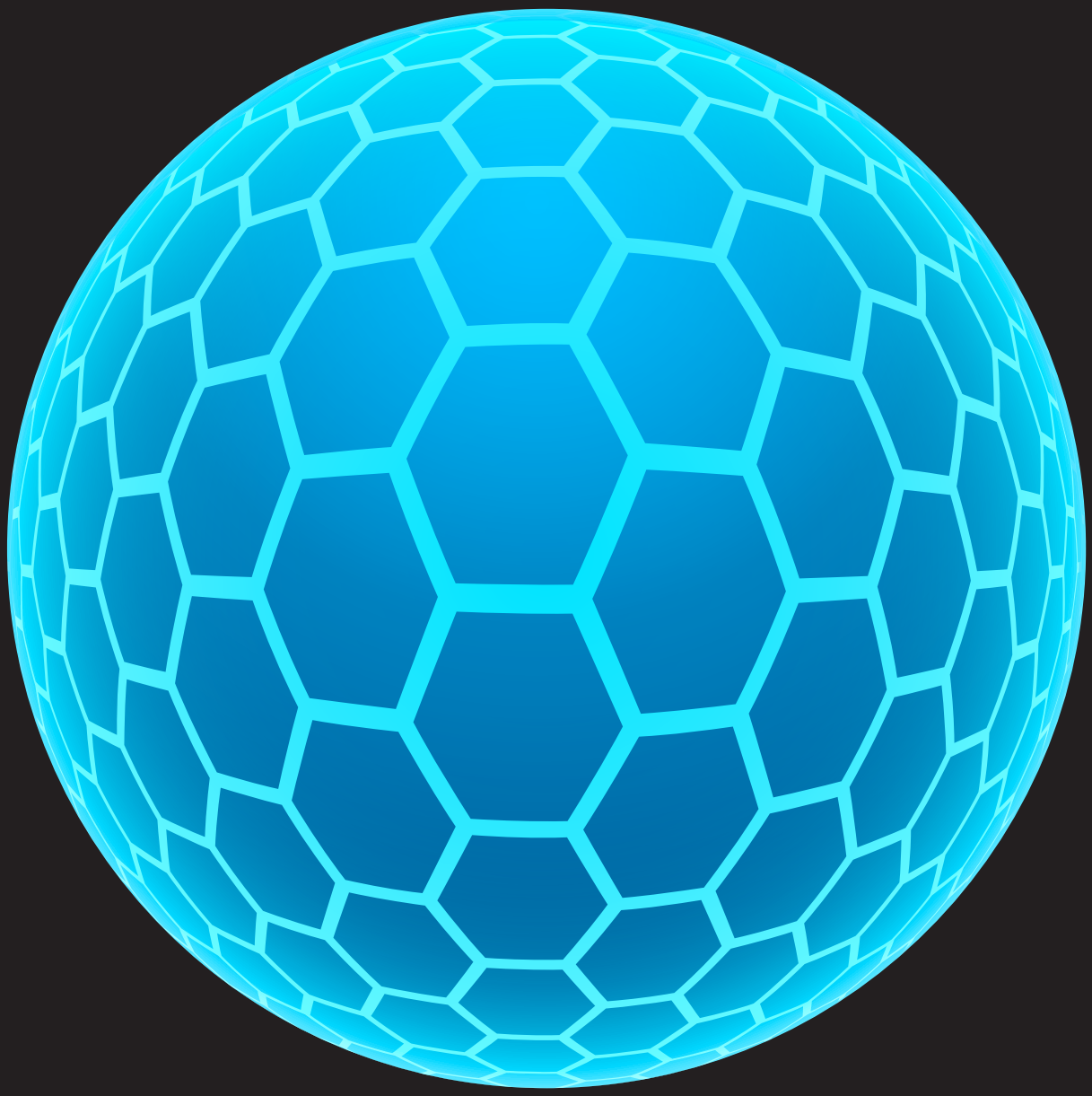
Deloitte.



Impacts of the Blockchain on fund distribution

Executive summary

Blockchain technology has the potential to wipe Luxembourg off the map of the fund distribution and administration market.

Extending far beyond bitcoin and crypto-currencies, Blockchain technology is bringing disintermediation to merely all industries. A survey from the World Economic Forum[1] highlights that financial services will be transformed by this technology with expectations of at least 10% of the global GDP being stored on Blockchain platforms by 2025. The fund sector that is seeking levers for processing optimization and which relies a lot on financial service intermediaries such as transfer agents, fund registries, and fund administrations will be particularly impacted. Considering that the fund sector represents more than 50% of its economy, the Blockchain has the power of an earth quake that would shake to the ground the whole Luxembourg place.

So Blockchain, a fairy tale or an inevitable change?

A Blockchain relies on a digital and distributed ledger which performs in a transparent environment without the need for a trusted authority to validate transactions. Rather, there are computer nodes that follow some consensuses and protocols to operate the ledger in an automated way. A Blockchain is also able to execute so-called Smart Contracts application, self-executable computer programs that perform yet simple logic but can be assembled to produce sophisticated applications.

By combining smart contracts and recording of transactions in its ledger, a Blockchain is able to replace any kind of intermediary that maintain a registry or executes transactions between parties. Therefore, providing complexity of the more advanced flows is supported, a Blockchain would, in theory, takes over the transfer agents and parts of the activities of the fund administration. For example, the fund registry could be implemented in the ledger of a Blockchain, transactions recorded in it, and smart contracts configured to call for KYC/AML procedures upon a subscription. Because it disintermediates the fund value chain, some functions and activities won't be needed anymore, reducing a lot the time to execute the transfers of value. While currently the time to exchange fund share versus payment is more than 2 days, in the future, it could occur almost instantaneously provided the investor has enough money on his or her account. In a full implementation of the technology, fund promoters could simply directly distribute fund shares without any intermediary. Even the assets side could be taken over by the Blockchain, supplanting custodian banks and fund accounting firms.

It is true the technology has still some major challenges to resolve such as acceptance, scalability, performance, resilience, data confidentiality, and regulatory surveillance, etc. But unless financial sector actors find some way to syndicate themselves in a market place wide initiative, they will be simply disappear of the landscape of the future, being replaced by computers that will execute more transparently, automatically and quickly the fund processing. It is still time for incumbents, new entrants, and supervisor authorities to define a new operating and regulatory framework for the industry. But the clock is running fast and competition is going to be fierce between market places that struggle to sustain in the incoming economy.

1 **Source: World Economic Forum. September 2015.**

Content

1. Introduction

1.1 Fund Industry in Luxembourg

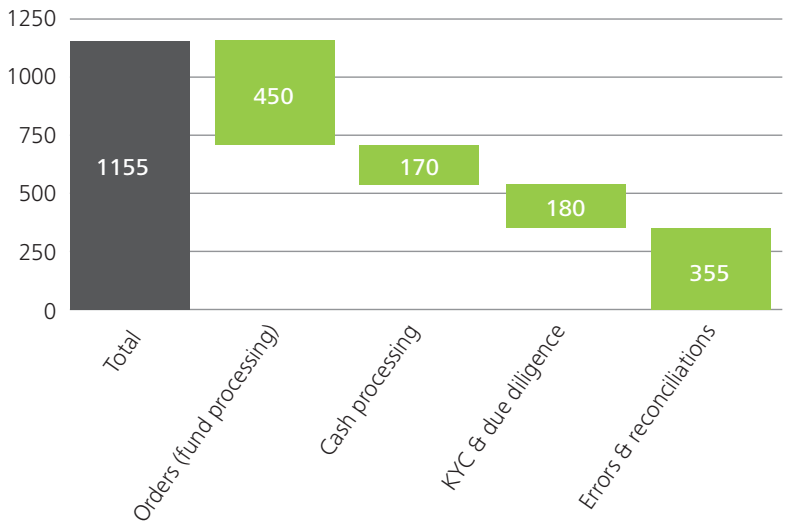
With €3.5 trillion in 2015[2], Luxembourg is the first European financial center and second largest player in the world in terms of local fund assets.

Luxembourg is also the first country in the world in terms of cross-border fund distribution. Distributing funds, especially cross-border, is a lengthy and costly process. The underlying activities of this process are performed through intermediaries and trusted counterparties which leads to an addition of several costs. Deloitte estimated the processing costs of fund distribution in Luxembourg in 2014 at €1.2 billion[3]. Furthermore, 23 percent of the fund order process is still being handled manually[3], mainly through fax orders, which has a significant impact on distribution costs.

By automating processes and removing the need for intermediaries to distribute funds and process transactions, Blockchain technology is an opportunity for investment funds to improve distribution process speed and efficiency as well as reduce costs.

On the other hand, it might also be a threat for the Luxembourg economy as a whole, as the fund industry employs 14,000 people[4], many of them in areas that might be completely disrupted and partly or largely automated by the Blockchain.

Figure 1: Processing costs (in million EUR) of fund distribution in Luxembourg in 2014



2 EFAMA, Annual report, 2014.
3 Deloitte & Fundsquare. Europe's funds expenses at a crossroads. 2015.
4 Surprising Lux, Luxembourg for business & Luxembourg for finance, 2015.

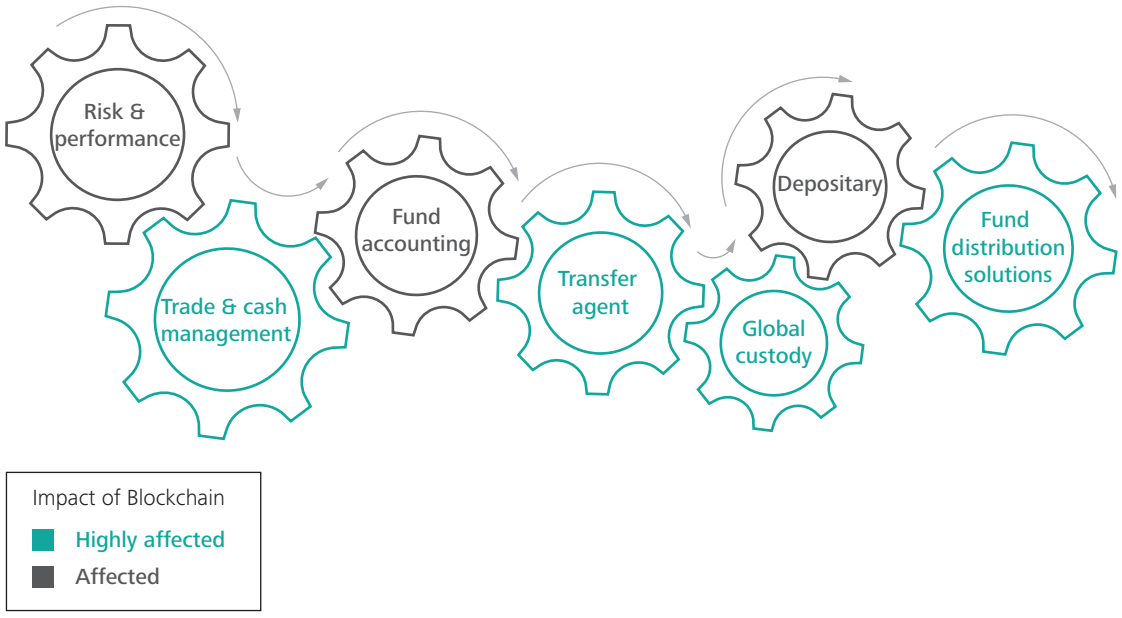
Blockchain technology is an opportunity for investment funds to improve distribution process speed and efficiency as well as reduce costs

1.2 Objective of this White Paper

This White Paper describes Blockchain technology and explores the impacts on fund distribution and settlement. Blockchain technology is likely to disrupt almost all activities where there are intermediaries. In particular, the asset servicing value chain would be completely redesigned in the near future to eliminate intermediaries and therefore lower transaction time and costs, as well as increase transparency via a distributed and publicly available ledger.

Figure 2 below represents the value chain of asset servicing, from which several processes might be highly affected by the Blockchain (i.e. trade and cash settlement, transfer agent, global custody and fund distribution). Moreover, the stakeholders who are part of this process will also be affected by this technology, along with the transfer agents, distributors, cash managers, fund accountants, fund/custodian banks, and brokers who will face major changes.

Figure 2: Impact of the Blockchain on the value chain of asset servicing



1.3 What is the Blockchain?

Blockchain technology relies on a digital and distributed ledger which operates in a transparent environment without the need for a trusted authority to validate information. Transactions are validated by miners—specific nodes in the Blockchain network dedicated to verify, authorize, validate, and record transactions. This ledger contains the history of all verified transactions while multiple copies of this unique ledger are distributed to all participants across the network. Even if Blockchain technology cannot be granted as entirely mature for the time being, we should consider that it will be the case in the near future.

Blockchain technology is therefore based on a network of computers (the "nodes") and open algorithms and protocols (the "consensus") as opposed to traditional centralized systems that rely on trust between different actors.

Blockchain is the technology behind Bitcoin, but its applications go far beyond cryptocurrencies. The Blockchain leverages so-called "Smart Contracts," in which terms are implemented in a computer language and can execute themselves when specific conditions are met. A large number of applications can be built up using Smart Contracts, having no link with Bitcoin or cryptocurrencies.

The main characteristics of Blockchain technology are:

Fast transaction settlement

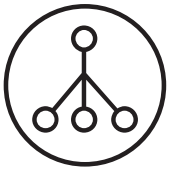
- Transactions are processed directly from peer to peer without intermediaries
- Ledgers are automatically updated
- Both sides of the transactions are executed simultaneously

Low cost

- Resources used to validate transactions are mainly computing power that cost less than traditional "man power"
- Less use of intermediaries
- No reconciliation work is required

Transparent & auditable

- Blockchain is an open source technology operated by a set of actors called miners
- All transactions are visible and traceable within the ledger
- All accounts are visible on a pseudo-anonymous basis



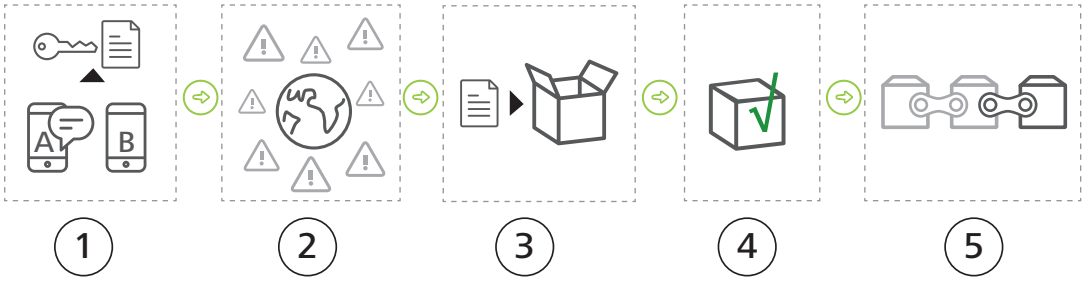
Reliable

- Blockchain technology is resilient and does not have any single point of failure
- Transactions processed in the Blockchain are immutable and irrevocable

1.3.1 How does it work?

The process of creating and validating transactions using the Blockchain is presented in Figure 3.

Figure 3: Process of the Blockchain



1. Two parties agree on a transaction. The first party sends a message to the second one containing specific information: the reference to the previous transaction, the amount, the second party's public key, and other parameter information specific to the type of transaction. The first party signs the message with his private key.
2. The Blockchain alerts miners all around the Blockchain network of the pending transaction.
3. All transactions that happened in a given timeframe are grouped in a block in order to be validated by miners. Each block has a unique identifying number, creation time, and reference to the previous block.
4. Verification is accomplished by miners who compete to resolve complex cryptographic computational work. The first miner who resolves it publishes the results to the whole network.

Blockchain technology relies on a digital and distributed ledger which operates in a transparent environment without the need for a trusted authority to validate information

5. When a block is validated, it is added to the chain of all previously validated blocks, forming the Blockchain.

1.3.2 Example of the use of a Smart Contract

As previously mentioned, Blockchain is not limited to payment in cryptocurrencies. Other applications are being developed on this technology using Smart Contracts to manage digital assets (e.g. transactions, financial assets, music, movies, eBooks, diplomas, etc.).

Figure 4: Smart Contract process

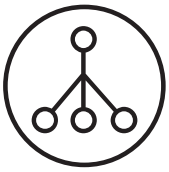
1. Two parties establish the terms of the contract and agree on conditions for the Smart Contract.
2. Then, the Smart Contract is developed and deployed on the Blockchain. Conditions and specific actions are implemented within the Smart Contract.
3. To initiate a transaction, an instance of the Smart Contract is created.
4. Once all conditions are met (e.g. sufficient amount available), the Smart Contract executes specific programmed actions (e.g. settlement of the transaction) and is added to a block.
5. When a block is validated by miners, it is added to the Blockchain. Transactions are recorded in a perpetual and immutable ledger.

Blockchain technology allows the recording and updating of transactions or any digital interaction in a distributed ledger in a way that is reliable, secure, transparent, and auditable

1.3.1 Benefits and challenges of the Blockchain

1.3.1.1 Benefits of the Blockchain

The Blockchain removes the need to trust a third party to execute transactions, improving the speed of transaction processing. It allows investors and issuers to operate directly together without any intermediary to interfere. Integrity is also preserved, as transactions will be executed exactly as programmed, without the possibility to alter this process. The Blockchain is reliable, because the ledger is immutable, irrevocable, and there is no single point of failure. It is also secure, as cryptographic functions are used to ensure data security. Finally, it is transparent and auditable, because all participants can access the distributed ledger and all records are visible.



The Blockchain enables parties to trade in a more reliable way, reducing the risk of default without the need to reveal confidential information to demonstrate worthiness. Assets recorded on the Blockchain are considered reliable sources with only validated transactions.

By automating processes and removing intermediaries, the Blockchain could shrink the timeline of transaction processing from the client's order to the effective settlement. Information would be delivered nearly instantaneously between both parties, the risk of errors would be reduced, and efficiency would be improved.

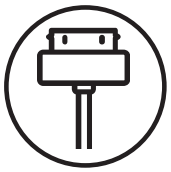
Transaction costs would be drastically reduced since there would be no more intermediary fees. If used by banks, the Blockchain would help them save US$20 billion according to a study performed by Santander Innoventures[5]. For the Luxembourg fund industry, this could have a major impact as cross-border fund distribution costs are a major burden for Luxembourg-based funds.

Verifying and tracking information would be easier with Blockchain time-stamped information. The Blockchain would enable a more secure audit trail and reinforce AML/KYC processes. It would also offer enhanced security and a lower complexity of compliance by linking multiple entities to each other. The Blockchain provides a common source of information, allowing users to instantaneously share encrypted updates about clients' records.

5 Santander Innoventures. 2015.

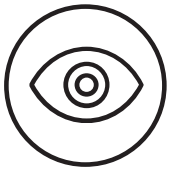
This disruptive technology comes with some challenges to overcome, such as technology acceptance or data privacy and confidentiality matters

1.3.1.2 Challenges of the Blockchain



One of the main challenges associated with the Blockchain is a lack of awareness of the technology, and a widespread lack of understanding of how it works, causing companies to neglect investments in this technology. Technology acceptance is a long process that could take time for implementation; there would be a transition phase from the traditional to the new business model and it would need to go through cultural acceptance. Users have to trust the security of the infrastructure and the digital assets associated.

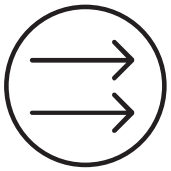
Even when convinced of its benefits, companies may face difficulties to implement the Blockchain, since it implies dealing with complex software that is not user-friendly and requires a very deep understanding of the Blockchain's underlying processes.



Data privacy and confidentiality are potential risks, since the ledger is distributed to all participants, meaning that every node of the network can access and read all the records. Moreover, there are still some security concerns about the Blockchain, even if some solutions have been developed giving restricted access to information.

In addition, there is currently a lack of standardization in the use of Blockchain technology and the development of Smart Contracts. Indeed, there is no regulatory framework or industry standard associated with the use of Blockchain technology which could hinder its development. Blockchain platforms such as Ethereum could partner with traditional financial industry players to make the Blockchain the standard technology for transaction processing.

There are still some technical challenges to be addressed with Blockchain technology, among which are scalability and computing power in particular, in order to support higher volumes with an increasing number of transactions per second. The sustainability of Blockchain solutions need to be evaluated for a long term implementation.



Multiple Blockchain applications have the potential to replace existing systems. The implementation of the solutions would take time, making it necessary for both legacy and Blockchain systems to coexist during the transitional phase, forcing companies to clearly define their strategy for implementation.

2. Focus on Distribution & Settlement

2.1 The future fund subscription model

Today, fund subscriptions/redemptions are complex processes processed with many intermediaries such as fund distributors and transfer agents. The new business model enabled by Blockchain technology allows individuals to invest into a fund using its associated Blockchain, without the help of any intermediary: the distribution and transfer agent functions may disappear as we know them. Moreover, traditional activities previously performed by a trusted entity, such as verifying the conditions of the transaction or checking AML[6]/KYC[7] results, would be automatically performed by a Smart Contract associated to the fund.

In this section, we explore simplified use cases around fund subscription with the following assumptions:

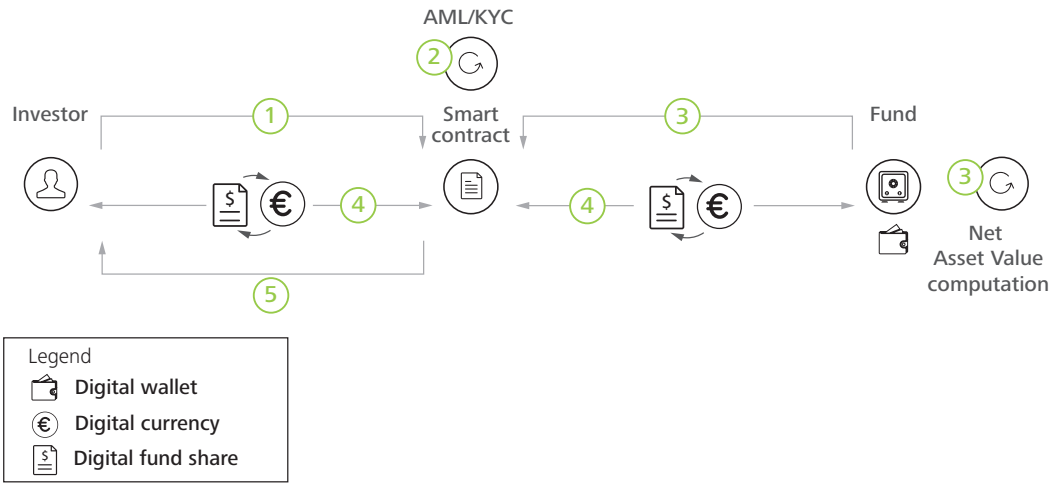
- Simplified account management exists without the concept of omnibus.
- Distributors market the fund but do not intervene in the transaction processing. Investors initiate the transaction themselves.
- Both parties—the fund buyer and the fund manufacturer—need to have a **digital wallet**: an account to hold **digital currency** and **digital assets**.
- Subscription is performed with a number of shares and sufficient cash is available on the investor wallet.
- Dedicated applications operating on the Blockchain allow sending fund requests and to manage the digital wallet.
- On the fund side, a **Smart Contract** is implemented to represent the fund characteristics and execution terms as well as to allow the creation of new **digital fund shares**, which are exchanged against an amount of digital currency.
- Each operation associated to a fund is represented by a specific Smart Contract.
- In order to avoid volatility risk, the digital currency might be indexed to fiat currency (e.g. digital euro indexed to euro) thanks to an exchange platform or gateway. Other options such as bridges to collection accounts might also be considered as a transition to the target model.

In the future business model, the Blockchain would allow investors and issuers to directly operate in a peer-to-peer manner, without any intermediary to interfere. All asset information necessary to execute the transaction would be recorded into the distributed ledger. Transaction events would be stored in the Blockchain in a permanent, immutable, and timestamped manner. The investor would use a dedicated application to send the subscription request directly to the Smart Contract which verifies that appropriate conditions are met (e.g. AML/KYC verifications performed, sufficient amount of money available in the digital wallet, etc.) and execute the transaction once the Net Asset Value is computed.

Figure 5 presents the typical use case of the new business process for fund subscription.

6 AML: Anti-Money Laundering (cf. Glossary)
7 KYC: Know Your Customer (cf. Glossary)

Figure 5: New business process of fund subscription



1. First of all, the investor sends the fund subscription request that initiates the Smart Contract.
2. Required checks and verifications (e.g. onboarding/regular AML/KYC, etc.) are performed by the Smart Contract.
3. Once the Net Asset Value is computed, the Smart Contract verifies that all conditions are met and automatically executes the transaction between the client and the fund.
4. A digital fund share is created and exchanged against the appropriate amount of digital currency.
5. The Smart Contract communicates the transaction confirmation to the investor.

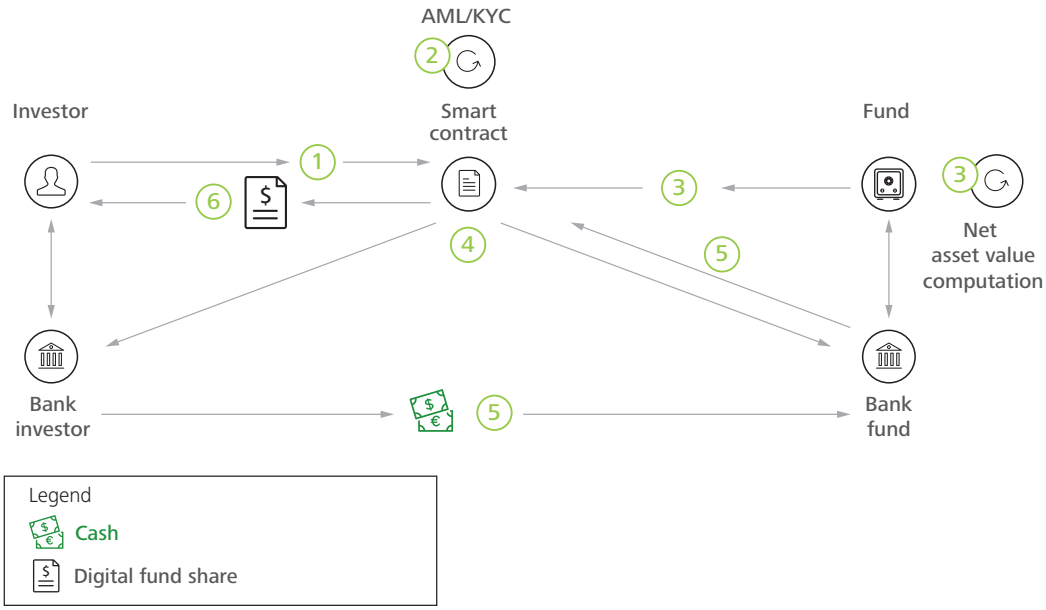
The new business model enabled by Blockchain technology allows individuals to invest into a fund using its associated Blockchain, without the help of any intermediary

2.2 The transitional fund subscription model

This disruptive fund subscription model would require stakeholders to trust the infrastructure and the cryptocurrency used for payment. As user acceptance generally takes time, a transitional model will be needed, where intermediaries still have a role to play.

In the transitional model, the investor sends the subscription request to the Smart Contract that performs AML/KYC checks and verifies that appropriate conditions are met. Transactions between investors and funds would still require trusted entities to execute transactions in fiat currency. There would be no obligation yet to hold a digital wallet for managing digital currency and digital assets. Figure 6 presents the intermediate model for fund subscription.

Figure 6: Transitional business process of fund subscription



1. Firstly, the investor initiates the transaction and sends the subscription request to the Smart Contract.
2. Required checks and verifications are performed by the Smart Contract, such as AML/KYC checks and sufficient amount available in the investor wallet to buy the fund share.
3. The Fund computes the Net Asset Value and sends this information to the Smart Contract.
4. Once the Net Asset Value is computed, the Smart Contract verifies that all conditions are met, creates a new fund share and sends the payment information to the investor's and fund's banks.
5. Based on information sent by the Smart Contract, the investor's bank executes the payment to the fund's bank that informs the Smart Contract that payment has been completed.
6. The Smart Contract executes the transfer of the fund share to the investor in the ledger.

2.3 Benefits of the Blockchain for transaction processing

One of the main benefits of the Blockchain for asset servicing is to sharply reduce transaction time. Figure 7 represents the timeline of the traditional process for transaction processing. Currently transactions are settled at Cut-off + 3 Days. Multiple intermediaries contribute to delay the overall process.

Blockchain technology could make some intermediaries disappear, since there would be no need to trust a third party. The Blockchain would directly interact with the final stakeholders, and activities typically performed by transfer agents such as transaction processing would be automated with the use of Smart Contracts. Transactions on the Blockchain are time stamped, making it useful for tracking and verifying information.

In the transitional model (timeline presented in Figure 8) some of these intermediaries would still be required. But as described in the previous section, most of their current activities would be performed by the Smart Contract. Typically, if payment is made outside of the Blockchain (i.e. based on fiat currency), banks would still be required for settling the cash leg. In this picture, the settlement date might be brought forward to Cut-off + 2 Days. The Smart Contract would hold the fund share while waiting for the payment confirmation. When payment is confirmed, the Smart Contract would then release the fund share to the investor.

This timeline could be improved with the evolution of payment systems that allow faster settlement processes, such as using a crypto equivalent of a fiat currency.

In the long term, Blockchain technology would shrink the timeline of transaction processing from the fund order to the effective settlement, allowing the latter to be processed just after the Net Asset Value computation (see Figure 9). Thanks to automated Smart Contracts, information would be delivered nearly instantaneously in a transparent way, and the risk of errors would be reduced. The transaction costs would be drastically reduced since there would be no more intermediary fees.

One of the main benefits of the Blockchain for asset servicing is to sharply reduce transaction time

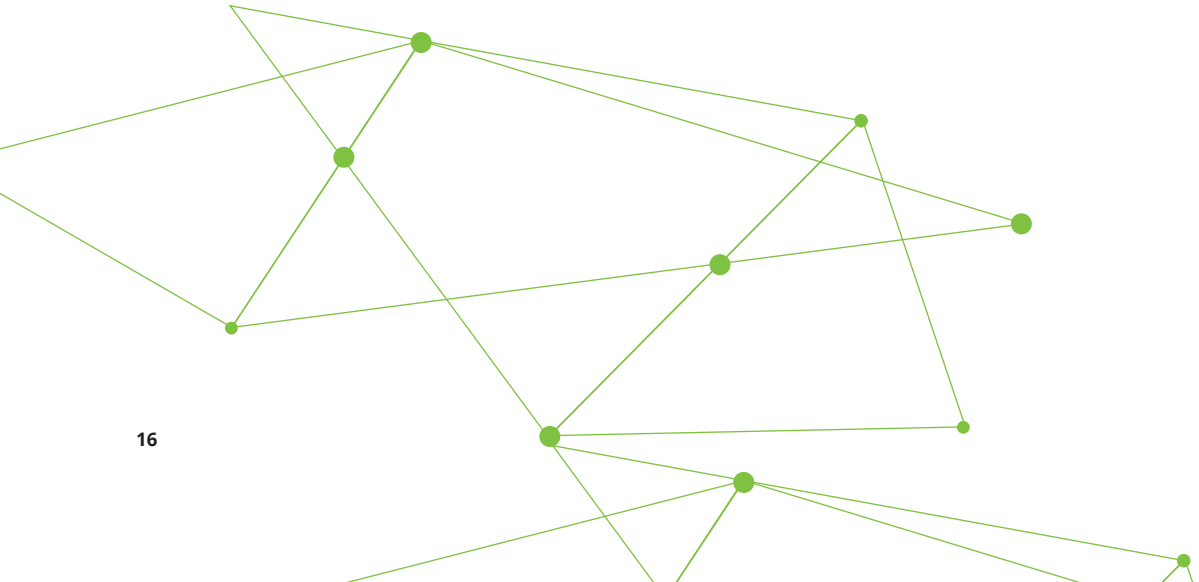


Figure 7: Timeline of transaction processing
Current model

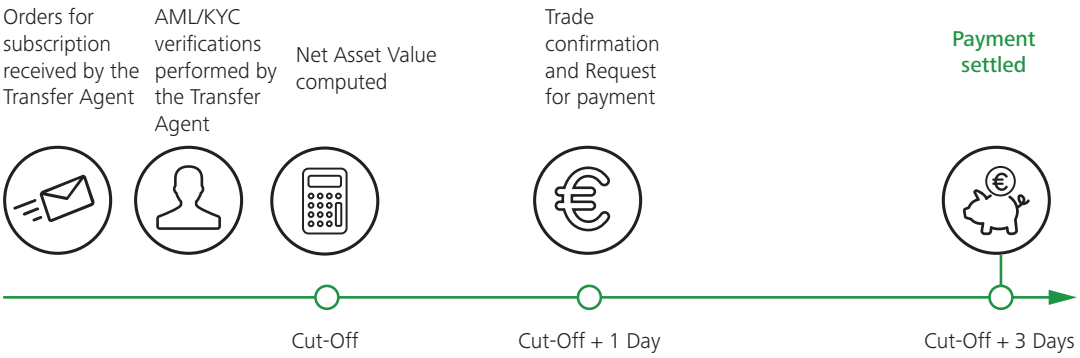


Figure 8: Timeline of the transitional model
Transitional model

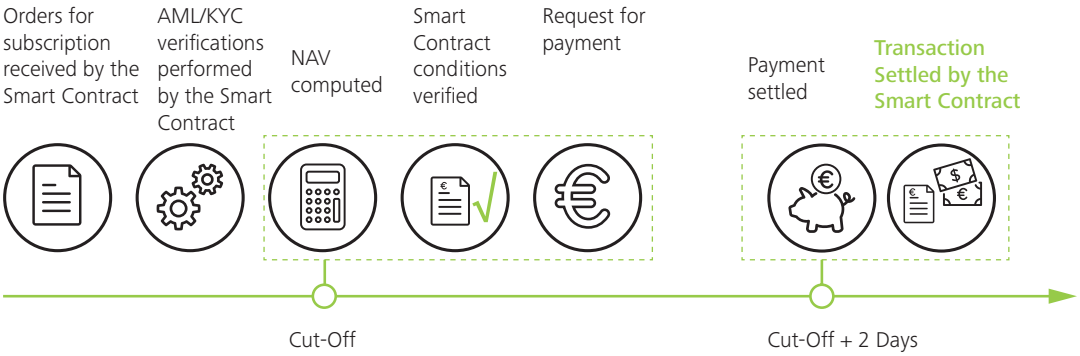
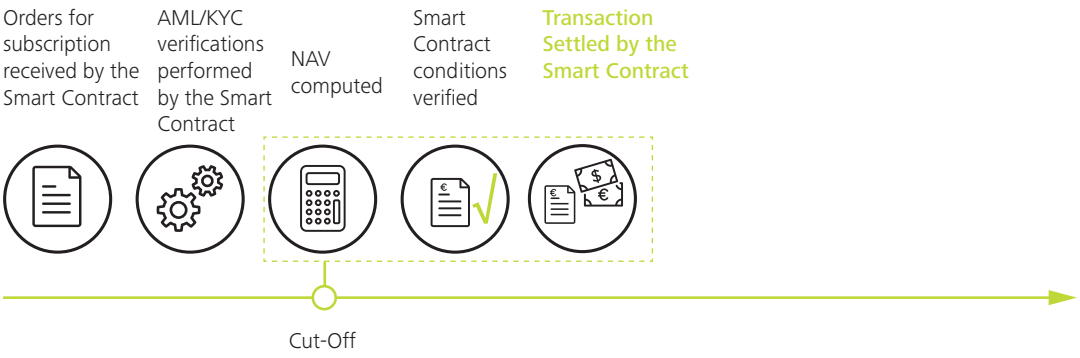


Figure 9: Timeline of the new model
New model



As we can see in these three timelines, today the main constraint regarding execution time is the computation of the Net Asset Value, which is realized after the cut-off.

2.4 Opportunities and challenges of near real-time settlement

In the future Blockchain ecosystem, when this technology would be implemented and widely used by the industry, we can foresee that transactions would be executed in near real time without the need to wait for the cut-off.

The Blockchain could generalize the Exchange Traded Funds model, where fund prices are updated on a real-time basis, and where shares can be traded instantly with stock exchanges. For the fund industry, it means that the Net Asset Value would be directly recomputed based on fund assets recorded into the Blockchain, and that fund shares will be able to be traded instantaneously.

Blockchain technology could enable those improvements for the fund industry, however, the main challenges that remain for instantaneous settlement are mainly legal requirements and the availability of fund asset information in real time.

3. Focus on AML/KYC

Blockchain technology could significantly transform the way AML and KYC controls are performed. It would bring a common repository of identities that is shared among various actors and avoid duplication of efforts linked to redundancy in controls execution. This allows the ability to manage digital identities in an efficient way for the digital world.

3.1 The future model for AML/KYC

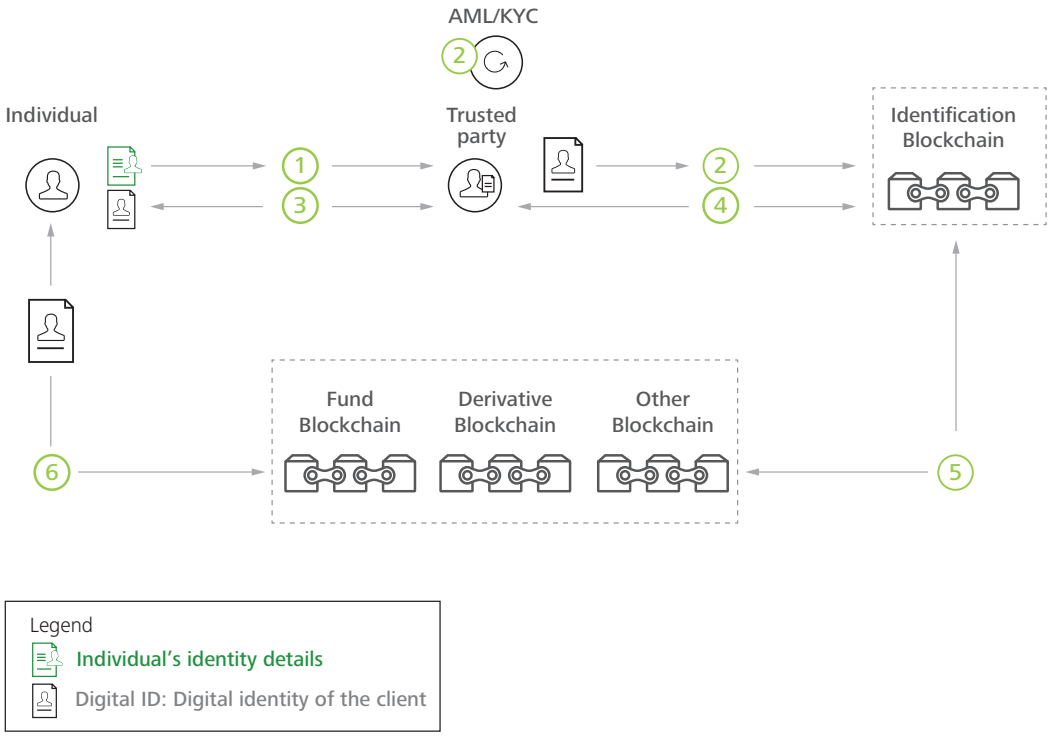
The AML/KYC process relies on several key actors and mechanisms:

- **Trusted parties** are required to perform AML/KYC and KYT[8] verifications. These trusted parties are trustworthy organizations authorized by legislation to perform the verifications (e.g. certification authority), to hold individuals' private information, and to comply with the regulation. In the future, trusted parties would perform verifications and publish the results on the **Identification Blockchain**.
- The Identification Blockchain is a Blockchain containing individuals' **digital identity**, i.e. information on an individual that is available online and used by computer systems to represent an external agent. These digital identities would be delivered to the individuals and to the Identification Blockchain by the trusted parties, after performing several verifications.
- This Identification Blockchain relies on a Blockchain model that is permissioned (transaction processing is performed by a predefined list of entities) and private (access to information and new transactions submission is limited to a predefined list of entities).
- Two types of actors would be allowed to access this Blockchain: trusted parties, who need to publish and update information on individuals, and specific applications requesting information about an individual's records or transaction details in order to authenticate and validate the transaction. Specific applications include other Blockchains (e.g. Fund Blockchain, Derivative Blockchain, etc.) used to perform predefined actions such as validating transactions. Those applications could be linked together to form a network of interconnected Blockchains.

8 KYT: Know Your Transactions (cf. Glossary)

AML/KYC processes and the generation of the digital identity are represented in Figure 10.

Figure 10: New business process for AML/KYC checks



1. The investor provides identification details (e.g. identification documents, MiFID profile) to a trusted party in order to get a digital identity.
2. If the individual is not registered yet into the Identification Blockchain, the trusted party performs the required AML/KYC checks and provides identity management services with the generation of a unique digital identity and stores it into the Blockchain. If the individual is already registered into the Identification Blockchain, the trusted party verifies that information is up-to-date.
3. The digital identity is then sent back to the individual and broadcasted to trusted parties requesting specific information about an individual's records or transaction details in order to authenticate and validate the transaction.
4. Required recurrent AML/KYC processes are performed by trusted parties (e.g. name screening against watch lists, update of risk level, re-identification of KYC documentation, customer profiling according to investment frequency/amounts, etc.)
5. The results are also automatically broadcast to all applications using this digital identity.
6. The individual is able to directly use its digital identity with other applications without going through the whole process each time he or she needs to carry out a transaction.

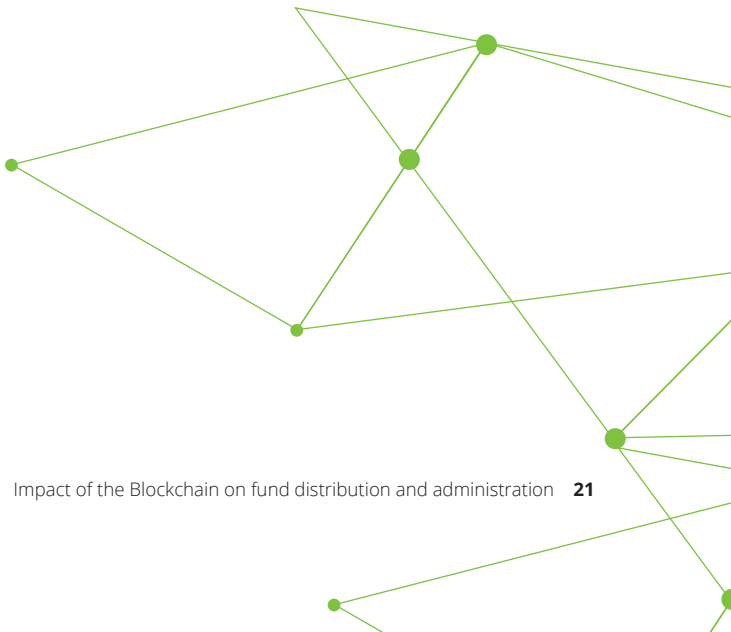
3.2 Benefits of the Blockchain for AML/KYC

The major benefits of the Blockchain for AML/KYC are that it increases transparency, enhances compliance, and enables the sharing of a common source of data. The distributed ledger increases access to information since all participants can view the entire history of transactions. This technology would secure an audit trail and enable both a mutualization and an upgrade of the underlying technologies (e.g. name screening, risk scoring, customer profiling, etc.), hence a substantial increase of the related cost-efficiency ratio.

The use of the Blockchain for AML/KYC would enforce compliance by linking entities to each other and provide a common source for digital identity. The Blockchain allows for the automation of compliance processes where transactions could only be permitted when AML/KYC evidence is qualified, verified, and published into the Blockchain. This would lead to a near real-time settlement and reduce compliance errors.

The use of Blockchain technology enables cost saving and removes the duplication effort between entities carrying out AML/KYC activities. Validated results are recorded into the Blockchain in order to share encrypted updated versions about validated information. The Blockchain provides historical records of verified information, and any attempt to alter previous data would be automatically detected. The Blockchain enables the ability to perform adequate Anti-Money Laundering (AML) and CTF[9] processes.

The major benefits of the Blockchain for AML/KYC are that it increases transparency, enhances compliance, and enables the sharing of a common source of data



9 CTF: Counter-Terrorism Financing (cf. Glossary)

4. Summary & Conclusions

Blockchain technology carries the potential to disrupt many industries, especially the financial industry. It would make trading and post-trading processes much more efficient, improve regulatory control, and remove multiple intermediaries. The technology enables transactions to be more transparent, nearly instantaneous, censorship-resistant, and without the need to trust a central party.

However, this technology would not be fully implemented in the short term; a transition phase would be required to move from the current processes to the future business model. Moreover, involvement from users is not only a necessity, but also an essential input for an effective transition.

Blockchain technology is a trending technology that would affect most business models, forcing entities to rethink their long term strategic visions. Because it is by essence disintermediated and trust-less, it makes no sense to apply this technology in isolation. Rather than launching independent projects, industry stakeholders must together envision a new financial ecosystem in order to take full advantage of the benefits of the technology and not be left aside. It is particularly true for the asset servicing industry in Luxembourg where many incumbents act as intermediaries or central counterparties. Luxembourg must structure itself in order to move forward into the new paradigm. Failing to do so could mean that a lot of existing actors would be replaced by new entrants and the country would lose is predominant position in the global fund industry.

Glossary

AML (Anti Money Laundering): A set of procedures, laws, or regulations designed to stop the practice of generating income through illegal actions. In most cases money launderers hide their actions through a series of steps that make money coming from illegal or unethical sources appear like it was earned legitimately. Money laundering behavior is usually detected using a combination of transaction analysis (amounts, patterns, frequency, etc.) also called customer profiling and name screening to identify specific counterparties to be handled as "high-risk" (e.g. Politically Exposed Persons).

CTF (Counter Terrorism Financing): Money laundering is the process where cash raised from criminal activities is made to look legitimate for re-integration into the financial system, whereas the term terrorism financing cares little about the source of the funds; the scope is defined by what the funds are to be used for—terrorist activity. It may involve funds raised from legitimate sources, such as personal donations and profits from businesses and charitable organizations, as well as from criminal sources, such as the drug trade, the smuggling of weapons and other goods, fraud, kidnapping, and extortion. Detection of terrorism financing usually involves comparing counterparties' names against official sanction watchlists (e.g. OFAC, EU, UN, etc.).

KYC (Know Your Customers): Know your customer refers to due diligence activities that financial institutions and other regulated companies must perform to ascertain relevant information from their clients for the purpose of doing business with them. The objective of the KYC is to prevent institutions from being used by criminal elements, intentionally or unintentionally, for money laundering and/or terrorism financing activities. The process of KYC entails identifying the customer and verifying their identity by using reliable and independent documents or information at onboarding time and on a recurrent basis thereafter (frequency being based on the ongoing counterparty risk level).

KYT (Know Your Transactions): KYT is a set of procedures and processed aiming at detecting money laundering and counter terrorism financing in incoming/outgoing transactions processed by a financial institution. In terms of process, both name matching (sender and recipient) and customer profiling (amounts, patterns, and frequency) are used in the detection approach.

Bibliography

Deloitte. Disruption, everywhere. Beijing, January 2016

Deloitte. Blockchain: Enigma. Paradox. Opportunity. London, United Kingdom. 2016.

Deloitte University Press: Beyond bitcoin. Blockchain is coming to disrupt your industry. 2015.

Deloitte. Israeis: A Hotbed of Blockchain Innovation. Israel, January 2016.

McKinsey. Blockchains in Capital Markets 2015.

Oliver Wyman.The Fintech 2.0 paper: Rebooting financial services. June 2015.

Luxembourg for business & Luxembourg for Finance, Surprising Lux, Luxembourg, 2015.

Deloitte, Europe's fund expenses at crossroads, Luxembourg, 2015.

Alfi, Funds, subfunds and net assets since 1990, Luxembourg, 2015.

EFAMA, Annual report 2014, Brussels, 2015.

The World Economic Forum: The Future of Financial Services - How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed. June 2015.

World Economic Forum: Deep Shift Technology Tipping Points and Societal Impact. September 2015.

Deloitte, Europe's fund expenses at crossroads, Luxembourg, 2015.

Deloitte & Fundsquare. Europe's funds expenses at a crossroads. 2015.

EFAMA, Annual report, 2014.

Surprising Lux, Luxembourg for business & Luxembourg for Finance, 2015.

Santander Innoventures: The Fintech 2.0 Paper: rebooting financial services. 2015.

Contacts

Advisory & Consulting

Simon Ramos
Partner - IM Advisory
& Consulting Leader
+352 451 452 702
siramos@deloitte.lu

Patrick Laurent
Partner - Technology
& Enterprise Application Leader
+352 451 454 170
palaurent@deloitte.lu

Laurent Collet
Partner - Strategy, Regulatory &
Corporate Finance
+352 45145 2112
lacollet@deloitte.lu

Francois-Kim Hugé
Partner - Regulatory Strategy
+352 451 452 483
fkhuge@deloitte.lu

Maxime Heckel
Partner - Operations Excellence
& Human Capital
+352 451 452 837
mheckel@deloitte.lu

Thibault Chollet
Partner - Technology
& Enterprise Application
+352 451 452 656
tchollet@deloitte.lu

Deloitte.

Designed and produced by MarCom at Deloitte Luxembourg