Luxembourg Bank and FinTech Study for 2020

The rocky relationship between FinTechs and Banks – what are the challenges?

A study of Arendt Business Advisory, with the support of ABBL

Association des Banques et Banquiers, Luxembourg
The Luxembourg Bankers' Association
Luxemburger Bankenvereinigung

May 2021

A study of Arendt Business Advisory,
with the support of ABBL

Association des Banques et Banquiers, Luxembourg
The Luxembourg Bankers' Association
Luxemburger Bankenvereinigung

content

1 foreword

At Arendt, we strongly believe in the mutual benefits of a collaboration between banks and FinTechs, which unites successful large businesses with innovative approaches to their activities. In Luxembourg, many fruitful efforts have already been deployed in both the public and private sectors to foster such collaboration.

As in any collaboration, there are challenges and a learning process on how to tackle them best.

At Arendt, we have the pleasure of advising both established banks and FinTech newcomers on how to address the legal challenges of such collaborative arrangements, including contractual, corporate law, regulatory, data protection and tax aspects - to name only a few.

However, the challenges are of course not only of a legal and regulatory nature. In collaboration with the ABBL, the business advisory arm of Arendt has performed a listening exercise to hear directly from banks and FinTechs what they consider to be the strategic, commercial, organisational and other challenges which have arisen in cooperation projects between banks and FinTechs and how such cooperation can be further improved.

The result is a survey that gives very practical insights into said challenges and a series of constructive recommendations on how to overcome these challenges and unleash even further the benefits of symbiotic bank-FinTech relationships.

Marc Mouton
Partner, Arendt & Medernach

1 foreword

For several years now, Luxembourg has been trying to position itself as a hub for innovation and a centre for FinTechs. Luxembourg is a major financial centre after all, and it would make sense for FinTechs to take advantage of the wide range of financial institutions, fund service providers, insurance companies and all the related businesses that can be found here, to develop products that would be useful for Luxembourg financial players.

But somehow the reality does not measure up. Anecdotal evidence told us that FinTechs did not have the right type of product for established banks, banks told us that FinTechs did not have the right approach to get their attention, FinTechs told us that they could not reach decision-makers, and so the list went on.

Anecdotal evidence is one thing, but as an industry, we are driven by facts and figures. When Arendt Business Advisory tabled the idea of an in-depth study involving both sides of the equation, banks and FinTechs, we thought that it was a very good idea indeed.

The results of this survey identify some of the obstacles encountered by both sides, and the challenges of bringing together what are completely different animals, large, risk-averse, established financial institutions with small, innovative, risk-friendly companies.

More importantly, the survey reveals opportunities for the alignment of objectives, proposals for how to address the issues and recommendations for a better working relationship in the future.

At the ABBL, we represent the whole of the banking sector, and we know that there is a place for new tools and technologies in our product offering. One of our priorities is to foster collaboration with and amongst our members, this includes facilitating knowledge sharing and helping to promote innovative banking ideas. Thank you to all of our members who contributed to this study, and to Arendt Business Advisory, who have brought the information together into a document that will serve as a guide for the future.

Enjoy your read,

Guy Hoffmann
Chair of the ABBL

Contributors:

Arendt Business Advisory

Denis Costermans,
Lead Advisor, Banking & Financial Institutions

denis.costermans@arendt.com

p +352 40 78 78 5396

ABBL

Ananda Kautz
Head of Innovation, Digital Banking and Payments

ananda.kautz@abbl.lu

p +352 46 36 60 - 512

2 Introduction

The world of FinTechs in Luxembourg has seen robust development over the last few years. Since the discovery of the "FinTech" concept by the public at large and the first inventory of the market carried out by Luxembourg for Finance (LFF) in 2015, Luxembourg has gradually become home to more than 200 FinTechs (including RegTechs, InsureTechs, firms adopting distributed ledger technology – DLT, and the ones related to crypto-assets), which now form what can be called an ecosystem.

Initially, FinTechs and banks often tended to be seen as rivals in the banking sector. Today, the financial sector in Luxembourg has a growing interest in FinTechs. Initiatives have been launched ranging from displays of interest, to structured project analyses, to first collaborations. Some such initiatives have become successful. Building on these initial experiences, banking and FinTech players have begun to realise the mutual benefits of cooperation.

However, we observe that the level of engagement maturity is well below what it could be. Experiences are sometimes difficult, or unsuccessful. For both banks and FinTechs, the collaboration potential looks great in theory, but seems to be largely under-exploited in reality.

Arendt Business Advisory, with the collaboration and support of the ABBL, has therefore decided to carry out a study to analyse the bottlenecks to this development on the part of both FinTechs and banks, the quick wins and the difficulties encountered based on their first experiences, as well as the major success factors that could be leveraged in future cooperation. The goal is to shed new light on the dynamics of bank-FinTech interaction, which will help to unleash the untapped potential for the benefit of the whole marketplace: banks and FinTechs alike.

This study focuses on the Luxembourg banking sector and the FinTechs/RegTechs operating in the country. It was conducted in 2020, based on in-depth qualitative interviews by senior professionals with decision-makers at 14 major banks in the Luxembourg market, as well as 17 FinTechs (see Chapter 17 - Methodology note).

The banks were selected to reflect the diversity of banking models in Luxembourg, spanning private banking, retail banking and the funds industry. They have different geographical origins, and some have their decision-making headquarters in Luxembourg. All the banks chosen for the study were exposed to FinTechs to some degree. As for the FinTechs chosen, our objective was to cover a wide variety of business models, including companies active in distributed ledger technology, data analytics, asset management, payments, artificial intelligence, regulatory solutions, open banking, behavioural finance and security.

All of the selected FinTechs have one thing in common: their relationship with banks is critical to their business model. The bank is their target customer, and it is vital that they succeed in selling their services in a B2B(2C) relationship. For the banks, in turn, FinTechs can serve as innovation accelerators and sources of efficiency gains. Both parties recognise their mutual interest in working together.

After giving an introduction on how innovation and relationships are organised between the two sides, our study traces the relationship cycle of banks and FinTechs, exposing their views from first contact to project delivery. Next, the recommendations made by banks and FinTechs for Luxembourg, the banking sector and the FinTech sector are presented, before we proceed to our final conclusions. In light of current events, we have also added a section on the perceived impact of COVID-19 on this area.

At the end of the report, details of the methodological approach and participants chosen for the study, as well as a brief description of the FinTechs interviewed, can be found.

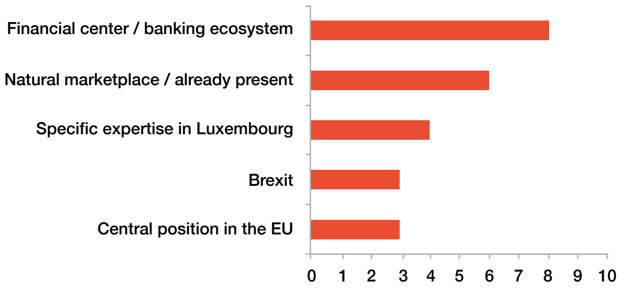
3 FinTechs and banks: motivation factors

3.1 FinTechs: why choose Luxembourg?

Let's start with a simple question: why do FinTechs decide to set up in Luxembourg? There are many reasons for settling in Luxembourg, according to the FinTechs we interviewed:

Top 5 reasons for setting up in Luxembourg

(number of FinTechs quoting the reason - spontaneous)



We observed that the market itself acts as a magnet for FinTechs, both through its banking ecosystem (the concentration of banks and other firms in the financial sector) **and through the particular expertise it offers** (in which interest varies for each type of FinTech; e.g. securities issuance, asset servicing, or wealth management). In particular, Luxembourg is a predominantly B2B market.

Beyond that, many of the FinTechs we met are also in Luxembourg because the country is a natural market for them: the founders have been there for a long time; their network is strong, sometimes built on previous professional experience; the environment is familiar and well-mastered or they have chosen to remain because of the available support (awards, equity investment, government support, etc.). We will see later in the study that Luxembourg is not easy to penetrate, and while its ecosystem makes it an attractive market, it is essential to know how to navigate it.

The core reason, however, is the high concentration of banks in Luxembourg and it is important for these FinTechs that banks live up to these expectations.

A large number of other reasons were put forward, including:

- Brexit, to stay in the European Union and retain eligibility for the EU passport
- Luxembourg's central geographical position in Europe and the easy reach it provides to other financial services markets of Switzerland, the UK, and France
- The country's favourable regulatory conditions for business development
- The role of the financial supervisor – perceived by some as open, willing to exchange and (rare in Europe, according to some respondents) able to understand business models that may be a little too innovative
- The local ecosystem, with FinTech related groupings in the Luxembourg market or professional associations that lend greater visibility than those in other markets
- A marketplace in which networking and word-of-mouth are effective; close networking
- Following clients established in Luxembourg
- As the simple result of opportunities identified and chance meetings
- Considering Luxembourg' standard of living, schools, transport, etc.

There was thus no one particular initiative that attracted the FinTechs we met, but rather a set of reasons that vary in importance from one FinTech to another. **The core reason, however, is the high concentration of banks in Luxembourg and it is important for these FinTechs that banks live up to these expectations.**

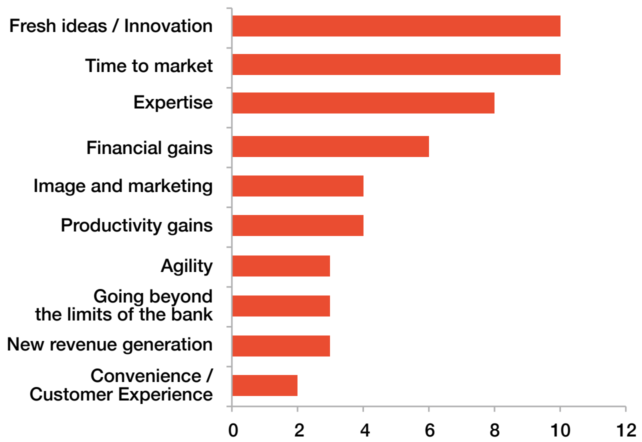
It is also noted that these FinTechs do not consider market initiatives (national promotional efforts, presence of some industry bodies, etc.) as a core motivating factor. Large promotional efforts by public agencies and other key stakeholders are appreciated by FinTechs, but banks must then engage more effectively with FinTechs.

3.2 Banks: do they work with FinTechs?

FinTechs are established in Luxembourg primarily because of its high concentration of banks. What, then, motivates these banks to work with FinTechs? **The main reasons for collaborating with FinTechs are their role as an accelerator of innovation (for business development, productivity, customer experience, etc.) and their ability to provide faster time-to-market and skills transfer, at a much lower cost than the same services in-house.**

Top 10 motivations for working with FinTechs

(number of banks quoting the reason - spontaneous)



It is reassuring to see that the main motivating factors for banks are linked to the very nature of FinTechs.

Firstly, FinTechs are innovation accelerators: they must be promoters of innovation, via disruptive and/or new technologies that are not addressed by IT departments and that correspond to customer needs. This is a way for banks to outsource innovation where they may lack resources and capacity. FinTechs bring new ideas, a fresh perspective, mastery of use cases and added value, allowing banks to progress towards new ways of meeting customer needs.

Secondly, according to the banks interviewed, FinTechs also enable faster time-to-market, allowing innovative projects to be brought to market at record speed compared to internal project completion rates. This is an important factor: if a project is not finished faster with a FinTech, there is little reason for these banks to risk cooperating with FinTech firms, as established financial institutions would prefer to retain full control and avoid creating other problems, e.g. with respect to integration of the external solution to existing in-house infrastructure. The role of the FinTech is thus that of a transformation accelerator (bearing in mind, however, that it is not the only vector for transformation).

In this collaborative relationship, banks are also looking for added value – the unique expertise that the FinTech can bring to their thinking. **FinTechs come with specific knowledge that is not necessarily available to banks in-house, and offer competences that not all banks have** (often in terms of emerging technologies). In this way, FinTechs make it possible to develop solutions that would be difficult for either side to realise on its own, while at the same time allowing for knowledge transfer and helping banks acquire additional capabilities.

Finally, the business case offered by FinTech firms is also an important factor (and for some banks, it is even the main driver): this is the ability to bring benefits at a lower cost than in-house development. This is clearly an essential factor in the decision-making process. However, it also presupposes that banks should have sufficiently optimised processes to enable the relevant business case to unfold.

Some banks willingly admit that marketing objectives may play a role as well: getting closer to FinTechs is a vector for positive communication, casting the bank in an innovative light. This is good for image and branding. However this is never the sole reason for using a FinTech.

According to banks, other factors motivating the cooperation with FinTech firms include:

- The ability to realise productivity gains on low value-added tasks, to simplify processes and to reallocate time to higher value-added tasks, resulting in a competitive advantage
- Agility, flexibility and the ability to make quick progress and improvements
- The ability to bypass technical constraints of banking systems that may be rather outdated, somewhat monolithic or rigid, without having to overhaul the IT architecture
- The ability to develop new offers, access new customers and differentiate in the marketplace
- FinTech expertise in customer experience (CX), convenience and usability (incl. user experience, UX)

FinTechs must therefore pay particular attention to these factors. They should continue to innovate, serve as catalysts, bring added value and show positive business cases, while remaining wary of false motivators that are too marketing-oriented. This is the real way to guarantee success when working with banks.

The main reasons for collaborating with FinTechs are their role as an accelerator of innovation and their ability to provide faster time-to-market and skills transfer, at a much lower cost than the same services in-house.

However, the majority of the banks we spoke with acknowledged that their experience in partnering with FinTechs remains relatively limited. There are several reasons for this – mainly due to the banks themselves, but also, according to them, due to the environment and the FinTechs themselves, they asserted.

Reasons for not cooperating deeply with FinTechs include:

- ***Reasons internal to banks:***

  + Existence of "established" solutions at the group level

  + Development of strategic vision not finalised, the bank not yet sufficiently engaged in digital transformation

  + FinTechs perceived by banks as not adapted to the business of those banks

  + Lack of integration capacity of IT systems (e.g. Application Programming Interfaces - APIs), IT security obstacles are too large, too many constraints on data, confidentiality requirements are too high for FinTechs to be attractive

  + Need for a validation on the headquarters level, that may lead to considerable delays for such projects

  + A lower level of awareness and/or mobilisation at banks

  + Priorities set elsewhere in terms of development, innovation and budget

- ***Reasons stemming from FinTechs:***

  + According to banks, a lack of diversity, originality or innovation of FinTechs present in Luxembourg, FinTechs can be perceived as being somewhat standard and homogeneous

  + Solutions that may lack sufficient depth, maturity or quality to meet needs of banks

- ***Reasons stemming from the environment:***

  + Regulatory framework not promoting the large-scale implementation of cloud outsourcing solutions

Banks are thus definitely aware of the appeal of FinTechs, but too many obstacles can hinder their commitment at this stage. These issues are discussed further below.

4 Organisation at banks: managing innovation and relationships with FinTechs

4.1 Organisation at the group level

Based on our interviews, we encountered three types of situation, and all of which show that **the impact of the group is important for decision-making in Luxembourg, either because decisions are centralised at the group level or because entities have strong group-level dependencies.** For FinTechs in Luxembourg, therefore, it may make sense to target a whole group rather than just one bank locally, which may show interest, but may find it difficult to commit because of these group constraints.

1. Federal group-level approach

This was the most commonly occurring situation in our study. Such bank groups are strongly mobilised on innovation and FinTech matters, with structured and coordinated approaches, eventual venture capital (VC) funds allocations, equity investments, ongoing watch and databases of eligible FinTechs, incubation or acceleration programmes with start-ups, collaborative projects, etc. Some bank groups approach the issue by setting up competence centres distributed across a selection of entities that take the lead for the others.

Banks in Luxembourg belonging to the federal group-level approach participate in periodic meetings on the subject at group level, have access to many resources and contribute to the common goal of the group. In exchange, the group offers a great deal of support to the entity in Luxembourg.

2. Centralised group-level approach

For these banks the group plays an active role too, as above, but retains exclusive control of the issues with respect to FinTechs and innovation. The entity in Luxembourg cannot take the initiative, may have no role in innovation, and may have difficulty keeping abreast of what is going on or which FinTechs are close to the group.

3. No defined group-level approach

For a small number of cases, and they remain limited in our study, the question does not seem to have been dealt with in this way at all at the group level, or only to a limited extent according to our respondents. The bank group's participation dynamic, monitoring activities and general involvement in the FinTechs and innovation subject remain limited.

4.2 Organisation at the local level

How are the management of innovation, digital transformation and relationships with FinTechs organised within the banks we interviewed at the local level in Luxembourg? Based on our observations, we identified three organisational models for the Innovation function, which, according to our analysis, correspond to three stages of maturity. This has important implications for FinTechs.

1. Stage 1 – No innovation function

These banks have no innovation function in Luxembourg at this stage. This model can be found in smaller entities or those belonging to centralised groups that are less federalised, or just less active in innovation. According to our observations, this is still widespread in Luxembourg.

This is the time of heroes, so to speak. The role might be performed by the CEO (mainly at smaller entities), who sees it as a way to develop the business. Alternatively, it might be performed by the IT function in view of the relative technological proximity to FinTechs, or by "any interested person" willing to invest in the endeavour. Conversely, at large institutions, being at this stage may also reflect a lack of ownership and attention to innovation, It is very important to delineate these different approaches because they have a direct impact on FinTechs. FinTechs need decision-makers and concrete opportunities.

without a real focus on the part of a CEO or CIO (or even a general lack of interest in innovation, according to some banks). The innovation function might then be placed by default in a given department, or simply does not exist.

In this model, the approach to FinTechs is highly diverse: from very distant and diffuse monitoring only, to targeted actions taken to solve identified problems.

2. Stage 2 – Centralised innovation function

At these banks, innovation is the realm of the “Head of Innovation”, “Chief Innovation Officer”, “Chief Digital Officer”, and other “technology evangelists”. This reflects the second phase of maturity, where a bank has decided to structure its previously dispersed efforts and centralise activity on the issue within one function, or even around one person (often reporting to a member of senior management). This is the most prevalent scenario in Luxembourg and it is set to continue expanding, judging by the number of banks that have not yet reached this level but are considering approaching the matter in such a way.

Employees occupying such positions in Luxembourg have somewhat variable roles, but the activity mainly consists in bringing the subject of innovation into the bank in a transversal way and connecting internal actors with those outside the bank. According to these banks, this role is mainly tasked with innovation watch and internal awareness or mobilisation, and such role is usually detached from decision-making power and budgets.

The approach to FinTechs here can be very opportunistic, often consisting in meeting FinTechs and then seeing what could be done in an “oxygenation” process. This is the strength of the model in terms of idea generation, but also represents its weakness, as the energy spent by the parties is not necessarily correlated to the results.

3. Stage 3 – Decentralised innovation function

The limitations of the centralised model discussed above are now pushing some banks (albeit still very few) to redistribute the innovation function across departments. The logic behind this is that innovation is not a standalone topic that ought to be managed in isolation, but must be part of the very heart of each business line and each department: in the day-to-day running of the business, in work methods, and in the pursuit of commercial development and operational optimisation.

It is therefore the Heads of departments (or their team members) who are responsible for developing innovation at the bank for their own field, with respective decision-making power. This organisation may rely on a centralised monitoring layer, which sometimes may only exist at the group level. However, the overall strategic vision remains transversal. It is a model that is difficult to implement, banks admit.

Here, **the approach to FinTechs is more pragmatic: it starts with internal work to identify needs, before approaching external solutions where necessary. This model also has a major limitation: it risks becoming locked in its own logic of needs analysis.** FinTechs, by contrast, can bring new ideas and perspectives to the problems, they are commissioned to help solving issues.

All three of these stages of innovation organisation at banks (especially the centralised stage 2) can be complemented by other local initiatives such as incubators or venture capital (VC) investments. We will see later in the report that experience of incubators is variable to bank-FinTech cooperation.

It is very important to delineate these different approaches because they have a direct impact on FinTechs. FinTechs need decision-makers and concrete opportunities: they will be able to find them in a decentralised model (still a rare case in Luxembourg) and in small banks without a dedicated innovation function through a CEO or CIO.

In other cases, where the bank is large and not properly organised on the subject, or where it tends to centralise innovation, business opportunities for FinTechs are more difficult to realise, and may require extra time to become concrete. As we will see, time is more critical to FinTechs than to banks in this relationship. The problem is that this situation is the most common for banks in Luxembourg nowadays, according to our observations. It may therefore be more appealing for FinTechs to focus on mid to small-sized banks, or on a few more mature banks; however, this may limit the scope of business opportunities.

5 Organisation at FinTechs: managing relationships with banks

Based on our interviews, we observe four models of relationship management that are not always mutually exclusive:

"You have to stick your neck out as a founder, otherwise it doesn't work." (FinTech)

Model 1 – The founder / CEO

This is the model we encountered most frequently.

For these FinTechs, **it is above all the founder (often the CEO) who manages the relationships and secures the first contacts with banks.** This can naturally be observed at small organisations, but also at large and mature FinTechs. There are two driving factors behind this:

- Need for personal involvement: the founder must be personally involved in the sale to lend the transaction the necessary credibility, and to reassure (and convince) the buyer. It is important to be highly qualified and to have a good functional knowledge of the solution.
- The founder is sometimes the only salesperson involved: s/he often has the most versatile and commercially oriented profile, and may be the only one able to sell the concept. The founder can then be followed by others (e.g. a co-founder) with a more technical background with regard to the product.

Model 2 – The business development / sales team

Some FinTechs have adopted a model very close to the models used by IT solution vendors, pitching their solution through a business development or sales team that is in charge of pre-sales and sales. This model is popular and, based on our interviews, it is often a natural progression from the previous model that happens as the FinTech grows, either in size or in terms of geographical expansion (which obviously limits the founder's ability to be directly involved). However, this is not systematic, and some FinTechs continue to apply model 1 even after strong development, with the founder as a key success factor, and not only for the largest banks or opportunities.

These sales-based arrangements are built on small sales teams, which may also have the advantage of being able to apply a professional sales approach with strategies depending on the market or account. Some of these teams are made up of seasoned ex-bankers who can deliver the right messages to banks and speak their language. Some teams are based in Luxembourg, to cover different neighbouring markets.

Model 3 – The mixed organisation

In this model, **key people vary in an organised manner, according to the stage of discussions and their participants.** This could include the founder, the CEO, a sales person, a business developer, a product owner, etc. We tend to find this approach to the organisation of contacts with banks in more mature FinTechs that can afford to apply it; however, the founder or CEO's involvement remains essential in all cases. It is therefore a slightly less widespread model.

Typically, the founder will be actively involved at the beginning of the cycle, for the pitch and first contacts. Their role is essentially to fully understand the needs of the project, and to integrate bank's feedback with regard to the solution. In particular, this will be the case if the FinTech is involved in discussions at a top management level at the bank. Other people then take over for follow-up actions, or in the situations when contacts are made at lower levels of bank's organisational structure.

Model 4 – The intermediaries

In this model, **the FinTech seeks to build a network of resellers or business introducers.** It is a way to accelerate development and expand networks that can be more or less structured with some nodes in the proximity to the market's prescribers.

In this model, different situations arise:

- Working in collaboration with prescribers (mainly consulting firms) to provide an integrated solution, including technical and functional expertise, or simply to make the FinTech known to prescribers in order to be introduced to banks
- Using international reseller networks (sometimes with white-labelling) to develop sales and create a presence and brand in a particular market without incurring high marketing costs
- Using business introducers to obtain appointments at target banks, although this is still a frequent case in Luxembourg compared to some other markets

With the exception of the use of prescribers, and consulting firms in particular, the use of intermediaries remains underdeveloped in Luxembourg and is mostly used when contacts are managed directly by the founder and/or CEO (in combination with the model 1 above).

In the rest of the study, we will see that **banks tend to prefer models in which the founder/CEO is present with the client (models 1 and 3). Banks appreciate getting to know the founder, who is often the most capable person with whom to have a frank and in-depth discussion about the business needs, according to them. This is part of the "FinTech service".**

Banks appreciate getting to know the founder (...). This is part of the "FinTech service".

6 Becoming known on the market

6.1 The banks' perspective: finding the right FinTechs

The challenge for banks is to identify which FinTechs could be interesting for them. How do they do this? For banks, the situation is clear-cut, with three ways that are by far the most common:

- **Events and fairs; for some banks, only certain events are eligible (e.g. business dating)**
- **Networking and word-of-mouth, peer group recommendations (informal)**
- **Continuous solicitation by FinTechs, knocking on doors**

Then, a whole series of other, widely varied, methods may be used: recommendations from consultants, from the bank group (FinTechs validated by HQs, previous experience, acceleration programme, VC programme, etc.), FinTech watches organised in a structured way using databases or even strategic innovation watch committees, professional organisations, the "FinTech Map", and so forth. Some banks call upon the knowledge of whatever individuals are at their disposal, or they may just search for it in the Internet. Here, we note that structured watches are not commonly used among these banks, and there are few reports of the use of professional bodies as well. Simply put, these banks "muddle through".

At this stage, **it seems essential for any FinTech to have a presence in each of the three contact gateways listed above. But even if it does, banks say the situation is still not without its difficulties** for the following reasons:

- **Momentum –** FinTechs have to arrive at the right moment. However brilliant a solution may be, if there is no existing need at the bank, nothing will come of the encounter and a long exploratory process will have been for nought.
- **Knowledge –** To get their foot in the door, FinTechs have to learn about the banks' strategy and its business in general, or even about Luxembourg, and avoid overgeneralising.
- **Maturity –** Banks want FinTechs that can grow and develop. The level of maturity and professionalism must therefore be high.
- **Proposal –** "Conviction should not take precedence over capabilities" and solutions must be successful. There is no point in offering an incomplete solution or one that focuses on a micro-problem in the value chain.

Some banks lament the lack of a single venue for first contacts with FinTechs: there are too many different events and meeting places, and one must attend many different events to remain aware of what is out there. According to them, **there is a lack of federating events dedicated to such contacts. Banks do not want to have to rely on studies and databases alone; they want to meet FinTechs, to be present on the market, to be out in the field, and to sort through the many firms. But today, this requires a lot of effort.**

6.2 The FinTechs' perspective: making a name for themselves

On the FinTech side, earning a reputation in the market, getting on the client's radar and ultimately meeting the right people is a key issue for success. This is of course where it all starts: one must be visible in the marketplace in order to be consulted as a credible potential solution and have the opportunity to meet decision-makers. In the words of the FinTechs:

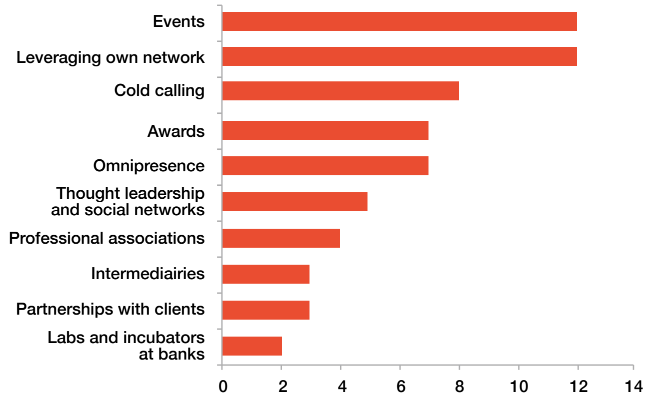
> "We have no budget, we cannot achieve the same visibility as big players. We must be smarter." (FinTech)

> Banks want to meet FinTechs, to be present on the market, to be out in the field, and to sort through the many firms. But today, this requires a lot of effort.

Different means are used, as shown below:

Top 10 methods to get visible

(number of FinTechs quoting the answer - spontaneous)



It is interesting to note that the first three approaches also correspond to those of the banks: events, networking, and solicitation. Beyond that, FinTechs try to create a presence in different ways that will be noticed and remembered. This is broadly in line with the way banks operate. However, the situation is much more complicated than it seems, and FinTechs face many obstacles of which banks should be aware.

1. Events

Actively participating in events is one of the two main means used to gain visibility and meet prospects and customers. The goal varies by FinTech: from showing their solution, to making pitches, to being a guest speaker and having a booth, to making demos, etc. This type of event is generally perceived as important for anyone hoping to get noticed, and some FinTechs participate in many of them. Luxembourg is sometimes described as a "village", where people know each other very well and physical presence is therefore required. It is important to note that this is not just the job of the CEO / founder. It can also form part of sales team activities.

While this is a popular way to enter the market, some of these events are also criticised, sometimes seen as a non-optimal use of time and money.

> "It doesn't lead to much. In Luxembourg, events are too often attended by consultants, evangelists and middle management with a lack of decision-makers." (FinTech)

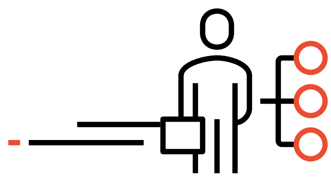
The main critiques are related to the nature of the attendees. First, the decision-makers are rarely present: many events are filled with mid-level management, "explorers" (Innovation function) or consultants, meaning that the potential discussions may ultimately be of little commercial interest in the short term. Second, the same people often attend the various events. Finally, participants do not visit enough FinTech booths or do not come to meet FinTechs.

As a result, some FinTechs have simply decided to stop participating in certain events in Luxembourg. Others choose to attend only the more specialised events, even when abroad, so that they can be in contact with the right people from the start (namely, the decision-makers).

2. Active networking

Unsurprisingly, this is the other key pillar in building a presence in Luxembourg for the vast majority of the FinTechs we met. It means activating their network, calling all "family, fools and friends", and using word-of-mouth. These are generally personal networks, acquired through previous jobs, a long presence in the country, recommendations from former employers or previous clients, consultants, tapping into the networks of employees or even leveraging on the network of a shareholder.

> "Events allow you to make yourself known, but in Luxembourg, to get an appointment, you have to know people personally." (FinTech)



Knowing the right people or knowing someone that knows them is of utmost importance. Luxembourg is perceived as a small market where more than anywhere else, personal relationships are essential for the development of a business activity.

3. Cold calling

The cold-call approach, i.e. picking up the phone and trying to reach identified decision-makers one by one, is widely used in addition to other means. It tends to be targeted, and aimed at particular profiles. The effectiveness is relative to the effort invested, and FinTechs acknowledge that this can be a very time-consuming, onerous activity, in which it is difficult to target and reach the right contact.

4. Awards

FinTechs have mixed opinions of awards, regardless the type of award.

Nearly half of the FinTechs we spoke to said that awards lend a real visibility boost. They can be essential in the beginning, when starting out, and are an excellent way to help build a reputation. Later on, awards can be a good way to take off and expand.

However, some FinTechs are more reserved about awards – some (including award nominees) even go so far as to say that they are of no interest at all. According to these FinTechs, participation means doing a lot of work upstream, in most cases only to go without being selected – information which is then kept and potentially used by the organisers. Secondly, the awards are too focused on the pitch, and often boil down to a speech contest. Above all, putting FinTechs in direct competition with one another limits the flow of information in an event that could be shaped more favourably to fostering partnerships.

5. Omnipresence

Banks require several sources of positive feedback as evidence of a FinTech's ability: peer groups, consultants, mass communication, events, etc. **Everything must point to the same conclusion for the bank and present the FinTech as the obvious solution to a problem faced by the bank.**

Some FinTechs have understood this perfectly. The "omnipresence" strategy has great appeal, and is used by almost half of the FinTechs we met. It consists in being everywhere (events, mass media, conferences, awards, social networks, advertising, etc.), establishing a presence, and positioning oneself as the obvious option. In fact, it even involves striving to project the image of substance through the continuous occupation of the field. In this way, the FinTech establishes itself as a default choice, a household name for its sector – even if its achievements are, in fact, modest. It is about creating a strong brand and using every lever upstream.

6. Other means

Thought leadership and social networks – Expressing oneself through white papers, articles or social networks is very important for some FinTechs. Social networks are preferred (especially LinkedIn). Working on white papers in collaboration with banks is even more valued. The constraint, however, is that whilst people may read and download quite a lot, this generally does not result in contacts. It only helps establish a presence and build the brand.

Professional associations – We were surprised that getting closer to professional associations in banking and finance was not mentioned more frequently by the participants as an important means of making oneself known. We will see later on that the way this type of interaction is organised can be a hindrance to it.

Intermediaries – These FinTechs were a minority in our sample. As a complement to the other means, they use a network of partners or resellers to get in touch with the market, including prescribers such as consulting firms.

Labs and incubators at banks – The incubators that exist at some banks, or even at consulting firms, are seen by FinTechs as a good way to develop their solutions. On the other hand, FinTechs generally feel that the commercial aspect is neglected here: there is a lack of efforts to connect with potential customers in this type of venue, according to them.

7 Finding the right contact in banks

After making a reputation on the market, the first active step in building the sale is to gain access to the right people at banks. This is a big challenge for FinTechs.

As one might expect, **the "right" people are the decision-makers: people who are senior enough, open to innovation, with a budget and decision-making capacity. They are mainly heads of business lines or CEOs, making them extremely difficult to find and access.**

There are several reasons for this:

- One must first find out who the decision-maker in the organisation is. This can be very complicated when the structures are large, with many silos, and even more so if the solution is cross-functional and spans the business itself, compliance and IT. Then there can be too many decision-makers, and no clarity about who has the final say.
- The IT function can rarely decide on these solutions on its own, and the same is true for the business heads. The final decision often falls to the CEO, who must achieve a consensus or make a choice, which is difficult to do in a large structure.
- Decision-makers are not always equipped to understand the solution in its all details (e.g. distributed ledger technology, DLT) and thus the decision never gets made.
- It is often necessary to find a sponsor, who must be willing to take the risk, defend the message, take the case to the decision-maker, or be ready to work with a start-up like a FinTech firm.
- The Luxembourg market is said to be strongly based on relationships: one must know the right people to get into the bank and then get to the right place within it, at the right level of decision-making.

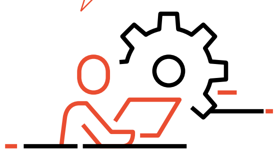
The way in should theoretically be through the business functions at banks, because the decision is usually made on that side. But with the exception of small banks, this seems rarely to be the case, according to the FinTechs we spoke to. And even in small entities, progress is sometimes the result of personal initiatives that ultimately have no budget to back them. So FinTechs have to be resilient and try out every avenue.

"We meet people who want to try something out, but have not enough decision-making power. We had an agreement for a pilot one year ago and we still cannot find the person to launch it."(FinTech)

FinTechs can turn to the Compliance Officer, who has an important role to play (especially for RegTechs), and who can also validate certain business solutions. This can be a good person to convince, who can serve as the entry point – but even that is often not enough.

IT departments or (more rarely) Innovation functions can sometimes be an essential gateway, especially for particularly technology-heavy solutions. However, some FinTechs explained that IT may feel threatened by them, and stand in the way of their initiative. According to interviewed FinTechs, representatives of the Digital or Innovation function are usually not preferred as a gateway, because they fall neither on the IT side nor on the business side, and usually lack decision-making power.

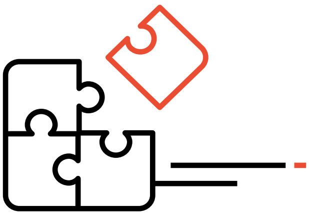
"For large organisations we work with Heads of Innovation, but it's straightforward: we present the solution and they relay the presentation internally." (FinTech)



Sometimes, financial institutions in Luxembourg have insufficient decision-making power, and it is necessary to refer to the head office to obtain a decision. This is mainly the case when the solution entails a high level of strategic decision-making, or when it leads to an innovation that needs to be validated. In such cases, according to these FinTechs, holding discussions locally is not enough. One has to convince the headquarters directly. But at that level, the similar problem of accessing the decision-maker arises, in addition to the problem of being a Luxembourg-based solution that is likely to be little known by those in the central office of a bank. The first problem is thus to obtain an audience at all.

Finally, **FinTechs identified what might be called a general lack of maturity at banks when it comes to selling concepts internally. FinTechs find themselves having to help banks to get the innovations accepted by Legal, Risk, IT, Security functions, etc. – one by one.** They are asked to build the use cases and the business cases of the bank, but this cannot be done for each bank in turn. If the demand comes from a business need the outlook is better, but if it is an opportunistic approach (i.e. exploratory), then there is very little chance of success in their experience.

> The “right” people are the decision-makers: people who are senior enough, open to innovation, with a budget and decision-making capacity. They are mainly heads of business lines or CEOs, making them extremely difficult to find and access.



8 Choosing a FinTech

The selection stage is, of course, a key step in the collaboration process between banks and FinTechs.

Selection of FinTechs by banks is mainly made on the basis of a Proof of Concept (POC), with a panel of well-informed professionals at the bank. This enables a solid understanding of the solution, based on collaborative customer use cases with the first level of customisation. Beyond the solution itself, it also allows banks to test out the FinTech's personal fit and work style (i.e. "going through the path of conviction" as a bank said). In some cases, due diligence is performed on the FinTech in order to vet it for robustness. Some selection processes may run differently depending on the type of context or solution; for example, by connecting to a live platform to demonstrate capabilities, or by providing free sample deliveries.

The Request for Proposal (RFP) process is still widely used. It has the advantage of formalising the needs and asking the right questions, as well as getting clear ideas about the timeframe, integration and costs. For some banks, it is an indispensable step and some (albeit only a few) have adapted their procedure, or even their procurement cycle, to suit smaller entities such as FinTechs.

Bank incubators are an approach welcomed by FinTechs in this context, because they allow for the circulation of ideas within the bank, and for immediate and constructive feedback. Cases are put together in cooperation with the bank. However, these approaches remain distinctly fringe in Luxembourg, and are no less difficult for banks to implement here than elsewhere.

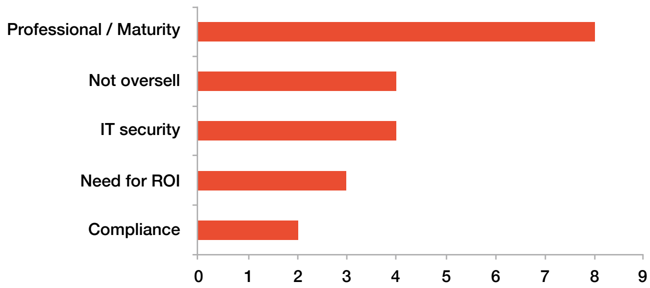
In fact, selection procedures are very difficult to manage for both banks and FinTechs, for different reasons.

8.1 Problems faced by banks

The problems encountered by banks in contact with FinTechs are rather widely dispersed, reflecting a broad variety of internal situations in FinTechs and in banks. However, the top problem banks face is a lack of professionalism by FinTechs. Behind the clichés, it is important to understand what this term actually means.

Banks: Top 5 problems in selection process

(number of banks quoting the answer - spontaneous)



1. Professionalism / Maturity

This is by far the main problem observed. Banks expect professionalism, and complain of a lack of maturity on the part of too many FinTechs. For example, it may be a lack of experience in dealing with a regulated entity and the resulting constraints, the difficulty to understand the need for assurance a bank may have or simply an insufficient knowledge of the environment and its complexity. It may also be reflected in the weakness of the FinTech's business model or the range of expertise of its team members. Finally, once it is necessary to go beyond sales to concrete discussions (of IT, risk, legal, etc.), FinTech representatives' knowledge may prove too limited. It may also be necessary to set up a special team to deal with the bank and meet its level of expectations, which is not possible for every FinTech to do.

"It's simple: a minimum level of maturity is required to be retained" (bank)

2. Overselling

FinTechs need to sell, and they are thus incentivised to show good credentials. However, some banks claim they may be tempted to oversell to appear more convincing. Banks expect fair answers and clarity on what the solution may be unable to do, and POCs should always avoid false promises.

This is also a very important issue for FinTechs themselves, because promises will become commitments that can turn financially onerous as the project progresses.

3. IT security

IT security is essential for banks. This can lead to integration problems for certain solutions that are too close to sensitive data (e.g. in the case of third party robo-advisors). These problems can arise as early as in the POC stage.

The banks we interviewed regret that the data, as handled by FinTech solutions, are not always sufficiently secure, and see data as a major general concern. This problem is even more pronounced when linked with the cloud, which imposes other constraints and regulatory limits that are not always well understood.

4. Need for ROI

Banks are looking for a solution offering a clear ROI. According to the banks we spoke to, FinTechs are still struggling to quantify benefit and demonstrate how it offsets costs.

Whatever the situation, in the end, a business case will always be needed to deploy the solution, according to these banks.

5. Compliance

Some of the solutions proposed by FinTechs match business needs perfectly, but suffer from overly complex integration due to regulatory constraints. In general, regulatory understanding remains low among FinTechs, according to some banks.

> "We saw an investment solution whose representatives were not familiar with MiFID." (bank)

However, banks recognise that this may contribute to FinTechs' strength of being able to come up with innovative ideas not originated in the context of existing sets of regulations.

6. Other issues

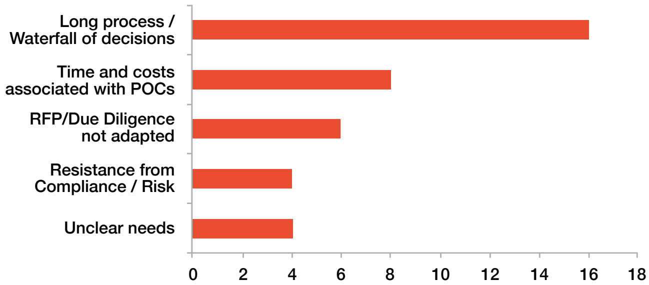
Various other problems were mentioned. One was the lack of capacity to handle Requests for Information (RFI) or RFP, even light ones: adapted approaches may be put in place, but banks have limits to their flexibility and sometimes FinTechs just have to cope with that. Some banks pointed to a technology or concept that was not yet mature enough for the market. Finally, some financial institutions admitted that Audit and Compliance functions do not always understand how to work with a FinTech; they may be seen as too risky, which can cause problems.

8.2 Problems faced by FinTechs

Consensus was greater on the problems encountered by FinTechs in their contact with banks. It is interesting to note that the perspectives of banks and FinTechs do not really overlap, as their problems are of differing orders. Still, **while banks argue that FinTechs are not yet sufficiently mature, FinTechs in turn complain of the lack of maturity needed to work with them on the part of banks.**

FinTechs: Top 5 problems in selection process

(number of FinTechs quoting the answer - spontaneous)



1. Long process / waterfall of decisions

The first problem, shared by all the FinTechs we spoke with, concerns the length of the sales cycle and the difficulty of obtaining final decisions to move forward.

> "We count in weeks. They count in months, if not years. We live in different worlds." (FinTech)

The duration of a sales cycle varies, but ranges on average from 6 months to 2 years. It is influenced by several factors:

- Bank size: 2-3 months at small banks, up to 1 year or even 2-3 years at large institutions
- Maturity of needs: 6-8 months when the needs are well defined, to 2-3 years if projects are highly exploratory
- Number of stakeholders or transversal nature of the project: 6-9 months for a simple environment, up to 2 years to finalise the agreement and obtain a signature
- Complexity of legacy infrastructure, especially in terms of systems and data: from 3 months, up to 2 years in complicated environments

It's a long process. FinTechs have to spend a lot of time building the sale: convincing, one by one, the business, IT, Risk, Legal, Purchasing and IT Security; building the case; uniting the parties around the case. The POCs themselves can be very long, and can take almost a year to complete. Finally, the decision circuit requires many back-and-forth trips, with too many decision-makers, committees, forms, validation stages, deadlines, etc. And things become even more complicated when validations have to be sought at group level and the FinTech has to support the subsidiary in internal sales. The organisational structure of the bank is experienced as a bureaucracy which generates an inertia that reduces the capabilities of FinTechs.

In such situations, a FinTech must be able to hold its own, and have the necessary finances to keep up. For small FinTechs, banks' slow response times pose a risk of bankruptcy with the lack of cash flow, capital consumption, slow ROI for investors, etc. This gives larger competitors an advantage.

The consequences of such a situation can be important:

- Survival problems for some FinTechs
- Look to smaller banks, where the decision cycle could be shorter but where the opportunities would also be smaller and not always as profitable
- In the long term, making the choice to penetrate other markets where decision-making capacities are more present at banks, or where needs are more mature

2. Time and costs associated with POCs

Management of POCs is another important issue for FinTechs. Banks are large consumers of POCs.

FinTechs carry out many POCs at the invitation of banks to tailored workshops exploring new innovations or as part of selection processes and RFPs. In the first case, these workshop opportunities are appreciated, but all too often, they are merely seen by FinTechs as a way for the banks to inform themselves or explore possibilities, which can be a rather expensive exercise in terms of cash and time contribution for the FinTech. In the second case, there is a confirmed business opportunity, but it is still rare for POCs to be remunerated.

Faced with a proliferation of requests, sometimes unfounded, more and more FinTechs are trying to limit investments in several ways: by making pilots pay for or discount the future project, by giving full access to APIs only after signature of contracts, etc. Some have had to adopt a very strict approach, refusing any pilot without payment, as a way of testing the real ambitions of banks.

> "A free POC is very dangerous: if they don't have a budget for a POC, why would they have one for a project?" (FinTech)

3. RFP / due diligence not adapted to start-ups

Even when the process is structured, the approaches adopted do not always correspond to the realities of FinTechs. For example: providing three years of balance sheet, providing credentials, criteria of robustness and size, turnover, number of employees, having a full time Data Protection Officer (DPO), asking for full-time people on the project, audit report, disproportionate due diligence, etc.

> "On the functional level our solution has been validated, but we lost the tender because we are too small." (FinTech)

Some FinTechs may decide to halt a project if the constraints are too difficult or if the proposed conditions are not favourable enough.

The underlying problem is that FinTechs are too often perceived by banks as mere providers of IT solutions or services, and are evaluated as such. They are not seen as partners in a collaborative approach to developing innovation. As a result, FinTechs are subject to approaches that do not correspond to the reality of these small businesses. Of course, even if one can see the need to adapt the approach to this type of structure at banks, the fact remains that FinTechs, like all other companies, must comply with the requirements imposed on companies working with the banking sector (e.g. concerning outsourcing arrangements).

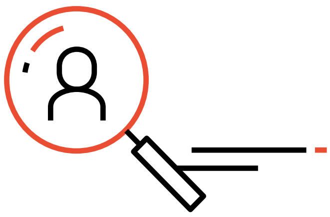
4. Resistance from Compliance or Risk

The nature of the projects conducted by FinTechs often demands special attention from Compliance and Risk Management, including IT Risk. In the majority of cases, after convincing the business, the Risk Management or Control functions will also have to be convinced.

If sensitive data are to be impacted by the FinTech solution, in-depth analysis must be conducted, supported by third-party expert reviews. **Generally speaking, the FinTechs who pointed out this problem tended to perceive a rather risk-averse attitude from the Control departments, aimed at slowing down projects because, as they explained, "not doing is less risky than doing".** This may be exacerbated when solutions are misunderstood, leading to unfounded demands.

> "Everybody in the bank is afraid of Compliance: it can stop a project." (FinTech)

The situation is even more critical for more innovative solutions (in the distributed ledger technology for example) due to the lack of a respective regulatory framework. In such cases, legal memos are required to be able to move forward.



5. Unclear needs

According to our respondents, **many banks would like to do something, but they do not always know how, or just what they actually want to do. Needs are thus not always clearly stated.** Needs may also be insufficiently documented and may therefore keep changing depending on who FinTechs are talking to at banks, or such needs vary from one workshop to another.

These cases represent exploratory approaches that must be built collaboratively, but according to FinTechs, the chances of a successful deal are very low compared to situations where needs of banks are well defined, they said.

There are still too few projects that rely on upstream reflection processes, where the bank has defined its needs by bringing the stakeholders together before seeing which external partners could help implement the necessary solution.

6. Other issues

Other problems can complicate the sales cycle as well.

Among these, the FinTechs interviewed within the study mentioned internal conflicts between various bank departments. FinTechs witness and sometimes even fall victim to tensions of IT vs. business departments, digital vs. business, sponsor vs. rest of the bank, business vs. compliance, etc.

FinTechs also mentioned conflicts between the desire to go digital and the reluctance to change, silos and work methods, which could block any initiative.

In rare cases, some FinTechs have had to go so far as to convince the labour unions of the qualities of the solution, e.g. in the field of automation and artificial intelligence in relation to employment.

9 Contracting and collaboration

The contractual relationships that emerge between banks and FinTechs are generally relatively standard: implementation budget, often with a financial effort from both parties; subscription (depending on usage, users, etc.) agreement, sometimes on a fixed-price basis; modular offer, deployed mainly on the cloud. Models can, of course, vary according to the type of service, or even depending on the type of bank (for example, by offering hosting services in an incubator as part of the financial agreement).

Equity participation as a collaboration model is not a common solution, according to our respondents. On the bank side, such decisions are often centralised at the group level, which would be a significant barrier to this option. On the FinTech side, even when this is the case, the sole objective of securing the commercial relationship is not enough. Above all, such cooperation must form a part of an industrial partnership strategy that allows FinTechs to develop. In the majority of cases, an equity investment is not preferred because it would threaten the FinTech's business model or its independence, or even raise conflicts of interest. It is also possible to get closer to the FinTech through co-development, which can then strongly bind the two parties according to the agreements between them.

"The bank prefers a good contract, rather than acquiring and owning a company." (bank)

The main problems during this phase of contracting stem from the cumbersome and complex process, forcing recourse to lawyers, within the framework of a balance of power that is favourable to the banks. These problems become even more complex with large banks, where FinTechs are forced to accept and follow contractual conditions of such financial institutions, trying to negotiate them point by point. By the banks' own admission, FinTechs are not equipped to deal with contractual issues, and sometimes show complete amateurism, they said. The banks take advantage of this.

"FinTechs' contracts don't hold up, they don't have competence to negotiate with us." (bank)

This administrative complexity encompasses several problems:

- The numerous round trips necessary for the finalisation of contracts (e.g. up to 15 iterations, up to 2 years for a contract signature)
- Negotiation rounds leading to the constant addition of new clauses, to be reviewed each time by lawyers (10 days to 1 month per round)
- Asymmetry of skills between banks and their in-house lawyers versus FinTechs, who often must accept all proposals or (if the budget is available) resort to external lawyers

"In the beginning, we had to accept everything: if we failed, we were dead. A lawyer is absolutely essential, but it's expensive, and for a basic FinTech it can be impossible." (FinTech)

The balance of power between banks and FinTechs is unfavourable to the latter. In order to get the contract, the FinTech may sometimes be willing to accept too much (for example, liabilities), whereas for the bank, it is just another contract.

10 Service delivery

The delivery step seems to be experienced differently by the FinTechs and banks we met. **For FinTechs, delivery itself is not the most difficult step – the hardest part is everything that comes before (building a reputation, accessing banks, obtaining decisions). Banks, on the other hand, see delivery as much more of a problem.**

"The problem is not to deliver: it's the sales and the decision that is difficult." (FinTech)

Overall, from a FinTech's point of view, things run tolerably smoothly in this area: agile mode, fast delivery, short cycles, standardised solutions. These characteristics are also recognised by the banks: the benefits of co-creation in agile mode, with the FinTech bringing a lot of added value; a capacity for action; short deadlines (when one stays within the standard model) and short response times that compensate for banks' long ones.

However, some delivery problems still exist for FinTechs:

- Banks' inability to be satisfied with the standard solution or the in-the-cloud solution
- Slowness to get each validation necessary within the implementation phase
- Access to data: banking data is sensitive, so there are multi-level locks requiring multiple authorisations, considerably stretching each project phase
- Some integration difficulties in systems with aging or legacy technologies
- Governance changes in the bank, such as a change of sponsor or project manager, which can bring the entire project to a halt

"In a bank, opening a firewall can take 3 weeks when it's 3 hours of work... enough said." (FinTech)

For the banks we met, the problems seem more acute, and some of them echo the problems felt by the FinTechs.

Firstly, **there is the lack of capacity on the part of FinTechs to deal with IT constraints (security, data, etc.). According to banks, some FinTechs try to absolve themselves by positioning themselves as "suppliers" leaving the responsibility to the bank, which is not acceptable for data-driven solutions.** FinTechs may be too focused on convenience, user experience (UX), and not enough on security – even more so for cloud or open-source solutions. Innovative firms need to appreciate the complexity and constraints that this kind of approach entails for banks. Banks admit that working on-premises instead of from the cloud to deal with this is not a solution in the long run, as it sacrifices the efficiency and benefits of the solution itself.

"FinTechs are not magic solutions. Integration is difficult in both IT and business terms." (bank)

Second, these banks felt that **FinTechs tend to underestimate the cumbersome organisation of financial institutions, their complexity and the size of budgets to be allocated.** Some FinTechs do not always realise what a large bank is (or even what a large company is), which can cause delays, misunderstandings and difficulties. Also the impact of new requests from the bank, affecting the solution, may be minimised, not fully realising the scope of the changes requested. The same can be true for regulatory constraints, where the bank too often has to perform analyses and, where these constraints are underestimated at the outset, the flexibility of the solution may have to be reduced.

"Some FinTechs are lost at the regulatory level: there is no point in arguing the rationale of the PSD2 or GDPR for instance. It's just a rule and it just has to be done." (bank)

The consequences can be significant for FinTechs because they often work on a fixed-price basis: in case of underestimation of budget and slippage, they consume their margin. Working in Time & Material mode is not often possible either, because the consumption is such that the project price would be prohibitive. In the end, it is the FinTechs that bear the cost of the banks' constraints.

Banks recognise that needs are not always well expressed, which can require many iterations before arriving at a successful version, or need more customisation than expected. It is therefore necessary to clearly specify the need and sponsorship internally, and to frame the subject upstream.

Finally, some banks complain that project management is too light at FinTechs, with resources spread thinly across several projects, a lack of rigour, and ultimately, that FinTechs suffer under constraints rather than facing them. This may also be due not to the small size, but rather to the fast growth of the FinTech.

11 Recommendations for Luxembourg

As part of the study, we asked what recommendations FinTechs and banks would make for the development of Luxembourg in this field.

The top recommendations and issues are listed below, in descending order of quotation frequency (spontaneous):

According to banks

Multiplying the opportunities to meet; possibility of match-making with FinTechs
1

An independent "certification" and official list of "certified" FinTechs
2

Attracting talent
3

Bringing organisations together and federating efforts
4

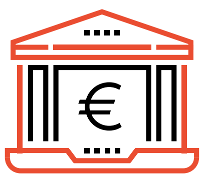
More regulatory guidance
5

Creating a regulated cloud environment
6

Streamlining and sharing information
7

Fostering bank investment in innovation
8

Fostering the diversity of FinTechs in Luxembourg
9



According to FinTechs

1. *Need for match-making opportunities, useful meetings with the right people*
2. *Developing a common vision / Unifying actors on the market*
3. *Having an independent "certification" to help guide banks in their selection*
4. *Developing a sense of urgency in the face of emerging competitive threats*
5. *Empowering financial institutions in Luxembourg for decision making*
6. *Helping in penetrating the market and developing relationships*
7. *Further clarifying the use of the cloud and distributed ledger technology to support their development*
8. *More active role for public bodies and agencies (beyond promotional efforts)*
9. *Promoting assistance and access to capital, opening an account, setting up in Luxembourg*
10. *Attracting talent*

It is interesting to note some common priorities: opportunities for useful meetings, the need for certification or labelling, the need to attract tech talent to Luxembourg, the need to unify efforts in the marketplace, and the need to promote the adoption of cloud services.

11.1 Common priorities

Match-making

This is an important request for most of the FinTechs and banks we met with.

According to the FinTechs, although many initiatives already exist, they do not seem to correspond to the real needs. FinTech-bank match-making opportunities are needed where the possibilities can be sketched out (in both directions) and the right FinTechs and banks can find their way to one another; where FinTechs can get to know the needs of the banks and gain access to the right people.

This could take several forms: multiply speed-datings, official (i.e. shared and published) lists of banks and their needs, forums where one can meet with decision-makers, a platform or set of events specifically dedicated to putting parties in contact, opportunities to present use cases based on past experiences, meetings, a competition focused on fulfilling pre-defined needs, more business incubators focused on connecting parties, etc. **Whatever the form, in light of what currently exists, the need is to be able to meet the right people (an interested audience; i.e. decision-makers and business people, not explorers, middle management and the curious) and to have access to the banks' real needs.** Public agencies and professional associations could obviously play a role in this respect, as they have been doing for a long time.

From the banks' point of view, it's a question of having the opportunity to visualise solutions and meet different FinTechs in order to understand what they do, and to exchange, multiply contacts and facilitate connections. These opportunities must be concrete in order to be useful. Luxembourg is rather behind other countries in this respect, and there is an urgent need for a catalyst. Banks think in terms of a centralising, unique event, where all the FinTechs in Luxembourg would be present. Booths would provide opportunities for concrete discussions.

The banks recognise, as do the FinTechs, that the challenge is to have CEOs and other decision-makers of financial institutions attend (rather than representatives of the Innovation functions, who are already convinced by the FinTech approach and have a limited decision-making power). If this cannot be done, the objective will not be achieved.

Having an independent "certification"

This recommendation is shared by both the banks and the FinTechs we have met.

Many FinTechs are calling for a system to analyse service providers and guarantee their quality, especially in terms of data security. This would make it possible to promote label-bearing solutions "made for banks". No such certification currently exists. Being a PSF could be viewed as one, but given the effort required to set up, obtain and manage PSF status, this is out of reach for most companies.

According to our respondents, the financial supervisor in Luxembourg could provide a solution here by labelling FinTechs that are up to certain standards, as in other sectors (e.g. "certificates of conformity"), or at least by offering a mechanism for collaboration with FinTechs by facilitating the provision of files by banks. However, one must remain cautious about this type of certification because it can trigger controls that may be too burdensome for FinTechs, and thus counterproductive and potentially fatal to some FinTechs.

This idea is aligned with banks, who talk about the opportunity to set up a "FinTech" or "PSF Light" license that would allow for an entry to the Luxembourg market as an "approved" FinTech (in terms of data security, etc.). This would reassure banks that they could work with the FinTech in question, and also facilitate acceptance within the group or by Control departments. It would also reduce the data problems that arise in the early stages of POCs, or even, (depending on what the authorisation covered) dispense with the need to file a heavy dossier for cloud authorisation each time for the same FinTechs. Ultimately, this would lead to a directory of approved FinTechs, making it possible to know who to work with for a given budget.

According to the banks, this is a role for a recognised, official and independent body given the risks of such certification. Alternatively, an audit firm could be of assistance, but then it is expected that such independent body would anyway provide the list of criteria used to certify the solution. If not, as an alternative, a professional association can play a role, by pooling the vetting work carried out by each bank, meaning each bank would no longer have to completely review each solution from scratch.

Develop a common vision / unify players

The ecosystem in Luxembourg is rich, but one must be able to use it effectively. All the pieces are there, but there may be a lack of a global guideline, according to both FinTechs and banks in our study.

On the one hand, FinTechs have to pull together, according to banks and FinTechs, through a federating body. This is a challenge because no "FinTech sector" really exists: they are all different companies in different markets. Both parties feel that such a change would allow FinTechs to get closer to existing professional associations in banking and finance. These associations are all on different perimeters, and it is very difficult for each individual FinTech on its own to keep up with market developments.

On the other hand, the market players, banks, government promotional agencies and professional associations are encouraged to unify their efforts, working together and grouping themselves under a common banner so as to each bring their specific added value in a common initiative. Many FinTechs regret the lack of interaction and collaboration between these parties. The same is true for some banks that point to the current inefficiency of organisation between some of these bodies.

However, the banks themselves continue to think in an individualised way. There are no large retail banks driving the market as there are in some countries; each bank has a very different business model, and the decision-making bodies are often outside of Luxembourg.

Having said that, even if all players did band together, each bank would still have to take its own initiative and commit to cooperate with a start-up.

Attracting tech talent

The ability to attract talent is another priority common to both parties, but especially for banks.

For them, the challenge in Luxembourg is considerable, because the country lacks competence in the technologies that make innovation happen, which will be an obstacle to achieving the country's ambitions. It is currently difficult to attract talent from the taxation point of view, but also due to the lack of appeal for young people. This is important both for FinTechs, which must be able to build local teams, and for banks, which must be able to build the internal skills to work with FinTechs.

FinTechs fully share the banks' point of view here: "Young start-ups need young people." Being able to attract start-ups requires being able to attract talent to Luxembourg in areas of innovation. Currently, it seems that Luxembourg's image is a rather conservative one, whether this is justified or not. Younger generations prefer to work in countries other than Luxembourg, which is a real problem for both FinTechs and banks, according to our respondents.

Better clarify the use of cloud and distributed ledger technologies to foster their adoption

Many FinTechs we met emphasised the open and constructive attitude of the supervisor, with which it is possible to engage in a dialogue.

However, some believe that the situation regarding the cloud is not sufficiently transparent for banks from a regulatory point of view, and that there are additional actions to take in order for banks to take the plunge and dare to distance themselves from the "on-premises" approach. The cloud in the Luxembourg banking industry is said to be still underdeveloped, even though it is the basis of most FinTechs.

This is also a concern raised by banks seeking simplification, particularly with regard to the procedure requiring a file to be submitted to the supervisor for authorisation for each case, even for FinTechs for which the same request was made in the past by another bank. At the very least, it would be interesting to have the list of FinTechs that have already been the subject of authorisation, and the associated details needed to streamline the procedure (which takes 3-6 months depending on the bank). Some banks go so far as to argue for the creation of a highly secure, regulated cloud environment available to players, where they could adopt FinTech solutions without further authorisation.

The thinking is somewhat similar on the distributed ledger technology front, where law and jurisprudence lack clarity and where the issues are not yet well grasped by the legislator, according to our respondents. We know that this results from the technology neutral approach of the legislator in the matter and developments are expected in the years to come.

11.2 Other priorities for banks

Getting more regulatory guidance

On the whole, the banks we met recognise that the Luxembourg financial supervisor is playing its role. It must continue to promote a general framework, and provide a precise technical framework.

The country has many data centres, lawyers and consultants, which all must be orchestrated to form an ecosystem that is conducive to collaboration. In this ecosystem, **banks expect the supervisor to relax some regulatory obstacles but without removing the security imperative, in order to accommodate new trends. Currently, such arbitration must be made by banks,** which are eagerly awaiting guidance and increased flexibility so that they do not bear the sole responsibility for their choices.

Other recommendations

The other priorities are more scattered:

- **Rationalise information and share it among peers –** Some banks are looking for toolboxes that would allow them to benefit from the feedback of other banks. Banks in the market are making their first experiences, but these results are not shared within the sector.
- **Promote banks' investment in innovation –** Banks admit they still invest little in innovation. It could be interesting to create tax incentives (e.g. a tax credit) or measures to encourage capital investment in FinTechs.
- **Fostering the diversity of FinTechs in Luxembourg –** Currently, many FinTechs are active in payments or DLT. There are few pure FinTechs or RegTechs for banks in Luxembourg, according to the banks we spoke to.

11.3 Other priorities for FinTechs

Developing a sense of urgency in the face of emerging competitive threats

According to some FinTechs, **Luxembourg lacks a sense of urgency. It is a rather traditional market, where innovation exists, but without taking the measure of the urgency of change.**

On the one hand, these FinTechs point out that technology could pose the biggest threat to Luxembourg (e.g. the effect of DLT on fund administration). On the other hand, new innovative European or global players could choose to penetrate Luxembourg and take on the major part of the banking marketplace, which is not ready (and arguably has no plans) to move forward in terms of digital transformation, according to these FinTechs. Finally, the prerequisites for the development of innovation are not sufficiently present at banks, if we consider, for example, the current level of digitalisation that could enable the development of innovative solutions.

Empowering financial institutions in Luxembourg for decision making

Luxembourg has a very limited number of "decision banks", and accessing the head office is often mandatory. But Luxembourg players may be at a disadvantage compared to domestic FinTechs in the parent company market, especially as Luxembourg know-how is not sufficiently known there by headquarters.

That is why just getting closer to the head office abroad does not work well. **If the decision cannot be made in Luxembourg, some FinTechs consider leaving Luxembourg and moving to other jurisdictions where it could be easier to develop opportunities and obtain decisions.** In this context, empowering financial institutions in Luxembourg by their HQs for decision making could be a positive step towards strengthening bank-FinTech cooperation.

Helping in penetrating the market and developing relationships

Some FinTechs would like to make Luxembourg a priority because of this ecosystem, the expertise and the density of financial institutions, but this market requires a lot of energy to develop. It is an international market with many opportunities, but it is also a rather relationship based, "small village" – as already mentioned – where everyone knows each other well, one has to be present everywhere, one must know people personally, and the right people, to be able to get into the banks, to get to the right place. This is different from other markets that are less person-centred, according to these FinTechs.

Any structured initiative that can concretely help to engage with banks and in particular to meet decision makers in banks are welcome (banks, incubators, professional associations, public agencies, consultants, etc.).

More active role of public bodies and agencies, beyond promotional efforts

Public bodies and agencies are recognised for their promotional efforts and some are seen as good marketing tools for the financial centre, their support is seen as important for FinTechs and the rest of the ecosystem, including banks.

But beyond this promotional aspect, a number of FinTechs question the results obtained: how many FinTechs solutions have actually been implemented in banks? According to these respondents, FinTechs are no closer to the banks because of such efforts: these actions are not felt enough in the market, FinTechs are not much closer to the banks, and the banks are not more willing to invest or onboard FinTechs. **Many actions have been successfully carried out and new projects are being developed by these bodies. New projects could be imagined to complement the current efforts and help FinTechs to engage with banks in Luxembourg.**

Promote government support and access to capital, opening an account, setting up in Luxembourg

This concerns the establishment and development of FinTechs.

The establishment process is seen by some as unnecessarily long, and more difficult than in other markets. FinTechs call for a simplification of the way to establish themselves in Luxembourg (administration, notaries, lawyers, etc.). This also includes the ability to open a bank account: for a FinTech, it can be very difficult to find a local bank willing to accept it if its model is innovative.

Moreover, in terms of development, although there is a lot of help available, it does not always seem adequate. For example: according to these FinTechs, the aid for innovation is allocated based on projects that must be defined in advance, in an environment that changes all the time, rather than through tax credits linked to innovations that were effectively done, which is easier to manage.

Capital and cash flow needs exist and they are not yet being met. Furthermore Luxembourg's capital marketplace is not very well organised to remedy this, according to FinTech respondents we surveyed.

12 Recommendations to FinTechs

Similarly, we asked what recommendations the FinTechs and banks would make to FinTechs. Thus, this was a self-critical exercise for FinTechs.

The top recommendations and issues are listed below, in descending order of quotation frequency (spontaneous):

According to banks

1. *Being structured, professional, organised*
2. *Understanding the way banks function*
3. *Showing, proving the added value*
4. *Learning to sell itself, without overselling*
5. *Being physically present in Luxembourg*
6. *Being sensitive to IT constraints*
7. *Building recommendations, credentials in the market*
8. *Targeting B2B, not B2C*

According to FinTechs

Approaching banks as banks, and not "techies" 1	*Putting themselves in the client's shoes, showing added value* 2	*Fighting for the first client* 3	
Showing professionalism and maturity 4	*Strengthening equity capital and shareholding* 5		
Starting from a network, having contacts 6	*Being compliant and auditable* 7	*Never stopping innovating* 8	*Being profitable, having a business case* 9

It is interesting to note that there are a few common recommendations only: professionalism (by far the top priority for banks); the need to show added value and, to some extent, the ability to sell themselves; the need for recommendations and IT compliance aspects. Other priorities tend to diverge, reflecting a significant difference in perception.

"Even an agile organisation is an organisation." (bank)

12.1 Common priorities

Showing professionalism and maturity

This aspect is one of the main recommendations by banks: be more structured and professional. The level of maturity is decisive. Some FinTechs have a very structured approach but this is not the case for all of them, according to these banks. FinTechs must be able to structure their approach, adopt a modicum of formality (even as a small start-up), and manage their growth. The stakes are high: if the FinTech is mature enough, it can be onboarded by the bank. Otherwise, it will have to work to bring itself up to speed and become more professional; otherwise, it will be impossible to collaborate. **Lack of organisation on the part of the FinTech cannot become a problem for the bank.**

FinTechs share this view, albeit at a lower priority. It is essential to maintain a very high level of service when dealing with banking institutions, especially since the sponsor who supports a FinTech always takes a risk – and FinTechs must therefore be up to the task. By their own admission, FinTechs often underestimate this aspect: lack of professionalism, improvisation, lack of depth, messy and unmanaged work. There may have been a "FinTech hype" with a lot of dreams and little maturity as some say, but now it's time to deliver and, according to some FinTechs, some will have to call much about themselves into question, or give up.

Evidence of added value

It is interesting to note that, while this priority is shared, it does not mean the same thing to both parties.

Added value is the banks' primary motivation, but FinTechs must be able to demonstrate it empirically. Beyond concepts, it must be measured: what is the financial gain for the bank, how will the bank make or save money out of it? **For a bank, investing in a FinTech project remains a cost at the end of the day; the objective is always to achieve a return on investment (ROI).** Therefore, the FinTech must be able to bring value and to demonstrate it: this is a prerequisite for discussions to continue. This value may be difficult to quantify, as once it has been integrated into the banking environment, the model may become limited in terms of scope and its value reduced. But it must be done.

> "We have stopped exploring for the sake of exploring: we need ROI." (bank)

The notion of added value evoked by FinTechs is more qualitative. The FinTechs admit that too often, they can present the solution, but not how the banks can go about using it. **It is not up to the bank to imagine what it could be used for. The FinTech has to project itself into the needs of the client.** In the same way, FinTechs must help banks project themselves by adopting use cases with all necessary details, marketing and customer needs. Finally, the solution must already exist; it must not merely be a succession of concepts in the beta version.

On the financial level, FinTechs say, the exercise is more difficult. One way of approaching this is to imagine the benefits that the bank can draw from the FinTech's involvement – to be able, from the first meeting, to demonstrate the added value, even if it cannot be fully quantified.

Learn to sell, without overselling

According to banks, **FinTechs have to get better at selling themselves.** It is important to have a good pitch; this includes understanding who the bank is and what its priorities are, having a use case (not a general concept) that corresponds to the realities of banks, coming in person with the founder, and above all, listening rather than just making a pitch. **The goal should be to listen, to understand the business and the need – not to sell the solution, trying to position the FinTech as a partner.** Furthermore, false promises should be avoided, because what has been agreed upon will have to be delivered.

To some extent, this is in line with the opinions of some of the FinTechs, who feel **it is necessary to "talk bank", and not "talk tech".** On the one hand, there's no point in having a superb technical solution if it doesn't hold up in terms of business or regulations. On the other hand, they need to be able to speak the same language as bankers, to talk solutions and business, to position as a problem solver, but without adding technical complexity to their problems.

In this sense, **having former bankers in the team, who know the processes and issues and speak the same language, can give the FinTech a considerable advantage.**

Building up recommendations and credentials

Banks do not often want to play the role of the adventurous pioneer. In the opinion of many FinTechs, the first customer is a springboard: once you have one, the FinTech will be recognised and eligible for the others. The first customers attract market interest and can also generate recommendations, so that FinTechs see a resulting acceleration in demand. Fighting for the first customer is therefore essential.

This is a priority expressed by banks with regard to FinTechs as well: having credentials that testify to past projects, having existing customers.

Being sensitive to IT constraints and compliance

FinTechs must be sensitive to the constraints of banks (security, data, etc.). This is not optional; it is an obligation that they must deal with. **Every FinTech is an open door to the bank's systems, which implies major risks. In the banks' view, FinTechs are sometimes not sufficiently advanced in security** and focus too much on user experience (UX).

FinTechs seem to be generally aware of this. For some, it is indeed very important that the solution, its architecture, its security and its processes are compliant, auditable, and acceptable from an IT point of view. Compliance has to review every solution, as well as IT, and there is no point in continuing if these criteria are not sufficiently met.

12.2 Other priorities according to banks

Understanding how banks work

First and foremost is the ability to anticipate the problems that come with working with big companies. As start-ups, FinTechs cannot always picture what a large corporate is. Some FinTechs need to "get out of the garage" as some banks say: to do so, they need help from people who have experience in traditional companies, large groups or banks. They should be better aware of the processes, constraints and structures inherent in any large organisation; understand how a large company, and in particular a bank, works; and be aware from the outset that it's going to be a long process.

Secondly, there is a need to be able to understand the banking world. Hiring a former banker will have a positive impact on sales and delivery, by bringing in a good understanding of banking, a practical mindset, and someone who won't get stuck on concepts.

The diversity of profiles is therefore important, and naivety should be avoided.

> "It's a human adventure: they learn from our constraints, and we from their freedom." (bank)

Being physically present in Luxembourg

For some banks, **having a presence in Luxembourg is a strict prerequisite to meeting and working together.** Co-creation and the idea of partnership require physical proximity. It is also a way to generate confidence around security and data issues.

Going B2B, not B2C

For a FinTech, doing B2C requires strong banking experience and significant financial means (paying attention to customer acquisition costs in particular). Consequently, banks say that **B2C is not an option for most FinTechs, as the model is too difficult to make it profitable. In B2B however, FinTechs have real value to bring to banks.** According to banks, it looks smarter to re-invent the banking industry with the banks rather than against the banks.

FinTechs should focus on the "mission critical" aspects, which they should actively try to identify: e.g. customer service and experience, compliance, IT security, data insights, reporting and HR. These activities are sustainable and stable (because even in the case of cost cutting, their priorities are maintained).

12.3 Other priorities according to FinTechs

Strengthening capital and shareholders

Launching a FinTech requires capital and partners. It is impossible to do everything alone with a one-man show; founders have to be supported, especially financially. FinTechs can go bankrupt due to a lack of cash flow.

In particular, the quality of the shareholders is important: they give confidence to the market, but at the same time, they must understand that scaling up takes time and the return on investment will probably range around 5 years or more. **The banks and the venture capitalists have a role to play here by enabling and facilitating an access to capital.**

Starting from a network and contacts

In Luxembourg in particular, it is essential to have a network because of just how complicated navigating the local ecosystem can be. More than in other countries, the Luxembourg model is based on people, relationships, quality, talking and convincing; i.e. a long and complicated process. It is necessary to talk "quality and tailor-made", and if possible by starting from a personal network.

Continuous innovation

FinTechs must continue to innovate and not become mere providers. **A FinTech is perceived as a young company in a financial environment: without innovation, in the long run, FinTechs risk becoming standard firms.** It is essential to continue to come up with a new and unique perspective.

This attitude towards innovation would be facilitated by strengthening collaborations between banks and FinTechs, allowing FinTechs to better understand unserved needs and become a trusted partner to help improve banking processes and develop innovative solutions.

Be profitable, having a business case

Some FinTechs have nurtured very good concepts but are not profitable: such firms must not lose sight of the business case. It is absolutely necessary to develop a business model which may be profitable as a FinTech, under realistic conditions.

13 Recommendations to banks

Similarly, we asked what recommendations FinTechs and banks would make to the banks. A self-critical exercise for the banks this time.

The top recommendations and issues are listed below, in descending order of quotation frequency (spontaneous):

According to banks

Organising to involve decision-makers 1	*Having a more agile organisation* 2	*Capacity to form delivery teams* 3	*Defining needs clearly* 4

According to FinTechs

1. *Simplifying governance and aligning views internally*
2. *Taking more risks*
3. *Being equipped to deal with FinTechs*
4. *Bridging the technology culture gap*
5. *Lack of strategy, vision*
6. *Resorting to FinTechs rather than developing in-house*
7. *Opening data, simplifying IT*
8. *Adapting RFI and FinTech selection*
9. *Developing more incubation programs*
10. *Deeper understanding of emerging technologies*

The banks were very limited in their priorities, unlike FinTechs. The two sides only agree that bank organisations are cumbersome (by far it is the top priority for FinTechs). On the other hand, while risk is a key point for the banks and a recommendation for improvement for FinTechs, the banks do not mention anything on this subject (whereas FinTechs do). This is a clear sign of divergence in views.

13.1 Common priorities

Simplifying governance and aligning internal views

This is a recommendation by the majority of FinTechs.

According to them, discussions within the banks can be lengthy due to lack of alignment between concerned parties, and FinTechs too often find themselves in the middle of internal debates. In many banks, no one makes decisions based on what the FinTechs need, and the banks for their part seem to be lost in their own procedures, politics and governance, which are described as “cumbersome”. There are many internal stakeholders involved: IT, business, compliance, risk, legal, security, etc. Thus, there is also a considerable level of confusion. On the one hand, nobody seems to want to take overall ownership, and on the other hand, each party too often takes a decision for its own domain, without specific regards to the common goal. This problem becomes all the more pronounced when FinTechs offer cross-departmental solutions.

It is necessary to have clearly defined responsibilities for how decisions are made, a structure in place, and clear governance to implement the strategy. This complex nature of governance is one of the most difficult points to understand from the FinTechs’ perspective.

The banks also mentioned this problem. They admit their lack of agility and their somewhat slow and cumbersome decision-making processes, which can have significant consequences for a FinTech (for which a 6-month delay can be life-threatening timeline).

In general, **banks recognise a lack of attention from senior management to the subject on the one hand, and a lack of ownership (between IT, CEO, COO, Business, etc.) on the other hand.** It is important to have the business managers involved, to ensure strong sponsors capable of making choices, and not to focus on the Innovation function which often lacks the decision-making power. **Senior management must understand and agree to spend time on the subject.**

13.2 Other priorities according to banks

The other priorities for banks are more diverse, as stated by a few of the banks we interviewed:

- Defining needs: identify the need and frame the subject beforehand, and identify where a FinTech will be needed
- Setting up delivery teams: have an experienced project manager, and people capable of responding to FinTechs in due time
- Training on innovation
- Opening information systems, including integration based on APIs
- Creating more contact opportunities, investing time and effort

13.3 Other priorities according to FinTechs

Taking more risks

The ability to take risks is another important concern for the majority of FinTechs. This mirrors the banks' recommendations for FinTechs, which do not seem to be sufficiently risk-aware. This is a subject on which the two worlds have completely different views.

According to these FinTechs, by working with a FinTech, banks take more risk to "move rather than not to move" and therefore very few banks (especially larger ones) are able to move in the right direction for FinTechs. This is a problem of understanding and perception of risk (for example, FinTechs claim that **the mere word "blockchain" is enough to demotivate some banks, as is the word "cloud"),** acceptance of risk, and sometimes attitude or conflicts of interest. Risk management will always take precedence over innovation: **"innovation is good, but security is better",** as one FinTech points out. The relevant IT department may have no interest in embarking on projects that are too innovative at the risk of failure, and may prefer to stick to the technologies it has mastered. Is it in the interest of a major bank to take a risk? Tactical and operational aspects should not outweigh strategic positioning and perspectives for banks in the mid- and long-term.

To move forward, banks must change their mentality and accept risk, according to these FinTechs. Otherwise, inertia and the capacity for innovation will disappear within banks, especially the largest ones.

Gaining the ability to leverage on a FinTech

Following these ideas, and with the same importance, **banks must give themselves the means to cooperate with FinTechs.** This encompasses several things.

According to these FinTechs, on the one hand, banks must be careful not to approach FinTechs as an IT solution: FinTechs offer an all-in solution, a model, a turnkey service, with data, cloud and functionalities. Banks should remain flexible and avoid demanding extremely tailor-made solutions from FinTechs. On the other hand, banks make very little effort to meet FinTechs: it is FinTechs that make their first step to encounter incumbents, and banks tend to slow down efforts rather than to help find out how to approach future challenges together. **It is a question of attitude, openness and desire,** according to most of the FinTechs we met with.

Bridging the technology culture gap

According to many FinTechs, technology culture at banks is too weak, and banks (especially larger ones) are not used to the new tech-forward environment. **There is a gap between banks, with their core banking and "spreadsheet" culture, and FinTechs, with their cloud and API-based culture.** The gap is seen as rather wide, putting these two worlds quite far apart: **"we sell cloud" versus "we have to deliver on-premises".** The level of maturity may vary from one bank to another, but overall Luxembourg banks are seen as traditional, and more so than elsewhere, according to the FinTechs interviewed.

Meanwhile as we have seen above, some banks are aware of this and the development of related competences is one of their priorities.

Lack of strategy and vision

A bank needs to think about what it wants and what it can do, according to these FinTechs. There is a lack of clarity in terms of needs and ambitions, as well as limits: obviously, the bank cannot do everything and it needs to think upstream to limit "the wish list". Sometimes banks may even want to do something, but they may not be able to articulate this very clearly. Such situation may immobilise budget allocations. FinTechs argue that following what is being done elsewhere or waiting until a competitor has tried it first is not a strategy.

According to the perception of these FinTechs, banks may seem to be unable to communicate a strategy, a vision and a concrete plan – not a digital strategy, but a business strategy to achieve their 5-year objectives. **A discussion is needed to understand how banks see their future and what the role of FinTech might be in achieving that vision.**

Resorting to FinTechs rather than developing in-house

Banks should try to make the most of advantages that FinTechs can bring in terms of innovation and competitiveness when good solutions exist in the market (for example, it may be more efficient to partner with a robo-advisor as there are already plenty of them on the market, rather than developing such technology in-house). According to the FinTechs we met, this behaviour results from the need to customise, control and reduce risks. Sometimes, banks may even go as far as to buy out FinTechs which, according to our interviewees, then may turn into a truly labyrinthine organisation.

FinTechs argue that **it may be wiser to capitalise on lightweight, high value-added solutions where they already exist in the market, rather than spending large budgets on digital transformation, customer experience and other heavy internal investments.** It seems that currently the preference often is given to in-house development or established IT packages.

Opening data, simplifying IT

This aspect addresses two problems.

On the one hand, data in a bank is obviously considered as very sensitive. Currently, however, **the banks seem to have one preferred solution according to these FinTechs: on-premises, which usually goes against the FinTech approach** (i.e. cloud outsourcing).

On the other hand, **banks are seen by FinTechs as a "patchwork companies" at the level of IT: it is rather difficult for a FinTech to plug in without any customisation.** Data tends to be not sufficiently structured or standardised, IT systems are often outdated, integration is often difficult. Banks have not yet acknowledged this as a priority for them, according to FinTechs.

Adapting RFI and FinTech selection

The criteria in selection procedures set the bar very high, and should be adapted so as not to arbitrarily exclude smaller FinTechs, and to take into account FinTech-specific advantages such as quick response times. The procedure itself should also be adapted, as it is rather cumbersome and difficult for a FinTech to cope with.

But **this also reflects a problem of trust: it is easier to trust credentials and financial foundations than a small business, and the choice to take on a small company may have negative consequences for the decision-maker** at the bank if things with the small FinTech go wrong further along the line.

Developing incubation programmes

Only a few FinTechs make reference to such initiatives, but **those respondents do call for a more extensive development of incubation programmes within banks.** They point out the importance of incubation programs for the acceleration of FinTechs in the situation when co-creation between the bank and FinTech takes place.

There are very few of such initiatives in Luxembourg. Moreover, while some incubators have substance and real programmes, others seem to be more used for marketing purposes, according to FinTechs surveyed.

Deeper understanding of emerging technologies

Finally – and this concerns the FinTechs of this sector – a certain urgency can be observed surrounding some emerging technologies such as for instance distributed ledger technology (DLT), which is not yet well understood and evaluated. According to FinTech, some time has been spent by market players educating, raising awareness, watching and trying to imagine a use case (which must be profitable for banks in the short term too). Many market observers believe that DLT is fundamental technology that can disrupt the whole industry. **Banks should have a closer look at the technology as it may bring both threats and opportunities to both banks and FinTechs themselves.** Further measures should be done to deepen the understanding of merging technologies such as DLT by banks, which in turn will spur further adoption.

14 Insights on the impact of COVID-19

This study began in February 2020, just before the first lockdown of March 2020 due to the COVID-19 outbreak. The data collection was temporary suspended and then resumed from May to August 2020. In October 2020, we asked participants how the crisis had changed their outlook.

FinTechs

- Short-term business downturn – The first customers are banks, who initially refocused on their operations, customers and continuity. All unsigned proposals were postponed.
- Project delays – Started projects were generally maintained and some new projects were launched yet, sometimes with delays.
- Business development brake – Some deals had to be put on hold; others progressed, but at a slower pace. Engaging with new prospects was very difficult (no events, difficulty with reaching out to target people, no budget, no visibility, etc.).
- Slow decisions – Decisions have been slowed down, obtaining decision for ongoing projects became increasingly difficult.
- Mistrust – There has been a decrease in trust towards smaller organisations.

Many of the FinTechs that we contacted seem to have experienced a fairly natural slowdown in activity. But the urgency of digitalisation in the banking sector has been heightened, as well as the possibilities offered by the cloud, which some believe will help sustain growth in the coming months. Other FinTechs have chosen to pivot and refocus on other types of use-cases with their existing solutions, or to penetrate other sectoral or geographical markets.

COVID-19 may be the wake-up call that has been needed to unlock new opportunities for banks and for FinTechs.

Banks

- Decreasing attention to FinTechs – Priority is the impact of the pandemic on the bank's activities and clients.
- More scrutiny of risks – More in-depth exercises to identify the risks associated with defaulting suppliers have also brought the fragility of any collaboration with FinTechs to the fore. A more cautious approach will likely prevail in future collaborations with FinTechs.
- Reduced budgets – Budgets have been reduced and projects cancelled as efforts have been refocused on other priorities.
- No impact – For a few only, no or little change in priorities.

For the financial industry, the banks contacted tend to agree that there has been a shift in priorities and a reduction in budgets for these projects in the short term. In the medium term, however, the emergence of the cloud can be seen as an opportunity: the health crisis highlighted that banks underexplored and underinvested in some areas, like cloud outsourcing. With the pandemic, the situation has changed and banks have rushed into these issues with the will to move forward. Potentially, banks could further motivate regulators to evolve respectively.

At the end of the day, COVID-19 may be the wake-up call that has been needed to unlock new opportunities for banks and for FinTechs (digital, cloud, etc.).

15 Conclusions

FinTechs originally positioned themselves as competitors to banks with an aim to revolutionise banking. They had a certain freedom of action where banks had regulatory constraints. This is part of the myth and those days are probably over. It is true that it is difficult to find the right business model, and even today many FinTechs are not yet profitable. One of the development models is the B2B route with the financial sector, and banks are increasingly a path to profitability for FinTechs. However, **FinTechs are also essential for the development of banks. They are not the only route to innovation for banks but they are an accelerator and a way to outsource innovation. Cooperation is needed to take the most from both worlds.**

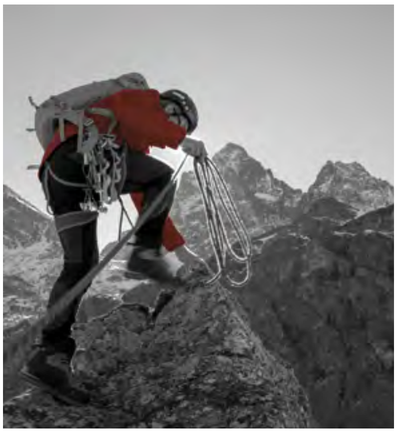
FinTechs are establishing or developing in Luxembourg because there is a high density of banks, with a lot of expertise, rather than thanks to promotional efforts. **Banks definitely show an interest, but they are not yet sufficiently involved in real collaborative projects. The latter may pose a problem because it could undermine Luxembourg's attractiveness in the long run, while the quality, density and expertise of its financial sector is recognised and the financial centre is a market with a great potential for such FinTechs.**

Banks seem to be interested in FinTechs for good reasons: to develop innovation, reduce time-to-market, bring added value. However, too many obstacles are hindering their commitment, and in the end, banks are not sufficiently open to collaboration with FinTechs. Problems include a certain perceived lack of professionalism of FinTechs, a lack of technicality, a lack of depth, especially in terms of risk and security, where the perspectives differ significantly between banks and FinTechs. Besides, some banks highlight the limited range of solutions available currently in the marketplace.

But it is also a question of attitude on the part of the banks, for which one might wonder if they are ready to work with FinTechs and deal with their constraints. **FinTechs may lack for instance organisational and compliance maturity, however banks may also lack maturity in other aspects:** cumbersome organisational structure, outdated technology, poorly defined needs, lack of business strategy, unclear governance, as was mentioned by the respondents.

The role of organisations, such as professional organisations and public agencies, can become very important in these areas: by taking the right actions, in a coordinated way, they can further help in the establishment of contacts, for business development or for the creation of opportunities. Initiatives are being taken in the market, such as the recently launched ABBL FinTech and Innovation Forum (FIF), and their success should be measured in the light of the concrete results achieved for the development of innovation in the financial sector in Luxembourg.

FinTechs may wonder about the attractiveness of the Luxembourg market for them. It is an interesting market for its density and yet quite difficult. Luxembourg remains a niche market qualified as a "small village" where, more than elsewhere, you have to know the right people; decision-makers at financial institutions are not easily accessible, there are few opportunities for useful meetings, there are practically only a few decision-making headquarters in the banking sector, and decision-times are long, there is a lack of tech talent pools, and finally there is not sufficient dynamic of innovation if you consider what is happening in the retail banking, private banking and fund sectors compared to other more vibrant markets abroad. In Luxembourg, FinTechs can certainly find interest of banks, but commitment and budget may be longer to achieve. **Over the last few years, many banks in Luxembourg went through the exploratory phase, with a push innovation approach, where solutions were propelled into the bank rather than starting from needs and looking for the right solution. This has led to many pilots with just a few that led to further transformation. It is now time to move to the next stage and build.**



Luxembourg is a great financial centre, FinTechs know it and banks are interested in FinTechs. It is now time to move from the exploration phase to the investment phase by removing the last obstacles on both sides.

The following top priorities have been identified in the study and should be taken as a starting point for further reflection:

- Mobilise decision-makers, CEOs, and redefine the role and responsibilities of the Head of Innovation
- Develop an affordable form of “FinTech certification” capable of providing banks with the necessary assurance
- Federate the efforts of FinTechs, market players and banks, which are currently too dispersed, and redefine the roles of each one in the matter
- Attract tech talent, first for banks and then for FinTechs
- Facilitate the cloud and its adoption in practice, by clarifying the regulatory framework and the practical approach for authorisation
- For FinTechs: increase professionalism, be able to demonstrate their added value in terms of ROI, improve their management of IT security and risk aspects
- For banks: be able to work with FinTechs, in particular in terms of governance, organisation, decision-making and ownership, and procedure (contract, selection, etc.), openness of IT, ability to take risks

The risk is twofold if nothing is done: **on the one hand, Luxembourg will gradually be less visible on the global map of digital finance and FinTechs, and on the other hand, Luxembourg will be left on the sidelines of the waves of innovation, thus exposing the country to the mercy of more ambitious new entrants.**

Luxembourg is a great financial centre, FinTechs know it and banks are interested in FinTechs. It is now time to move from the exploration phase to the investment phase by removing the last obstacles on both sides.

16 Methodology note

16.1 Scope

- Luxembourg
- Focus on the banking sector, i.e. excluding funds industry, insurance, other professionals from financial sectors (different issues)
- Focus on FinTechs targeting the banking sector, operating in Luxembourg (established or not in Luxembourg), i.e. excluding InsureTechs (insurance), FundTechs (funds industry), payment solutions (excepting if articulated with banks in a B2B solution)

16.2 Approach

We followed a qualitative approach because the aim was to get an in-depth understanding of the difficulties and obstacles that the actors face in their mutual collaboration. It was based on the experiences of the sector, through a detailed understanding of the issues. Open-ended interviews are more appropriate than a simple quantitative data gathering.

- 1 hour interviews with all banks and FinTechs
- Conducted face to face for most of them (pre-Covid and when the health conditions allowed it), remotely otherwise (conference calls)
- Dates: 1st wave February 2020-March 2020, 2nd wave June 2020-Sept 2020
- In general, 1 interview per bank or FinTech, unless it was necessary to meet with others to have a complete view
- Interviews conducted on the basis of a structured discussion guide, different for banks and FinTechs
- All interviews were anonymous
- Respondents:

  + Banks: decision maker (COO, CIO, CEO, Deputy CEO) or person in charge of Innovation, depending on the organisation of each bank

  + FinTechs: founder / CEO, sales or business development function in rare cases

16.3 Respondents

Banks

- Banking Circle S.A.*
- Banque de Luxembourg S.A.
- Banque Internationale à Luxembourg S.A.
- Banque Raiffeisen
- BGL BNP Paribas S.A
- CA Indosuez Wealth (Europe) S.A.
- Deutsche Bank Luxembourg S.A.
- Edmond de Rothschild (Europe) S.A.
- ING Luxembourg S.A.
- J.P. Morgan Bank Luxembourg S.A.
- Keytrade Bank Luxembourg S.A
- Natixis Wealth Management Luxembourg S.A.
- Quintet Private Bank (Europe) S.A.
- Société Générale Luxembourg S.A.
- UBS (Luxembourg) S.A.

FinTechs

- BlockEx S.A R.L.
- CrossLend Sàrl
- ComplianceWise Luxembourg S.à r.l.
- CDDS Luxembourg S.A.
- Ellipsys SARL
- Finologee S.A.
- Jemmic s.à r.l.
- Gambit Financial Solutions S.A.
- Goldbaum
- Have-a-Portfolio Solutions GIE
- Lingua Custodia Luxembourg Sàrl
- Luxhub SA
- Neuroprofiler SAS
- Sqope SA
- Tokeny sàrl
- VNX Exchange SA.

* Banking Circle S.A. is a fully licensed bank, which we have chosen to analyse as a FinTech in our study because of the proximity of its experience to that of FinTechs.

17 ID Cards of the participating FinTechs

Contact details

Thomas Delallande-Costa
Head of Administration and Sales

e sales@cdds.lu
p +352 20 21 16 20
w www.cdds.eu

CDDS is a Luxembourg RegTech company specialised in anti-money laundering and terrorism financing software solutions since 2009. With offices in Switzerland and Malta and a strong reseller network throughout the world, CDDS currently has more than 700 clients in 42 countries. Our clients are active in all segments of the financial sector such as banks, insurance companies, payment service providers, fiduciaries, wealth managers, but also law firms, notaries, corporates, gaming companies and many other areas. CDDS also has several partnerships with software editors that integrate CDDS solutions or the AML Risk API for their clients, easing their AML/CTF risk management. The solutions go from a web-based research tool, APIs to integrate in other software, mass screening solutions against sanctions, PEPs & blacklists to the full AML/CTF solution AMLspotter. CDDS is a one-stop-shop for any company wishing to implement strong AML/CTF processes with state-of-the-art software and data.

Contact details

Christiaan Dappers
CEO

e c.dappers@compliance-wise.com
p +31 624 393 145
w www.compliance-wise.com

We are **ComplianceWise**, the world's frontrunner in Anti Money Laundering SaaS solutions. Our solutions give our clients the carefree and secure feeling they're looking for. We offer our customers state of the art SAAS solutions, including automation and machine learning to fully, simply, demonstrably comply with the Money Laundering and Terrorist Financing Prevention Act. And we give them a license to operate in order to do their work efficiently (in cost and time) and effectively (in thoroughness). Our solutions: CW360, our premium SAAS solution, including our groundbreaking Transaction Monitoring and Know Your Clients (KYC), for banks and Financial Institutions. Thanks to automation and machine-learning, boards will regain full control of AML procedures, while significantly reducing compliance costs. Plus: the chance of (personal) fines and penalties is diminished. Grub: it's the only AML solution for accountants, administration and tax offices, with which you simply, completely and demonstrably comply with ALL AML-guidelines. Annex IV Reports, Annex IV Reporting, it's a challenge. But not anymore: with our Annex IV reporting solution it's possible to handle your reporting duties for up to 30 different countries via one single data feed.

Contact details

Tristan Mckee
Capital Markets Analytics, Lead

e tristan.mckee@crosslend.com
p +49 30 208 488 100
w www.crosslend.com

CrossLend is a FinTech company that provides full spectrum technology for loan asset transactions. Its mission is to make the world's lending and investment ecosystem more efficient, transparent, and profitable. Supervised by BaFIN and CSSF, CrossLend is backed by an array of prestigious equity investors from Europe and the US, including Mouro Capital (formerly Santander InnoVentures), Lakestar, CME Ventures, Earlybird, ABN AMRO's Digital Impact Fund, solarisBank, and the Luxembourg Future Fund (EIF and SNCI).

Contact details
Théophile Gros
Partner & business development

e theophile.gros@ellipsys-bi.com (business dev)
p +352 28 998 700
w www.ellipsys-bi.com

Ellipsys is a Luxembourg software editor, funded in 2015 by Samuel Morin, well established in the country (Raiffeisen, BGL, BIL, BEI, RBC ...), but also elsewhere in Europe (ADEO Leroy Merlin, Cora Group, Unibail Rodamco, Groupama, CEREMA ...) Most businesses have been collecting tons of data for a very long time. They use different technologies to store, transport and display them. This systematically creates a very damaging opacity, specific to most "legacy systems". We edit a software, openAudit, to solve this! openAudit automates data lineage, defines the usefulness of each data, detects its end use, as well as runtime issues. Our technical bias is to automate ALL processes with bots, which continually browse systems. Use cases: IT debt reduction, better understanding and sharing of processes, technical migration catalyst, compliance topics (GDPR, BCBS 239) ...

Contact details
Raoul Mulheims
Co-founder & CEO

e raoul.mulheims@finologee.com
p +352 27 75 08 - (1)
w www.finologee.com

Finologee is one of Luxembourg's leading digital finance platform operators. The company facilitates the financial industry's quest for optimisation and innovation with its compliant platforms and APIs for bank compliance (PSD2 for Banks & CEDRS), mobile payments and telecom routing (Digicash & Mpulse), and KYC/AML (KYC Manager & Digital Onboarding). Finologee serves more than 100 banks and institutions and handles more than 25 million transactions, messages, and end-customer interactions per year on their behalf. Placing user experience, technology, and compliance at the core of the business, Finologee's founders have been blazing a trail for FinTech 'made in Luxembourg' since 2006. With a staff of 36, the company is ISO 27001:2013 certified and is operating as a regulated financial services professional under a 'Support PFS' license granted by the Ministry of Finance.

Contact details
Laurent Bodson
Head of Sales

e l.bodson@gambit-finance.com
p +32 476 97 53 16
w gambit-finance.com

Gambit is specialised in digital solutions for saving and investment. We help financial institutions build customer centric platforms for discretionary and advisory mandates, face to face, online or phygital, and catering to both retail/mass affluent and private banking segments. Some of the issues we help our customers with are Save to Invest conversion, generating new revenue streams, higher customer retention and new client acquisition. Solutions that we have deployed include simple and advanced robo advisors, face to face Advisor guided workflows, Wealth as a Service, pension accumulation & decumulation, and online industrialized recommendations. Solutions can be on premise, API-based or cloud. Clients include BPCE Group, Fortis Bank, AXA, BNP Paribas Banque Privée and Keytrade.

Contact details
Valérian Branco
CEO

e val@goldbaum.io
p +352 26 36 03 67 (EMEA)
p +1 302 480-9396 (Americas)
w www.goldbaum.io

Goldbaum connects financial product issuers with institutional investors to increase assets-under-management. Thanks to their data and our platform, the easy way.

Contact details

Have Claude

CEO

e claude.have@haps.lu
p +352 621 353 195
w www.haps.lu

Human Assisted Data Collection - Document Generation - e-signature. All under your control in your infrastructure. Front -Back Office: Collect prospection data, prepare a customer meeting, meet the customer, collect data, control data, generate the documents and sign on the tablet. Be regulator compliant with an audit trail on data collection, compliance checks, false positives and risk updates. The Back Office orchestrates your workflows for easy integration in your portfolio management system, Crm or other data base. eSignature Validation Platform: You receive a document signed electronically and you want to verify if the electronic signature complies to your validation standards. We offer the platform that verifies qualified, advanced or simple electronic signature and provides a report for each non-matching event. Mobile App: Data and communicate at your customers' fingertips. Build your mobile application with increased security as totally separated from your core system.

Contact details

Alexander Pistsov

Business development manager

e alexander.pistsov@jemmic.com
p +352 691 400 443
w www.jemmic.com/secuchat/

We enable conversational banking with SecuChat, our secure instant messanger with integrated electronic signature. Think of it as a WhatsApp for banks and insurances, but complete security and privacy with policies that you define! We are a trusted partner for over 80 banks and 1 million users. SecuChat allows financial institutions to engage in secure and compliant chat conversations with their clients. Moreover, it can be used internally, and easily interfaced into existing systems. The platform includes innovative features such as qualified electronic signature, automated workflows exchanging structured data, two-factor authentication, conversation protocols, and audited audio calls. Use Cases: Customer Onboarding • Customer Support • Personalised Client Relationships • Order management • Callbacks to verify transactions • Upselling & Cross-selling of products and services • Secure Instant Messaging • Real-time and personalised market information.

Contact details

Frédéric Moioli

Global Head of Business Development

e frederic.moioli@linguacustodia.com
p + 352 2786 7611
w www.linguacustodia.finance/en/home/

Lingua Custodia is the only FinTech company expert in Machine Learning applied to financial translation. Founded by financial professionals to solve specific problems they have encountered themselves, Lingua Custodia develops ultra-specialised machine translation engines. Each of our translation engines is built and trained for a specific financial use (Prospectus/KI(I)Ds, Fund reporting, Macro-economic Research, ...) for quick, cost-efficient, and consistent financial translations. The aim is twofold: achieve a superior translation quality thanks to highly domain-focused deep learning algorithms and help financial institutions to communicate rapidly with their clients in multiple languages. We currently work for most of the major financial institutions in Europe. Lingua Custodia solution can be accessed 24/7 in a secured manner through a web-based platform or connected directly to your Portfolio Management System platform through an API. Contact us to test our solutions for free.

Contact details

Jacques PÜTZ
CEO

e info@luxhub.com
p +352 288 076
w www.luxhub.com

LUXHUB acts as the connective tissue for enhanced financial services throughout Europe, spearheading a collaborative march towards open finance. Our first activity was to provide technical and consultative support to banks with respect PSD2 compliance, beginning with our founder banks – Banque Raiffeisen, BGL BNP Paribas, POST Luxembourg, and Spuerkeess – and ultimately partnering with close to 40 banks. We then rapidly evolved our team and technology to keep pace with the fast-emerging new financial ecosystem, moving beyond compliance, into connectivity and collaborative innovation. Our LUXHUB One product provides enhanced access to multiple PSD2 APIs, while the LUXHUB Marketplace acts as a community for the sourcing, testing, development, and production of API-based financial products. Our rapidly expanding team continues to ideate, build, and collaborate towards the development of value-added products and services that will help to shape the future of finance.

Contact details

Tiphaine Saltini
CEO

e tiphaine.saltini@neuroprofiler.com
w www.neuroprofiler.com

Neuroprofiler assesses clients' risk and ESG investment preferences through behavioral finance and gamification in order to recommend suitable products. Starting from the discrepancy between private customers expectations in terms of ESG and the available product offer, the aims of our solutions are to: - comply with MiFIDII/LSFin guidelines regarding client suitability assessment. - boost clients' investments - segment clients' ESG preferences to build data-driven ESG strategies

Contact details

Ilana Krancenblum
CEO

p +352 20 60 17 77 - 1
m +352 27 86 15 30
w www.sqope.lu

Founded in 2010, **Sqope S.A.** is a leading provider of enhanced due diligence reports and ESG reputational assessments that empower professionals to evaluate risk and comply with AML/CFT regulations. Headquartered in Luxembourg and with offices in Switzerland, the UK, and Israel, Sqope serves over 250 clients from various industries ranging from private banking to private equity, family offices, law firms, art brokers and the public sector. Our multinational intelligence division is composed of experts located strategically throughout the world and boasting diversified expertise and backgrounds, from military intelligence to geopolitical risk analysis, investigative journalism, and more. Sqope also is fully GDPR compliant and ensures the confidentiality of our clients' identities and sensitive information.

Contact details
Ivor Colson
Head of Marketing

e ivor@tokeny.com
w www.tokeny.com

Tokeny Solutions allows financial actors operating in private markets to compliantly issue, transfer and manage securities using distributed ledger technology, enabling them to improve asset liquidity. Due to disconnected and siloed services that are currently used to enforce trust, private markets experience poor asset transferability with little to no liquidity. By applying trust, compliance and control on a hyper-efficient infrastructure, Tokeny Solutions enables market participants to unlock significant advancements in the transferability and liquidity of financial instruments. Tokeny Solutions is the leader in its field and in 2020 were named one of the top 50 companies in the blockchain space by CB Insights. They are backed by Euronext.

Contact details
Alexander Tkachenko
CEO and founder of VNX

e info@vnx.io
w www.vnx.io

VNX is a blockchain platform enabling its customers to tokenize various assets, digitalise the fundraising and effectively syndicate deals. The platform democratises, automates and streamlines the investment process while providing a traditional finance industry standard level of protection. **Asset tokenization -** VNX solution combines technical infrastructure and integrated services helping seamlessly tokenize various assets without involving multiple service providers and facilitates the whole life cycle of digital securities: • Investors' onboarding and KYC/AML • Structuring and transactional documents; Management of payments in fiat and crypto • Issuance and post-transactional management. **Deal Syndication -** Deal syndication on the VNX platform enables lead investors to offer a co-investment opportunity to a group of potential co-investors via a single digital platform: Full set of administrative and tech services • CRM, investor communications and information disclosure • Compliance • KYC/AML and secure capital flow.

A study of Arendt Business Advisory,
with the support of ABBL

Association des Banques et Banquiers, Luxembourg
The Luxembourg Bankers' Association
Luxembourger Bankenvereinigung

arendt.com

abbl.lu