

THE FINTECH LANDSCAPE IN LUXEMBOURG

In recent years, Luxembourg has been very successful in developing a dynamic FinTech sector. A growing number of companies from around the world, in particular start-ups, are opening offices in Luxembourg to develop and market their product range.

Minister of Finance, Pierre Gramegna has made the further development of the FinTech sector in Luxembourg one of his priorities. LFF talked to Pascal Denis, Partner and Head of Advisory at KPMG Luxembourg who mapped and analysed the Luxembourg FinTech sector with a view to defining the future needs of the financial centres in terms of financial technology readiness as well as enhancing its attractiveness for new actors.

Luxembourg's financial centre provides an attractive environment for FinTech companies. With nearly 150 banks, 332 insurance and reinsurance companies, financial infrastructure companies such as the stock exchange and central securities depositories, as well as a world leading funds industry, the financial centre represents a significant potential client base for FinTech companies setting up in Luxembourg as Denis explains.

"Luxembourg is unique compared with other FinTech hubs in that financial services here form a much more significant share of the national economy. In Luxembourg, the FinTech industry exists on both sides of the financial landscape: financial services and technology. We have international FinTech companies, which have set up their headquarters in Luxembourg to be closer to their clients in the financial sector. We also have the new "disrupters" in the area of e-payments and e-money, that started to set up in Luxembourg a couple of years ago. So today, we have a nice set of FinTech companies coming from both sides which provides a good basis for developing this sector".

The majority of FinTech companies are established firms of foreign origin, setting up in Luxembourg to benefit from the close proximity to clients and from the necessary talent pools, both in finance and technology, to develop their business. At present, there are around 150

FinTech companies in Luxembourg, with roughly half of them providing IT infrastructure or IT services and the other half providing software or technology-based business services.

"If we look at the average age of a FinTech company here in Luxembourg, we see that almost two thirds have been started in the last three years, which gives you an idea of just how dynamic and young is the stage of acceleration that we are in. We see an alignment between the FinTech clusters that have developed and the clusters that exist in financial services. For instance we have a very strong FinTech cluster for private banking because of the expertise in wealth management in Luxembourg. Likewise, there are a large number of FinTech companies in the funds business which reflects Luxembourg's position as the world's second largest funds centre. We are also seeing a sustained inflow of new e-payments players as well as more recently a number of tech companies entering the insurance sector", points out Denis.

NEXT GENERATION ICT INFRASTRUCTURE

Luxembourg offers the ideal environment to support new technology innovations in financial services. The country is ranked 9th worldwide when it comes to leveraging information and communication technologies (ICTs) for social and economic impact, according to the latest Global Information Technology Report published last month by the World Economic Forum. The report, which assesses 143 countries worldwide also ranks the Grand-Duchy as number one for international bandwidth and knowledge-intensive jobs. The importance of the ICT sector for the Luxembourg Government is also highlighted by the fact that the country is ranked as 4th and 5th, respectively in terms of Government success in ICT promotion and the importance of ICT to Government vision.

FinTech companies benefit from a best-in-class ICT infrastructure, in which the Luxembourg government has invested and strategically developed over the past decade. Luxembourg has one of the most modern data center parks in Europe, including 40% of all Tier IV data centres in Europe. As a low latency hub right in the centre of a number of major internet hubs in Europe, companies can serve Europe's largest consumer markets out of just one physical location.

"Based on the feedback from companies we met during the analysis, it is clear that proximity to potential clients is key for these companies, but the attractiveness of the Luxembourg FinTech ecosystem is also crucial, including access to a whole range of business services like incubators, law firms, service companies, IT hosting companies, university with its research center, data centers, and of course the presence of the Big Four. The multilingual and skilled workforce is also a major asset", explains Denis.

SUPPORTIVE FINTECH ECOSYSTEM

The number of e-money and e-payment institutions in Luxembourg has tripled over the past three years and — bridging e-commerce and payment businesses — includes such big players as Amazon Payments,



► **Pascal DENIS**

Partner,
Head of Advisory,
KPMG Luxembourg



"If we look at the average age of a FinTech company here in Luxembourg, we see that almost two thirds have been started in the last three years, which gives you an idea of just how dynamic and young the industry is".

▶ **Pascal DENIS**

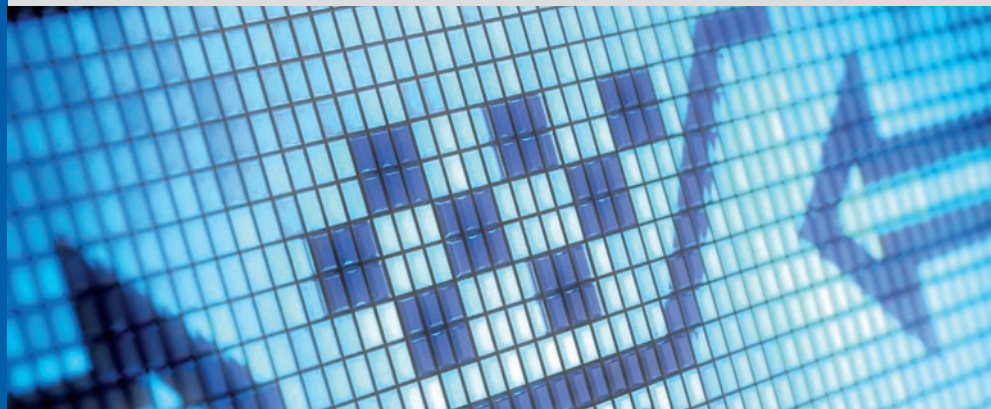
Rakuten and Yapital of the German retail giant Otto. These companies can benefit from a leading international financial centre and the EU passport to distribute services and products through 27 other European countries.

"The reason why these companies come to Luxembourg is because they want a foothold in Europe from where they can, in a regulated manner, develop their activities in multiple countries. Luxembourg has strict regulatory authorities, who are open-minded to innovation. Just to give you an example, the Luxembourg financial regulator, the CSSF was the first supervisory authority in Europe to take an official position on virtual currencies, defining them as scriptural money. Importantly, the CSSF stressed that financial activities involving virtual currencies (whether payment services or trading platforms) will need to be regulated", says Denis.

ACCESS TO ESTABLISHED FUNDING NETWORK

The Luxembourg government actively supports the research, development and innovation that has been fuelling the FinTech industry. There are a number of public and private incentives that complement each other that are available to companies, in addition to R&D support, attractive tax exemptions for Intellectual Property, as well as equity and bank financing. There is also a push from the government funded agencies offering support to the sector, to streamline and simplify access to funding to enable companies to start-up and develop quickly.

*"Crucially, there is a strategic agenda at the political level to accelerate the development of the FinTech hub and that is driving a lot of new initiatives and funding opportunities", points out Denis. "We are also seeing a growing interest in supporting FinTech companies from the more conservative sectors of the financial centre. For example, we are seeing more Family Offices and private banks trying to provide to their high-net-worth individual clients an easier access to investments in FinTech either directly or through an intermediary fund being managed by a bank or family office. We are also seeing more new players, like business angel networks and venture capitalists showing interest to establish strong links with Luxembourg", Denis concludes. **GM***





FINTECH AND THE FUTURE OF BANKING

The role of technology and innovation has become ever more important to banks all over the world. FinTech is changing the financial sector in as dramatic a fashion as trains transformed transportation and the internet transformed communication.

In recent years, Luxembourg has clearly demonstrated its ambition to become a leading FinTech hub. LFF spoke with the management of BIL and BGL BNP Paribas about the reshaping of the banking sector and how FinTech will change the way we handle our money.

SCEPTICISM IS PART OF THE GAME

History has shown that innovations are usually seen as a bad idea when first pitched. People are wary when you speak about disruption. Scepticism is part of the game.

Pierre-Olivier Rotheval, Head of Innovation at BIL, explains: *"Just look at Microsoft CEO Steve Ballmer who first claimed that no one would be interested by the most expensive phone in the world, that didn't even come with a keyboard which made it a terrible machine to email. The iPhone has been one of the most important innovations in the last 30 years"*.

The role of innovation and R&D has always been part of the business model of the industrial and manufacturing sector, looking to invent new technologies and products.

"It was not that banks did not innovate at all, but they followed the larger technological trends such as phones, telex and the internet. These were the technologies that brought the first big disruptions to banks and their service models", Rotheval adds. *"If you compare banks with FinTech companies, of course we are slower. The constraints are not the same. Being regulated and being compliant has a price tag"*.

Although most FinTech initiatives are relatively small and currently do not pose an immediate threat to major financial institutions, their rate of growth and the scalability of their platforms suggest that the banks should start responding sooner rather than later.



► **Pierre-Olivier ROTHEVAL**

Head of Innovation,
BIL

"Today, innovation is not the question... the question is at what pace banks can innovate", says Marc Aguilar, Manager for digital innovation at BGL BNP Paribas. "I don't believe that start-ups will succeed to disrupt banking the way they changed the book or coffee industry. The threat is not as strong as in other industries".

But how can established financial institutions best deal with this new challenger?

Historically, the financial sector has mainly focused on designing new financial products. Now, a different approach is required, namely a strategy of co-operation.

According to Pierre-Olivier Rotheval, there are three types of co-operation possible: banks that buy FinTech companies, banks that finance FinTech companies, and banks that agree collaboration deals to integrate certain technologies, such as with Digicash in Luxembourg.

"At BIL, we don't exclude any of these options. We meet a lot of start-ups, including big players from foreign countries. Some are even bigger than us and are contemplating using Luxembourg as their headquarters".

Investments in the FinTech field are reaching new highs. "Last week alone, more than 200 million dollars were invested worldwide in FinTech. We have never seen such figures before", he adds.

GROWING INVESTMENTS

According to a new report by Accenture, global investment in FinTech ventures tripled from 4.05 bn USD in 2013 to 12.2 bn USD in 2014, with Europe being the fastest growing region in the world. Last year FinTech investment increased at more than three times the rate of overall venture capital investment.

While the United States still captures the lion's share of FinTech investment, Europe experienced the highest growth rate with an increase of 215 percent to 1.48 bn USD in 2014.

But what is exactly causing this growth? One of the reasons is that there has been an increase in financial technology funding making it one of the most popular markets for start-ups. In addition, banking firms are increasingly partnering with the industry.

During the development stage, financial sector start-ups often encounter barriers. Through partnership with mature financial institutions, FinTech firms can access both growth capital and knowledge of critical industry issues, such as legislation and regulation. In turn, financial institutions can use the knowledge and intelligence gathered to make strategic choices and set future priorities.

Openness to start-ups is beneficial to bank employees.

"It opens up their mind. It is important to learn from the start-up culture, not only from their products. Bankers need to understand what it means to be a start-upper", adds Rotheval.

BGL BNP Paribas opened the lux future lab, providing office space, training, coaching and support for new entrepreneurial activity in Luxembourg.

"If you want to keep pace with new technologies you have to approach innovation at an international level", explains Marc Aguilar. "We bring an international network as well as consultancy to the start-ups".

THE CLIENT

The Luxembourg financial centre is by definition international. If Luxembourg banks want to grow, it needs to use digital channels to attract and serve new clients. *"This would require acquisition channels that allow banks to get customers outside Luxembourg without the need for them to come physically to Luxembourg", explains Romain Girst, Director Retail Banking at BGL BNP Paribas.*

What are the digital services that clients expect?

"We need to be more client-centric. Customers want simple and efficient solutions. It must be easier to do or not to be done at all. Web-banking solutions for all the transactions and different devices. No one wants to be excluded because of their device", adds Romain Girst.

Speed is key. Especially young people want to be able to have an answer instantly. They barely make a phone call.

"These instant answers can be provided via channels such as on-line banking but some clients also expect a relationship with their banks via Whatsapp or Facebook. The challenge is that these channels are interesting but we cannot rely on them without having the necessary security systems in place", continues Pierre-Olivier Rotheval. "Most banks use legacy systems that are not real time systems. Clients want real time systems and immediate payments".

Small businesses also like to consolidate bank accounts with a provider that could reduce the time involved in the loan application process and provide more certainty of the outcome. One of the examples mentioned by Rotheval is Kabbage, an online financing technology and data company based in the United States which lends money to small businesses and consumers. The company simplified the lengthy, manual loan application process to one that is 100% online and automated. *"Kabbage gives you an answers in less than 7 minutes for an amount of less than 100.000 USD".*



► Romain GIRST

Director Retail Banking,
BGL BNP Paribas

► Marc AGUILAR

Manager for digital innovation,
BGL BNP Paribas





► **Hubert MUSSEAU**

CEO Wealth Management,
BGL BNP Paribas



WHATSAPP FOR HNWI?

Another trend is that private bankers are increasingly turning to financial technology to enhance the client/advisor relationship, not just deliver self-service tools.

Hubert Musseau, CEO Wealth Management at BGL BNP Paribas, explains: *"We must accompany our clients into the digital world. The client relationship has changed. We need to reinvent the way we manage the proximity with our clients and offer the right solution at the right time. FinTech is about change management"*.

What about the role of the face-to-face meeting in wealth management?

"Yes, private banking is still a people to people business. But it is not sufficient. The modern private banker needs to offer digital solutions that brings him closer to the client".

BGL BNP Paribas launched a satisfaction survey to understand its clients' needs and expectations. *"(U)HNWI are looking for basic functionalities that are often similar to regular clients. However, what is different is that they want more advisory. They want to have simple tools and information that allow them to take the right decision at the right time"*, adds Musseau.

BIG DATA

Banks are always trusted with a lot of information regarding their clients. This information can help them to provide better services.

"The customer base of banks is very valuable. Banks face strong competition, but it is still the banks that have gained the trust and relationship with their client. Banks have to leverage these points", says Aguilar.

As the number of clients within an industry increases, banks are entrusted with more information in their systems that has to be stored securely. Big Data could simplify everything.

The banking industry can improve their professional relationships with their clients and be able to understand them better. It makes it easy for banks to offer schemes that are direct and personalised and tailor their marketing strategies accordingly.

When Big Data provides such detailed information to a bank its responsibility increases as well. They must protect the information and make sure that the information given to them is not misused in any way.

EXPANSION TO NON-BANK MARKETS

FinTech will also bring banks to large non-bank markets in the developing world.

Paying by using your mobile phone is easier in Nairobi than it is in London or New York, thanks to Kenya's world-leading mobile-money system, M-PESA.

"About 43% of the GDP of Kenya flow through that service", says Marc Aguilar. It lets people transfer cash using their phones, and is by far the most successful scheme of its type in the world.

M-PESA is now used by over 17 million Kenyans, equivalent to more than two-thirds of the adult population. **LR**



Jean **GUILL**,
Director General,
CSSF

REGULATION

▶ *Jean GUILL*

Director General, National Supervisory Authority, CSSF

▶ **LFF: HOW DOES THE CSSF SEE THE FUTURE DEVELOPMENT OF THE REGULATORY FRAMEWORK FOR FINTECH IN LUXEMBOURG?**

▶ **JG:** Even though the CSSF considers that some regulatory changes have to occur in order to accompany the FinTech development in Luxembourg, for example with regard to KYC requirements which should be updated taking into account the specific business models of digital finance, we believe that the existing regulatory framework is sufficiently comprehensive to integrate financial technology into the finance sector as a first stage. Further development of this sector will involve the enhancement of the regulatory process with the objective of having an inclusive regulatory environment for FinTech in Luxembourg, having identified the specific needs of this new industry.

▶ **LFF: WHAT ARE THE MOST IMPORTANT CHALLENGES AND OPPORTUNITIES TO BE TAKEN INTO CONSIDERATION FOR THE DEVELOPMENT OF THIS FRAMEWORK?**

▶ **JG:** It is a big opportunity for Luxembourg to embrace new financial technologies and we believe that the emergence of digital finance will change the competitive landscape for financial services. Challenges for Luxembourg will be to manage the integration of start-up activities as well as promoting and developing innovative digital financial products, by trying to apply financial regulation in a proportionate way to those new developments whilst assisting these new players in adapting to the specific culture and behaviour of the financial sector. A further challenge will be to convince traditional market players that the future is in digital finance.

For Luxembourg the opportunity would be to develop a highly specialised FinTech industry ready to provide services to any financial professional who will have to rely on outsourcing and third party services in order to remain competitive.



HOW TO MAKE YOUR BUSINESS GROW IN LUXEMBOURG

Start-ups will find several incubators and accelerators in Luxembourg for different stages of their development. They range from private to public initiatives, each of them offering services to cater for specific needs.

LFF showcases a selection of support initiatives alongside the usual founding process of a start-up having left the garage.

RAISE CAPITAL

For many founders, raising seed and early stage capital is the most stressful part of getting their startup off the ground. Founders who are unable to personally finance their early stage startup activities quickly discover the need to raise external funding.

In contrast to common opinion, governments are important early-stage financiers. In Luxembourg, public financial aid can complement private funding of young innovative start-up.

"Public funding schemes are always co-financed, we cover usually around 40% of eligible costs of a project", says Mario Grotz, Head of Innovation at the Ministry of Economy. "Our budget is specifically set aside for young innovative enterprises with a high growth potential. We actively address the funding needs of these businesses during their development phase by matching equity investments".

Having worked for over 15 years in the field of innovation, Mr Grotz has seen the tremendous increase of innovative projects handled by the Ministry. *"10 years ago we had a dealflow of around 100 projects and 10 start-ups created each year. Today, this number has increased enormously*

to reach an amount of around 350 projects and 40 co-financed projects". According to Grotz, the majority of these start-ups comes from the ICT sector while 5 to 10 are related to FinTech.

On top of the current funding scheme, the Ministry of Economy is working on a new funding vehicle, a seed investment of 15 to 20 million EUR dedicated to very early stage companies.

However, the success of a start-up rarely depends on public funding only, but also requires private sources, which can take the form of private equity, venture capital or angel money, a group of individuals, often former entrepreneurs themselves, who make small investments in new companies.

"Making the bridge between public and private financing is of crucial importance at such an early stage of a company's lifecycle", says Frédéric Becker, Head of Start-up Support at Luxinnovation, the national agency for innovation and research that was founded back in 1984 by several public entities.

The agency which has seen entrepreneurs from over 50 countries assists start-ups during their application process for public R&D and innovation funding schemes. It helps prepare application files prior to their submission to the Ministry of Economy, while also introducing entrepreneurs to private investors such as entrepreneurial ventures and business angels, the most frequent source of financing at the seed stage.

In 2014, Luxinnovation supported nearly 300 projects and has been involved in the establishment of 45 new start-ups, from which many are active in the field of e-payments, e-invoicing, crypto currencies and big data. Amongst them are Digicash and Paycash, two Luxembourg-founded successful payment services.

NURTURE YOUR BUSINESS

After having survived the early stages of development, start-ups will have to get to the next level by starting to grow. In fact, without proper advice, around 90% of start-ups fail during their first years. The role of tutors becomes increasingly important.

"Today start-ups run against time as innovation cycles become shorter and shorter", says Karin Schintgen, Director of lux future lab. The future lab is the innovation platform of Luxembourg's largest retail bank, BGL BNP Paribas. The lux future lab puts entrepreneurship and education at the core of its values. Two parallel programs, an entrepreneurial platform serving as an incubator for start-ups, and a training platform for its core clients - people at the cross-roads of their professional career - are at the applicants disposal.

"For the start-up, everything that takes their attention away from their market, clients and products is a real problem", Ms Schintgen adds. Therefore the future lab acts as a facilitator providing affordable office space, training, consulting and access to a global network making sure



► **Frédéric BECKER**

Head of Start-up Support,
Luxinnovation

► **Mario GROTZ**

Head of Innovation,
Ministry of Economy





► **Diego DE BIASIO**

CEO,
Technoport

► **Laurent PROBST**

Partner,
PwC Accelerator



start-ups can learn from the best. One of lux future lab's great assets is the access it offers to its own experts, key contacts, or business angels as well as its capacity to follow worldwide similar disruptive technology developments.

"Lux future lab is part of BGL's Corporate Social Responsibility (CSR). We wanted to go beyond the classic definition of CSR and back to the roots of our core business as a major economic actor in Luxembourg. By supporting entrepreneurship and training we ambition to impact the social and economic dynamics of our country and be where tomorrow's economy will be born. In a global world start-ups need to go cross-border real fast and we nowadays operate incubators or technology hubs also in other countries such as France, Belgium, Turkey, the USA, China etc. So besides hosting, training and consulting we can also support our start-ups through our international networks", she says.

What makes the future lab even more attractive to FinTech companies is its location in the heart of the city's financial centre and close to major financial operators in the city centre.

As of today, the incubator hosts 16 innovative start-ups as well as 3 service providers coming from as far away as the USA, Canada or Japan.

Technoport, a national technology-oriented business incubator is another key player in the Luxembourg FinTech ecosystem. While applications are open to anyone wishing to set up a business, only the most viable and innovative will be granted the incubator's guidance in setting up a business plan while benefiting from its global network.

"A concrete example is the one of a recent company that was looking for a first seed investor. We put them in touch with a potential investor who eventually decided to make a first investment in the company. This allowed them to hire a team, do a re-engineering and re-design of the product and launch the production of the first batch of their product", says Diego De Biasio, CEO of the Technoport, which received 158 applications in 2014, from which 52% came from the pure ICT field.

The Technoport's services don't stop here. Aware of the crucial importance of being able to test out products before going on the market, the tech-oriented incubator offers access to the Fab Lab, a digital manufacturing laboratory that is part of a growing global network allowing entrepreneurs to do rapid prototyping, collect user feedback and pivot or iterate on the development of their projects.

BE PREPARED FOR THE INTERNATIONAL MARATHON

"Many initiatives, whether they are public or private, exist to assist companies in the early stages of their business. But when it comes to expanding globally, entrepreneurs start to face quite different and complex challenges", says Laurent Probst, partner in charge of the PwC's Accelerator network.

"This situation poses even greater challenges for companies which have an international DNA as they see market traction and a push by their clients outside of their domestic area", he adds.

The accelerator helps fill the critical knowledge and sophistication gaps that make it possible for ambitious SMEs with an international DNA to grow internationally.

Focusing on top-flight technology companies who already generate substantial revenues on their domestic market, PwC's Accelerator helps them mind the gap to international markets by fixing their internationalisation issues, and decomplexifying their internationalisation journey.

"Conquering global markets is neither a sprint nor a solo race, but is rather akin to running a marathon and it requires the involvement of very different partners at each step in the process. SMEs need to build ties with financial and institutional partners who will be able to help them gain a global reach. Building a network is a prerequisite to conquering international markets. There are many advantages available, including fast access to business opportunities, new areas of expertise on a global scale and diversified sources of financing. With the Accelerator, entrepreneurs have access to a new network of partners in whom we already have confidence", explains PwC.

PwC's Accelerator has built a centralised ecosystem bringing together high-tech companies specialised investors, such as venture capitalists, private equity and family offices.

PwC's Accelerator has proven to be a pioneering platform designed to accelerate the connections between the different stakeholders.

HELPING SET UP A WINNING TEAM

"The most difficult challenge they, and indirectly we might face is the one of the team. We regularly face situations where individual projects owners need to find either a business profile or a technical person to develop their project", says Diego De Biasio, CEO of Technoport.

In order to help entrepreneurs overcome this challenge, Technoport organises hackatons around different topics so that people from different backgrounds can meet and get to know each other.

"These events can be the right places to meet co-founders or people interested in joining new projects and help entrepreneurs in the process of finding punctual resources", says the Technoport.

Setting up a winning team takes all its importance in the acceleration stage.

Often start-ups don't realise how important it is to build a team with a winning mentality. **OB**



► Karin SCHINTGEN

Director,
Lux future lab





BUILDING A MOBILE PAYMENT ECOSYSTEM IN LUXEMBOURG

Digicash enables banks to be at the heart of the mobile payment revolution by transforming your smartphone into a mobile payment tool. Starting as an R&D project in 2010 co-funded by the Luxembourg Government, Digicash has become Luxembourg's bank-led mobile payment network enabling retail banks' clients to make payments via an App installed on a smartphone.

In 2014, the company completed a 2.2 million EUR funding round backed by its founders, the Luxembourg investment bank (SNCI) and the Luxembourg Government, to start a new phase of development both on a national and international level.

LFF spoke with Digicash Payments co-founder and all-round entrepreneur, Raoul Mulheims.

► LFF: WHAT ARE THE BENEFITS FOR FINTECH START-UPS IN LUXEMBOURG?

► **RM:** First of all, start-ups can benefit from various types of financial support from both the public administration and the private sector through grants, subsidies, and seed funding. Since 2010, Digicash has worked closely with the Ministry of Economy and Luxembourg's investment bank (SNCI) to obtain funding.

Entrepreneurs can also count on high level advice and support delivered by national agencies such as Luxinnovation, the Big Four and international law firms based in Luxembourg. Some of these supportive agencies and firms have built programmes, incubators, accelerators or infrastructures designed specifically for start-ups.

When it comes to e-payments, which is our business, many leading global players have chosen to establish their European headquarters in Luxembourg. In addition to raising visibility and creating a prosperous environment for developing payment businesses, the high concentration of players eases the exchange of ideas and highlights best practice.

From an operational point of view, Luxembourg is one of the best places in the world to start a payment business and to obtain an EU license. In our experience, the Luxembourg regulator, the CSSF, has a vast experience in dealing with payment businesses and there are many advisors and consultants specialising in regulatory matters that are able to help out in this area. We obtained our license in less than six months – in other countries it can take up to 18 months.

I would also like to highlight that Luxembourg has very responsive and pragmatic public authorities. This helps us to move even faster and receive prompt advice.

► **LFF: WHAT DO YOU THINK ABOUT THE AVAILABILITY OF HIGHLY-SKILLED AND QUALIFIED WORKERS IN LUXEMBOURG?**

► **RM:** Luxembourg has become a hub for the recruitment of high-profile IT and financial specialists and attracts talented people from around the world. In particular, Luxembourg has the highest number of developers in the world per capita (39.8 developers per 1,000 people) above Iceland, Sweden and Israel, according to stackoverflow.com – a reference website for computer geeks.

An impressive 71% of Luxembourg's workforce are foreigners which makes it a melting-point and ensures that new talent adapts quickly to daily life which has a genuine international feel.

► **LFF: IS THE PROXIMITY TO THE FINANCIAL CENTRE AN ASSET?**

► **RM:** It is even mandatory! In our case, banks are our clients. We provide them with a powerful solution to fight against disintermediation and maintain their control over payments. From the beginning, our goal



► **Raoul MULHEIMS**

Co-founder,
Digicash Payments



Digicash Beacon terminal

was to create a new ecosystem in Luxembourg where all banks issue a common product. This setup required a strong partnership with all stakeholders. The Luxembourg state-owned BCEE was the first bank willing to take part in this adventure. POST Luxembourg, BIL and BGL BNP Paribas followed. Luxembourg-headquartered banks have shown great open-mindedness to partner with small players.

This kind of partnership supports the start-ups that work under the FinTech label. However, proximity to the financial centre also encourages those who have adopted an innovative model based on user experience, as well as those who have chosen a new model based on a partnership with banks (for example, "PSF de support" or IT companies). There are also other hybrid models like ours, dealing with banks and integrating a highly innovative dimension based on user experience.

► **LFF: LAST YEAR DIGICASH RAISED 2.2 MILLION EUR: WHY AND HOW DID YOU RAISE THIS MONEY?**

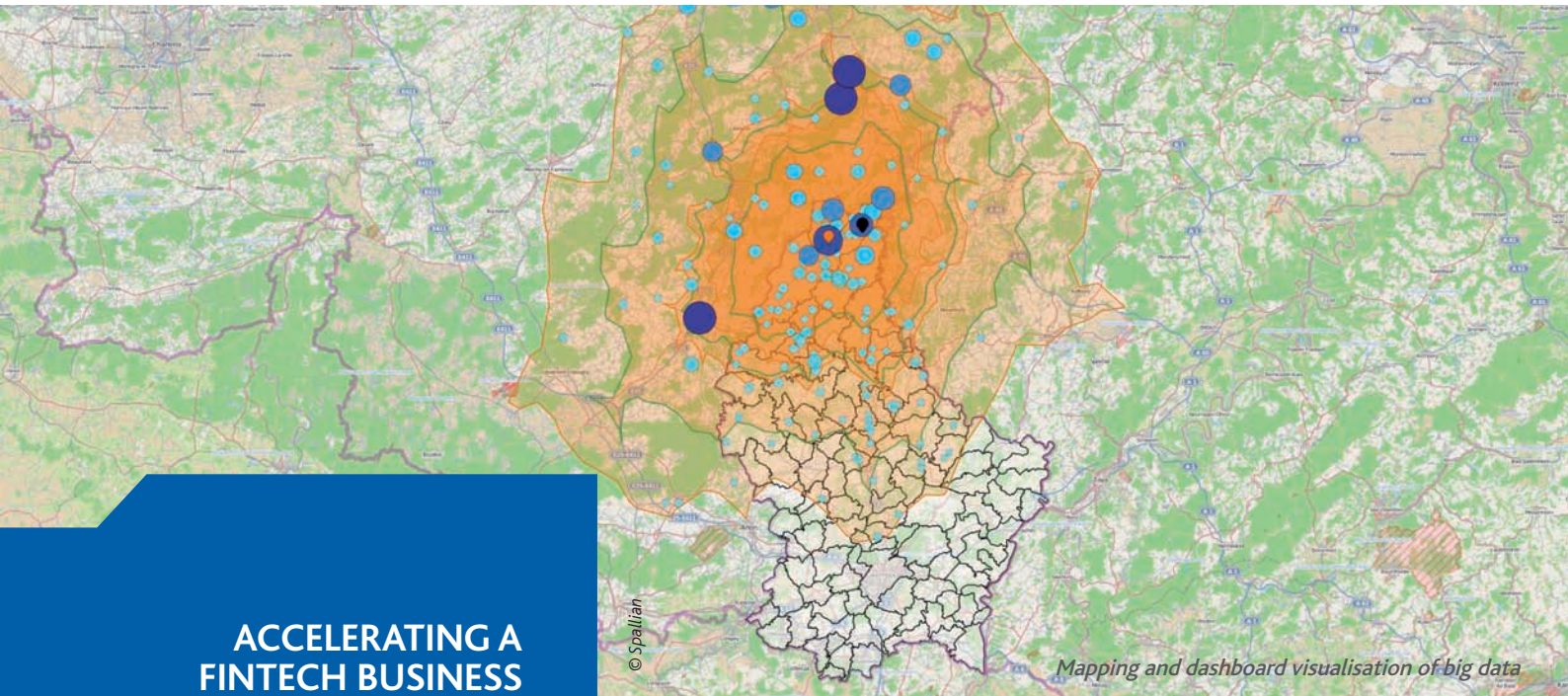
- **RM:** Our company together with the Luxembourg investment bank (SNCI) and the support of the Luxembourg Government, completed a new funding round of 2.2 million EUR in May 2014. The main contribution was made by Digicash founders. The SNCI and the Government (via a grant) covered the remainder of this seed funding round.

This funding has enabled us to consolidate Digicash's mobile payment scheme and our activities in Luxembourg. Our aim is for Digicash to become part of Luxembourg residents' daily lives and we are succeeding. Today, the four main retail financial institutions in the country issue Digicash, making it available to over 80% of primary bank accounts. Furthermore, over 10% of the population has already downloaded the App. In order to increase its use, we are still developing our merchant network and we are planning the launch of several major innovations in the coming months such as the Digicash Beacon terminals and a P2P feature.

► **LFF: HOW DO YOU WANT TO TAKE YOUR PROJECT INTERNATIONALLY?**

- **RM:** Based on this success story, we now aim to provide international players with our premium digital payment technology. To do so, we will start a new funding round in the coming months in order to accelerate our international development. But for the moment, we are increasing our presence at international events and are deeply involved in the creation of a strong FinTech network in Luxembourg. In that context, LFF and Luxembourg Embassies help us to make contacts in many countries. The reputation of Luxembourg in financial matters is really helpful as we continue to export our products and services. **GM**





Mapping and dashboard visualisation of big data

ACCELERATING A FINTECH BUSINESS IN LUXEMBOURG

In 2012, French software company, Spallian identified a new market opportunity to develop a cutting edge tool dedicated to international asset managers. In such a competitive landscape it needed to act quickly, and turned to Luxembourg's PWC Accelerator to help them find the right partners to develop the product.

LFF talked with Thibaud Prouveur, Partner and Sales Director at Spallian to find out why the company moved to Luxembourg to access funding and to leverage the financial centre client base to develop their solution.

It was Luxembourg's reputation as the Eurozone's leading financial centre that initially attracted Spallian to move to Luxembourg as Thibaud Prouveur explains.

"The Luxembourg financial centre is a global market, so if you are successful with a product in Luxembourg, there is a good chance it will work anywhere else".

ICT infrastructure and connectivity were important factors, and the company was able to switch quickly from its provider in France to one of Luxembourg's state-of-the-art Tier IV datacentres. PWC Accelerator acted quickly to provide the company with offices so they could move seamlessly from Paris to Luxembourg, with the aim of going international quickly.

"Everything was set up for us. We had access to conference rooms, so we could meet with potential clients and investors immediately without coming across as being small and new in Luxembourg", Thibaud adds.

The accelerator set about putting the company in touch with different types of financiers who could not only provide funding, but business acumen and financial sector expertise.

"We had very influential investors helping us with the development of our business plan and making sure that we were developing our product in the right place. What we didn't want was back seat investors who would only be looking to make money quickly with a short term investment strategy".

The accelerator not only helped Spallian to go global faster, but it also provided them with local market intelligence and access to business networks.

"What PWC have helped us with, and this has been the major thing they have done apart from all the intelligence they put into our business plan, was introduce us to the key players. They looked at our product and said, look you should go to see the head of asset management at this bank, you should go to see the head of wealth management at this bank. They introduced us to all these people, and that is how we started developing and tailoring the software".

It was an introduction to the CEO of one of Luxembourg's leading custodian banks that led to the development of the company's latest product which will launch in June. The bank was looking to create a product around big data and data analytics as Thibaud explains.

"The bank was looking to offer extra services to it's clients and differentiate itself from other custodian banks. It realised that it had vast amounts of data that it was not exploiting, so it was looking for ways to leverage it".

Spallian was tasked with developing a software product that the bank could offer to asset managers worldwide to help them understand more about the market and exploit the available data to enhance their business development.

"It is a tool that asset managers don't have so far, so it is a strategically important project for us", points out Thibaud. *"It couldn't have been done from Paris, it could only have been done from Luxembourg because of its unique ecosystem and the close proximity to key players. IT is recognised in Luxembourg and companies are willing to invest more in new technology than they would in France. Here, banks view FinTech as part of new revenue streams, and as long as there is a return on their investment, they are willing to make the investment".*

Spallian successfully applied for an R&D grant from the Luxembourg Government, and it benefits from a tax refund on salaried staff involved in R&D. The support is potentially worth up to one million euros over three years as Thibaud explains.

"R&D support is common across Europe to support innovation but most often businesses face long delays in being able to access that funding. In France, for example, you get your refund two years down the line, but in Luxembourg, the tax rebate is paid every quarter, which makes a big difference in terms of cash flow".

Last year Spallian moved to new offices in the heart of Luxembourg's city centre. The financial support is enabling the business to expand their staff count to ten, with the aim of the doubling that figure in the next twelve months.

"In Luxembourg, we have found highly skilled staff. Labour laws, which allow for a trial period of six months to be included in an employment contract, have also allowed us to take a chance and test fresh talent which is key to our future development". **GM**

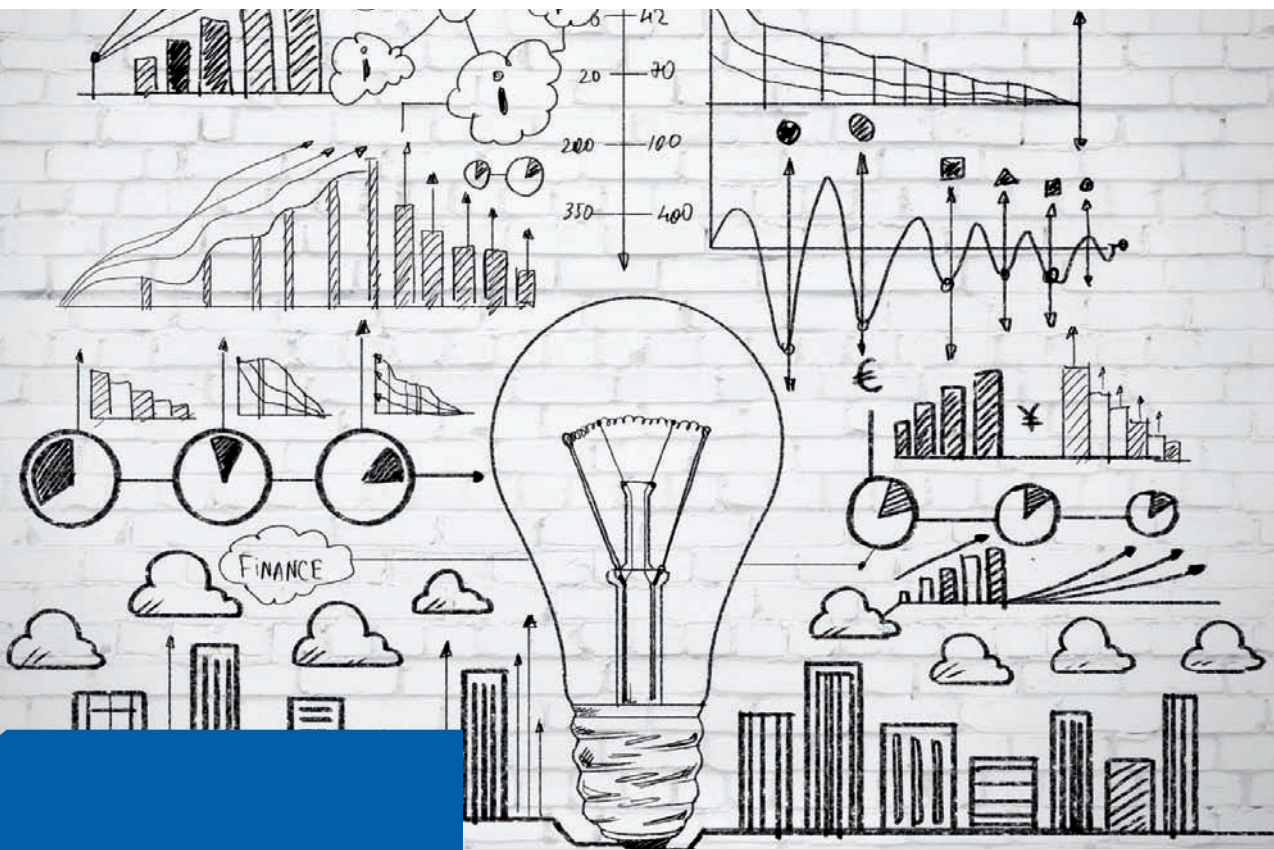


► Thibaud PROUVEUR

Partner and Sales Director,
Spallian

Mapping and dashboard visualisation of big data in Luxembourg





MANGOPAY GOES INTERNATIONAL

Launched in May 2013, MANGOPAY offers a FinTech payments solution for marketplaces, crowdfunding platforms and collaborative economy players. The business is part of The Leetchi group which runs the leading European online group payment solution, Leetchi.com. MANGOPAY chose to set up its headquarters in Luxembourg to develop the business and secure a financial service license to facilitate growth.

LFF spoke with MANGOPAY Director, Romain Mazeris (CEO of Leetchi Corp SA).

In 2012, the French company Leetchi.com was looking for a base to develop a new FinTech payment solution for marketplace, crowdfunding platforms and collaborative economy players. One of the main technical challenges it faced was to implement a payment management system which was international and respected European regulations.

"We needed to apply for an e-money issuer license and at that time it wasn't available in France, so we decided to look at what was available in other countries. We had the choice of Spain, UK, Belgium or Luxembourg", explains Mazeris. "We really didn't have to think that much, because Luxembourg has everything we need: a solid financial regulator, a banking hub where we could develop a strong network of banking partners, and given Luxembourg's geographical position in the heart of Europe, a good place to attack European markets".

SUPPORTIVE REGULATORY FRAMEWORK

MANGOPAY selected a Luxembourg law firm to accompany the business on its quest for an e-money issuer license. *"It was as difficult to obtain the license in Luxembourg as it would have been in any other country", points out Mazeris. "The financial regulator, the CSSF, wanted to go deeply into compliance and anti-money laundering (AML) requirements. What pleased us most was the business perspective the CSSF*

had on our product and understanding of what we were doing and the potential solutions”.

In order to enable the business to distribute its payment technology across the European Union, MANGOPAY set about establishing a network of banking partners.

“Luxembourg is a small but very internationally focused country, so bankers are opened minded and have a unique cross-border expertise. From our bank in Luxembourg, we were able to open accounts with twelve different banking partners across the EU. For a start-up, it was also significant that the cost was minimal in terms of fees and the process was relatively straightforward”.

Luxembourg’s data centers offer a full range of services including colocation services, virtual private servers, managed hosting and web hosting. With over 40,000 m² of net floor space in 19 data centres across country, Mazerier set about exploring the full range of data services available.

“We needed a dedicated and very special infrastructure not only to meet our specific IT needs but to assure the regulatory authorities and our investors”, points out Mazerier. “The data center we selected, in terms of security is one of the best in the world, but it is also a global leader in innovation. We have a great relationship with our data centre which has followed our needs, and it has changed its way of thinking and its products to support us. It’s something we appreciate and because we are a small company it is very important that we have this insurance”.

With more than 350 European clients since its launch in April 2013, Mazerier hopes MANGOPAY can become a champion for Luxembourg, to inspire more entrepreneurs and to give the country’s growing FinTech sector more visibility.

“It is a great country to develop your business from, and attack the European market and to grow internationally. Our aim now is to open up to new markets”. GM



► **Romain MAZERIER**

Director,
Mangopay



DEVELOPING A BLOOMBERG APP IN LUXEMBOURG.

The Luxembourg company AlphaSearch, now sells its software on the Bloomberg App store. Its newest platform, "behave! Pro", exploits anomalies and inefficiencies in worldwide equity markets mainly explained by behavioural biases. The software is used around the world by investment professionals to support stock selection and sector allocation.

LFF spoke with Alexandre Colin, founder of AlphaSearch.

Can psychology help us better understand financial markets and provide us with hands-on stock picking strategies? Behavioural finance theorists suggest they can and this led Colin, at the time a fund manager in Luxembourg, to begin his investigation into how the use of factor-based algorithms could help asset managers beating the market.

"After the internet bubble exploded, the forecasting value of sell-side analysts was questioned, as roughly 80% of them had a Buy or Strong Buy rating just before the collapse. In the following years, academics found that they indeed had value, but probably not in the way initially thought. Several pieces of research also identified other inefficiencies in the stock market that could be exploited, mainly explained by behavioural patterns. They are the foundation of several Smart Betas", explains Colin.

The idea behind the financial platform is to enable professional money managers to use stock selection and asset allocation models based on so-called market anomalies, now also known as Smart Betas. The "behave!" application equips the client to create his own investment universe or import a portfolio, and backtest it with various models exploiting inefficiencies which have been shown to exist for an extended period of time in various markets and countries, avoiding forward looking and survivorship biases.

"Our aim was to build a platform that enabled the user to define his own investment universe, apply the proprietary models that we have developed based on price, volume and numerous consensus data published by analysts. The user would then apply these models to the universe that they have created to search for Price Momentum, Earnings Momentum or Value anomalies that they can exploit. Typically, the fund or portfolio manager would use the decile ranking produced by behave! to either screen for new buy or sell ideas in his own investment universe, or combine it with his fundamental and technical analysis. We also have traders who target shorter term investment horizons, and hence generally use models built around earnings momentum. We are in the process of adding a new Low Volatility model, in order to cover all generic Smart Betas, an investment strategy which exhibits the advantages of both passive and active management", points out Colin.

UNIQUE ECOSYSTEM FOR GROWTH

Luxembourg's financial centre offered the ideal environment to support Colin as he set about developing his product.

"There has always been a spirit of entrepreneurship in Luxembourg and it has always been very easy to start a company: administration is very light and the government has always been very pragmatic. The international nature of Luxembourg also makes it very easy to set up a new company and find the competences you need would it be legal, accounting or IT".

Beyond finding a ready market for his services, Luxembourg was also the perfect location to grow and develop AlphaSearch internationally.

"It's often taken for granted but the location of the Grand Duchy within Europe and the proximity of the airport makes it very easy to prospect in an efficient manner. Also, when you go abroad, if you say you come from Luxembourg, it's a recognised financial centre, so I would say that it definitely adds to your credibility when you are a new company as you market your services abroad".

STAYING ONE STEP AHEAD OF THE MARKET

In 2012, the company was invited by Bloomberg to launch "behave!" on their app portal, which is now distributed around the world through the 320,000 Bloomberg Professional terminals.

"There is always competition, but there are few actors delivering the type of turn-key service that we offer. In fact, the real competition comes from the target users themselves when they have developed their own filters or models, but which are usually less sophisticated than what we offer, or cumbersome to update and maintain. And this is where outsourcing can make a difference. As we continue to relentlessly improve our software and models, we are confident that we will continue to thrive from our base in Luxembourg".

Looking ahead, the company plans to take advantage of the Bloomberg distribution network by closely targeting the Asian market where the behavioral anomalies can also be strong. **GM**



▶ Alexandre COLIN

Founder,
AlphaSearch





LUXEMBOURG START-UP INTRODUCES AFRICA'S FIRST MOBILE CLEARING HOUSE

A Luxembourg start-up, The Mobile Clearinghouse Network (MCHN), is launching the first mobile clearing house in Africa and beyond, interconnecting all financial institutions, banks, payment technologies and wireless carriers under a secure platform. The company, backed by Microsoft, aims to create low cost, interoperable, agnostic cashless societies, to enable instant monetary and non-monetary transactions.

MCHN CEO and founder Hani Beshara talks to LFF about his revolutionary plans to usher the developing world into a new age of opportunity and financial development.

Services allowing consumers to perform banking and payment operations on their mobile phones are rapidly advancing in Africa, leading the way for the rest of the world.

"Mobile phones have penetrated African markets on an astronomical scale because they are a cheap alternative to the expensive and limited landline phone service. As a result, each African has one to two mobile phones so this is why Africa is the first market globally when it comes to mobile money", explains MCHN CEO Hani Beshara.

In 2010, the visionary entrepreneur chose Luxembourg as the headquarters for his company financially backed by two global entrepreneurs - Olivier Dassault and Jean Claude Mimran. *"We were encouraged by the support on offer from the government and that led us to set up in Luxembourg. The Grand Duchy is a very supportive environment for start-ups: SKYPE started in Luxembourg, you have other companies, from the US and Asia, who are also here",* adds Beshara whose ambition is to go global out of Luxembourg.

In 2011, the business was selected to join the prestigious Microsoft BizSpark One program, made up of some of the strongest start-ups from over 100 countries around the world. Beshara, with the backing of Microsoft, soon began working with telecom operators and banks across Africa to build low-cost payment hubs, to facilitate economic growth across the continent.

"The main problem you have in Africa today is that you have a variety of players - different banks, telecommunications companies - and everyone is doing their own thing. They don't have one system that allows the different actors into the mobile payment market to communicate with each other

to create one single platform to generate revenues for all of them to share. Today's constraints, and lack of security and interoperability between the payment platforms offered in the marketplace, slows the growth of the industry. Our aim is to use our technology to enable end-users to perform all banking or payment functions and transfer money via their mobile phone 24 hours a day – 7 days a week anywhere they want in a very secure way”.

GAME CHANGING TECHNOLOGY

Given that relatively few Africans have traditional bank accounts with no access to credit, while most now own a mobile phone, devices to pay bills, make purchases, manage savings or get fast access to cash has a high potential. Beshara believes his technology enabler will revolutionise this space, empowering consumers and their banks in a seamless way.

“For many families in the developing world, remittances from relatives working in other countries continues to be the main form of income for the household. Up until now, the transfer of money, through firms like Western Union, has been costly and not immediate”, explains Beshara. “At MCHN, we use your mobile phone number as the heart of the operation and transfer funds in real time, allowing you to make payments, and reduce costs on merchants. Our technology is a game changer because we do not need to know the name of your bank, we do not need to know the name of your phone carrier, we only need to know your phone number and this is what will enable the technology to move forward and that is what we are trying to build”, explains Beshara, who also serves as Luxembourg’s Honorary Consul in Egypt.

MCHN offers three solutions: a global hub, called the Mobile Clearing House Network, which integrates directly with customers' existing infrastructures, with a proprietary Anti-intrusion and Fraud detection and reporting System (AFIDS) highly secured; MCHN Mobile Solutions, a suite of mobile money applications offering advanced mobile wallets in multiple currencies, deployed on all operating systems; and MCHNPAY, a low cost mobile merchant transaction solution.

TAKING THE PRODUCT STRAIGHT TO PILOT

Beshara will launch his solution in Africa in the coming months after Microsoft conducts a full security and code review on the platform, but his start-up also plans to pilot in Luxembourg. *“Africa is the ideal market, but in parallel, we need to drive ahead in the developed world. Luxembourg offers a very mature financial platform with access to all the key global financial institutions, so we think it offers a very high potential to pilot MCHN”.* Beshara's ambition goes beyond that. He wants to take over the mobile clearing space worldwide with his "low cost" strategy.

Beshara is benefiting from the support of the active Luxembourg FinTech community, as he introduces his mobile clearing house to the international financial centre. *“We can help and enable all players together to be able to connect with each other, and through the different wallets they can connect easily, enabling different banks and telecom operators to connect in real time, and help the unbanked to have access to banking services with full transparency. We are seen as a disruptive technology, and so the biggest challenge we face is convincing the different players to sit down at the table with us and see the value of what we are offering”.* **GM**



► Hani BESHARA

CEO,
MCHN

