg is considered an interesting place to develop new financial services linked to e-commerce. The achievement of a banking license for e-commerce activities follows a quick and simplified process. For example, Paypal, a solution for e-commerce businesses, allows payments and money transfers through the Internet. This Luxembourg bank is an electronic alternative to traditional paper methods like cheques or money orders (see page 39).

## Luxembourg's support for your business

### An innovative and tailor-made framework

Luxembourg undeniably, disposes assets to develop financial activities:

- a continuously reviewed and improved regulatory framework, due to a close collaboration between authorities and business;
- a stable tax environment;
- the presence of numerous recognised service providers with a long-term expertise in administration, management and distribution;
- very supportive authorities that focus on promoting Luxembourg.

These key success factors greatly contribute to the development of innovative financial products and services, with an increased geographical focus.

## Luxembourg, a centre of excellence for sustainable finance

Luxembourg is a leading player in the field of sustainable and green financial instruments. In just a few years a forward thinking legislative framework and numerous technical tools have been put in place, enabling the Grand Duchy to quickly develop crucial expertise in sustainable finance.

The trend is driving financial institutions to adapt and develop new products, particularly in terms of socially responsible investment funds, which encompass microfinance vehicles, carbon finance and social as well as development funds.

Luxembourg is active in each of these specific areas:

- the first privately owned carbon fund in Europe was launched in 2005 in Luxembourg by a public financial institution and a major European bank;
- in 2009 a pan-European investment fund for the funding of climate change, energy safety and network infrastructures was also launched under Luxembourg law by major public financial institutions;
- Luxembourg-based bank launched the first commercial investment fund designed to refinance microfinance institutions, which in turn serve well over one million micro-entrepreneurs. Since then many others institutions which aim squarely at the eradication of poverty and hunger have also chosen to establish themselves in Luxembourg, like Crédit Agricole Grameen Bank Foundation, ADA, Blue Orchard;
- the Foundation of Luxembourg is yet another important player which acts as an intermediary between donors and beneficiaries, enabling private persons or companies to select, monitor and even host funds aimed at providing support for key solidarity projects;
- in March 2010 the Luxembourg Government, in cooperation with eight financial institutions, launched the Luxembourg Microfinance and Development Fund;
- at present Luxembourg is the world's leading country of domicile for microfinance investment vehicles, with a 21% global market share.

“It is crucial that our financial place develops new activities like microfinance, clean-tech financing, Islamic finance and philanthropy in order to complement and expand existing services of wealth management and fund business.”

**Luc Frieden**, the Luxembourg Minister of Finance

#### **Bank of China (Luxembourg) S.A.**

Founded in 1912, Bank of China is the oldest financial institution in China. It is also one of the big four state-owned commercial banks and has been listed on the Hong Kong Stock Exchange since 2006. The Bank provides a comprehensive range of financial services to customers across China's mainland, Hong Kong, Macau and 29 overseas countries. In 1979, Bank of China established its Luxembourg branch, which became the first Chinese bank set foot in the Grand Duchy of Luxembourg. In 1991, Bank of China (Luxembourg) S.A. was incorporated with the objective of increasing its European footprint and offering its clients an international platform. In 2007 and 2010, Bank of China (Luxembourg) S.A. set up its two branches in Rotterdam and in Brussels to further strengthen the business coverage in the Benelux and neighbouring regions. Today, Bank of China (Luxembourg) S.A. is mainly engaged in corporate banking, retail banking, as well as treasury business.



Luxembourg-Kirchberg, European Institutions quarter and Mudam

# How to set up your business in Luxembourg





# How PwC can help



PwC Luxembourg

## progena by PwC, a sound combination of expertise

progena by PwC is specialised in environment and sustainable development, project management as well as ROI calculation on green investment opportunities. By developing a responsive approach to the emerging sustainability challenges its multi-skilled team of professionals offers a broad service line to answer the needs of operational and financial companies.

For further details, please contact:

### **Laurent Rouach**

Partner

laurent.rouach@lu.pwc.com

+352 49 48 48-5762

### **Jean-François Champigny**

Partner

jean-francois.champigny@lu.pwc.com

+352 49 48 48-5762

For an investing company, doing business in a foreign environment requires local knowledge and expertise to guide it through the local context, identify business opportunities and operate successfully in the selected markets.

Contacting us for information about Luxembourg could be an additional asset, helping you to discover all the economic and financial opportunities Luxembourg can offer.

Thanks to our vast network and our numerous contacts in Luxembourg, we can help you make an effective contribution to your company and your decision-making.

## **Office**

400, route d'Esch  
Luxembourg-Cloche d'Or

## **Postal address**

B.P. 1443 L-1014 Luxembourg

Tel. +352 49 48 48-1

Fax +352 49 48 48-2900

**www.pwc.lu**

## **Our business development leaders at your service:**

### **Didier Mouget**

Managing Partner

didier.mouget@lu.pwc.com

+352 49 48 48-2506

### **Laurent Probst**

Innovation and R&D Partner

laurent.probst@lu.pwc.com

+352 49 48 48-2564

### **Marc Saluzzi**

Strategy and Market Leader

Financial Sector

marc.saluzzi@lu.pwc.com

+352 49 48 48-2511

### **Luc Henzig**

Market Leader Commercial and  
Public Sectors

luc.henzig@lu.pwc.com

+352 49 48 48-2575

### **Jean François Kroonen**

Advisory Leader

jean-francois.kroonen@lu.pwc.com

+352 49 48 48-2527

### **Wim Piot**

Tax Leader

wim.piot@lu.pwc.com

+352 49 48 48-5773

# How the Chamber of Commerce can help



Chamber of Commerce of the Grand Duchy of Luxembourg

The Chamber of Commerce is a public institution encompassing all sectors of activity other than agriculture and the skilled-craft industry. Today, the Chamber of Commerce has some 40,000 affiliated members, representing 80% of GDP and 75% of total employment. The plenary assembly of the Chamber of Commerce consists of 25 elected members representing six sectors of activity: trade and other trade related activities; financial participations companies (Soparfi); industry, small and medium-sized industries; banking and other financial activities; insurance and the catering and accommodation sector. The primary task of the Chamber of Commerce is to express and represent general economic interest. On this basis, the Chamber of Commerce promotes an open, dynamic and competitive economy in order to enable companies to benefit from unrestrained development. It also supports the promotion of Luxembourg companies and products abroad and encourages foreign investments.

## **Chamber of Commerce of the Grand Duchy of Luxembourg**

### **Office**

7, Rue Alcide de Gasperi  
Luxembourg-Kirchberg

### **Postal address**

L-2981 Luxembourg  
Tel. +352 42 39 39 - 1  
Fax +352 43 83 26  
E-mail: [chamcom@cc.lu](mailto:chamcom@cc.lu)

### **[www.cc.lu](http://www.cc.lu)**

# Acknowledgements

“Luxembourg: Where Else?” brochure provides valuable information from an industry perspective. Therefore, we would like to acknowledge all the stakeholders who have contributed to its development for their valuable support and for sharing experiences on doing business in Luxembourg. To name but a few, we would like, in particular, to express our profound gratitude to Advanced Biological Laboratories, Agora, ArcelorMittal, Bank of China, Cargolux, Ceratizit, Delphi, Dupont, EuroDNS, Guardian Automotive, ILEA, Jan De Nul, LuxConnect, Luxinnovation, Ministry of the Economy and Foreign Trade, Ministry of Finance, Mudam, Paypal, SES, Teralink, WaferGen and all their management teams for their contribution.



Luxembourg, Kirchberg European quarter

## **Chamber of Commerce of the Grand Duchy of Luxembourg**

[www.cc.lu](http://www.cc.lu)

## **Key institutional contacts for foreign companies**

### **Ministry of the Economy and Foreign Trade**

Ministry for economic development  
[www.investinluxembourg.lu](http://www.investinluxembourg.lu)

### **Ministry of State, Media and Communication**

The dedicated Ministry for media and  
communication activities  
[www.mediacom.public.lu](http://www.mediacom.public.lu)

### **Ministry of Finance**

The dedicated Ministry for the development  
of the financial sector  
[www.mf.public.lu](http://www.mf.public.lu)

### **Ministry of the Middle Classes**

The dedicated Ministry for small and  
medium-sized businesses  
[www.mcm.public.lu](http://www.mcm.public.lu)

### **Luxembourg for Finance**

The agency for the development of the  
financial sector  
[www.lff.lu](http://www.lff.lu)

### **Luxembourg for Business**

The trade promotion organisation  
[www.luxembourgforbusiness.lu](http://www.luxembourgforbusiness.lu)

### **The National Credit and Investment Corporation (SNCI)**

Luxembourg's state investment bank  
[www.snci.lu](http://www.snci.lu)

### **Luxinnovation**

The agency for innovation  
[www.luxinnovation.lu](http://www.luxinnovation.lu)

### **The National Research Centre (Fonds National de la Recherche)**

[www.fnr.lu](http://www.fnr.lu)

### **The Commission for the Supervision of the Financial Sector (CSSF)**

[www.cssf.lu](http://www.cssf.lu)



## Foreign associations

**American Chamber of Commerce (AMCHAM)**  
[www.amcham.lu](http://www.amcham.lu)

**British Chamber of Commerce for Luxembourg (BCC)**  
[www.bcc.lu](http://www.bcc.lu)

**Indian Business Chamber of Luxembourg (IBCL)**  
[www.ibcl.lu](http://www.ibcl.lu)

## Professional associations

**Luxembourg Business Federation (FEDIL)**  
[www.fedil.lu](http://www.fedil.lu)

**Association of the Luxembourg Funds Industry (ALFI)**  
[www.alfi.lu](http://www.alfi.lu)

**The Luxembourg Bankers' Association (ABBL)**  
[www.abbl.lu](http://www.abbl.lu)

## Public Research Centers and University

**Public Research Centre Henri Tudor**  
[www.tudor.lu](http://www.tudor.lu)

**Public Research Centre Gabriel Lippmann**  
[www.crp-gl.lu](http://www.crp-gl.lu)

**Public Research Centre for Health**  
[www.crp-sante.lu](http://www.crp-sante.lu)

**University of Luxembourg**  
[www.uni.lu](http://www.uni.lu)

## Tourist information

[www.visitluxembourg.lu](http://www.visitluxembourg.lu)

[www.pwc.lu](http://www.pwc.lu)

© 2011 PricewaterhouseCoopers S.à.r.l. All rights reserved. In this document, "PwC" refers to PricewaterhouseCoopers S.à.r.l. Luxembourg which is a member firm of PricewaterhouseCoopers International Limited, each member firm of which is a separate legal entity.

