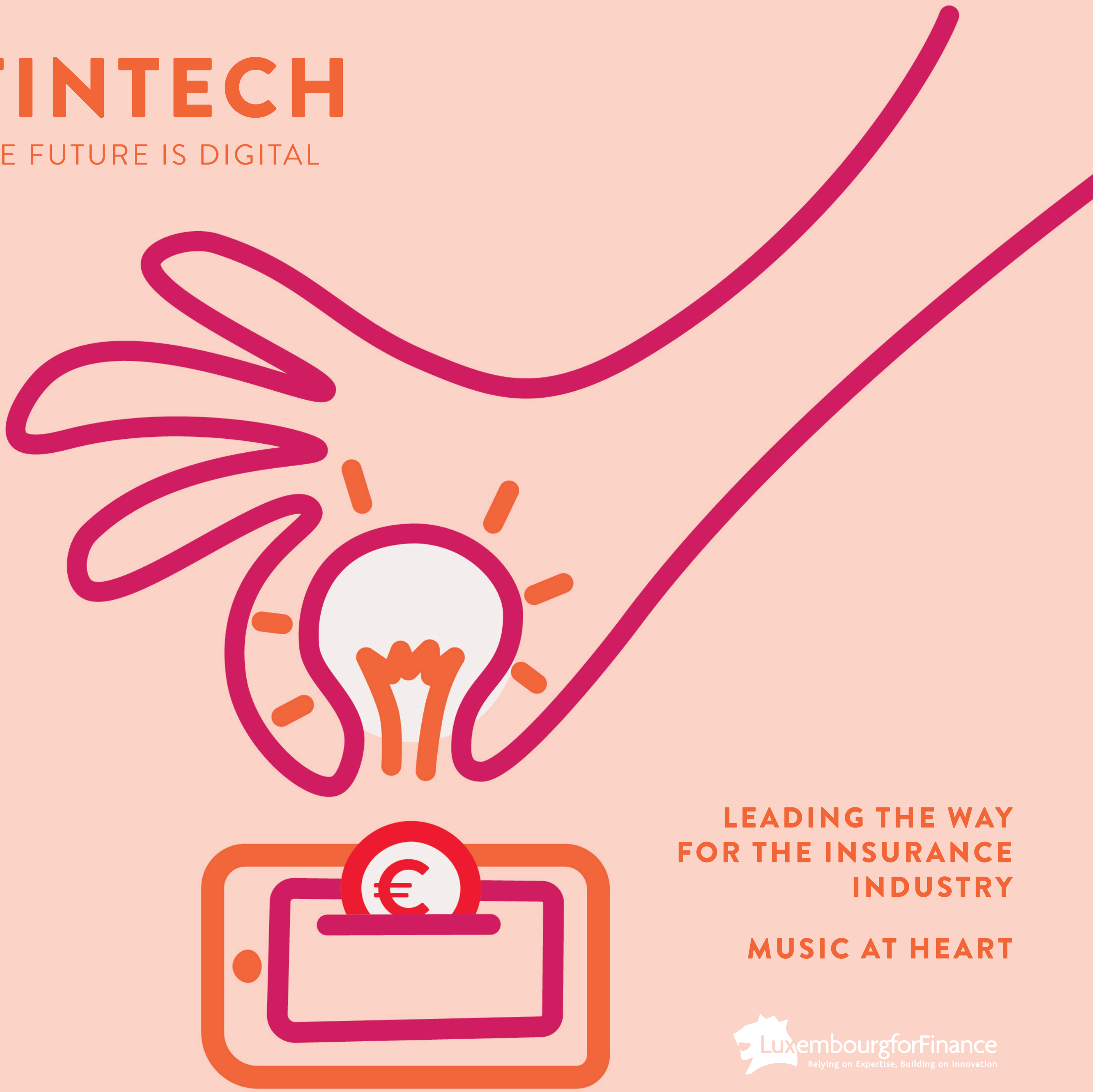
MAY 2016

LEO

THE FINANCIAL CENTRE'S MAG

FINTECH

THE FUTURE IS DIGITAL



LEADING THE WAY FOR THE INSURANCE INDUSTRY

MUSIC AT HEART

LuxembourgforFinance
Relying on Expertise, Building on Innovation

NICOLAS MACKEL,
CEO, LUXEMBOURG
FOR FINANCE

Since I pitched FinTech as a contender for the buzzword-of-the-year award last year, developments around the digitalisation of financial services have substantially matured. The hype around disruption has given way to a much more nuanced debate on how financial technology impacts every aspect of an evolving financial services industry. From an initial somewhat defensive stance, incumbents have come to see new players no longer as aiming for their lunch but as potential partners that can help them evolve and innovate from the back-office all the way to the customer experience. Disruptors have also understood that established institutions have an added-value for them. Co-opetition, another neologism that is currently very popular, appears to be the way forward.

In this edition, leading voices in the world of FinTech brought together in Luxembourg during a recent FinTechStage conference, share their views on some of the dominant themes of the day such as the blockchain, big data, and RegTech.

RegTech, or regulatory technology, could actually be the next contender for the award mentioned above. It encompasses a variety of issues and in fact, just as FinTech, has been around for a long time before the term itself was coined. Indeed, Luxembourg's regulator has been very active in digital innovation and set up a dedicated team already some years back, notably when major payments institutions chose to operate out of the Grand Duchy. Home to a diverse financial services industry focused almost exclusively on cross-border activities, the country represents an ideal breeding ground for regulatory technology. The latter mostly covers two related areas: the first is about how technological innovation can be applied to or used in regulation and by regulators, to improve efficiency and transparency. The second aspect is about how technology can assist financial institutions in complying with regulatory requirements.

In Luxembourg, the financial community is pulling ranks and, through the fora set up by their industry associations, is actively exploring avenues to leverage opportunities arising from new financial technology as well as carefully weighing the necessary adaptations, whether from a business perspective or from a regulatory angle. The importance of adapting to a new digital era also comes out quite clearly from the priorities laid out for us by Marie-Hélène Massard, the new Chairwoman of the Luxembourg Insurance and Reinsurance Association.

How the Grand Duchy's traditional financial know-how can be combined with new solutions is the topic of an article on CrossLend, a German start-up leveraging Luxembourg's securitisation expertise. Another example is Go Beyond, which chose Luxembourg and its unrivalled investment fund ecosystem to set up its Business Angel Fund.

Finally, we take great pride in featuring one of our national musical icons, Gast Waltzing, for the Grammy Award he was awarded on account of the album "Sings" he produced and conducted for Angélique Kidjo with the Luxembourg Philharmonic Orchestra.

Enjoy the read!

N. Mackel

ANY QUESTIONS?
GET IN TOUCH ON TWITTER - @LUXFINANCE

"I think Luxembourg is putting together all the right moves to make a successful FinTech hub in Europe. Just look at this place. The investments made in the new frontiers of technology, not only FinTech, but also BioTech, MedTech, and even SpaceTech are enormous."

MATTEO RIZZI, CO-FOUNDER FINTECH STAGE

AAA

The rating agency Standard & Poor's (S&P) confirmed Luxembourg's "AAA" rating with a 'stable' outlook. The Grand Duchy continues to hold the top rating by the three leading agencies S&P, Moody's and Fitch.

1ST

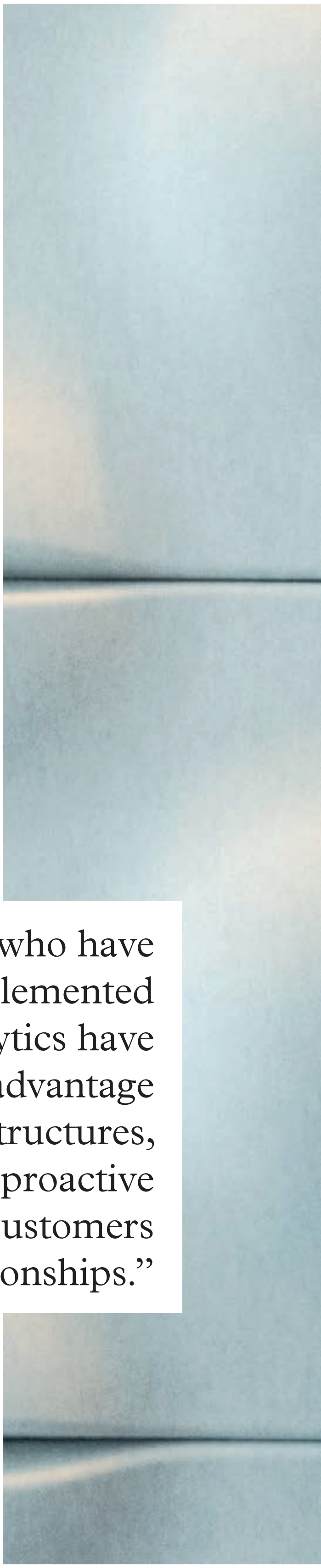
The 19th Global Financial Centres Index (GFCI) lists Luxembourg as the 1st financial centre in the Eurozone and 2nd in the European Union after London.

14TH

THE UNIVERSITY OF LUXEMBOURG IS RANKED 14TH AMONG THE BEST YOUNG UNIVERSITIES IN THE WORLD, ACCORDING TO THE LATEST "TIMES HIGHER EDUCATION 150 UNDER 50 RANKINGS 2016". THE RANKINGS ARE A GLOBAL LIST OF THE BEST UNIVERSITIES THAT HAVE BEEN ESTABLISHED WITHIN THE LAST 50 YEARS.

BITSTAMP OPTS FOR LUXEMBOURG AS EU HUB

LUXEMBOURG'S FINTECH ENVIRONMENT RECEIVED ANOTHER IMPORTANT ADDITION WITH THE GRANTING OF AN EU PAYMENT INSTITUTION LICENSE TO BITSTAMP, THE LEADING BITCOIN EXCHANGE IN EUROPE. BITSTAMP THUS BECOMES THE FIRST FULLY EU-LICENSED AND REGULATED BITCOIN EXCHANGE.



LEADING THE WAY FOR THE INSURANCE INDUSTRY

LUXEMBOURG IS CONSIDERED A WORLD LEADER IN TERMS OF ITS DELIVERY OF INSURANCE PRODUCTS AND SERVICES. MARIE-HÉLÈNE MASSARD, CEO OF AXA LUXEMBOURG, AND INCOMING CHAIRWOMAN OF THE ASSOCIATION OF THE LUXEMBOURG INSURANCE INDUSTRY (ACA), OUTLINES HER GOALS AND AMBITIONS FOR THE NEXT FIVE YEARS.

LFF: WHAT ARE YOUR TOP PRIORITIES AS THE NEW CHAIRWOMAN OF ACA?

MHM: My priorities are organised around three key topics to support the competitive advantage of the Luxembourg insurance market. First, priority is given to managing the evolution of regulation and the preservation of a level playing field, especially concerning the freedom to provide services. The second key topic is FinTech and the required rapid digital transformation that is necessary for the insurance sector in Luxembourg to adapt to this fast-changing and potentially disruptive environment.

Last but not least, the third primary concern is the promotion of our industry to attract a diversity of talents. We are operating in an international, complex and continuously evolving environment. Being competitive requires the cooperation of complementary expertise, skills, experiences and the inclusion of diverse profiles regarding age, gender and nationality.

> "Companies who have successfully implemented big data and analytics have created a competitive advantage through lower cost structures, greater efficiency and proactive and customised customers relationships."

MARIE-HÉLÈNE MASSARD,
CEO, AXA LUXEMBOURG
AND ACA CHAIRWOMAN

LFF: WHAT ARE THE KEY REGULATORY CHALLENGES FACING THE INSURANCE SECTOR?

MHM: Our industry has to manage a busy regulatory schedule mainly aiming at harmonising EU insurance regulation, reinforcing transparency and improving consumer protection.

2016 is the first year of the Solvency II application which will remain a focus for a while. As Luxembourg has decided to be an early adopter of Automatic Exchange of Information obligations, the OECD Common Reporting Standard (CRS) will be applicable from January 2017, on data collected in 2016.

On the list as well, the Packaged Retail and Insurance-based Investment Products (PRIIPS) and its Key Information Document (KID) are due to become effective as of 2017, while the Insurance Distribution Directive (IDD) and the revised Markets in Financial Instruments Directive (MiFID II) are expected to enter into force in 2018.

The fourth Anti-Money Laundering Directive (AMLD), which should be effective in Luxembourg by July 2017 at the latest, is a key topic too. To complete the overview, we are also following with attention EU discussions on the transposition of the OECD Base Erosion and Profit Shifting (BEPS).

LFF: HOW IS BIG DATA CHANGING THE INSURANCE SECTOR? IS THE INDUSTRY RETHINKING THE WAY IT EVOLVES?

MHM: Big data has the potential to impact the overall insurance value chain: risk assessment, offer and pricing, asset management, claims and customer relations management. But it requires the capability to capture and analyse usual data related to the policyholder, such as financial, actuarial, claims and risk data, combined with new types of data from social media, connected devices, mobile applications.

Compared to other industries, insurance, in general, has started quite late to focus on available data collection, quality, storage, and analysis. The industry is progressing quite fast now, but faces a shortage of profiles combining data analytics skills with expertise in insurance.

What is at stake, however, is important. Companies who have successfully implemented big data and analytics have created a competitive advantage through lower cost structures, greater efficiency and proactive and customised customer relationships.

LFF: GROWING FINTECH INVESTMENT IS FUELLING UNPRECEDENTED COMPETITION FROM INSURANCE START-UPS. WHAT STRATEGIC CHOICES DO THE ESTABLISHED INSURANCE COMPANIES NOW HAVE TO MAKE?

MHM: In the FinTech ecosystem, insurance companies can position themselves as potential clients, partners, sometimes mentors, or investors.

> "Types of risks to be covered are evolving with technology."

In any case, it is essential to build strong connections with FinTech players to be able to detect and to keep up-to-date with emerging trends and new business models which could be disruptive to the industry. Partnerships with start-ups can take different forms: joint pilots with the most promising ones, full support to develop a concept and start a business within an incubator, or investment in those based on a robust, scalable technology capable of driving a significant change in the industry.

LFF: WITH THE RAPID DIGITALISATION OF FINANCIAL SERVICES, THE INSURANCE INDUSTRY IS SET TO CHANGE. HOW ARE LUXEMBOURG´S INSURANCE COMPANIES FACING THIS CHALLENGE?

MHM: The challenge is to achieve full digital transformation. Digitalising the customer experience is not enough to be successful. Intermediaries experience and employees experience must be digitalised too. The overall insurance value chain must be shaped to address digitalisation. Value propositions, processes, and tools must be redesigned to fit within a digital environment. This requires specific expertise, skills, mindset, and behaviours. Digital transformation is not only related to technology but also to culture.

Luxembourg's insurance companies have started to tackle the issue. Among other things, the speed of transformation depends on types of insurance activities, the maturity of targeted markets and profiles of customers segments.
Regarding customers, this evolution is creating opportunities to approach customer needs more precisely, to provide more relevant solutions and a better quality of service.

> "Big data has the potential to impact the overall insurance value chain."

LFF: HOW IS THE SECTOR PREPARING ITSELF FOR THE TRANSFORMATION IN BUSINESS BOTH IN THE TYPES OF RISKS THAT CAN COVER CUSTOMER DEMANDS AND THE SKILLS NEEDED IN BUSINESS?

MHM: Types of risks to be covered are evolving with technology: some are shifting, like those related to driving with driverless cars, some are emerging, like cyber-risks. Risk coverage has also to take into account new social trends like the sharing economy, which has introduced new ways of using the car and home, for example. Also, the combination of the Internet of Things and big data is allowing for a much more precise risk assessment and efficient risk prevention based on predictive modeling.
These changes require skills related to analytics, modeling, and IT security. As data plays a significant role, data security, respect of data privacy and transparent usage of data are critical in building a trust relationship with customers.

LFF: DOES LUXEMBOURG OFFER WOMEN POTENTIAL TO DEVELOP THEIR CAREERS AND RISE TO THE TOP?

MHM: Over my last four years in Luxembourg, I have met many women at senior positions both in the public and private sectors, from different industries, some of them having created and successfully developed their own company. So based on this experience I would say yes, it does. Nevertheless, I have also observed that some industries, including insurance, are still male dominated at the top. Several studies demonstrate the added-value created by gender balanced teams. It seems that appointment of more women at the top than today is the most efficient decision to take. Let's work together, men and women, to accelerate this process!

GM

WHAT YOU NEED TO KNOW: INSURANCE IN LUXEMBOURG

96

INSURANCE COMPANIES AND 223 REINSURANCE COMPANIES

OVER 24 BILLION EUROS

IN INSURANCE PREMIUMS IN 2015

FINTECH

THE DIGITAL REVOLUTION IS WELL UNDERWAY, AND THE FINANCIAL SERVICES INDUSTRY IS ENTERING THE NEXT STAGE OF TECHNOLOGICAL EVOLUTION. WITH THE RISE OF FINTECH, OPPORTUNITY IS KNOCKING FOR BOTH TRADITIONAL INSTITUTIONS AND START-UPS USING TECHNOLOGIES THAT ARE "REAL TIME" AND AFFORDABLE TO ALL.

LEADING PLAYERS IN THE WORLD OF FINTECH SHARE THEIR VIEWS ON THE CHALLENGES AHEAD AND REVEAL HOW BLOCKCHAIN, BIG DATA, REGTECH, AND THE INTERNET OF THINGS CAN UNLOCK GROWTH IN FINANCIAL SERVICES.

WATCH GLOBAL FINTECH EXPERTS REVEAL LATEST TRENDS AND OPPORTUNITIES.

JEAN HILGER, BCEE, CHAIR OF THE ABBL DIGITAL BANKING AND FINTECH INNOVATION CLUSTER
SERGE WEYLAND, BIL, CO-CHAIR OF THE ALFI FINTECH AND DIGITAL FORUM
STEVEN LIBBY, PWC LUXEMBOURG, CO-CHAIR OF THE ALFI FINTECH AND DIGITAL FORUM

INTERVIEW WITH
JEAN HILGER, STEVEN LIBBY AND SERGE WEYLAND

Boosting FinTech in Luxembourg

THE CHAIRMEN OF THE LUXEMBOURG BANKERS' ASSOCIATION (ABBL) AND THE LUXEMBOURG FUNDS ASSOCIATION (ALFI) CLUSTERS ON FINTECH AND DIGITALISATION DISCUSS THE LATEST TRENDS IN FINTECH AND EXPLAIN HOW LUXEMBOURG'S FINANCIAL SECTOR IS POSITIONING ITSELF FOR A DIGITAL FUTURE.

LFF: WHAT WILL BE THE ACTIVITIES OF THE NEW ALFI FINTECH AND DIGITAL FORUM AND THE ABBL DIGITAL BANKING AND FINTECH CLUSTER?

SL: The ALFI FinTech Forum has been set up to identify, discuss and analyse Digital and Fintech developments which are believed to have a "disruptive" impact on the asset management industry. It is indeed our strong belief that digital innovation will have a substantial impact on the way funds and financial products in general will be manufactured, distributed and consumed going forward. FinTech is already a reality in a number of areas such as payments, data analytics, lending and the pace of change is impressive.

JH: The awareness of FinTech is already high in the financial service community, but the cluster wants to go one step further and concentrate on a deeper knowledge that enables our members to evaluate FinTech models and apply new technologies within their organisations.

We are collaborating with the House of Training to set up courses on data analytics, blockchain technologies, digital transformation and cybersecurity that will be added to the traditional catalogue of training offered to bank executives and their employees.

> "The major challenge is to understand and analyse the benefit and the resilience of new business models and to implement them."
>
> JEAN HILGER

Our second goal is to enhance collaboration with regulators like the CSSF or the CNPD on regulations that do not take sufficiently into account the opportunities given by new technologies and that may hamper Luxembourg's leading position in offering digital financial services.

Our third goal is to work with FinTech companies, the University of Luxembourg and the industry to reinforce Luxembourg's knowledge ecosystem around highly sophisticated FinTech solutions.

LFF: HOW WILL DIGITALISATION CHALLENGE THE WAY ASSET MANAGEMENT AND CORRESPONDING ADVISORY AND FINANCIAL SERVICES ARE DELIVERED?

SW: There is a diversity of FinTech trends that may affect the asset management industry at different levels. Machine learning may enhance prediction-based portfolio management techniques. Next generation digital investment platforms and robo-advisors will radically change the fund distribution landscape. Improved data sourcing and processing coupled with regulation such as the second payments directive (PSD II) will create added-value and may lead to advanced services we haven't even thought about today.

> "Next generation digital investment platforms and robo-advisors will radically change the fund distribution landscape."
>
> SERGE WEYLAND

BY SCANNING THE QR CODE BELOW, WATCH THE VIDEO AND FIND OUT MORE FROM SERGE WEYLAND ON HOW LUXEMBOURG IS POSITIONING ITSELF AS A FINTECH HUB.

LFF: WHAT ARE THE KEY CHALLENGES THE BANKING SECTOR FACES GIVEN THE RAPID DIGITAL TRANSFORMATION OF FINANCIAL SERVICES?

JH: The major challenge is to understand and analyse the benefit and the resilience of new business models and to implement advanced technologies that require new levels of knowledge in our organisations. That may not look very new, but the speed of the actual change, the momentum provided by new technologies has increased and will give early adopters the benefit of experience and market share.

In particular, banks need to have a closer look at the new financial services which are data-driven and create added-value for customers and risk management functions by using data analytics. Another major trend to look at is blockchain technology. It has the capability to disintermediate complex processes, like virtual currency systems do when they avoid traditional clearing systems for payments. Finally, cybersecurity remains a fundamental issue as the new services are relying on data processing and telecommunication and need to be trusted.

Most probably some older business models will disappear and so will part of the revenues. In the long-term, the banking industry might be partly reshaped and external suppliers will play a substantial part, as happened to the car industry.

LFF: HOW WILL FINTECH IMPACT FUND DISTRIBUTION?

SL: FinTech has the potential to be a game-changer in the fund distribution business. The new generation of investors is looking for ease of use and enhanced customer experience, the ability to compare their investments with peer groups in social networks and easy access to product information. According to ALFI's FinTech report published at its 2016 Spring Conference, key features of online platforms will be education, risk and performance metrics, account management functionalities, wealth reports versus investment goals, and market insight.

LFF: THE PSD II DIRECTIVE OPENS UP THE PAYMENT MARKET TO COMPETITION FROM NON-BANK PLAYERS IN RESPONSE TO INNOVATION AND CHANGING CUSTOMER BEHAVIOUR, ESPECIALLY WITH REGARD TO THE USE OF THE SMARTPHONE. WHAT IMPACT WILL THIS HAVE ON LUXEMBOURG´S BANKING SECTOR?

JH: Surprisingly with PSD II, the market disruption is triggered by a regulatory text and not by a new technology. Nevertheless, at this stage, it is still difficult to foresee the impact on the smaller Luxembourg market. Up to now, it is not known that there are initiatives to apply for the required new licenses necessary to comply with the PSD II payment scheme.

PSD II puts a third-party, like a global telecom operator, a global internet seller or another bank, in a position to get access to the bank account data of a customer and initiate a payment. In this situation, the customers own bank may become merely an actor providing information and executing payment instructions while losing its direct link to the customer.

The success of this planned market disruption depends on a few questions. First, what will be the perceived added-value for a customer when he chooses to initiate payments by a specific third-party? Second, how easily a customer will trust a third-party and grant him access to his financial data? Finally, how easily will he be convinced by the new security mechanisms that need to be put in place to secure access to data and payment execution?

As decided by the new directive, banks have to get ready to provide access to their customer's bank account data, but they also need to think how they can create added-value for their mobile banking applications.

LFF: WHAT ARE THE CHALLENGES, AND OPPORTUNITIES CREATED BY BLOCKCHAIN FOR LUXEMBOURG´S FUNDS INDUSTRY?

SW: Blockchain technology has a huge potential and will have a profound impact on the financial sector but we are still at a nascent stage. The back and middle-offices might use this technology to facilitate transaction flows and reporting in fund services. One of the obvious use cases for blockchain in the asset servicing industry is for record keeping and settlement of fund subscriptions and redemptions. Blockchain technology could offer further benefits to asset managers by providing them with more insight regarding their end investor base.

LFF: WHAT COULD THE INCREASED USE OF BIG DATA MEAN FOR ASSET MANAGERS?

SL: Big data technology should allow a more efficient use of the huge amount of client, market and portfolio data already available at the various levels of the investment fund value chain. Data analytics will help to improve client profiling and investor segmentation, provide market intelligence and facilitate D2C connectivity, and it will enable asset management companies to adapt product management and marketing strategies to the needs of the new generation of investors.

LFF: HOW DO YOU EXPECT ROBO-ADVISORY SERVICES IN THE ASSET MANAGEMENT INDUSTRY TO EXPAND?

SW: Already today, in some jurisdictions, robo-advice platforms are targeting mass affluent clients with new goal-based investment strategies and lower fees.

In the near future, through the combination of big data and advanced analytics and easier access to the customer's financial data (cf. PSD II), robo-advice should become more personalised and specific over time, going beyond current portfolio allocation and investment products. This will enable asset managers to address end investors at a much lower cost.

LFF: WHAT ARE THE KEY CHALLENGES AND OPPORTUNITIES FOR LUXEMBOURG´S PRIVATE BANKS AS THEY CONTINUE TO EMBRACE DIGITALISATION?

JH: Just to name a few that we actively look at: the digital on boarding of customers, KYC technologies, video authentication, robo-advising in the context of MiFID II regulation and crowd investment.

LFF: WHAT CHALLENGES DO ASSET MANAGERS FACE AND WHERE SHOULD START-UPS LOOK FOR OPPORTUNITIES?

SL: One of the main challenges for asset managers will certainly be to adapt to an increasingly disintermediated distribution landscape. The new generation of tech-savvy investors imposes more interaction with the brand while, at the same time, increasingly bypassing intermediaries by investing online. Start-ups could focus, amongst other areas, on the resulting high need for online and enhanced execution platforms to provide better customer experience and added-value services such as wealth planning, investment product insight, investor education.

LFF: WHAT ARE THE FUTURE CHANGES COMING TO THE FUNDS SECTOR?

SW: Asset management is an ever-changing industry. It has to constantly adapt not only to evolving investor behaviour and technological threats, but also to an even more powerful driver of change which is regulation. Recent and upcoming regulations like AIFMD, FATCA, the Automatic Exchange of Information, PRIIPs, MiFID II, UCITS V or the European legal framework for data protection, to name just a few, put asset managers under increasing pressure to keep up with a permanently evolving environment without hindering growth, stability or profitability. Against this backdrop, it would be presumptuous to make predictions about specific imminent changes.

"FinTech has the potential to be a game-changer in the fund distribution business."

STEVEN LIBBY

LFF: WHAT ARE THE FUTURE CHANGES COMING TO THE BANKING SECTOR?

JH: From a regulatory point of view, the number and complexity of new regulations are still an important issue and force banks to further invest in and densify control and reporting mechanisms on their business activities. As mentioned before, PSD II has the potential to fundamentally change the market structure of payments. Additionally the MiFID II regulation is going to disrupt the market of securities. Both regulations will challenge the future revenues of banks.

From a market perspective, it is evident that traditional banks see their revenues decrease due to low interest rates or capping of income from card payments. In addition the new business models arising from the FinTech movement require high investments in new technologies but eventually do not generate high revenues for banks.

GM

CHRIS SKINNER,
CHAIRMAN,
THE FINANCIAL SERVICES CLUB

DIGITAL TRANSFORMATION: RESHAPING FINANCIAL SERVICES

LEADING FIGURES FROM ACROSS THE INTERNATIONAL BANKING SECTOR SHARE THEIR EXPERIENCES ON HOW BUSINESS MODELS ARE EVOLVING IN A RAPIDLY CHANGING DIGITAL SPACE.

> “Right now we are in the early stages of the technological revolution of this planet, and the way in which we do commerce through the Internet and technology.”
>
> CHRIS SKINNER

“*We are seeing a third age revolution in commerce based around the internet,*” explains Chris Skinner, keynote speaker at FinTechStage Luxembourg, author, and Chair of the Financial Services Club.

“We are moving into this internet age which is being built by FinTech companies using technologies that are “real time” and cheap so actually reinventing banking onto the web and digitalising the whole process.”

Skinner’s book “Digital Bank”, covers the innovations in banking and discusses how the mobile internet is changing the dynamics of consumer and corporate relationships with their banks.

“The huge challenge for banks is that they have been built over the past 300 years for the physical distribution of paper, with a localised network focused on buildings and humans. The new internet age is demanding that banks become digital distributors of data through the

globalised network focused on software and servers and that is a real cultural and leadership challenge for any financial institution that still has a physical structure."

HOW BANKS ARE STRUCTURED AROUND DIGITAL OFFERINGS

As Director of Innovation, at Lloyds Banking Group, Claire Calmejane sees innovation and disruption in a 250-year-old organisation as an opportunity, and a great challenge to be part of.

"Internet banking has undergone significant changes in the last five years; it has grown from simply offering banking information to customers to a holistic banking service, where customers can meet their everyday financial needs at the click of a button. What matters to us is to serve our 11 million online customers where they want, how they want and when they want," says Calmejane. *"The role of our team in the digital division is to ensure that we test drive tomorrow's banking and are always thinking ahead. We can't stand still, we must always be where our customers want us to be. Our customers are telling us to make things easy for them and digital is an opportunity to make the customer experience simpler and easier while keeping it inclusive."*

Lloyds, the UK´s largest banking Group, launched a one billion pound transformation programme to reduce operational complexity, putting digital at the heart of its business.

"We identified the ten journeys that are the most important to our customers and clients, and we are redesigning the front-end experience, the middle-office and the back-end based on our customers' expectations," explains Calmejane.

DIGITAL DISRUPTERS REDEFINING THE INDUSTRY

New digital banks are transforming the landscape and reinventing the traditional distribution channels as part of a wider global transformation in the banking world. CheBanca!, a new generation multichannel and digital bank, with some branches, was created in 2008 as a digital disruptor and is known as one of the most innovative players in Italian banking.

"If you start a digital bank you need to be very clear, what are the problems you want to solve, and how do you get your revenues. Because that is the key challenge in this sector," explains CheBanca! General Manager, Roberto Ferrari.

"One of the biggest challenges we are having is that consumer habits evolve every day. This is the ultimate challenge for us because every time you do something in the digital world, the benchmark is Amazon, Google, Apple, and this is the way customers are going to judge us, so for us the key challenge is to make sure the customer experience and services we deliver, meets those types of standards which are also in different formats and in different digital channels."

German on-line only lender and the world´s oldest FinTech bank, Fidor Bank, is built more like an app store than a traditional bank. The digital bank puts an emphasis on the idea of "community" in banking, with online communities offering finance tips, peer-to-peer loans, and financial market trading facilities.

"The Internet of Things will create a primary banking relationship which is totally invisible," says CEO Matthias Kröner, who founded the bank in 2009, long before FinTech was a buzzword. *"Bankers are focused on their products and legacy technology – not knowing how to become a relevant partner to the customer."*

FAST, EASY AND SECURE FINANCE

Since its launch, Fidor´s 330,000 community members of which 115,000 are full banking customers have given it feedback and the bank has responded with ongoing and continuous new services for its active online community.

"Digital banking can deliver a lot of personal contacts, way more than some branches, in

CLAIRE CALMEJANE,
DIRECTOR OF INNOVATION,
LLOYDS BANK

MATTHIAS KRÖNER,
CEO, FIDOR BANK

"Bankers are very much in love with products and technology but simply do not know why a customer should use it."

MATTHIAS KRÖNER

“The banking industry needs to hurry up on the payments side because the barbarians are coming.”

ROBERTO FERRARI

ROBERTO FERRARI, GENERAL MANAGER, CHEBANCA!

particular once those branches are closed. Banks today only think of life insurance, mortgages, those are once in a lifetime events for normal people, but real people live a life of five EUR here, ten EUR there, decisions every hour. It’s a shorter rhythm than banks are thinking in and we increasingly must use new technology to respond to this, and by that become a relevant partner.”

The digital bank created a series of products using new productions to respond realtime to changing needs, to reflect this new approach to life.

“Let me give you one example: We offer a product called “emergency loan”. It’s a 100 EUR or a 200 EUR loan. You just press the button, and you get the money the next second. It doesn’t matter whether this is a Sunday night, a Friday morning, or a Saturday evening. It’s one of the products we can deliver in the next 60 seconds irrespective of what day of week or time of day.”

SHIFTING TO A NEW FINTECH STRATEGY

Kröner believes that if a bank is not operating like a FinTech company, then it will face increasing problems caused by the speed of technological and customer development.

"As co-entrepreneurs we are cooperating with banks and non-banks deploying our digital customer engagement and banking infrastructure to those organisations who want to convert their existence into a digital future. We do that as a managed service, which means it comes with the infrastructure and all our experience. We can increase your speed, to create the openness e. g. via Fidor FinanceBay (Fidor own appstore) and to operate on a more application programming interface (API) driven infrastructure."

OPENING UP PAYMENTS COMPETITION

The Payments Services Directive II (PSD II), which comes into force in 2018, may be the biggest threat to banks as it will force banks to give FinTechs access to their systems. The directive requires banks to open their APIs to trusted third parties if the customer gives their consent. As a result, online platforms will be free to use personal banking data to offer new financial services, opening up new channels as Ferrari explains.

"API will open the doors to Google and Facebook, who will come into the peer-to-peer payment area, which they see very similar to messaging. The risk the industry is running is a little bit like the telecom industry, so if you think about WhatsApp calls and what happened to the SMS. SMS were the most important revenue source for all the telcos, so the banking industry needs to hurry up on the payments side because the barbarians are coming."

NURTURING NEW FINTECH COMMUNITIES

CheBanca! initiated and created a FinTech community in Italy called "smart money" which has resulted in a close collaboration between the bank and the start-up community.

"Our focus is on promoting innovation and nurturing ideas. We have a dedicated team and programme which scouts out FinTechs that could be helpful to the bank, as well as supporting start-ups that have no added-value to our business."

> "We can help start-ups to connect with a client, or one of our suppliers and we assist them to find connections within our ecosystem."
>
> CLAIRE CALMEJANE

Lloyds is also partnering with FinTech companies and is committed to being a thought leader and nurturing new talent.

"We have significantly stepped up innovation and collaboration capabilities. We developed a model to engage FinTech and InsurTech through our accelerators and partnerships. We continue to develop thought leadership for financial services in the UK working with the Government, other banks and the FinTech community in topics such as Open Banking. We are a founding member of Innovate Finance where we champion Women in FinTech; in the digital division, 42% of colleagues are women, but there's still a lot more we can do. We also open our doors for monthly meet-ups for internal and external thought leaders to get together and share ideas, such as a recent event on Robo-Advisor. And through our partnership with StartupBootcamp, we mentor match our subject matter experts with the start-ups to upskill them in a broad range of areas, such as payments or regulation developments," explains Calmejane.

In 2015, Lloyds fostered 100 mentoring relationships with start-ups, deploying subject matter experts. *"We learn from their agility and entrepreneurial zeal and they learn from us about what is required to launch products and propositions at scale so it's very much a culture exchange. At the same time, even if their business is not necessarily related to what we do, we help them to develop and grow. For example, we can help start-ups to connect with a client or one of our suppliers and we assist them to find connections within our ecosystem,"* concludes Calmejane.

PREPARING FOR A TECHNOLOGICAL REVOLUTION

Many of the larger banks and new digital banks are now actively partnering with accelerators, incubators, and venture capital funds to build and invest in the future infrastructure of the Internet, Chris Skinner explains.

"We are just starting to see the Internet of Things, where we see technology embedded in television, in refrigerators, cars, houses, clothes. That means that these things that we take for granted today become very smart without us ever having to do anything, so, for example, a television can order a new series of "Game of Thrones", the refrigerator can order our groceries, our car can order its fuel without us having to do anything in the process. The biggest technology change is coming from shared ledger systems which the banks have just started to create. They enable banks to give us the ability to do transactions through the Internet of Things. That's a big big change in the next decade," concludes Skinner, whose latest book "Value Web" discusses how FinTech firms are using bitcoin blockchain and mobile technologies to create the Internet of Value.

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Reinventing Insurance for the next generation

CHANGING BEHAVIOURS AND PREFERENCES FROM MILLENNIALS – WHICH INCLUDES ANYONE BORN BETWEEN 1980 AND 1999 - COMBINED WITH BIG DATA AND THE EMERGENCE OF TECHNOLOGIES SUCH AS THE INTERNET OF THINGS, IS PUSHING THE INSURANCE INDUSTRY TOWARDS MASSIVE DISRUPTION.

"When it comes to the Millennial Generation, they really don't want to be talking to sales people. They want data-driven decisions," explains Mark Dowds, CSO of Trov, a technology-based insurance company which lets you insure *"just the things you want when you want entirely from your phone"*.

"If they just want to insure one or two things they care about or if they are making a claim for a single item, then the current systems and experiences, for the most part, don't fit the needs or the demands of that generation," he adds.

Dowds fear is that unless insurance companies "wake up" to these changing demographics and new technological advances, the sector will end up facing an emergency over the next ten years.

"In my generation, there were two decisions that got me into insurance. One was that I wanted to own and drive a car, and the second was I wanted to own a home. These were the decisions that forced me into a relationship with insurance. The next generation are not making the same decisions."

"Car and home ownership is rapidly decreasing for the millennials who have effectively been frozen off the property ladder, but few insurers seem to be embracing the reality that the next generation are not playing the same game," points out the Northern Irish entrepreneur.

INSURANCE FOR THE MOBILE GENERATION

Founded in Silicon Valley, the technology app and digital insurance platform provides tracking, price information, and on-demand insurance coverage for single items, which allows customers to easily 'turn-on' cover for short periods of time.

"We have created an on-demand insurance experience to fit the lifestyle of the younger generation. For instance, if I am taking my skis away for the weekend, I could turn insurance on for when I am skiing, then turn it off when I go home. Innovation in insurance today has

"What's really interesting is the data financial institutions hold across their systems and databases."

NASIR ZUBAIRI

NASIR ZUBAIRI,
FINTECH INVESTOR AND ADVISOR

been taking traditional products and making them cheaper, what we plan to do, however, is liberate insurance to do what it should do, which is to empower my lifestyle and let me take some risk," he adds.

The PWC report – Top Insurance Industry Issues in 2016 – states that "InsureTech," the current buzzword for disruptive technology within the insurance industry, is emerging as a "game-changing opportunity for insurers to innovate, improve the relevance of their offerings, and grow".

"Traditional participants, entrepreneurs and investors see that there are incredible opportunities to enhance the insurance industry and are clamouring to be involved," explains Nasir Zubairi, named one of Europe's 40 most influential innovators in FinTech by the Wall Street Journal.

BIG DATA AS THE NEW FRONTIER

Interest in "InsureTech" is at an all time high as investors compete to find and secure the best deals at record speed. Last year, according to CB Insights data, more than 2.6 billion USD globally was invested in insurance Tech start-ups, and that figure looks set to rise in 2016.

"There are a lot of great start-ups in the data space," points out Zubairi. *"What's really interesting is the data held across institutional and public systems and databases. There is an incredible amount of information, but all this information, up until now, has been utilised within particular silos. I think what we are beginning to see now is how that data can be leveraged across silos to deliver more value. I believe that platforms addressing solutions in this space, grabbing, unifying, consolidating and providing access to data from the multitude of source systems, adding layers of sophistication and algorithms on top, are going to create a lot of value. It is in this space that I think we are going to see initiatives within InsureTech focus in the course of the coming years,"* he adds.

“When it comes to the Millennial Generation, they really don’t want to be talking to sales people. They want data-driven decisions.”

MARK DOWDS

“Insurance is a hygiene service. There is limited scope to add value to customers through superior user experience due to the scope of interaction, aside from high-touch insurance products such as health. Tailoring insurance and related costs to individual customers and, in the process, hopefully lowering costs for the customer, will be driven by access to better and more specific data and it is therefore understandable that much of the innovation is focusing on this area,” he adds.

One of the biggest challenges for participants and investors is finding the great start-ups in this space, Zubairi explains.

“I think that some scepticism is creeping into the venture industry in relation to exit potential and scalability of financial services start-ups. This will impact the pace of innovation, and the valuations that we see in the market. Competition for funding and recognition is getting stronger. Hopefully, this means only the best and most robust companies get backed. As such I see more focus on partnering with and/or servicing the existing industry participants, making them more efficient, lowering costs, opening up new sources of revenues. Ultimately, enhancing value to the end-customer. Everyone wins.”

SHIFTING TO A BIG DATA STRATEGY

Joab Rosenberg, is CEO and Founder of Epistema, an Israeli start-up offering a new approach to big data analytics, based on integrating human insights into the machine learning process. The company works with financial institutions, government agencies, and large research groups.

“Data is changing the world more than it is changing the banks and financial services. It is changing the world in the sense that we are capable of accumulating and storing as much data as we want. Then the question becomes what do we want to store and to what end?” This should be answered by domain experts. Being able to integrate experts’ insights into a unique “knowledge base” and compare them to raw data is Epistema’s mission.”

Epistema’s analytics tool helps financial firms better understand their internal knowledge and future predictions. Rather than calculating results based on analysing data points, the start-up collects analysts’ insights and employees tacit knowledge to get to the most reliable and rigorous predictions.

“The biggest challenge we face is building a new profession of data scientists who understand what can be done with data today, and do it, just do it. Many organisations right now are very focused on the infrastructure layers, just uploading things to the cloud, being sure it is private, doing cybersecurity and there are many start-ups and technologies that are competing to get into this loop. But the profits will only come by doing hypotheses-based research, connecting the minds, and getting to the right insights. This is a very different culture to what we have today in data analytics,” concludes Rosenberg.

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JOAB ROSENBERG, FOUNDER AND CEO, EPISTEMA

"Data is changing the world in the sense that we are capable of accumulating and storing as much data as we want. Then the question becomes what do we want to store and to what end?"

JOAB ROSENBERG

BLOCKCHAIN - BETWEEN MYTH AND LEGEND

BLOCKCHAIN, A GLOBAL, DISTRIBUTED LEDGER OF TRANSACTIONS FOR THE BITCOIN DIGITAL CURRENCY, IS ON THE VERGE OF TRANSFORMING INTERNATIONAL FINANCE. THE FINANCIAL SECTOR HOPES THE TECHNOLOGY COULD HELP SLASH THEIR COMPLIANCE AND REGULATORY COSTS BY MAKING THEIR OPERATIONS MORE TRANSPARENT. HOWEVER, BITCOIN ENTHUSIASTS ARGUE CREATING NEW PRIVATE BLOCKCHAINS WILL STIFLE INNOVATION, ENCOURAGE BANKING CARTELS AND EXCLUDE START-UPS FROM ENTERING THE ECOSYSTEM.

"The word blockchain has become detached from its technological moorings and begun to float free. It's become a chromewash term. It's added to ideas to give them a superficial veneer of futurism. I read on the web this week that the blockchain is going to end world poverty, it's going to save lives for firefighters.The word blockchain has turned into something you might as well say "magic beans"," 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 A.M.

"Blockchain is one of those words that's lost much of its meaning," explains Simon Taylor, Vice President of Entrepreneurial Partnerships and leader of blockchain R&D for Barclays Bank. *"It's like big data or mobile, it's actually encompassing a lot of things and depending on who you ask, you get a different answer."*

"What the banks and financial institutions are going to do with this technology is the theme of the year," adds Jon Matonis, Founding Director of the Bitcoin Foundation and CEO of Globitex, an institutional-grade bitcoin and derivatives exchange based in Luxembourg City. *"Will they use it to create private silos erecting new barriers to entry or will they embrace bitcoin and extend their businesses on the public blockchain? Bitcoin's current production environment with a market cap of 6.5 billion USD, offers unprecedented network resiliency, security, and liquidity for a digital bearer instrument."*

DEMYSTIFYING BLOCKCHAIN

Blockchain was built for bitcoin to allow the transfer of value in the presence of untrusted parties. It functions like a transparent online ledger that stores transaction history on a global network shared by all

> "How is anything created there in the name of innovation different to what we already have?"
>
> JON MATONIS

JON MATONIS,
FOUNDING DIRECTOR,
BITCOIN FOUNDATION

participants using the system, making it difficult to tamper and manipulate records.

"Perhaps the easiest way to think about the blockchain is that it's a kind of database but it's an unusual database in the sense that it's spread across potentially hundreds, thousands, and millions of computers. The reason why it is different is because everybody stores everything. Everybody who is taking part in the system has a copy of everything that is going on. It's as if everybody that had a Visa card had a copy of every single visa transaction in the world on their phone. That's a really different way of managing data," says Birch.

This new way of doing things is known as "shared ledger technology", or SLT. The technology can be used to create public or "permissionless" shared ledgers where anyone can submit a transaction and take part in validating the network, such as the bitcoin blockchain, as well as private or "permissioned" shared ledgers of type that banks and others want to use, where only specific actors can do so. The blockchain is only one way to implement a shared ledger and there are many others.

"Blockchains can give you instant signatures," points out Taylor. *"It's like the perfect auditor. Every transaction is cryptographically chained to the previous transaction. The result is a permanent, immutable and verifiable record of truth that everyone can see".*

BLOCKCHAIN BEING CONSIDERED FOR BANKS

Banks have been quick to see the opportunity of blockchain technology as a way to increase efficiency, transparency and security. Now, R3 CEV, a consortium of more than 40 of the world's leading banks, including Barclays, are collaborating to test the technology. They have just announced their "Corda" shared ledger platform which does not use bitcoin or blockchain technology but instead creates a new kind of permissioned shared ledger optimised for the financial markets. Bitcoin enthusiasts see that as an effort to stifle innovation.

"Evolving towards a bank-wide standardisation for blockchain appears to be a replication of how Swift, the global provider of secure financial messaging services, came into being. If we build the same incumbent ecosystem we are still going to be creating a network where politically incorrect and unfavourable smaller players can be blocked out of the payments network," points out Matonis.

"That creates barriers to entry, as opposed to a public open protocol, so the technology is now being deployed in effect to protect incumbents, and prevent new financial start-ups from entering into the ecosystem,", he says. *"Additionally, private blockchains have the ability to block, reverse and alter transactions, so how is anything created there in the name of innovation different to the cartel-like system that we already have?"*, adds Matonis. *"Just as in the early days of the Internet, companies and consortia launched private intranets, but they soon realised that the true value of innovation required the public Internet for global interoperability."*

"Blockchain is like the perfect auditor. Every transaction is cryptographically chained to the previous one."

SIMON TAYLOR

SIMON TAYLOR,
VP ENTREPRENEURIAL
PARTNERSHIPS, BARCLAYS

BLOCKCHAIN TECH TAKES OFF

Global analysis of FinTech venture funding by KPMG and CB Insights reveals that VC investment in bitcoin and blockchain companies jumped from three million USD in 2011 to 474 million USD in 2015. Financial institutions and banks have focused on the prospect that blockchain might overhaul their business models, but more research and hands-on development is required.

"It is still early on, people want it now, but it is probably where the Internet was in the 90s," points out Taylor. *"We need to think about things like, if everybody has a copy of everybody's data what does that mean for data privacy? If everybody can see all the transactions what can that mean for regulations, so there are a lot of complexities in business that we need to be able to make compatible with blockchain technology."*

Birch sees the big opportunity from shared ledgers as not in the areas where people commonly focus such as payments. He believes the technology that ensures a consistent worldview and gives an integrity to transactions has a much more important impact.

"This technology could introduce a radical transparency into financial markets and we all know that a lack of transparency has been one of the key problems in the previous financial crisis because nobody could understand what any positions were. The idea that I could look in this ledger and see that your bank is solvent because I can see that those assets exceed liabilities, even though I cannot read what those assets are, that's a radical new way of doing things."

BLOCKCHAIN WILL RADICALLY ALTER THE FUTURE

Last year, Coindesk reported that VCs ploughed a record one billion USD into bitcoin and blockchain-related start-ups. Banks are also investing heavily in-house as well as collectively as they seek to work out how best to harness the technology.

"The big opportunity for me is looking at where you can have a customer benefit and take costs out of the organisation. Customer benefits might be reducing the numbers of pieces of paper you need to sign or need to present to be able to open a bank account, move your savings or pension," says Taylor, named by Next Bank Europe as one of the 40 who´s who in FinTech. *"The compliance and the control benefits might be having the perfect audit database. Having transparent records that banks can show to regulators. Some of the other benefits might be around costs,"* adds Taylor.

HARNESSING BLOCKCHAIN TECHNOLOGY IN LUXEMBOURG

For financial centres like Luxembourg, which prides itself on regulatory innovation, blockchain technology could lead to a new type of financial business in Luxembourg.

"For countries like Luxembourg there is potential for a jurisdictional competition to achieve better regulation, but at a lower cost, using these new technologies. One of the concepts that is coming around is the idea to create some kind of financial services passport so that if I come to Luxembourg, I go through stringent KYC, AML, CVC and then I get a digital services passport which I can then use to get my accountant, lawyer, and open a bank account," says Birch. *"Ambient accountability is a key concept. If Luxembourg could build a financial services market place with ambient accountability provided by the shared ledger, so the environment itself makes it accountable, where you have this kind of a win-win-win because the ledger is not just shared between customers and the banks but with the regulators as well, then you introduce a radical transparency which means the shared ledger can create an entirely different category of solution,"* he says with a twinkle in his eye, *"but it might put all the auditors out of business. And that's a very interesting thought to play with,"* Birch concludes.

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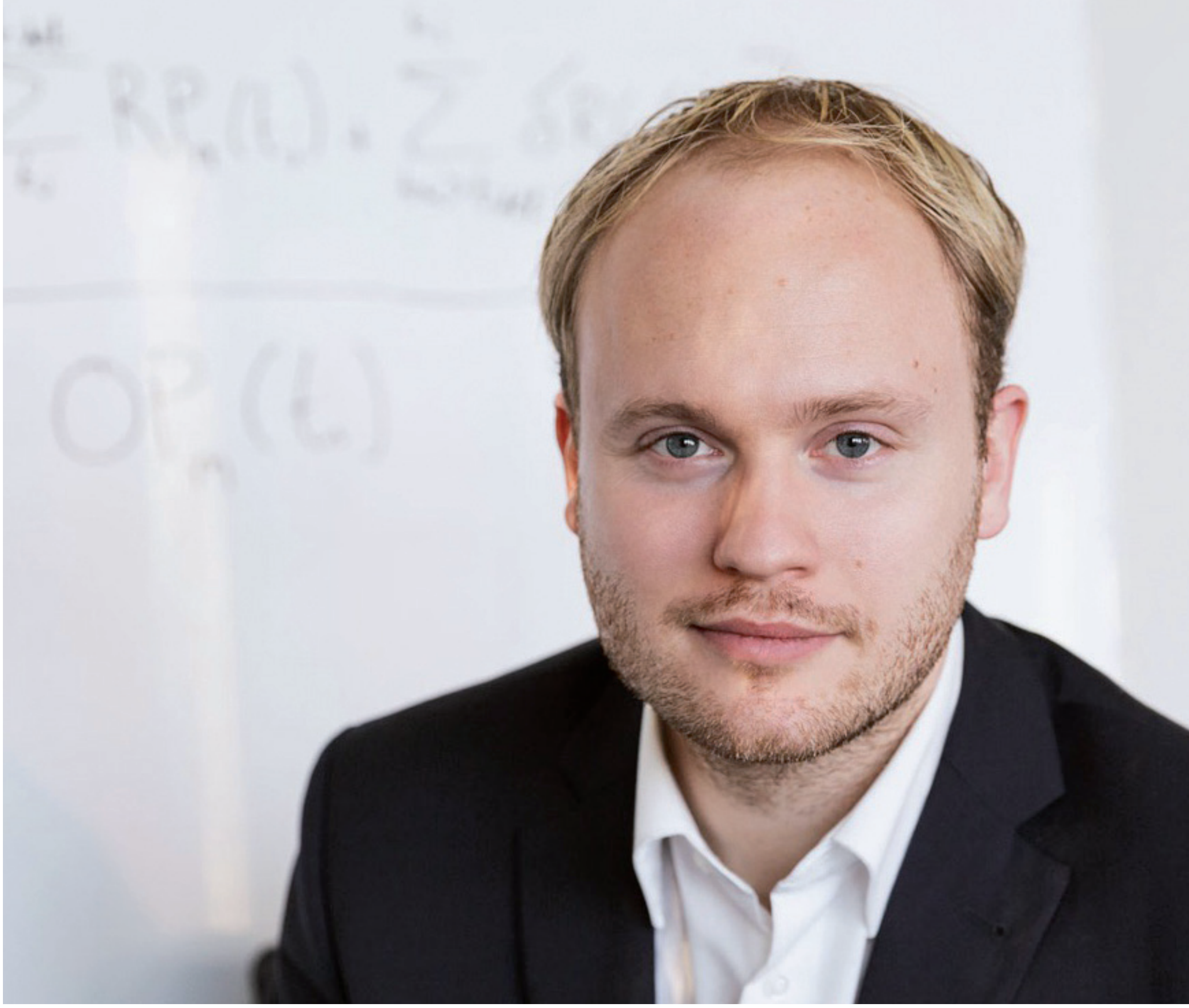
DAVE BIRCH, DIRECTOR, CONSULT HYPERION

> "If Luxembourg could build a financial services market place with ambient accountability provided by the shared ledger then you introduce a radical transparency."
>
> DAVE BIRCH



OLIVER SCHIMEK,
CEO, CROSSLEND

Expanding Europe's investment horizons

IN 2015, CROSSLEND SET UP A REGULATED SECURITISATION COMPANY IN LUXEMBOURG UNDER THE SUPERVISION OF THE COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER (CSSF). UNLIKE TRADITIONAL COMPANIES IN THIS AREA, THE COMPANY TAKES AN INNOVATIVE APPROACH TO SECURITISATION; CONVERTING SINGLE LOANS AND SPLITTING THEM UP INTO NOTES THAT ARE THEN MADE ACCESSIBLE TO RETAIL AND INSTITUTIONAL INVESTORS ACROSS EUROPE.

A NEW CROSS-BORDER CAPITAL MARKET PRODUCT

As Europe's investment horizons have expanded, investors have discovered the potential of a whole new asset class – one almost exclusively accessible to banks and institutional investors until now: consumer loans.

Seizing on this trend, CrossLend developed a cross-border marketplace lending platform that enables people to invest in consumer loans from different European countries through the purchase of Borrower Payment Contingent Notes. CrossLend´s idea was to be more than an ordinary peer-to-peer lending platform and create a cross-border capital market product which is a more liquid product than investments into loans directly.

"Our vision is to help solve the problem of supply and demand in the traditional European lending market by closing the gap between high-interest-rate countries and low-interest-rate countries," explains Oliver Schimek, CEO of CrossLend. *"This was the main reason for CrossLend´s move to securitisation via Luxembourg."*

"Rather than funding an entire loan directly, all loans are converted and split up into Notes allowing investors to diversify their investments across multiple loans and jurisdictions. Prorated investments starting from 25 EUR are possible via CrossLend´s platform."

The structure of the Notes not only offers investors more security, but also provides a convenient way for them to diversify their investments.

> "All loans are converted and split up into Notes allowing investors to diversify their investments."

"With its capital market structure, we unify the European consumer loan market and provide extra security and flexibility for investors, as all bonds are in principle tradable," Schimek adds.

Furthermore, all potential borrowers are risk-assessed using an innovative proprietary scoring technology. Each loan is then assigned a risk class from A (lowest risk) to HR (highest risk), reflecting the differing risk of default across the scale. Low-risk loans, in principle, offer correspondingly low interest, while high-risk loans offer higher interest.

FACILITATING CROSS-BORDER INVESTMENTS VIA LUXEMBOURG

CrossLend GmbH has a subsidiary, CrossLend Securities SA, which operates under the laws of the Grand Duchy of Luxembourg and is a regulated securitisation vehicle licensed and supervised by the CSSF. It is the Luxembourg-subsidiary that issues the Notes. The Notes receive an ISIN number and are issued and deposited by Clearstream Banking Frankfurt, Germany. The company decided to be regulated in Luxembourg because of Luxembourg's expertise in securitisation as well as the accessibility and responsiveness of the CSSF.

"The Luxembourg Securitisation Law offers an attractive regulatory framework for setting up workable securitisation structures at reasonable cost. The enormous flexibility in entity establishment from a cost and structural point of view, as well as tax neutrality of the securitisation vehicle, are important advantages," points out Schimek.

CrossLend is currently active in Germany, Spain, the Netherlands and the UK, but plans to launch in other European countries in the future.

"Our securitisation structure enables an investor from Germany to easily invest in Spanish, German and Dutch loans via one structure. We want investors to benefit from a diverse portfolio of consumer loans and a cross-border capital market product that's available Europe-wide," he concludes.

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NADIA MANZARI,
HEAD OF INNOVATION,
PAYMENTS, MARKETS
INFRASTRUCTURES AND
GOVERNANCE, CSSF

HOW REGTECH CAN HELP REGULATION CHALLENGES

INCREASING LEVELS OF REGULATION, COMBINED WITH A GREATER FOCUS ON DATA AND REPORTING STANDARDS, ARE NOW SPEARHEADING THE DEVELOPMENT OF REGTECH - THE USE OF TECHNOLOGY TO ADDRESS REGULATORY CHALLENGES. LEADING EXPERTS ASSESS THE TRENDS, CHALLENGES, AND OPPORTUNITIES IN THIS EXCITING SUBSECTOR, WHICH HAS BECOME AN IMPORTANT AREA OF FOCUS FOR THE LUXEMBOURG FINANCIAL CENTRE.

> "Luxembourg's regulatory approach has contributed to developing an important payment services industry."
>
> NADIA MANZARI

TRENDS

The main difference between traditional solutions and RegTech is the ability to make more effective use of the data available, with the latter tending to be cloud-based and speedier, cheaper and more secure. Dan Morgan, is Head of Policy and Regulation at Innovate Finance, an independent, British, non-profit membership based organisation and industry body serving the FinTech community.

"RegTech is a fascinating subsector of FinTech. When I started at Innovate Finance, there were only a very small number of players who identified as RegTech. Now close to 30% of member companies self-identify as RegTech businesses, which could broadly be defined as data analytics and behavioural economics, using data to map accurately and report in more efficient mechanisms".

Morgan points out that blockchain will play an increasingly important role in regulation, which has the potential to improve accountability and KYC and AML processes.

"In 2016 FinTech investment is starting to shift from business to consumer propositions and focusing on the opportunities provided by regulatory infrastructure", he adds. *"The growing interest from institutions and corporate ventures in blockchain are explained by the way standards are agreed and the potential to reform the regulatory infrastructure."*

Another area of development in Europe according to Dan Morgan is Robo-advice. *"The European banking authority has already considered reviewing the regulatory framework in light of non-face-to-face financial services, and how to encourage a more widespread adoption. The Robo-advisory market has tremendous potential and is predicted to grow from 20 to 450 billion USD under management globally by 2020. We are just at the very beginning."*

By 2018, PSD II (the revised EU Directive on Payment Services) will also drive the development of a growing number of players involved in the payments and aggregation space.

"The Payment Services Directive II and open bank API in the UK are unprecedented opportunities for the development of third-party FinTech services. These businesses will enable users to access their accounts, initiate payments while aggregating payment information. PSD II is going to revolutionise the payments market. People will start using numerous different apps and layers in addition to their wholesale bank account", Morgan concludes.

LUXEMBOURG'S INTERNATIONAL ROLE

Luxembourg's expertise in financially regulated entities places it in an exceptional position to become a European leader in RegTech. *"Thanks to the skills and experience accumulated over the years in Luxembourg's financial sector and by the big Four, RegTech is certainly an area where Luxembourg has the critical mass to play an international role",* explains Gaël Denis, Partner at EY Luxembourg.

"Given Luxembourg's leading position in bond issuance and investment funds, the volume of KYC's performed annually is particularly high. As the industry seems to be moving towards distributed consensus ledgers around KYCs, Luxembourg will then be able to leverage on its positions as it has the skills to automate the KYC process and understand the specifics of AML".

In a fast-changing regulatory environment, compliance officers need to adapt faster than ever before to ensure processes are thorough, particularly regarding transparency requirements. RegTech solutions will help management teams perform 'health checks', closely monitor what is happening in their business, have an even more granular approach to reporting and get real-time information on compliance issues. RegTech also offers legislation gap analysis tools, management information tools, transaction reporting tools, regulatory reporting tools, training tools, case management tools, and more.

"15-20 years ago compliance was there, but it was not as critical as today. Today, top management and board of directors need to be up-to-date at any time on what's going on in the company", adds Denis.

THE REGULATOR

Also for the CSSF, the Luxembourg regulator, RegTech solutions, once efficiently established, could facilitate supervisory tasks since data gathering, reporting and information exchange could be managed more efficiently. However, RegTech solutions will only be accepted if they are fully compliant with legal requirements, particularly in the fields of data privacy and data protection rules, know-your-customer regulations and IT security requirements.

Any financial services provider establishing itself in Luxembourg must be authorised by the Minister of Finance and will be subject to the prudential supervision of the CSSF. The same rules apply to financial technologies and new digital services. Far from preventing innovation, this supports the development of a level playing field for all financial professionals and provides security for customers and investors.

The CSSF has always considered innovation as an essential driver of development for the financial sector. *"Luxembourg's regulatory approach has contributed to develop an important payment services industry which generates nowadays an ecosystem of highly innovative products",* says Nadia Manzari, Head of Innovation, Payments, Markets Infrastructures and Governance, at the CSSF.

The CSSF was one of the first regulators in Europe to adopt a clear position with regards to virtual currencies, including defining virtual currencies as money since it was accepted as a means of payment for goods and services by a sufficiently large group of individuals. This position has recently been confirmed by a decision of the European Court of Justice.

"In the same spirit of innovation the CSSF has published an FAQ explaining under which conditions video identification is accepted", she adds.

"The robo-advisory market has tremendous potential and is predicted to grow from 20 to 450 billion USD under management globally by 2020."

DAN MORGAN

DAN MORGAN,
HEAD OF POLICY
AND REGULATION,
INNOVATE FINANCE

GAËL DENIS,
PARTNER,
EY LUXEMBOURG

"RegTech is certainly an area where Luxembourg has the critical mass to play an international role."

GAËL DENIS

GABRIEL CREAN,
CEO, LIST

“A real-time smart regulation landscape will provide Luxembourg with a competitive edge in Europe.”

GABRIEL CREAN

SMART AND AGILE

Over the past months and in close synergy with the Luxembourg Ministry of Economy and the Luxembourg Ministry of Finance, the Luxembourg Institute of Science and Technology (LIST) has ramped up a new corporate research and innovation programme in Smart Finance.

The LIST Smart Finance programme has two key development thrusts, business analytics and RegTech.

The first research thrust relates to the role of business analytics for turning raw data into new added-value services such as those associated with decision making and recommendations in different areas (banks, funds, insurances).

“In this field, LIST already works with world-class institutions and I am pleased to say that, only in the past week, LIST has signed a major research collaboration agreement with Asia’s top university, the National University of Singapore (NUS) to research jointly and develop Business Analytics solutions for global financial institutions and other clients. The project is supported by the Luxembourg “Fondation National de la Recherche” (FNR),” says Gabriel Crean, CEO at LIST.

The second component of the program is related to financial regulation (FinTech and RegTech). This reflects the outcome of LIST discussions with key Luxembourg FinTech stakeholders, which identified the issue of a “smart and agile Luxembourg regulation environment”, as the key challenge that Luxembourg must now address to provide the competitive innovation edge to best position Luxembourg as the most reliable and innovation-friendly FinTech ecosystem in Europe.

“RegTech will be an additional asset for Luxembourg helping traditional entities and FinTech players evolve and adapt to the regulatory landscape while ensuring products and services are fair, reliable and consumer-friendly”, he adds.

The LIST RegTech initiative will support the research, development, and deployment of a reliable and flexible regulatory environment in Luxembourg, with real-time adjustments to new innovation risk.

In particular, LIST will coordinate the development of a smart digital “Regtech Luxembourg” platform. “This platform will integrate and support the appropriate reference models, data repositories and appropriate analytics for innovating regarding RegTech services.”

On one side, services will assist regulated entities in demonstrating their compliance with regulations with cost-effective tools and methods. On the other side, regulators will benefit from these services for developing and adapting their regulation in a reliable and agile way by making better exploitation of the information reported by regulated entities and by accessing to the necessary knowledge about new FinTech risks.

“A real-time smart regulation landscape will provide Luxembourg with the competitive edge to be the most reliable and innovation-friendly FinTech ecosystem in Europe. Its deployment will drive growth, reinforce confidence in the financial landscape and develop even further the attractiveness of Luxembourg for new FinTech ventures and ICT related companies. Ultimately, our approach to regulation and Tech will facilitate the emergence of new business models,” concludes Crean.

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INTERVIEW WITH
BRIGITTE BAUMANN

Democratising while professionalising angel investing

WHEREAS ANGEL INVESTING HAS BEEN SEEN FOR YEARS AS BEST SUITED FOR VERY HIGH-NET-WORTH INDIVIDUALS ONLY, THE EMERGENCE OF CROWDFUNDING HAS OPENED UP THE MARKET TO A WIDER AUDIENCE OF INVESTORS. HOWEVER, THIS PROCESS REQUIRES EDUCATION, ACCESS TO COMPETITIVE DEAL TERMS AND PORTFOLIO MANAGEMENT TOOLS. GO BEYOND IS AN EARLY-STAGE INVESTING PLATFORM AND A FINTECH STARTUP THAT AIMS AT DRIVING THE DEMOCRATISATION OF EARLY-STAGE INVESTING IN A PROFESSIONALISED WAY. WE TALKED WITH ITS CEO, BRIGITTE BAUMANN, EUROPEAN BUSINESS ANGEL OF THE YEAR 2014.

LFF: CAN YOU SUMMARISE THE AIM OF GO BEYOND EARLY-STAGE INVESTING?

BB: Go Beyond Investing's mission is to enable small and large investors, whether novice or experienced, to access angel investing as an asset class. We are the only ones to have a demonstrable track record through our unique platform, portfolio tools, education and expert angels from the community. We are "By Investors, For Investors".

Early-stage (Angel) investors are key to the economic development of all nations as they provide critically needed financing, contacts and know-how to entrepreneurs who are now a vital force in job and economic wealth creation. Therefore, education plays a vital role for all members on our platform as angel investing is complex and these members all contribute to our shared economy approach. That is one reason why we have a four-stage certification program, which includes education, doing due diligence, negotiating terms, having a portfolio track record and being active in the community.

As angels, we invest and support start-up companies with disruptive technologies and addressing disruptive trends in various sectors such as technology, consumer, industry, internet and mobile as well as FinTech. Our investors are very aligned with FinTech values including transparency, democratisation, financial literacy and ease of use.

LFF: HISTORICALLY WOMEN HAVE BEEN UNDER-REPRESENTED AMONG INVESTORS. HOW DO YOU EXPLAIN THIS TREND AND HOW DO YOU PROMOTE GENDER DIVERSITY IN ANGEL INVESTING?

BB: Many women are not aware of angel investing - they are not in the "circles" where many men hear about angel investing. Additionally, some women feel that angel investing is "not for me," a perception that they may lack skills, money, and time needed for early-stage investing.

To increase women's participation in angel investing, we launched a first-of-its-kind learning and investing program, the Rising Tide Europe 1 (RTE1), aimed at developing a worldwide investment community of women in the business angel space. It is an innovative way to learn-by-doing as an angel investor. It includes a group of 90 successful businesswomen from 25 countries in four continents who have pooled one million EUR to be invested in six to ten early-stage European companies.

Created in partnership with EBAN, the pan-European representative for the early-stage investor and Next Wave Ventures, initiator of this global initiative, the program is being steered by myself and eight other international women with significant angel investing experience and track record, who are also the lead investors. In Luxembourg, the program is represented by Hedda Pahlson-Moller, a Board Member of EBAN. Candace Johnson, President of EBAN and resident of Luxembourg is also one of the nine Deal Leaders.

"Millions of people will allocate two to five per cent of their wealth to angel investing."

To support this program, we created and registered in 2015 Go Beyond Ventures (GBV) sarl in Luxembourg, as well as its other angel syndication services.

LFF: WHAT ARE THE BENEFITS OFFERED TO FEMALE INVESTORS?

BB: The participating female investors are either new angel investors seeking to gain experience, have little time to pursue angel investing actively but would like to acquire a portfolio of European early-stage investments or are experienced investors and would like to become part of the leadership team of future Rising Tide Initiatives.

The participants of the program can develop a diversified portfolio, acquire knowledge of the investment process and best practices through training and observing how the experts conduct due diligence and make investments. Most of this is being done virtually and does not require more that a four to eight hours a month. Also, they can participate in a one-year education program with live webinars, videos and two in-person sessions covering all aspects of the investment process.

LFF: A THIRD OF GO BEYOND'S INVESTORS ARE WOMEN COMPARED TO SEVEN PER CENT WHICH IS THE INDUSTRY AVERAGE IN EUROPE. WHY DO FEMALE BUSINESS ANGELS PLAY SUCH AN IMPORTANT ROLE IN THE DEVELOPMENT OF YOUR FUNDING MODEL?

BB: We created Go Beyond with women in mind, but we believe in the richness that diversity brings. Therefore, we opened it up to men, women and included other dimensions of diversity such as experience, age, wealth, and nationality. Our experience shows that diversity enriches the due diligence process in assessing investment opportunities and enlarges the breadth of the support our members provide to entrepreneurs which is a key aspect of being a business angel. This attracts wonderful entrepreneurs who are seeking finance in our community. When they succeed, they bring returns and fulfilment to investors on our platform. It is a win-win situation for everyone.

LFF: WHAT ARE THE PRE-REQUISITE TO BE A SUCCESSFUL ANGEL INVESTOR?

BB: Whether you are an angel investor, a wealth manager, or someone taking an interest in the angel market, there are several common criteria to success.

First of all, taking a managed portfolio rather than a lottery approach to early-stage investing enhances the likelihood of positive

"Angel investors provide critically needed financing, contacts, know-how to entrepreneurs who are now a vital force in job and economic wealth creation."

returns. With a good deal flow, syndication tools and access to professional deal management, you can spend as little as 4,000 EUR per ticket and be a successful angel investor.

Also, there must be cumulative knowledge-sharing tools actively educating investors both in a learning environment and "on the job"; access to deals that have benchmarked valuations and terms; mechanisms to leverage the community intelligence, especially on follow-on rounds, and professional deal leadership certification and compensation program.

It is also important to keep money for follow-on rounds to reduce risk and ideally exit when there is a strategic investor...It is very important to look at each investment round on its own merit and to keep sufficient funds for future rounds until exit.

Finally, having access to deal management with Deal Leaders who are experienced and have a documented track record is extremely useful.

LFF: WHAT FUTURE DO YOU SEE FOR ANGEL INVESTING IN EUROPE?

BB: Millions of people will allocate two to five per cent of their wealth to early-stage investing. Wealth managers will embrace it, corporates from all industries will allocate a part of their R&D budgets to invest in, work with and in some cases acquire start-ups. Business angels are and will be viewed as a critical and valuable relay between entrepreneurs and later stage investors and acquirers.

OB

SHAPING THE FUTURE OF FINANCE

FIND OUT WHY LUXEMBOURG IS A GREAT PLACE FOR FINTECH

SUPPORTING INNOVATION

PRIVATE FUNDING

- Local investors (Business Angels, VCs, etc.)
- Luxembourg Business Angel Network
- 100+ global VC firms within 1-hour flight

PUBLIC FUNDING

- €150 million Luxembourg Future Fund focused on innovative European SMEs managed by SNCI and European Investment Fund located in Luxembourg
- €20.33 million Digital Tech Fund for ICT start-ups
- Grants for Research, Development and Innovation projects

START-UP SUPPORT ECOSYSTEM

NATIONAL AGENCY FOR INNOVATION AND RESEARCH LUXINNOVATION
One-stop-shop agency assisting innovators in setting up and developing their business

technoport® business incubator | coworking | fab lab
State-of-the-art tech and business incubator

nyuko Start Up Nation Luxembourg
An independent initiative to boost Luxembourg's entrepreneurial ecosystem

FIT 4 START
A €50K support and coaching programme for ICT start-ups by the Ministry of Economy and Luxinnovation in partnership with Technoport

+ a broad range of private incubators and accelerators

COMING SOON:

[the LHoFT]
The Luxembourg House of Financial Technology is a dedicated platform where FinTechs and the financial community connect

A WIDE SPECTRUM OF FINTECH ACTIVITIES

- COMPLIANCE & RISK MANAGEMENT
- BLOCKCHAIN & CRYPTOCURRENCY
- SECURITY & AUTHENTICATION
- AUTOMATED INVESTMENT SERVICES
- BIG DATA ANALYTICS
- MOBILE & E-PAYMENTS

THEY HAVE CHOSEN LUXEMBOURG

A COMPETITIVE INTERNATIONAL BUSINESS ENVIRONMENT

- Ranked 1st for technological readiness worldwide *(Global Competitiveness Report, The World Economic Forum 2015)*
- In the top 10 of most innovative countries globally *(Global innovation index 2015)*
- 3rd most globalised economy in the world *(2015 KOF Index of Globalization)*
- Ranked 3rd for attracting and retaining talent *(INSEAD Global Talent Competitiveness Index 2014)*
- 4th most liveable location worldwide *(ECA international location rankings)*
- Most competitive economy in the European Union *(IMD World Competitiveness Ranking 2015)*

WORLD-CLASS INFORMATION TECHNOLOGY INFRASTRUCTURE

- Focus on security & trust with state-of-the-art (Tier IV) data centre infrastructure
- Ultra low-latency network connections to all major European Internet hubs

RESEARCH,DEVELOPMENT & INNOVATION

Close collaboration between private sector and class-leading research institutes such as Luxembourg Institute of Science and Technology (LIST) or the Interdisciplinary Centre for Security, Reliability and Trust (SnT) of the University of Luxembourg

GAST WALTZING

GAST WALTZING: MUSIC AT HEART

SOME CAREER PATHS ARE JUST MEANT TO BE. FOR LUXEMBOURG-BORN GAST WALTZING, MUSIC WAS AN OBVIOUS CHOICE. COMPOSER, CONDUCTOR, RECORD LABEL PRODUCER AND JAZZ MUSICIAN, THE INTERNATIONAL CAREER OF GAST WALTZING HAS BEEN QUITE A JOURNEY. HE TELLS US ABOUT HIS RECENT GRAMMY AWARDS WIN FOR HIS WORK WITH ANGÉLIQUE KIDJO AND HOW HE NAVIGATED HIS MUSIC CAREER.

"I want to thank the Luxembourg Philharmonic orchestra and its conductor Gast Waltzing. He had a vision that African and classical music can co-exsist. This is what music is all about: to bring doors, bridges and walls down," said Angélique Kidjo when accepting her "Best World Music Album" award on the world-famous stage of the 58th Grammy Awards, the biggest, most glamorous night in the music calendar.

The Beninese-born singer, heralded as "Africa's premier diva" by Time Magazine is accustomed to red carpets. Last year, she received a Grammy award for the album EVE, on which Waltzing partially worked.

"I am not sure that it would have been possible – or at least not so easy – in another country."

This time, however, the multi-talented artist entirely produced and conducted Kidjo's album which was recorded and arranged in Luxembourg with the Luxembourg Philharmonic Orchestra.

Featuring traditional songs of Kidjo's repertoire that have been rearranged and directed by Waltzing, the album "Sings" was several years in the making. *"Five years ago, I was invited to the Montreux Jazz Festival by Quincy Jones and Angélique was there too. That's how the idea of the album started,"* explains Waltzing.

Twice a year, the Luxembourg Philharmonic Orchestra grants Waltzing complete freedom to work on his own projects and suggest artists to work with. Angélique Kidjo was thus a natural choice.

"I have known her since a way back when I was a student in Brussels. She was just starting out in music. I followed her career and thought that she was a fantastic artist."

MADE IN LUXEMBOURG

"It is an incredible honour that we won this Grammy for a Luxemburgish product and to have had the support of the Orchestra. I am so thankful for the opportunity and the support that the Luxembourg Philharmonie has given us. I am not sure that it would have been possible – or at least not so easy – in another country," he says modestly.

> "We are a small country but, nevertheless, there is a large core of artists, dancers and musicians."

Waltzing's international career makes him a perfect Ambassador for the cultural scene in Luxembourg.

"I always try to fly our flag because I think that we need to show that there is more to Luxembourg than finance. We are a small country but, nevertheless, there is a large core of artists, dancers and musicians. We can be proud of the things we do here," points out Waltzing.

A LONG-TIME MUSIC LOVER

Gast Waltzing's defining passion has always been music. He started at the age of seven when he began his studies at the Conservatoire de Luxembourg.

Since then, he has rarely been seen without a trumpet that he plays at least two hours a day.

"I was part of a fanfare and we had to choose an instrument from a cupboard. As it turned out, the only instrument left was a trumpet so it is only by sheer chance that I play this instrument. We have a long-time love affair. We are like an old couple: we love each other and hate each other," he says with a smile.

When asked about his source of inspiration, Waltzing insists that it all plays a part in his composing.

"I love to mix styles that do not initially seem to go together. Music is a universal language that speaks to everyone."

An acclaimed jazz musician, he founded the Luxembourg National Jazz Orchestra and the Luxembourg Conservatory's Jazz department, of which he remains the Head as well as the band Largo, one of Luxembourg's most prominent and prolific jazz groups.

"Jazz represents a particular way of looking at and living life – but it is not unique to jazz. Rap, for example, is a continuation of jazz. It is working with words and rhythm. It is important for artists to keep an open-mind."

JUGGLING HATS

Composer, conductor, record label producer and jazz musician, Waltzing juggles a lot of different hats.

He began composing at the age of 15 and has always composed original music for his many classes, expanding into the composition and production of music for film and television in 1989, with the original score for "A Wop Bop A Lop Bop" for which he was nominated for Best European Film Composer. He now boasts over 160 original scores for film and TV.

> "I wish for everyone to be able to stand once in their life in front of an orchestra and get the thrill of conducting."

Many of his film music scores were written for Symphony Orchestra, giving him the opportunity to record with the Luxembourg Philharmonic Orchestra for which he conducted specific programmes featuring American singers Gregory Porter and Dionne Warwick, second only to Aretha Franklin as the most-charted female vocalist of all time.

GAST WALTZING & ANGÉLIQUE KIDJO

"Conducting is one of the biggest pleasures in the world. I wish for everyone to be able to stand once in their life in front of an orchestra and get the thrill of conducting."

PASSING ON TO THE NEXT GENERATION

In 2004, Waltzing founded WPR Records, which sets out to promote young Luxembourg jazz musicians. To date, 28 albums have been produced.

"It is very difficult for a Luxembourg artist to gain recognition internationally. That's why it was important for me to set up this recording label. Teaching music gives you a certain responsibility and it is an opportunity to pass on your experience to future generations," he says.

Waltzing has a lot of advice to give to inspiring musicians.

"You have to try your luck in order to be successful. Put in the hard work, get yourself known and never do things to please others. If you persist, it will pay off in the end."

BUSY YEAR AHEAD

There is no rest in sight for Waltzing. He will be conducting a series of international concerts in China with the People's Liberation Army and in France while continuing his collaboration with Angélique Kidjo when he conducts her performances at the prestigious Adelaide Symphony Orchestra and the Czech National Orchestra in Prague.

"Life is beautiful at the moment," concludes Waltzing.

OB

"Put in the hard work, get yourself known and never do things to please others."

UPCOMING EVENTS

2016
31.05 & 1.06

BRAZIL 2016

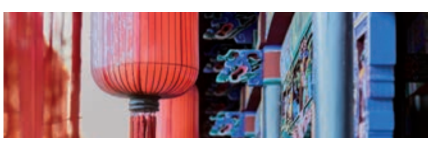
Luxembourg for Finance will head with a financial delegation to Brazil and hold seminars in São Paulo on 31 May and in Rio de Janeiro on 1 June. These events will be a opportunity to gain insights into Luxembourg know-how regarding asset and wealth management. Register online now!

2016
15.06

LUXEMBOURG RENMINBI FORUM 2016

Luxembourg for Finance will host the third edition of the Luxembourg Renminbi Forum, a full-day event bringing together a European audience of high-level practitioners and key decision-makers to share their views on the latest developments on the internationalisation of the Chinese currency.

Full programme and speaker line-up on: www.rmb-forum.com



2016
26-29.09

SIBOS 2016 - GENEVA

Luxembourg will be present at Sibos to promote the Luxembourg House of Financial Technology. This annual event is hosted by bank payments network Swift and has a turnout of over 7,000 participants from around the world representing the financial services industry. Read more on: www.sibos.com

Save the dates

2016
24-28.10

CHINA 2016

Luxembourg for Finance will head to China with a financial delegation led by Pierre Gramegna, Minister of Finance. Seminars will be held in Beijing, Shanghai and Shenzhen.

BY SCANNING THE QR CODE BELOW, VIEW THE FULL EVENTS PROGRAMME.

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TEL. (+352) 27 20 21 1 / FAX (+352) 27 20 21 399 / EMAIL LFF@LFF.LU
WWW.LUXEMBOURGFORFINANCE.COM
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SMART.
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