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# LEO

THE FINANCIAL CENTRE'S MAG

LUXEMBOURG  
CONNECTING

JULIUS BAER:  
WHY WE CHOSE LUXEMBOURG

CAPITAL MARKETS:  
FACILITATING ECONOMIC GROWTH,  
DRIVING PROSPERITY

THE CONTRIBUTION OF THE  
LUXEMBOURG FINANCIAL  
CENTRE TO THE  
EUROPEAN ECONOMY





NICOLAS MACKEL,  
CEO, LUXEMBOURG  
FOR FINANCE

**C**onnectivity comes in multiple guises. While most of you will be familiar with the more traditional aspects of our financial services industry, we have selected in this latest edition of our LEO magazine different facets of Luxembourg's connectivity in order to show how the country helps to connect markets, investors and people.

In our recently launched series "Why we chose Luxembourg" we tell the story of Julius Baer, a Swiss private bank, who has chosen to locate its EU hub in Luxembourg in order to connect with its clients across the single market.

The first of our feature articles highlights Luxembourg's role in connecting investors with international capital markets, showcasing how a winning combination of financial expertise, a legal framework perfectly suited to international capital markets and a highly developed market

infrastructure make it the ideal place for companies to finance their European and global activities.

Indeed, connecting European and global markets is what Luxembourg is all about. In a recent study by Oxford Economics, this side of our connectivity is analysed, highlighting the financial centre's benefits to the European economy. The study explains how Luxembourg brings international investments to Europe and helps European households, businesses and governments access finance.

In a feature focusing on connectivity, we would obviously be remiss if we didn't cover new information technologies and digitalisation, which have revolutionised and continue to revolutionise every industry. Over the past decade, Luxembourg has developed into an important IT and cloud services hub, in particular in the financial services industry. The country has not only developed a first-in-class infrastructure but

also a unique service offer, notably in the area of cyber security and business continuity.

Speaking of digitalisation: on the margins of the Luxembourg FinTechStage, which once again brought international thought leaders in financial technology to the Grand Duchy, LFF talked to key experts on digital identity, a topic that is currently high on the list of priorities of the global financial services industry.

Finally, we take you through Luxembourg's international airport. With flights to all major European cities it is our connector with the rest of the world.



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## DEEPENING CONNECTIONS WITH CHINA



“Luxembourg has accompanied China’s financial opening-up. The Luxembourg financial centre has not only become one of the main conduits for Chinese investments into Europe, but has also stood ready to share its longstanding expertise in international finance.”

PIERRE GRAMEGNA, LUXEMBOURG MINISTER OF FINANCE, DELIVERING HIS WELCOMING SPEECH AT THE LUXEMBOURG RENMINBI FORUM 2017.

## LUXEMBOURG CONNECTS YOU WITH FINANCIAL EXPERTISE

A warm thank you to Luxair Airlines for the successful take off of our advertising campaign about Luxembourg's connectivity.



## 5 LEADING INSURANCE COMPANIES CHOOSE LUXEMBOURG AS EU HUB

Insurance companies AIG, FM Global, Hiscox, RSA and CNA Hardy have announced that they have chosen Luxembourg as their new EU base to ensure that they can continue to serve their European client base without interruption following Brexit.

1<sup>ST</sup>

LUXEMBOURG CONSOLIDATES ITS POSITION AS THE EUROZONE’S LEADING FINANCIAL CENTRE AND SECOND IN THE EU AFTER LONDON, ACCORDING TO THE LATEST GLOBAL FINANCIAL CENTRES INDEX 21. IT THEREBY AGAIN OUTRANKS OTHER EU FINANCIAL CENTRES SUCH AS FRANKFURT, DUBLIN, PARIS AND AMSTERDAM.

## FLUENT IN ENGLISH

LUXEMBOURG IS 7TH IN THE WORLD FOR ENGLISH PROFICIENCY ACCORDING TO EDUCATION FIRST, ENGLISH PROFICIENCY INDEX 2017. LUXEMBOURG’S MULTILINGUAL ENVIRONMENT MAKES IT EASY FOR COMPANIES TO ATTRACT INTERNATIONAL TALENT AND HELPS OVERSEAS EMPLOYEES TO SETTLE IN AND FEEL AT HOME.



FALK FISCHER,  
CHAIRMAN OF THE BOARD OF  
MANAGING DIRECTORS,  
BANK JULIUS BAER LUXEMBOURG



WATCH WHY JULIUS BAER  
IS STEPPING UP OPERATIONS  
IN LUXEMBOURG.

## JULIUS BAER: WHY WE CHOSE LUXEMBOURG

SWISS PRIVATE BANK JULIUS BAER IS STEPPING UP OPERATIONS IN LUXEMBOURG. THE GLOBAL GROUP CHOSE LUXEMBOURG TO SET UP ITS EUROPEAN HUB LAST YEAR TO SERVE CLIENTS ACROSS THE EU. THE BANK OFFERS A STATE-OF-THE-ART BOOKING PLATFORM IN THE GRAND DUCHY FOR ITS EUROPEAN CUSTOMERS AND WILL ESTABLISH A NEW BUSINESS HUB IN LUXEMBOURG BY THE END OF 2018.

“Luxembourg is important to Julius Baer because of its financial stability, the access to the decision makers both in politics and with the financial regulator.”

**J**ulius Baer is one of twelve Swiss banks using Luxembourg as a hub to export their services across the EU. The group of banks has a major focus on asset servicing, as well as a tradition of private banking.

*“Swiss banks do not have access to the single market of the EU, so to advise clients we needed an EU banking passport,”* says Falk Fischer, Chairman of the Board of Managing Directors at Bank Julius Baer Luxembourg.

In this context, the EU passport for the cross-border distribution of financial services is strategic in making Luxembourg a location of choice for Julius Baer.

*“A second reason was to set up our European platform because of the state-of-the-art IT technology in Luxembourg.”*



## STABLE POLITICAL, LEGAL AND SOCIAL ENVIRONMENT

The bank was also impressed by the modern legal and regulatory framework and high culture of investor protection.

*“Luxembourg is important to Julius Baer because of its financial stability, the access to the decision makers both in politics and with the financial regulator, because of its product know-how and because of the very stable legal and regulatory framework.”*

## EASE OF STARTING A BUSINESS

Julius Baer further strengthened its presence in Luxembourg with the acquisition of Commerzbank International S.A. Luxembourg, a fully-licensed private bank in 2016.

*“We could do business from day one in Luxembourg because the technology platform was already up and running and fully fledged.”*

*“We could do business from day one in Luxembourg because the technology platform was already up and running and fully fledged. The system used is the same as the global platform for the entire Julius Baer group, and it enables us to offer more flexibility in how we serve our European clients both domestically and in the EU. Going forward all customers in the European Union, are going to be served out of Luxembourg.”*

## MULTILINGUAL WORKFORCE WITH INTERNATIONAL MINDSET

The bank now employs more than 200 people from 20 different nations, in the former Commerzbank building, centrally located in the Kirchberg business district of the city.

*“The market for office space here in Luxembourg is liquid, so you will always find a suitable environment to set up your headquarters,” Fischer points out. “We feel comfortable here in Kirchberg because we have access to all the other market participants who are based here. The Big Four accounting firms and top legal companies are only a five-minute walk, so you can give them a call, make a project meeting, and you have the solution half an hour later.”*

*“The market for office space here in Luxembourg is liquid, so you will always find a suitable environment to set up your headquarters.”*

## MODERN AND DYNAMIC FINANCIAL CENTRE

Luxembourg's wealth management industry is uniquely specialised in cross-border services. The financial ecosystem works in close collaboration together to explore new possibilities and develop new products.

*“As a new CEO of a company here in Luxembourg, you can quickly build up healthy relationships with your peers, with the financial regulator and the government. When you need, for instance, a country manual for a particular country, to ensure that you fully comply with the European requirements and the local law of that particular country, you will get the advice in Luxembourg easily, and that is a significant advantage. It is very hard to find a similar location in the world where you have 192 nations in such a tiny spot, and you can get access to the government, to the regulator, to the European institutions so quickly, and that's fantastic business wise.”*





## THE EUROZONE'S LEADING INTERNATIONAL PRIVATE BANKING CENTRE

As a result, Julius Baer Luxembourg has become a centre of excellence for wealth management and innovation within the group.

*“The Luxembourg environment gives us more opportunities, in particular when it comes to the international mindset and the structuring of private assets. Usually, wealthy individuals do not look for “plain vanilla” solutions - it's usually about structuring their wealth, due to perhaps the assets being held in different ju-*

*risdictions throughout the globe, or invested in various asset classes. The Luxembourg structures and vehicles enable us to create bespoke solutions for wealthy individuals no matter where they are.”*


The bank benefits from access to the services of a complete financial centre ecosystem that includes essential market infrastructures, such as the Luxembourg Stock Exchange and post-trade service providers.

*“The time to market is crucial if you have a good idea or a client that has a specific request where you need to involve the regulator, a law*

*firm and a tax advisor. Here the law companies and advisory businesses in Luxembourg kick in,”* adds German national Fischer who recently moved back to Luxembourg after a three-year stint in London.

*“Luxembourg is an easy place to live, and I enjoy the international environment. I like to have conversations with people from different nationalities, and I like to watch my kids grow up in a multilingual and international place like Luxembourg,”* he concludes with a smile.

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*“The Luxembourg environment gives us more opportunities, in particular when it comes to the international mindset and the structuring of private assets.”*



# LUXEMBOURG CONNECTING



WATCH HOW LUXEMBOURG  
CONNECTS INVESTORS WITH  
FINANCIAL EXPERTISE:



LUXEMBOURG PLAYS AN ESSENTIAL ROLE IN CONNECTING EUROPEAN AND GLOBAL MARKETS AND BRINGING INVESTMENTS TO EUROPE.

IN THIS EDITION, WE WILL LOOK INTO THE RANGE OF IT AND CLOUD SERVICES THAT ENABLE INTERNATIONAL FINANCIAL INSTITUTIONS TO CONNECT SAFELY IN CYBERSPACE AND EXPLORE HOW LUXEMBOURG AS A LEADER IN CAPITAL MARKETS SERVES INTERNATIONAL INVESTORS.

FURTHERMORE, A RECENTLY PUBLISHED REPORT BY OXFORD ECONOMICS EXAMINES HOW THE LUXEMBOURG FINANCIAL CENTRE SUPPORTS THE FUNCTIONING OF THE EUROPEAN ECONOMY AND FINANCIAL SYSTEM, WHETHER IN HELPING GOVERNMENTS TO FINANCE PUBLIC INFRASTRUCTURE OR MAKING IT EASIER FOR BUSINESSES AND HOUSEHOLDS TO ACCESS CAPITAL, INVEST AND GROW.






HENRI WAGNER,  
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PARTNER,  
ELVINGER HOSS PRUSSEN

# Capital markets: Facilitating economic growth, driving prosperity

LAST MONTH, LUXEMBOURG FOR FINANCE LAUNCHED A BRAND-NEW PUBLICATION ABOUT CAPITAL MARKETS. IN LEO MAG, WE HAVE DECIDED TO GIVE YOU A SUMMARY AND ASKED VARIOUS EXPERTS FROM LUXEMBOURG'S LAW FIRMS AS WELL AS THE CEO OF THE LUXEMBOURG STOCK EXCHANGE TO EXPLAIN HOW LUXEMBOURG HAS GROWN INTO AN INTERNATIONAL LEADER IN DEBT CAPITAL MARKETS, A KEY HUB FOR SECURITISATION AND STRUCTURED FINANCE VEHICLES AND A RECOGNISED PLATFORM FOR HOSTING LANDMARK INTERNATIONAL IPOs.

## A WELL-FUNCTIONING CAPITAL MARKETS ENVIRONMENT

Capital markets play a key role in supporting economic growth by allocating capital to projects that help create jobs, provide public services, build infrastructure and drive innovation.

As the leading cross-border financial centre in the eurozone, Luxembourg's infrastructure and unique international expertise make it the ideal place for companies, ranging from SMEs to multinationals, to finance their European and global activities.

*"Whether a European investor wishes to buy green bonds issued by a Chinese bank or a US private equity firm wishes to invest in European non-performing loans that are acquired through a Luxembourg securitisation company, Luxembourg can offer the appropriate solution,"* explains Nicki Kayser, Partner at Linklaters (Luxembourg).

“The advantage of the Luxembourg capital markets offering is that it can be used exactly where it is needed and can blend perfectly into an international structure with non-Luxembourg elements.”

NICKI KAYSER, PARTNER, LINKLATERS

Each transaction is different. It can be structured entirely in Luxembourg. This would involve the use of a Luxembourg issuing vehicle and Luxembourg service providers (inter alia the custodian, registrar, paying agent, fiscal agent and calculation agent), with documentation governed by Luxembourg law and admission to trading to Luxembourg markets. Other clients may wish to use the legal framework of other jurisdictions and may only require certain elements of the Luxembourg value chain such as the issuing vehicle, an admission to trading to the Luxembourg market or a bank account.

*“The advantage of the Luxembourg capital markets offering is that it can be used exactly where it is needed and can blend perfectly into an international structure with non-Luxembourg elements,”* continues Mr. Kayser.

Steve Jacoby, Partner at Clifford Chance (Luxembourg), adds: *“Financial professionals also rely on the comprehensive ‘toolbox’ of instruments in Luxembourg. This toolbox allows us to craft tailor-made solutions depending on the needs of corporates and investors.”*

Banks in Luxembourg have the expertise to advise on the optimal structure and terms of an issue in order for it to trigger investor interest and accompany the issuer in its contacts with investors.

A large body of capital markets service providers will help determine the most effective legal and tax structure, including the corporate structure of the issuer, and can be counted on to ensure that the necessary substance is present in Luxembourg. Local clearing and settlement is available as well as admission to listing and trading on the Luxembourg Stock Exchange (LuxSE) if required. All these service providers work together on a regular basis, resulting in efficient, seamless interaction. Testimony to this is the fact that many international companies have set up their group treasury operations and in-house banks in the Grand Duchy.

### LEADING THE WAY IN GREEN FINANCE

Over recent decades, the Luxembourg Stock Exchange has become the global specialist in the listing of international securities and is recognised worldwide for its fast, transparent and customer-focused listing process. By listing new products such as green bonds, dim sum bonds and sukuk, it has actively contributed to innovation in the financial marketplace.

Exchanges – today more than ever before – play a crucial role in supporting and nurturing growth of the green bond market. In this spirit, in September 2016 the Luxembourg Stock Exchange introduced the Luxembourg Green Exchange, or LGX, the world’s first platform exclusively dedicated to securities that raise proceeds for projects that are fully aligned with international green taxonomies.



Out of all exchanges, LuxSE is the green finance market leader – it is home to more than 50% of all listed labelled green bonds globally. With the creation of LGX, LuxSE has become the first exchange to establish a dedicated service that bridges investors' need for increased transparency and issuers' commitment to assure quality of reporting.

Six months after its launch, LGX has become the worldwide leader in green bonds listings. The 109 instruments issued by 26 entities and denominated in 18 currencies represent a combined value of 51 billion EUR.

*"There is no doubt that new issuance of green securities has taken off since COP21 and there now seems to be a real desire for change. The green market has enormous potential but this needs to be matched by interest from investors. By setting strict standards for 'green securities', LGX aims to create an environment that will allow the market to prosper in a secure and transparent way,"* says Robert Scharfe, CEO at the Luxembourg Stock Exchange.

*"Since the launch, the issued amount of green bonds displayed on the platform has risen by 30%. Our aim is to establish LGX as THE platform of reference for green securities in the market,"* he adds.

### INTERNATIONAL PIONEER IN DEBT CAPITAL MARKETS

In 2016, some 1,188 billion EUR of debt was issued in Luxembourg through a range of different instruments including corporate bonds, Eurobonds, indexed bonds, green bonds, sukuk and dim sum bonds. Also high-yield bonds of international companies such as Puma, TUI, Swissport, Iglo and Aston Martin are listed in Luxembourg.

**"Since the launch, the issued amount of green bonds displayed on the platform has risen by 30%. Our aim is to establish LGX as THE platform of reference for green securities in the market."**

ROBERT SCHARFE, CEO,  
LUXEMBOURG STOCK EXCHANGE

High-yield bonds are often structured using Luxembourg companies. *"Luxembourg's collateral laws are efficient and robust, which is of particular importance in complex, multi-tier financing structures where high-yield bonds are used,"* explains Philippe Prussen, Partner at Elvinger Hoss Prussen.

### CORPORATE FINANCE IN EUROPE

Corporate finance in Europe is currently undergoing a significant transformation. With banks in the process of deleveraging and burdened by additional capital requirements, Luxembourg is well placed to facilitate the functioning of European financial markets.

For example, securitisation can lower funding costs benefitting businesses and citizens and can help issuers and investors diversify and transfer risk across different asset classes, geographies, industries, instruments and credit risks. In January 2017, around 1,114 vehicles were in existence in Luxembourg.

*"Throughout the years, Luxembourg has maintained its position as one of the leading centres for securitisation and structured finance vehicles. One of the main reasons for this position is the existence of a dedicated securitisation law,"* says Mr. Jacoby.

Henri Wagner, Managing Partner at Allen & Overy, adds: *"The securitisation law recognises segregation and ring fencing, limited recourse, non-petition, non seizure of assets and subordination provisions, which are important features to structure a robust, insolvency remote transaction. It also allows for compartmentalisation where each compartment forms an independent part of the issue."*

Also, debt funds have stepped in and are increasingly providing funding to small- to medium-sized enterprises, either through direct lending or through loan acquisition/participation. Among the most commonly used vehicles, the specialised investment fund (SIF) has shown a great deal of flexibility to accommodate loan fund structuring. Since its inception in 2007, new types of vehicles were added to Luxembourg's offering, some of them such as the EuVECA and the ELTIF, being driven by European legislative initiatives. Others, such as the reserved alternative investment fund (RAIF) were added to the toolbox to allow a quicker time to market. Market players have also adapted to this growing trend, developing expertise and know-how specific to the PE debt asset class in term of operations (e.g. cashflow reporting, trade processing), valuation or risk management.

### CONNECTING THE EUROPEAN UNION

The fact that the European Union's financial infrastructure remains largely fragmented is particularly noticeable within the

## “Corporate law in Luxembourg enables the sponsor to shape the articles of association and corporate governance of an IPO vehicle to the specific needs of the transaction.”

FRANÇOIS WARKEN, PARTNER, ARENDT & MEDERNACH

post-trade arena of securities settlement, safekeeping and asset servicing. Regulation has made the use of post-trade service providers a necessity for many market participants who would never have considered using them before. In this context, Luxembourg CSDs can assist their clients in making cross-border investment easier.

Today, Luxembourg is home to: Clearstream, LuxCSD, VP Securities, globeSettle, and REGIS-TR. Their combined services include the issuance, settlement and custody of securities, as well as investment fund services and global securities financing.

The current regulatory agenda within the CMU action plan provides for additional incentives for listing private bonds, boosting the flow of asset backed securities and promoting increased efficiencies and cost savings for the documentation to be produced prior to a listing. The Luxembourg Stock Exchange is well positioned to support these initiatives as well.

### INITIAL PUBLIC OFFERINGS: WIDE INTERNATIONAL RECOGNITION

Going public is a transformational event. To do so successfully, a company or its sponsors must navigate a long, complex process involving, inter alia, aspects relating to strategy, tax, accounting, reporting standards, treasury and financial risk management and governance.

François Warken, Partner at Arendt & Medernach, has advised many clients during this process.

*“The company or its sponsors will be confronted with a number of choices and will have to take decisions. Some of these choices relate to the targeted markets for flotation or the jurisdiction where the company will be established upon completion of its IPO,”* explains Mr. Warken.

Over the past 10 years, there has been steady interest in Luxembourg-based vehicles for carrying out an international IPO.

*“Corporate law in Luxembourg enables the sponsor to shape the articles of association and corporate governance of an IPO vehicle to the specific needs of the transaction,”* François Warken adds.

Luxembourg companies are not only suitable for preparing a domestic IPO but have also been widely used in international IPOs or related capital markets transactions.

Luxembourg issuers have been listed on the Madrid Stock Exchange, the Oslo Stock Exchange, the Warsaw Stock Exchange, the New York Stock Exchange or the NASDAQ in the United States, the Buenos Aires Stock Exchange, the Hong Kong Stock Exchange or the Toronto Stock Exchange.

*“The vehicles are fully compatible with the requirements of any major international stock exchange. Luxembourg incorporated issuers are listed on all the major international stock exchanges within the EU or the EEA, such as on the Luxembourg Stock Exchange, Euronext Amsterdam, Euronext Paris, the Frankfurt Stock Exchange or the London Stock Exchange,”* concludes Mr. Warken.

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## **CONNECTING EUROPE TO INTERNATIONAL MARKETS AND INVESTORS: THE CONTRIBUTION OF THE LUXEMBOURG FINANCIAL CENTRE TO THE EUROPEAN ECONOMY**

LUXEMBOURG HAS DEVELOPED A PARTICULAR CROSS-BORDER EXPERTISE IN FINANCIAL SERVICES THAT DIFFERENTIATES IT FROM OTHER FINANCIAL CENTRES IN THE EU. THANKS TO THIS UNIQUE SPECIALISATION IN INTERNATIONAL FINANCIAL SERVICES AND PRODUCTS, THE LUXEMBOURG FINANCIAL CENTRE BENEFITS EUROPEAN BUSINESSES AND CITIZENS AND CONTRIBUTES TO THE EUROPEAN ECONOMY.



## ATTRACTING CAPITAL AND BOOSTING LIQUIDITY IN EUROPE

As the second largest exporter of financial, insurance and pension services in Europe (after the UK) and Europe's largest investment fund centre, Luxembourg offers a solid platform for international investors to access diverse investment opportunities. With 3.9 trillion EUR AuM and funds distributed in over 70 countries, Luxembourg attracts investment into Europe from other parts of the world, and in turn, delivers the capital that is needed for households and businesses to borrow, invest and grow.

Investment funds inject finance into the real economy by investing in European equities and corporate debt. In 2016, Luxembourg-domiciled funds held a total of 1,422 billion EUR in debt and equities invested in Eurozone and a further 358 billion EUR in other EU Member States. In other words, by purchasing 1,780 billion EUR in assets in EU economies, investment funds provided companies with working capital for significant capital expenditure and helped governments to deliver essential public services and generate economic growth.

The presence of investment funds on such large scale in Luxembourg also means that large volumes of deposits are made with banks in Luxembourg. Subsequently, these banks provide the liquidity that is needed within their group to issue loans to businesses and households throughout Europe, making Luxembourg central to the functioning of the European and global financial system.

## ENSURING THE EFFICIENT ALLOCATION OF RESOURCES TO EUROPEAN GOVERNMENTS AND BUSINESSES

Not only Luxembourg investment funds and banks play a vital role in the European financial system. In fact, European businesses have a range of options through which they can access capital. These include issuing bonds or shares, as well as various forms of bank loans.

For businesses across Europe, bonds represent a vital source of finance. Raising debt helps to make them less vulnerable to external shocks as in the last financial crisis. In 2015, non-financial corporations raised 186 billion EUR in external finance through bonds listed on the Luxembourg Stock Exchange. The major users were companies operating in the service sector, such as Carrefour and McDonald's, which issued 93 billion EUR in bonds. Second and third were the utilities (for example, Eni) and manufacturing sectors (such as Daimler and Heineken).

Local and national governments, as well as supranational bodies also use bonds for long-term investments in public services, school refurbishment, new motorways, defense equipment, or refinancing of existing debt. In fact, governments in the EU funded 72 percent of their debt finance through bonds in 2015. In the same year, eight Member States, as well as supranational bodies like the EU and the European Stability Mechanism (ESM), raised debt finance through bonds listed in Luxembourg.

## FUNDING INVESTMENTS IN INFRASTRUCTURE

Infrastructure funds provide the opportunity to invest in essential public assets, such as roads, airports and rail facilities. Given the nature of infrastructure projects, these loans tend to be long-term.

For example, the new airport in Zagreb is financed by the Luxembourg-domiciled Marguerite fund. It tackles problems of outdated airport infrastructure and insufficient capacity. Improvements in air infrastructure helps to boost productivity, making Croatia a more attractive place to do business and to visit.

The Marguerite fund is also supporting major investment in virtual infrastructure. Over the next five years, it is helping to finance the development of the broadband network in rural Alsace in France that will see as many as 380,000 households and businesses provided with high-speed fiber connections.





Large-scale investment funds that invest cross-border can be very complex to set up and manage: options within Europe for the establishment of such specialised funds are therefore limited. The Marguerite fund was set up in Luxembourg in 2009 as a joint initiative by the leading public sector financial institutions of six European countries and with support from the European Commission. It was decided to domicile the fund in Luxembourg because it offered the necessary know-how to set up and administer the fund as well as a comprehensive toolbox of investment fund vehicles, including structured/layered and multi-compartment funds.

#### **SUPPORTING INNOVATION AND R&D IN EUROPE**

Tech companies, more than most, tend to make use of equities over debt finance as a means to raise money, reflecting the inherently riskier nature of their businesses, by comparison to, say, utilities or pharmaceutical companies.

In this context, careful investment management and a diversified portfolio (for example, combining equities of more resilient healthcare and logistics robotics companies in a fund with other types of firms) are important to providing investor confidence.

Pictet recently launched its Luxembourg-based Robotic Fund, which is a pure equities fund that invests in companies at the forefront of robotic technology, such as driverless cars or surgical robots. The fund has invested in many diverse and innovative companies, including KUKA, a German manufacturer of industrial robotics.

For asset management companies such as Pictet, the use of the reputable and trusted Luxembourg UCITS fund structure therefore not only provides investors with an opportunity to invest in relatively early-stage innovative companies, but also offers a high degree of regulatory protection and information transparency, thus reassuring investors.



## FINANCING SUSTAINABLE DEVELOPMENT IN EUROPE AND BEYOND

For the past 10 years, the number of asset managers that invest in sustainable projects such as renewable energy, water and green infrastructure has increased significantly. These specialised asset management companies choose Luxembourg not only for its international offering, but also for its financial services eco-system.

For example, AIM Luxembourg is an impact investor that has raised private equity to fund a total of 32 solar, wind and renewable projects in France and elsewhere in Europe. A relatively small operator such as AIM Luxembourg needed the ability to externalise many functions (accounting, custodian, legal services) to make the fund cost efficient: something which Luxembourg's highly developed fund ecosystem was able to provide.

For similar reasons, the Luxembourg financial centre plays a leading role in the micro-finance fund sector. It hosts a large share of the world's micro-finance funds and established the first fund label dedicated to micro-finance funds in 2006. Micro-finance funds are able to finance institutions in less stable markets, which is critical to economic development in developing countries. Without these kinds of funds to provide loans, local banks or micro-finance institutions would struggle to raise the money needed to support the local population.

## PROVIDING CROSS-BORDER SOLUTIONS FOR EUROPEAN CITIZENS AND HOUSEHOLDS

Around a quarter of Luxembourg's financial centre earnings comes from the provision of products directly to individuals and families. These products help them access loans and plan for their financial future by offering savings and investment products, including life insurance and pension products.

In insurance, for instance, Luxembourg provides European residents with a wide

choice of policies in terms of cost, coverage and alignment to individual needs. In addition to the portability of the Luxembourg life insurance product, the country offers strong protection to policyholders and has a unique range of measures in place to protect policyholders' interests in the event that a life insurance company goes bankrupt.

Thanks to a wide range of Luxembourg investment funds, European citizens saving up for their retirement are able to access different asset types, investment approaches, and sectors, such as high-tech or green energy, that might not otherwise be open to them. The large choice, available in this way, allows investors to spread risks by diversifying their portfolio, across geographies, currencies and sectors.

It is therefore not surprising that virtually every major fund manager has set up fund ranges in Luxembourg: representing 68% of all EU cross-border fund distribution, Luxembourg allows the fund industry to overcome the fragmentation of the EU market, in turn enabling investors to benefit from pan-European economies of scale.

## OXFORD ECONOMICS STUDY

THIS ARTICLE PROVIDES A SUMMARY OF THE RECENTLY PUBLISHED REPORT, "LUXEMBOURG FINANCIAL CENTRE'S CONTRIBUTION TO THE EUROPEAN ECONOMY", OXFORD ECONOMICS, JUNE 2017.

THE STUDY SETS OUT TO EXPLAIN THE CONNECTION BETWEEN THE ACTIVITIES OF THE FINANCIAL CENTRE AND THE EUROPEAN ECONOMY AND HOW GOVERNMENTS, BUSINESSES AND CITIZENS BENEFIT FROM ITS CROSS-BORDER FINANCIAL SERVICES.

FOR MORE DETAILED INFORMATION, PLEASE CONSULT OXFORD ECONOMICS' WEBSITE: [WWW.OXFORDECONOMICS.COM](http://WWW.OXFORDECONOMICS.COM) OR VISIT [LUXEMBOURGFORFINANCE.COM](http://LUXEMBOURGFORFINANCE.COM)





FRANÇOIS THILL,  
ADVISER,  
MINISTRY OF THE ECONOMY

# ON TOP OF IT... AND THE CLOUD

AS IN ANY OTHER BUSINESS, WORKING TOGETHER CAN MAKE THINGS MUCH EASIER THAN DOING EVERYTHING ON YOUR OWN. PERHAPS THIS IS EVEN MORE THE CASE IN IT SERVICES AND CYBER SECURITY. WHEN LFF LOOKED INTO THE REASONS WHY LUXEMBOURG HAS GROWN INTO AN IT AND CLOUD SERVICE HUB FOR MANY FINANCIAL INSTITUTIONS FROM AROUND THE WORLD, COLLABORATION WASN'T MENTIONED AS A 'NICE-TO-HAVE' IDEA BUT AS A FUNDAMENTAL AND CRITICAL PART OF THE STORY. RECENT CYBER ATTACKS LIKE WANNACRY ONLY UNDERLINE THIS.

## A FAMILY OFFICE IS NOT AN SME

Are financial institutions more demanding than traditional companies? The answer to this question is a firm 'Yes' according to Gérard Hoffmann, CEO of telecommunications company Telindus and Proximus in Luxembourg.

*"Financial institutions have special and strict requirements regarding data sovereignty, data protection, as well as business continuity. A family office with only 20 staff has very different needs than an SME,"* he explains.

*"Compared with neighbouring countries Luxembourg has become much more specialised in telecommunication and IT services for international financial institutions. Due to our high number of clients in the financial centre, we also serve institutions abroad, such as Belfius or Swisslife, out of Luxembourg,"* adds Mr. Hoffmann.

Contrary to other countries such as the US, Germany or Switzerland, IT and telecommunications companies are regulated by the CSSF, the financial regulator. *"This makes Luxembourg rather unique. The advantage is that a company that decides to set up business here can save time and money in consulting fees during the license application process. They don't need to document what we do, the regulator already has this information. This makes the entire license process much faster,"* says Mr. Hoffmann.

## SHARING INTELLIGENCE

Because large international financial groups have a presence in multiple countries, Luxembourg plays an important role in the overall system. Many aspects have helped the country strengthen its position.

**"Financial institutions have special and strict requirements regarding data sovereignty, data protection, as well as business continuity. A family office with only 20 staff has very different needs than an SME."**

GÉRARD HOFFMANN

*"In Luxembourg, we provide legal assurance in certain areas that do not exist in other countries. The communication infrastructures, as well as the data centre infrastructures, are amongst the best in the world and we also have a very efficient network providing early warning information, sharing intelligence on threats and vulnerabilities and assisting cyber victims,"* says François Thill, who is in charge of cyber security at the Ministry of the Economy.

## INFRASTRUCTURE

In order to serve the financial sector, continuous investment has been made to ensure a modern infrastructure with a focus on network stability, resulting in virtually no service interruptions for many years. The international fiber network, with average round-trip times of around 5 milliseconds, connects Luxembourg to other major European cities such as London, Amsterdam, Frankfurt and Paris. This is particularly useful for international financial transactions and stock exchange trading.

Luxembourg also has direct links with major neighboring Internet exchanges such as AMS-IX, LINX, France-IX and DE-CIX. According to their activities and budget, a financial institution or FinTech start-up can choose the data center with the right classification for its business model. 25% of all European high-security Tier IV data centers are located in Luxembourg. In this regards, no other financial centre in the EU comes close to Luxembourg.

Over the last few years, the country has also invested heavily in order to improve the energy efficiency of its data centers. The electrical energy price for industrial customers is very low in Luxembourg which helps to keep costs stable for the end-users such as banks.

## UNIQUE IN MANY WAYS

Luxembourg's legal framework provides certain advantages related to the choice of cryptology, data availability in case of bankruptcy, as well as digitisation and conservation of electronic documents.



François Thill explains: *“The choice of cryptography is free. Cryptology is a core technology when it comes to authentication, electronic signatures and confidentiality. It is an essential element to create trust in the digital market, as well as in the ‘FinTech’ domain.”*

Early this year, Luxembourg put in place a “business continuity plan mechanism”. The mechanism allows third-country companies - victim of severe cyber attacks or natural disasters in their country of origin that jeopardise the further operation of their business - to apply for a “business continuity residence permit” to temporarily continue their activity on Luxembourg territory under certain conditions.

The mechanism is particularly useful for companies and financial institutions handling large volumes of data that require no production facilities such as banks, insurance companies, and investment funds.

*“Luxembourg has been the first country to develop this regulation. If you have a Disaster Recovery Plan in Luxembourg and you urgently need to ramp up the IT systems, then you just jump into a plane and work here,”* says François Thill.

The procedure involves among others a verification of the company’s activity and shareholders, as well an in-depth analysis of its Disaster Recovery Plan. To speed up the arrival of key personnel from the country of origin, a pre-clearance procedure for temporary residence permit can be applied for at the Luxembourg Ministry of Foreign Affairs. The back-up centers in the Grand Duchy allow companies that have stored a copy of their relevant data, to be operational in short time.

## TOGETHER WE STAND, DIVIDED WE FALL

Another project that is of particular interest to the financial centre, to be implemented by the end of this year, is a national DDoS mitigation infrastructure.

*“Distributed Denial of Service (DDoS) attacks, whereby an online service is made unavailable by overwhelming it with traffic from multiple sources, is a growing threat and can harm an entire economy and financial system,”* adds Mr. Thill.

*“Multinational banks often have their own protective systems but at a certain limit they risk being out of contract and need additional support. Certain regions have such mitigation systems in place but not at a national level like Luxembourg.”*

Luxembourg has also created an exchange platform for threats in banking. These can be cyber-related but also include other threats like maliciously used bank accounts. All this information is shared in a reserved platform for banks called MISP (Malware Information Sharing Platform).

*“Banks wanted their own platform. Only two countries in Europe, Switzerland and Luxembourg, have managed so far to work together with banks. Therefore banks from abroad connect as well to the platform in Luxembourg, even from the US. They share knowledge about threats – not incidents – in a trusted environment,”* he continues.

Part of CIRC.LU, Luxembourg has a publicly financed computer emergency response center that also works with banks. It does not report to the regulator and is an independent party. The service is free of charge.

*“All tools created are open source and can be freely used by banks and start-ups. This is rare and might seem strange. However, we believe the strength lies in the collaboration. In Luxembourg, we have always done that.”*

*“We are also in process of setting up C3 Smile, a cybersecurity competence centre. Cybersecurity is changing. Hackers go beyond technical attacks. They now try to change the business process itself. A recent example is what happened to the central bank of Bangladesh and the SWIFT network,”* warns Mr. Thill.

*“Threats will grow in capacity. Cyber criminals work together and we have to do the same in order to prepare a better defense,”* François Thill concludes.

## STABILITY AND AVAILABILITY: 365/24/7

Bankable is a company established in London, yet its IT platform is operated out of Luxembourg. It caters to large transactional banks, but also to multinational corporations, insurance companies, large telecom groups and global marketplaces that need to manage a massive amount of payments every day. All their data is hosted in Luxembourg at the IT specialist, EBRC, in two private clouds in high-security Tier 4 data centres (one main and one for disaster recovery).

*“As our Tier IV data centres at EBRC are indirectly government-owned, Bankable benefits from Luxembourg’s AAA rating. To host critical data, stability and 365/24/7 availability are crucial. Another key point is the fact that Luxembourg is, as the UK, a business-friendly jurisdiction. The collaboration and connectivity between Luxembourg and the UK is seamless,”* says Eric Mouilleron, Bankable Founder and CEO.

**“To host critical data, stability and 365/24/7 availability are crucial.”**

ERIC MOUILLERON

*“Bankable’s infrastructure is audited yearly by multiple global banks. Thus, we need our infrastructure partner to be amongst the first ones to invest heavily in supporting the latest standards to keep up with the latest regulation, trends and cyber security.”*

It is not only payment institutions, banks or e-companies which use Luxembourg’s servers and IT services. For example, data of the Estonian state administration is set to be stored in Luxembourg as well as in Estonia. The “data embassy” created this way will contain information vital to the functioning of the Estonian state, and make an attack on the country’s systems more difficult.

A memorandum of understanding with Estonia was signed with Luxembourg last year concerning the data center, confirming the political readiness on both sides. If everything goes according to plan, a detailed agreement will be signed this summer and the data embassy could go live towards the end of 2017.

#### GDPR UP AND READY

EBRC, the company that hosts Bankable’s infrastructure, offers services ranging from backup and recovery, to virtual data centers and private clouds.

*“We know the financial sector. Banks generally don’t like risks, they therefore put attention on highly reliable partners that they can trust. We are on top of the latest technologies and very present in the Fintech environment. Out of Luxembourg, we serve most of the payment systems, such as Bankable, which gives us credibility in that market,”* says Jerry Probst, International Business Development Manager at EBRC.

*“We are ahead of other countries. The concentration of high-level IT combined with regulation is unique. Businesses such as Limonetik, Snapswap, Mercedes pay and Amazon, all found in Luxembourg a reduced time-to-market which probably has been a decisive factor in their success,”* adds Michel Rodriguez, who also manages international business development at EBRC.

#### BANKING SOLUTIONS AND OUTSOURCING

Banks also use Luxembourg as a platform to offer IT and operations solutions to their peers.

Besides private banking and institutional asset management, Lombard Odier, one of Switzerland’s oldest private banks, runs a business line aiming at offering third party banks a complete IT and operational infra-

*“Businesses such as Limonetik, Snapswap, Mercedes pay and Amazon, all found in Luxembourg a reduced time-to-market which probably has been a decisive factor in their success.”*

MICHEL RODRIGUEZ







JERRY PROBST,  
INTERNATIONAL BUSINESS  
DEVELOPMENT MANAGER,  
EBRC

structure. This division called Technology and Banking Infrastructure (TBI) currently administers 69 billion CHF of third party assets on the platform.

Alain Picquet, Independent Director of TBI (Europe), explains how the division was developed. *“Twenty-five years ago the bank created its own IT platform, centralised in Geneva. The technology choices made at that time turned out to be very good. The modular approach in selecting technologies and in designing the functional architecture has allowed the platform to become state-of-the-art.”*

When Lombard Odier started to open branches and subsidiaries overseas in the mid-80's, they decided to create new instances of the system in Geneva and made them available to other entities in the Group. The bank applied an industrial model where the different instances or clones can talk to each other facilitating the centralisation of some functions such as the securities master file management, the corporate actions management and the trading activity.

*“In early 2000, some banks in Switzerland had heard about this system and asked whether Lombard Odier would accept external banks. We were ready to include them. It was a good source for funding the IT development. The platform became more and more successful and therefore we decided in 2010 to open a dedicated business line,”* continues Mr. Picquet.

This global banking platform, called G2, is indeed the result of a permanent evolution over the last two decades. As of today more than 4,000 people use the system on a daily basis.





ALAIN PICQUET,  
INDEPENDENT DIRECTOR,  
TBI (EUROPE), LOMBARD ODIER (LUXEMBOURG)



Lombard Odier has developed many partnerships with other banks, including Degroof-Petercam, Banque Bordier, Stonehage-Fleming and KBL European Private Bankers.

The next important step is the on-boarding of KBL Luxembourg on the platform which is due this month. It will be the third banking entity of KBL Group to be on the platform. The next ones, Puilaetco Dewaay Belgium and Brown Shipley in the UK will be migrated during 2018.

*“The partnership with KBL is an important deal for us and a huge commitment we have taken. If we wanted to sell our platform in the EU, we had to do it from the EU. Luxembourg was the perfect and most secure choice,”* adds Mr. Picquet.

The system supports multiple business activities. On top of normal private banking business where an investor has its assets deposited with the bank, it can also replicate portfolios that are deposited with other banks and consolidate all assets for a more efficient portfolio management and for designing a coherent reporting. This opens new opportunities for Family Office business. Moreover, non-bankable assets can be recorded in the system (buildings, collections of paintings, yachts...) and offer a 360° view of the assets of the client.

#### A PETAFLOP OF THINGS TO COME

Tomorrow, data of all kinds will be roaming in the cloud. The European Commission is pushing hard for the implementation of a 'digital single market'. However, migrating sensitive data to the cloud comes with a variety of external challenges for financial institutions. Therefore the CSSF has just published a circular, providing detailed guidance about the outsourcing of cloud computing infrastructure services. The document sets the regulatory framework for

subcontracting based on cloud infrastructure provided by an external service provider. The advantage for international financial institutions and companies is that they will be offered a scope for greater agility.

Luxembourg will also develop by 2018 a High Performance Computer (HPC) with the power of one petaflop/second, which corresponds to 1,000,000,000,000,000 operations per second.

Also Germany, Spain, France, Italy, the Netherlands and Portugal will join forces to implement the strategy of a European HPC network - which the Grand Duchy initiated. The HPC project will be able to co-finance pilots in the area of FinTech and elaborate GDPR compliant big data applications. It can also be used to crash-test systems. Researchers enter thousands of parameters of calculations and see what comes out to find the best solution. In the banking sector, it could perform billions of operations simultaneously or track the progress of investments or companies.

Its aim is to complement the European supercomputing network to the benefit of industry 4.0, i.e. the digitisation of business and production processes and research. Currently, the list of top 10 supercomputers in the world is dominated by the US and China.

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# LUXEMBOURG CONNECTING YOU WITH INTERNATIONAL CAPITAL MARKETS



## THE LUXEMBOURG STOCK EXCHANGE (LUXSE): AN EXCHANGE LIKE NO OTHER

- » 1st for international bond listings in Europe
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- » 68 sovereigns
- » 13 supranational
- » 5,600 + share classes of UCIs listed
- » 10,162 new listings in 2016
- » Listings in 54 currencies

## LISTING

**40%** of all international bonds on European markets are listed in Luxembourg.



### **RECORD HIGH-YIELD IN LUXEMBOURG**

LuxSE listed and admitted to trading a 5.2 billion USD bond from Numericable-SFR S.A in 2014, the largest single high-yield bond ever issued.

### **OTHER BOND LISTINGS ON LUXSE INCLUDE**











### **SECURITISATION**

Luxembourg is one of the leading centers for securitisation and structured finance vehicles with a market share of **28%** in Europe. In January 2017, around **1,114** vehicles were in existence in Luxembourg.

### **INITIAL PUBLIC OFFERINGS (IPO'S)**

Luxembourg companies have been widely used in international IPOs.


One can find Luxembourg incorporated issuers on major international stock exchanges:

- » Europe: LuxSE, Euronext Amsterdam / Paris, London stock exchange, Frankfurt stock exchange, Warsaw stock exchange, Oslo stock exchange, Madrid stock exchange, etc.
- » USA: New York stock exchange, NASDAQ
- » Other: Hong Kong stock exchange, Toronto stock exchange, Buenos Aires Stock exchange, etc.

### **GREEN BONDS**

First green exchange (LGX) now lists

**109** green bonds over **\$51 billion.**

A portrait of Dave Birch, a middle-aged man with white hair and glasses, standing in a doorway. He is wearing a grey blazer over a maroon shirt and olive green trousers. His right hand is in his pocket, and his left hand rests on the door frame. The background shows a hallway with wooden paneling and a bright light source.

DAVE BIRCH,  
DIRECTOR OF RESEARCH,  
CONSULT HYPERION



# TRANSFORMING THE DIGITAL IDENTITY LANDSCAPE

DIGITAL IDENTITY WAS ONE OF THE HOT TOPICS AT FINTECH STAGE LUXEMBOURG, AN EVENT FOCUSING ON FINTECH AND BRINGING INTERNATIONAL INDUSTRY EXPERTS TO THE FINANCIAL CENTRE. WE SPOKE WITH FOUR KEY SPEAKERS AT THE CONFERENCE AND ASKED THEM TO OUTLINE HOW THEY SEE THE EMERGING IDENTITY LANDSCAPE IN THIS RAPIDLY DEVELOPING AND EVOLVING SPACE.

“Nobody wants to have to manage personal data. Especially because you have new data protection laws coming, and the costs of having to manage this ‘toxic waste’.”

DAVE BIRCH

*“To me, digital identity is the bridge between the world of virtual identities that only exist on-line and the things that exist in the real world,” says Dave Birch, Director of Research at Consult Hyperion and one of the top three most influential people in London’s FinTech scene, according to City AM. “You can think of the problem as being that there are two sides to that bridge: we need to connect the bridge to the real world, and that’s complicated and time-consuming and expensive. Nobody wants to have to manage personal data. Especially because you have new data protection laws coming, and the costs of having to manage this ‘toxic waste’ and deal with it when it is tangential to your business are not what you want to do. Connecting the bridge to the virtual world, in contrast, is easy. We should have many virtual identities, one for each of our online relationships.”*

Birch predicts that in future years, we will have several different digital identities, just as we have two or three credit cards. For example, our home identity, our hobby identity and each of those will be used to create the virtual identities we need to get things done.

*“We have always been multi-dimensional,” says digital identity entrepreneur Julian Ranger, whose vision is to rethink the data value ex-*

*change. “The question is, are our financial services able to support that multi-dimensionality and work for me across all of those dimensions?”*

## HOW SECURE IS DATA IN YOUR OWN HANDS?

Ranger is Chairman and Founder of digi.me, an app which lets you gather all your data together privately. It then enables you to share it with businesses, in return for value – which might be a service, for convenience or a reward. This is called the Internet of Me – where you are at the centre of your digital life, owning and controlling your data.

*“If you consider identity not to be just identification of data, but all the things that I do, then it’s a holistic through-life process, and you should be using digital identity by engaging directly with me and looking at me across all aspects of my life. Then you as a bank and then financial institution can help me in all my life decisions. It’s really about how you can get closer to me, know me better in a way that helps me, and gets a deeper level of engagement.”*

Historically, financial institutions have been trying to obtain information about us and our activity through our records and what we



JULIAN RANGER,  
DIGITAL IDENTITY ENTREPRENEUR

“The change that is coming is that individuals will own their data.”

JULIAN RANGER

might be able to buy and acquire from others. Ranger predicts the future will be how much you engage directly with me and therefore know more about me.

*“The change that is coming is that individuals will own their data so that you will see with PSD2, the second Payment Services Directive, which breaks down the bank's monopoly on their user's data, the ability for a person to move from one entity to another. But actually it can move from one entity back to the individual and then the individual can choose to share it, and you can go directly to the individual, to get what we would call “richer data”, because it's not just financial data you can now ask for, you will ask for health data, purchase data, intent, where people have been and get a much better idea.”*

#### CHALLENGE FOR DIGITAL IDENTITY IS BLOCKCHAIN

The big challenge with digital identity going forward is that there is no absolute.

*“When you look at digital identity there is no de facto listing globally,” says David Brear, Founder and CEO of II:FS, a FinTech consultancy that helps banks become truly digital. “This is so critical to identity that if you don't trust the system that the identities are being captured and contained within, it makes it tough for that system to be very useful within the realms of what you are trying to do. This is why people have started to look at irrefutable databases. Things like distributive ledgers and blockchain-like identity schemes are very interesting for this.”*

*“I believe we overuse and overhype the term blockchain,” points out FinTech influencer Sam Maule. “I believe that distributive ledger technology does serve as an excellent tool, but in the future, we are going to have components of Artificial Intelligence that we haven't looked at before, with which we will be able to fine-tune this concept of digital identity.”*

#### WHERE IS THE INNOVATION COMING FROM?

Existing players and new players are coming into this space. *“We have moved into a new stage in the ecosystem, between FinTech and the start-up community and banking as a whole,”* explains Sam Maule, Director, Digital & FinTech at NTT DATA Americas and named





DAVID BREAR,  
FOUNDER AND CEO,  
II:FS

“When you look at digital identity there is no de facto listing globally.”

DAVID BREAR

“We have moved into a new stage in the ecosystem, between FinTech and the start-up community and banking as a whole.”

SAM MAULE

as one of the 100 most influential FinTech leaders in 2016 by 360Leaders and HotTopics. “We have seen that this term “disruption” really means an evolution of the partnerships between suppliers, and the larger scale banks. I do not believe that banks will disappear. This is a significant opportunity for the banks to think about the security aspect of it, and how to define the compliance and regulatory side of it, and for the start-ups to streamline those processes. Start-ups and FinTech can streamline and simplify the process around identity, and I believe the banks themselves can secure it and make sure it's compliant, and the two work hand in hand together.”

So is identity the new money and the new currency in the digital age? The concept of identity in a digital age is spinning into new areas we have never contemplated before.

“I think banks are at a fascinating crossroads right now because the limits of the old system are such that the costs of KYC (know your customer) are just spiralling out of control. The regulatory burden is just so vast that we need a new way

of doing things,” adds David Birch, thought leader in digital identity and author of “Identity is the new Money”.

“Let's consider money laundering,” adds Birch. “I want to find out if a group of people are engaging in money laundering. I can build the wall high and try and keep them out. I can demand all sorts of documentation, which is what we do at the moment, so if I think you might be a bad person, I might keep you out of the system. But actually in a world of Artificial Intelligence (AI) and machine learning, data analysis, and cloud, maybe a better way is to bring you into the system so that I can see your transactions and where they are going. I can use the new technology to figure out if these are legitimate, and if they are anomalous. If you are out of the system, I don't know what you are doing.”

## BIGGEST CHALLENGE FOR DIGITAL IDENTITY

“The issues blocking adoption are of course acceptance and convenience for consumers,” adds Birch. “Digital wallets were supposed to dominate the market five years ago and they were one way forward. Maybe in some markets they have, but not in the US and UK, so consumer adoption and acceptance remains a massive challenge. Being able to anticipate what people will accept and want is really difficult, but the idea that we will put so much of our lives on social platforms like Facebook and Instagram, giving them a key role in mass market identity, might indicate that banks have a battle ahead,” Birch concludes.

GM



SAM MAULE,  
DIRECTOR, DIGITAL & FINTECH,  
NTT DATA AMERICAS





RENÉ STEINHAUS,  
COMMERCIAL DIRECTOR,  
LUXEMBOURG AIRPORT

## Luxembourg airport: Europe has never been more connected

REGULAR DAYTIME TRAVELLERS AT THE LUXEMBOURG AIRPORT (LUX-AIRPORT) ARE FAMILIAR WITH THE PERFECTLY SYNCHROZINED BALLET OF PLANES TAKING OFF FOR EUROPE'S BUSINESS HUBS AND FINEST TRAVEL DESTINATIONS.

THE AIRPORT IS PLAYING A KEY ROLE IN LUXEMBOURG'S ECONOMIC GROWTH, AND IS ENJOYING A STRONG GROWTH ACROSS ALL ITS ACTIVITY SEGMENTS.

WE SPOKE TO RENÉ STEINHAUS, COMMERCIAL DIRECTOR AT LUX-AIRPORT, TO LEARN MORE ABOUT THE AIRPORT'S SUCCESS AND HOW IT CONNECTS TRAVELERS TO EUROPE AND BEYOND.

Luxembourg airport has become attractive to an ever-growing number of passengers. A record number of three million travellers passed through the airport in 2016, an increase of 12.4% compared to 2015. In just three years, it has gained one million passengers, showing one of the strongest growth rates in number of travellers in Europe.

For René Steinhaus, this success stems from the arrival of low cost airlines adding new destinations to the list of places to fly to, the fast growth of legacy carriers and the rise in traffic of leisure tour operator LuxairTours.

*"We are growing in all segments. Our home-base carrier Luxair and network carriers like Lufthansa or KLM are growing as well as the leisure tour operator traffic with LuxairTours. The low cost airlines discovered our airport just a few years ago and increased their traffic share to 11% in 2016,"* he says.

Five new companies, Hop!, Air France, LOT Polish Airlines, Aegean Airlines, Flybe and Ryanair, have been added to the existing airlines that serve the airport. Europe has never been more connected.

*"The traffic growth of lux-Airport is driven by the economic growth of Luxembourg and the Greater Region. The airport is an economic driver itself because every new route supports the success of our region,"* explains Steinhaus, who was responsible for strategic and commercial projects within airports, airlines and even cruise liners around the world before joining lux-Airport in September 2016.

## INTERNATIONAL REACH

Unlike most airports of European capitals, lux-Airport offers international reach with the convenience of an uncongested airport located a few minutes away from the city center, a key asset greatly appreciated by business travellers with time constraints.

Major business hubs and Europe's best travel destinations benefit from multiple daily direct flights. London, Frankfurt, Paris and

Zurich can be reached in less than an hour while cities such as Stockholm, Dublin, Porto or Warsaw are just a few hours away.

In addition to the 75 destinations served directly from Luxembourg, the airport is connected to the entire world via seven major international hubs: London-Heathrow, Amsterdam, Frankfurt, Munich, Paris-Charles-de-Gaulle, Zurich and Istanbul, making Luxembourg the best-connected airport per capita in Europe.

## A PRIME CUSTOMER SERVICE

Luxembourg airport is ranked in the top 10 airports handling fewer than five million passengers per year in the Skytrax World Airport Awards 2017. A ranking in which air passengers judge airports according to 40 different performance criteria.

Everything has been designed to make the passengers' journey as smooth as possible as soon as they enter the airport allowing travellers to enjoy a smooth check-in, even at peak times.

**"Contrary to other regional airports, we are providing the quality and services of large hub airports – this combined with the short ways and relaxed atmosphere of a regional airport."**

*"Contrary to other regional airports, we are providing the quality and services of large hub airports – this combined with the short ways and relaxed atmosphere of a regional airport. We are offering tailor-made products for business travelers as well as for cost sensitive passengers, e.g. our economy parking and the low cost long-range buses connecting us to the Greater Region. We call this concept our boutique airport,"* says Steinhaus.

With nearly half of its passengers being frequent business travellers, lux-Airport

is putting a lot of work into adapting its portfolio of services to meet today's needs, from state-of-the-art infrastructures to tailor-made services.

*"We are offering business passengers the services they are used to from larger airports such as our airline lounge. Our Wi-Fi is unlimited and free of charge. We firmly believe that easy, fast and completely free and unlimited Internet access is a fundamental service every high quality airport should deliver to its passengers,"* argues Steinhaus.

To serve the needs of an ever-growing number of mobile business passengers, lux-Airport opened a state-of-the-art and fully equipped Regus Express Center in the Terminal, enabling professionals to meet clients and partners in meeting rooms or to prepare a meeting while waiting for a flight. The space consists of five meeting rooms with capacity for up to 50 people, private offices to rent and a co-working space, with state-of-the-art equipment.

*"Everything has been designed to meet the needs of mobile and demanding business travellers looking for a quality work environment,"* says Steinhaus.





## FEELING AT HOME

A series of major construction works will complete the relifting of the airport to provide the best level of comfort for its passengers.

A total of 13 new commercial outlets have been added, making it possible to indulge in fine dining at Oberweis, enjoy a Frappuccino at Starbucks, or wander in stylish shops all under one roof. In all, space devoted to catering and shopping has increased by 20% from the previous configuration, and will eventually exceed 2,000m<sup>2</sup>.

Steinhaus continues: *"Our short distance from the Indoor Parking to the aircraft is an advantage you will not find in larger airports. Our airport seamlessly combines the destination choices of a large international airport with the tranquility of a small regional one."*

In addition, a new Terminal reserved for flights in the Schengen area as well as regional aircraft, e.g. from Luxair, Lufthansa or KLM, will open in the summer to provide the highest service level to passengers.

*"Terminal B will increase the capacity of the airport by about one million passengers. In addition, it will strongly reduce the number of bus transfers as many aircrafts will be parked at the Terminal and will provide the possibility to offer priority boarding,"* adds Steinhaus.

## LOGISTICS HUB

Lux-Airport not only connects travellers to Europe and beyond but also acts as a major logistics hub, offering airfreight connections worldwide.

*"With 821.000 tons of cargo in 2016, Luxembourg is the 6th largest cargo airport in Europe. We see the cooperation with all logistic players in the Luxembourg cluster, developing the advantages of Luxembourg as a multi-modal hub, as the key to our future success,"* says Steinhaus.

While Cargolux remains by far Luxembourg's Airport's largest customer, with a 82% market share, other leading international airlines are taking a more important role such as Qatar Airways and Atlas followed by China Airlines and Silk Way West Airlines.

## BUSY FUTURE

In the future, the airport will play an even more important role in Luxembourg's economy.

*"The airport will grow in harmony with the economic growth of Luxembourg and the Greater Region. It will be an important engine for this growth. New aircraft types will open the possibility of new longer direct routes avoiding transfers, for example to the US east coast."*

Throughout the passenger journey, digital technology will be key to improve customer experience and make airport processes more efficient.

*"In the short-term, we will implement a pre-booking possibility for our car park, mobile terminal maps and real-time schedule information for public transport. Digitalisation is the trend at airports and offers a lot of possibilities, but we will only implement solutions where we see a real advantage for our passengers,"* concludes Steinhaus.

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# UPCOMING EVENTS

**2017**  
**26-28.09**



## **CHINA 2017**

Luxembourg for Finance invites you to join a delegation led by Minister of Finance Pierre Gramegna. Seminars on the financial centre will be held in Beijing on 26 September and in Shanghai on 28 September 2017.

For more information, please visit  
[www.luxembourgforfinance.com](http://www.luxembourgforfinance.com)

**2017**  
**11.09**

## **IFN EUROPE FORUM 2017**

Luxembourg for Finance will have a speaking slot and a booth at the IFN Europe Forum taking place in London on 11 September 2017.

With Islamic finance gaining growing traction across Europe and ever more countries exploring its potential, the region has become one to watch. As investment pours in from Islamic investors across the Middle East, Asia and beyond, the industry is rapidly evolving to meet their demands, making this one of the most exciting stops on the IFN train.

BY SCANNING THE  
QR CODE BELOW,  
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EVENTS PROGRAMME.



## Save the dates

**2017**  
**20.09**

## **EUROPAS FINANZPLÄTZE DER ZUKUNFT**

Luxembourg for Finance will organise a joint event with Börsen-Zeitung in Frankfurt am Main with the participation of Minister of Finance Pierre Gramegna.

The topics of the panel discussion will be announced soon.

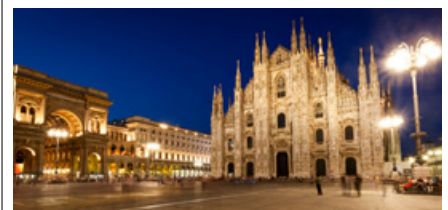


**2017**  
**20.11**

## **MILAN 2017**

LFF will organise a seminar in Milan in the presence of Minister of Finance Pierre Gramegna, on 20 November 2017.

This conference will be the 6th edition of its kind in Milan, promoting various aspects of Luxembourg's financial centre ranging from wealth management to investment funds.





#### IMPRESSUM

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