



LUXEMBOURG
THE SMART CHOICE FOR
YOUR DIGITAL BUSINESS

 **LUXEMBOURG**
 **TRADE & INVEST**

WELCOME TO LUXEMBOURG.	p. 3
YOUR GATEWAY TO EUROPE	p. 4
DIGITAL SERVICES FOR THE EUROPEAN MARKET	p. 6
DIGITAL BY DEFAULT	p. 8
OUTSTANDING ICT INFRASTRUCTURE	p. 11
CYBERSECURITY EXPERTISE	p. 13
A LIVING LAB FOR “SMARTHOODS”	p. 14
A FAVOURABLE BUSINESS ENVIRONMENT	p. 16
HOW WE CAN HELP YOU	p. 18

CONTENTS

WELCOME TO LUXEMBOURG.

WHERE ROADS CROSS, IDEAS MULTIPLY AND INNOVATION ABOUNDS.

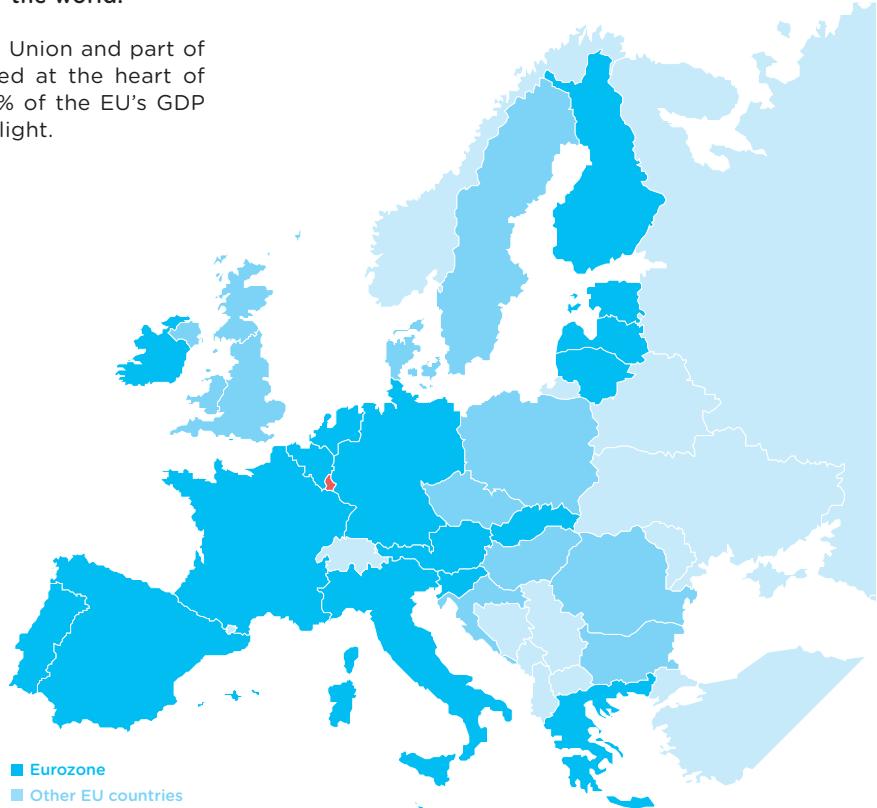
Are you looking for the ideal place in Europe to launch or scale up your digital business? Luxembourg is the answer. We are at the forefront of the digital revolution and integrate the latest technology in every aspect of society. We combine open minds for business with one of the best digital infrastructures in the world. Luxembourg is thus an excellent platform for acquiring and serving clients in Europe and all over the world.

A founding member of the European Union and part of the Eurozone, Luxembourg is situated at the heart of several major European markets. 60% of the EU's GDP can be reached by a mere one-hour flight.

Distance from Luxembourg City to:

-----	Paris 380 km
-----	Frankfurt 250 km
-----	Brussels 200 km

- 1 market - 28 countries
(GDP €14.6 trillion in 2015)
- 19 countries in the Eurozone
(one currency - euro)
- Easy access to
500 million consumers
- Free mobility of capital,
products, services and labour



YOUR GATEWAY TO EUROPE

Luxembourg is the ideal location to launch new products and services in Europe and beyond. Highly multicultural and diversified, yet relatively small in size, the triple A rated country is a great living lab to develop innovative concepts and test new offerings. With easy access to European markets, a stable and business-friendly environment, the most multilingual country in Europe has indeed much to offer.

Luxembourg is today a major centre for headquarters of multinational groups: SES, Delphi Powertrain Systems and ArcelorMittal, to mention but a few. Its economy is strongly export-oriented with a first-rate logistics infrastructure. As a leading financial centre specialised in global and European cross-border activities, the country has a well-developed legal and regulatory framework for international trade and is highly responsive to EU legislation. Many companies also find that Luxembourg's well-known commercial and political neutrality facilitates their international business relationships.



An ideal testbed

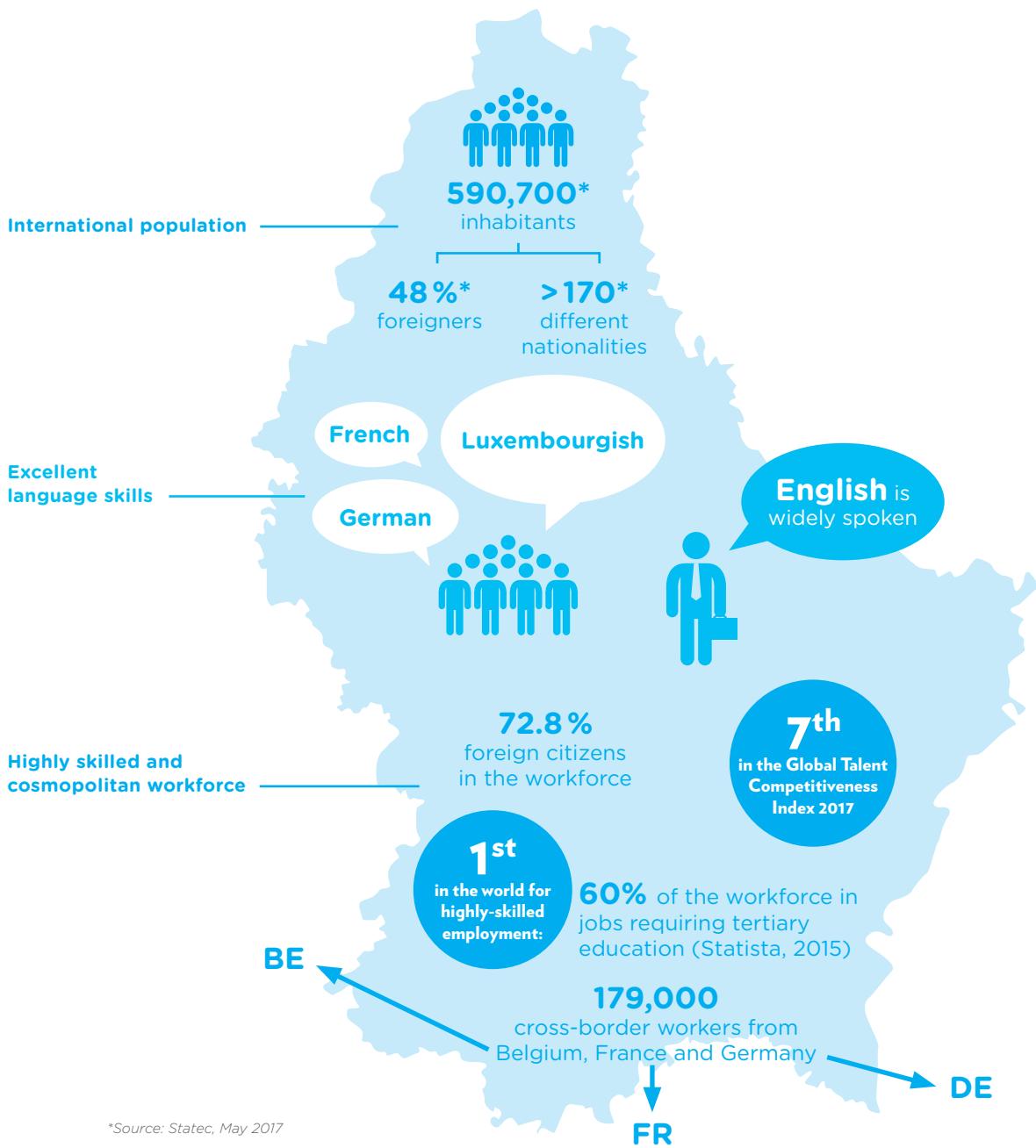
Luxembourg is a perfect test bed for international companies due to two main reasons: its size and agility. A wide range of population segments and physical environments are available in a small and convenient geographical area. The ease of access to politicians, key decision makers and peer CEOs is coupled with a strong determination to keep Luxembourg on the cutting edge of new technological advances. These factors make the country very open to testing innovative solutions and implementing necessary regulatory and practical adaptations. Public research organisations are also very keen to collaborate with companies on product development and tests. A variety of business incubators and accelerators can provide you with a pied-à-terre and help you develop your activity in short time.

Multicultural, multilingual, highly skilled

Our diverse population makes it easy to find staff who are able to communicate with your clients in their own language and therefore gain an in-depth understanding of their needs. A very high proportion of the workforce in Luxembourg are IT professionals, and measures have been put in place to reduce delays and red tape for non-EU ICT specialists requiring work permits. Further developing e-skills is also one of the priorities of the national digitalisation strategy.

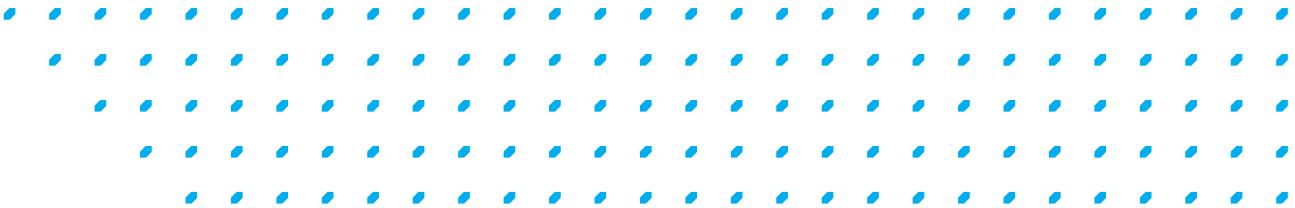
Your European home from home

The extensive expat community has found out that it is easy to feel at home in this multicultural melting pot and use Luxembourg as a basis for building a European career – as well as for travelling, enjoying life and raising a family. To cater for the needs of its population, Luxembourg offers both French and English-speaking private schools in addition to the excellent multilingual national school system. The University of Luxembourg was recently placed second in a world ranking for the most international universities.



*Source: Statec, May 2017

DIGITAL SERVICES FOR THE EUROPEAN MARKET



“LUXEMBOURG OFFERS US MANY ADVANTAGES.”

TOSHIHIKO OTSUKA, CEO, RAKUTEN EUROPE BANK

Rakuten, a leader in internet services and global innovation headquartered in Japan, chose to establish its European headquarters in Luxembourg in 2008 to oversee the operations, finances and human resources of its businesses in the region. After acquiring a banking license issued by the Luxembourg authorities, the company officially launched commercial banking operations in Europe with Rakuten Europe Bank S.A. in early 2017.

Rakuten started off with the creation of the Japanese internet shopping mall Rakuten Ichiba in 1997. Since then, the company has grown considerably both in its home market and overseas, and ranks today as one of the top internet service firms in the world. The group today comprises a range of businesses, including Viber, Wuaki.tv, Aquafadas and PriceMinister, for instance, and offers extensive banking and insurance services in Japan. With Rakuten Europe Bank, the aim is to provide banking services in Europe that will parallel the success it has already known in Japan.

The reasons for locating the European headquarters in Luxembourg are many. “All the infrastructure in Luxembourg is brilliant and it makes it easy to manage pan-European business here,” says Rakuten Europe Bank CEO Toshihiko Otsuka. “It’s a fantastic place to recruit various professionals. Luxembourg has a very rich fintech community which helps us a lot.” Rakuten will now continue to create and provide new services in Europe from its basis in Luxembourg and further develop its ecosystem in the region.

DIGITAL BY DEFAULT

Digital technology is no longer just an economic sector – it is the lifeblood of our economy, an essential element of competitiveness and crucial for society as a whole. Luxembourg has been a communications pioneer for several decades, and ranks today among the top countries for ICT in the world. The reason for this? A strong determination to become a trusted data hub where any type of business basing its activities on digitalisation can thrive.

Luxembourg is home to numerous global players as well as a dynamic start-up community with international ambitions. Fintech, cybersecurity, big data and high performance computing, e-mobility, digital health, and so forth: New exciting and innovative activities are constantly enriching Luxembourg's business landscape that also encompasses digital content distribution, online retail platforms, communication and cloud services, and so on.



5th
most advanced
digital economy
in the EU

Source:
*Digital Economy and Society
Index (DESI) 2017,*
European Commission

A top government priority

Luxembourg is extremely well-attuned to business opportunities both in Europe and further afield. In particular, the country aims to take a strong role in the EU's emerging digital single market. The government is well aware of the need to be vigilant and ready to act in order to support existing companies, attract new investment and encourage young businesses.

Technology is at the heart of Luxembourg's future, and political decision-makers understand that their role is to enable growth without intervening unnecessarily. The government listens to companies' needs and is 100% committed to embedding innovation throughout every sector of society. New laws are digital by default and designed to back company development. Public services are well adapted to the needs of fast-moving businesses, and specialised funding schemes and venture capital help overcome financial hurdles.

“We have established our EU base in Luxembourg, a country that is known for its long-standing history as an international leader in e-payments and data privacy as well as the European headquarters for many global players, including Amazon, PayPal and Skype. Luxembourg embodies an exceptionally strong infrastructure and the financial and security awareness we were looking for.”

Nejc Kodrič
CEO and Founder of Bitstamp

Bitstamp

A data-driven economy

Data is the new currency of any business sector and must be treated and protected in the same way as any high value asset. Luxembourg's infrastructure and legal framework, which is linked with European directives on data processing and privacy, combine to provide a highly secure "digital embassy" for highly sensitive or simply high volume data to be stored, processed and curated.

High Performance Computing - investing in the future

High Performance Computing (HPC) is revolutionising industry and digital business across the world and has been high on Luxembourg's agenda for several years. Europe has been lagging behind in this field, and in late 2015, Luxembourg presented the idea of a pan-European approach on HPC to the EU Council of Ministers. The country is now taking a leading role in an Important Project of Common European Interest (IPCEI) on HPC and Big Data-enabled applications launched together with several other EU countries.

Already in 2018, Luxembourg will acquire an HPC with the power of one petaflop per second, which corresponds to 1,000,000,000,000,000 calculations per second. Five years later, the target is for Europe to have one of the three most powerful HPC infrastructures of its type in the world. As soon as it is operational, it will be put to practical use in large-scale pan-European

projects in fields including smart energy, smart mobility, smart manufacturing, smart space, personalised medicine and fintech. Business needs are at the very centre, and there will be plenty of opportunities for companies, not least SMEs, to develop specialised solutions and to plug gaps in the relevant value chains.

Taking fintech forward

As a globally recognised leading financial centre, Luxembourg is well positioned to take the lead in the disruptive fintech revolution. It combines a highly favourable legal and regulatory framework with support measures to promote this sector's development.

Luxembourg is already home to a wide range of fintech companies and start-ups active in fields such as wealth management, asset management, capital markets, insurance and payments. The banking regulator CSSF recognises virtual currencies. Luxembourg-based companies can also benefit from the "Professional of the Financial Sector" status that requires financial centre regulation, thus adding significantly to investor protection and client confidence.

Blockchain technologies also open major opportunities in the field of financial services. For example, Luxembourg has launched the Infrachain initiative to develop a trusted and compliant blockchain infrastructure that will be available for start-ups and established companies developing new services.

The LHoFT - Luxembourg House of Financial Technology - is Luxembourg's dedicated fintech platform. Offering start-up incubation, co-working spaces including a soft-landing platform, the LHoFT connects and creates value for the entire Luxembourg fintech ecosystem.



-
- to offer **data reversibility**
 - to implement **the EU payment service directive**
 - to issue **a payment institution license** to a virtual currency operator
-

An information society for all

To keep its position at the forefront of the digital economy, the government has set up the Digital Lëtzebuerg initiative in order to develop best practice, act as a forum for new ideas, strengthen and consolidate the country's ICT capabilities and make a powerful contribution to economic diversification. It is built around creative, open-minded ICT business promotion policies and initiatives. Ambitions do not stop there, however. The ultimate goal of Digital Lëtzebuerg is to create an information society that benefits each and every one of our citizens.

Investing in the future is also essential. The Luxembourg Tech School initiative has been created to provide extracurricular coaching for school leavers. Under the slogan "Building the next digital leaders", this programme aims to ensure continuity and skills of the next generation of digital innovators.

Choosing Luxembourg

Luxembourg's unique combination of strengths has attracted numerous public and private organisations, including the European Commission and many financial institutions, as well as companies such as:



OUTSTANDING ICT INFRASTRUCTURE

Ultra-low-latency hub



28
international
fibre routes to main
European hubs



Available since 2015

- 100 Mbps internet links for 98% of the population
- 1 Gbps connections (min. 50% coverage)

Available from 2020

- Nation-wide coverage of ultra-high-speed broadband ("Fibre to the Home")
- 1 Gbps connections (100% coverage)

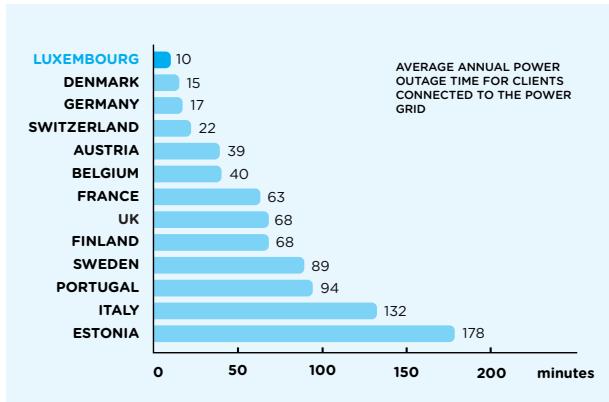
The Luxembourg Commercial Internet Exchange (LU-CIX) provides carriers with an access to high-capacity lines with very competitive round-trip times without congestion.

Europe's most modern data centre park



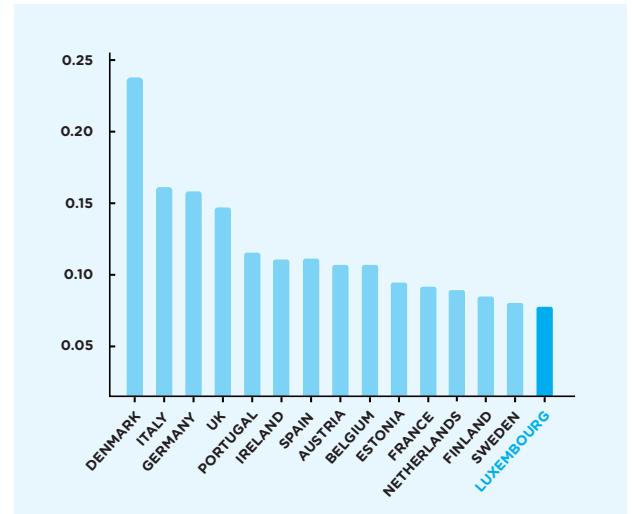
The data centres are powered by low-cost, eco-friendly energy from a highly reliable power grid.

Most reliable electricity supply in the EU



Source: CEER Benchmark Report 5.1

Low electricity price



Source: Eurostat: Electricity prices for industrial customers, biannual data

CYBERSECURITY EXPERTISE

Driven by the needs of the financial sector, Luxembourg has developed exceptionally high standards of cybersecurity that are readily available to all companies. This expertise in protecting individual client data and systems is essential for e-businesses and the economy at large.

A resilient and secure ICT environment

Physical security

- High levels of redundancy, resilience and emergency recovery services
- Bandwidth suppliers offer closed-loop control systems

Digital security

- Features include encryption and digital signing + DDoS protection

Organisational factors

- Expertise in risk management

Legal protection

- Legislation readily adapts to market needs
-

Cybersecurity

Various national platforms focus on specific aspects of cybersecurity:

The Luxembourg emergency response community CERT.LU monitors and manages cybersecurity incidents on a national basis, defends essential infrastructure, exchanges critical information with other countries and generally raises awareness.

SECURITYMADEIN.LU acts as an information and strategy forum for of cybersecurity companies. Its two main divisions CASES (Cyberworld Awareness and Security Enhancement Services Luxembourg) and CIRCL (Computer Incident Response Centre Luxembourg) provide tools, diagnostics and training to ensure that businesses and public sector organisations are aware of potential threats and have the means to protect against, detect and mitigate any risk to their systems and data.

To meet the needs of the vibrant and fast growing smart economy, the Cybersecurity Competence Centre C3 provides threat intelligence, cybersecurity skills and expertise, as well as training and testing facilities in areas like the Internet of Things, space technologies, fintech and autonomous driving.

Becoming a European centre of excellence for secure, reliable and trustworthy ICT

The Interdisciplinary Centre for Security, Reliability and Trust (SnT) of the University of Luxembourg conducts internationally competitive ICT research with high relevance for business. Research focus areas include secure and compliant data management, fintech, cyber security, satellite systems, connected vehicles and smart cities. Through its partnership programme that involves the most prominent members, the SnT develops concepts that give companies in Luxembourg and beyond a solid and long-lasting competitive advantage.

THE START-UP

A LIVING LAB FOR “SMARTHOODS”



“WE CHOSE LUXEMBOURG DUE TO ITS EXCELLENT ENVIRONMENT FOR START-UPS IN THE ICT SECTOR.”

LUCIANO SCATORCHIA,
CEO, PINGVALUE

Start-up company Pingvalue is developing an online platform and mobile app for smart neighbourhoods – social communities that share the products, brands and experiences they love in their local area. The entrepreneurs behind the platform, with Italian origins and a European vision, chose to set up the company in Luxembourg in 2014 because of the country’s excellent environment for ICT start-ups. Currently they are using Belval in southern Luxembourg as a living lab to test their app in real conditions.

Pingvalue’s platform offers advantages to both consumers and businesses in a neighbourhood. While individuals share their opinions and receive trustworthy recommendations based on their interests, participating firms receive user analytics that help them better understand their clients and the effects of their marketing efforts. The platform works with different types of connection and takes advantage of Wifi and Bluetooth to allow real-time interactions. As a world leader of connectivity, Luxembourg is the perfect place to begin. “It is also a very secure country looking for digital solutions with transparency,” says CEO Luciano Scatorchia. “The transparency and security make it a good fit for Pingvalue.”

After initial tests in Belgium and Spain a full-scale trial is now under way in Belval, a newly built area that hosts offices, shops, restaurants and housing as well as the main campus of the University of Luxembourg. “Belval is geographically limited, but is visited every day by thousands of people who come to work, shop and study,” says Mr Scatorchia and adds that the presence of students and employees gives an interesting mix of age groups. Add to that the national diversity of potential app testers that include Luxembourg’s international residents and cross-border workers as well as university students from over 110 different countries and you have a perfect test ground. If Pingvalue succeeds in Belval, it should be ready to tackle the rest of the world.

A FAVOURABLE BUSINESS ENVIRONMENT



Political and economic stability

- Open, diversified and stable economy
- Top GDP performance
- Sound macroeconomic fundamentals - AAA-rated country
- Second-lowest government debt ratio in the EU (20% of GDP in 2016)
- 11th most competitive economy in the world (IMD World Competitiveness Yearbook 2016)
- Constitutional monarchy, parliamentary democracy



Business-oriented regulations

- Easy access to government officials
- Streamlined and transparent administrative procedures
- Advantageous total tax rate
- Strong network of double tax treaties
- Attractive corporate tax rate compared to other EU countries
- Favourable indirect labour costs, high productivity
- World's highest labour productivity (GDP generated per hour worked 2015, OECD)
- Favourable overhead salary costs



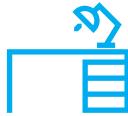
Easy business creation process

- Vibrant start-up ecosystem with numerous support measures for ICT start-ups from incubation to success and acceleration
- Simplified limited liability company: the '1-euro-company'
- Easy access to professional support and advice from the House of Entrepreneurship; a one-stop-shop for project initiators and established entrepreneurs services



Access to capital

- Excellent access to private financing: banks, business angels, venture capital
- State investment bank SNCI specialises in medium and long term financing of Luxembourg-based companies and their projects
- Digital Tech Fund provides critical venture capital support for promising early-stage high-tech start-ups
- Luxembourg Future Fund invests in early and late stage innovative European technology SMEs
- Luxembourg Export Credit Agency (Office du Ducroire) offers support for Luxembourg-based companies when trading abroad
- Attractive R&D and innovation grants and investment aids for SMEs



Facilities

- Land and office space are readily available
- The national incubator Technoport offers 16,000 m² of facilities - office space, co-working space and industrial workshops - to start-ups and international companies looking for their first premises in Luxembourg.



R&D capabilities

- The research-driven University of Luxembourg conducts high-level ICT-related research, in particular at its Faculty of Science, Technology and Communication, its Interdisciplinary Centre for Security, Reliability and Trust (SnT) and the Luxembourg Centre for Systems Biomedicine (LCSB).
- The Luxembourg Institute of Science and Technology (LIST) is a research and technology organisation active in the fields of materials, environment and IT.
- The Luxembourg Institute of Health (LIH) generates and translates research knowledge into clinical application with an impact on the future challenges of health care and personalised medicine.

HOW WE CAN HELP YOU

Would you like to find out more about Luxembourg and how your company can benefit from the opportunities offered here? We have extensive experience with supporting international companies and can provide you with useful information and customised assistance.

In-depth information

Please contact us for fast, reliable information on all aspects of doing business in Luxembourg.

Tailor-made Luxembourg visits

We can design tailor-made visit programmes that will enable you to meet all relevant contacts – government officials, service providers and potential partners – in just 2 days. You will particularly appreciate the availability of authorities and their willingness to collaborate.

Introduction to key networks

Our sector specialists will help you identify and introduce you to potential customers as well as business, innovation and R&D partners.

Company set-up support

In partnership with the House of Entrepreneurship, we can assist you with the procedures of setting up a company in Luxembourg and show you the ropes for fast and reliable progress.

Luxinnovation

David Foy
Phone +352 43 62 63 686
E-mail david.foy@luxinnovation.lu
www.luxinnovation.lu

Ministry of the Economy

Michele Gallo
Phone +352 247-84 151
E-mail michele.gallo@eco.etat.lu
www.gouvernement.lu/meco



Contact
us today



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