



**Business blockchains**

August 2019

# Introduction: Business blockchains

## What is a blockchain?

Blockchain is a distributed ledger technology that enables digital assets to be transacted and traded in real time. The record it keeps is permanent and irreversible.

## Business blockchains

Blockchain has two main applications. One familiar use of blockchain technology involves trading and managing cryptocurrencies like Bitcoin. The other main use of blockchain is for managing transactions related to trade and commerce, including finance processes like payables, receivables, and compliance. We think of these as business blockchains.

Business blockchains are being used today to help reinvent how transactions are managed. They can take time and costs out of almost any process, enabling near real-time operations. And they deliver a high degree of accuracy and control, with much less risk than many alternatives. Blockchains perform recordkeeping using automated, low-cost mechanisms. They enable asset transfer through secure, real-time methods. And they provide governance in the form of smart contracts. Smart contracts enforce contract terms such as payment, and thus enable greater trust to the record keeping.

Common finance applications for blockchains include procure-to-pay, order-to-cash, trade finance, intercompany transactions, and reconciliation. Processes that extend beyond Finance, such as supply chain management, asset tracking, warranty service, and regulatory compliance can also be streamlined using blockchain technology. Business blockchains can operate as standalone solutions, but the value realized increases significantly when they are combined with other technologies, such as machine learning or Internet of Things, to reimagine an entire end-to-end process.

## Market trends

Deloitte currently sees a strong trend in the attitude towards usage of blockchain based

applications. The recent Deloitte Global Blockchain 2019 survey shows that more businesses see compelling use-cases with blockchain as an enabler. Further, the survey showed that:

- 91% of respondents believed they would achieve measurable, verifiable return on blockchain investments within 5 years.
- Respondents' overall attitudes toward blockchain have strengthened meaningfully with 83% seeing compelling use cases
- 86% or more of respondents agreed with each of the following statements:
  - "Blockchain can enhance our integration toward more "touchless" business processes"

- "Blockchain will enable new business functionalities and revenue streams in my industry"
- "Blockchain technology is broadly scalable and will eventually achieve mainstream adoption"

The full survey can be found [here](#). All that said, blockchain is a new and nascent technology. No one has put it all together yet. There is time to explore your options. Here, we deep dive into three use cases of blockchains in Finance<sup>1</sup>: Streamlining the procure-to-pay process<sup>2</sup>, enabling automatic and near real-time VAT settlements, and aiding<sup>3</sup> treasury within Finance departments.



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# How business blockchain helps streamline procure to pay processes

By improving communication between entities and their individual systems, business blockchains will help companies overcome challenges in the procure to pay (P2P) process.

In Deloitte, we typically see P2P process improvements as a project within companies themselves and with little focus on collaboration with external stakeholders (for example vendors, sub-vendors and banks). In theory, the communication between stakeholders during the process should be simple with existing tools provided in today's world.

In reality, the process is often troublesome and time-consuming. Issues often occur because the buyer and the seller operate with different sources of the same truth – one in each of their individual ERP systems. This can lead to inconsistent information between stakeholders and their systems, resulting in increased costs or wasted time on controlling and reconciliation.

We see business blockchain for finance as an enabler to create a transparent communication platform with verified and aligned data across entities. A distributed database that provides a unique single source of truth between buyer and seller (and others), which can help overcome communication challenges.

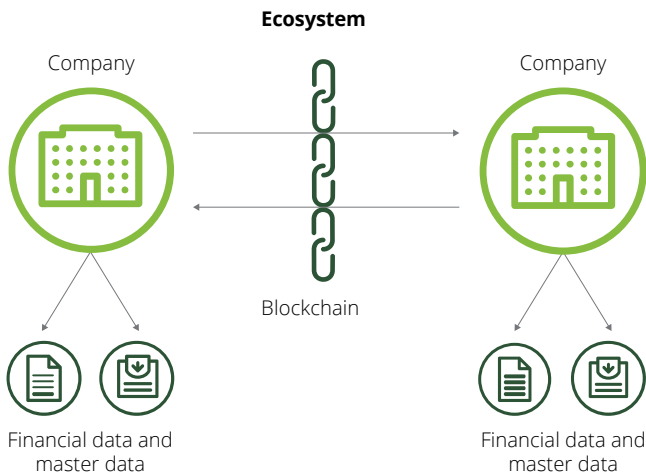
## One single source of truth between buyer and seller enabled by a shared and distributed platform and an enclosed record of transactions

In a corporate world where information is **decentralised** across companies, it is unavoidable that information sometimes is not aligned. Inconsistency between databases can occur because of manual registrations of information from e-mails, or missing updates of master data.

Business blockchains on the other hand are **distributed** databases shared between participants. Since blockchains only appends data, not changes, consent materializes across the network. It consequently provides a full and verified record of transactions in a chronological format, shared in real-time.

If we were to use **blockchain on our own P2P process in Deloitte**, we would enter the number of hours worked on the client for the month on the blockchain as a proposal for an invoice. When the client accepts the number of hours, the hours are posted to the blockchain, and the smart contract (explained in the following) executes the invoice creation based on the agreed hours and prices.

**Review and detection of mismatches between purchase order and sales confirmation before or upon delivery of goods** is a known issue in P2P. Depending on when the errors are detected, miscommunication between the two entities could result in



increased costs or delayed production as wrong goods are sent or have already been delivered before the sales confirmation has been read. Using a business blockchain to agree on the details of the order (quantity, place and time of delivery etc.), the confirmation is created automatically on the blockchain based on the agreed data, thereby removing the risk of a misaligned confirmation.

Moreover, business blockchain provides the **possibility to use smart contracts**. Smart contracts can minimize manual errors by automating actions and validation and can execute data transfers to the stakeholders' ERP systems. In essence, smart contracts are macros running on the blockchain that perform a process when certain conditions are met, for example payment after 30 days.

Execution of data transfer to the ERP systems happens via smart contracts when buyer and seller agree on for instance price and payment terms. The entities will now have the correct, updated master data in their systems to base their orders and pricing on, removing the risk of errors originating from master data that is either poor or has not been updated. This also optimises the reconciliation process afterwards.

What are the current challenges that we face? There are two main groups of challenges: human and technical. The human challenges revolve around trust, governance and change. Close collaboration and trust between two or more entities are needed to work on the project together and share data. As some of the data in the blockchain could reveal business models or close partners, the stakeholders must trust the encryption and security built into the blockchain. We see that the technology provides us with new possibilities, but it requires a change in our mindset regarding sharing and collaboration.

Agreement in relation to governance and engagement rules between participants are also still a hurdle that needs overcoming. We see that engagement rules are difficult to agree on when the number of participants increase. However, the possibility of blockchain is now fuelling the discussion of what the joint governance models could look like. For employees involved in the P2P process, there is also a significant change involved, as their ways of working will change.

On a technical level, integration between the blockchain and ERP platforms should also be addressed, as the connection needs to be able to function with a variety of ERP versions as well as be able to handle the potential volume of transactions.



## Case

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How business blockchain  
enables automatic and near  
real-time VAT settlement

# How business blockchain enables automatic and near real-time VAT settlement

Business blockchain can automate VAT settlement and reporting. This is achieved by distributing validated invoices between relevant parties (e.g. buyer, seller and tax authorities) using blockchain.

National governments are losing billions of euros in VAT and responds with increasing compliance requirements. VAT is the key revenue driver for tax authorities and the largest contribution to governmental budgets. Therefore, the incentive to search for ways of more effective VAT collection is big. Globally, we see a trend that governments demand more transparency forcing companies to report as granular as line items on invoices. Some of the most advanced solutions are present in Brazil, Mexico and Hungary sharing a clear global trend where governments demand more transparency, some tax authorities even demand transparency in near real-time.

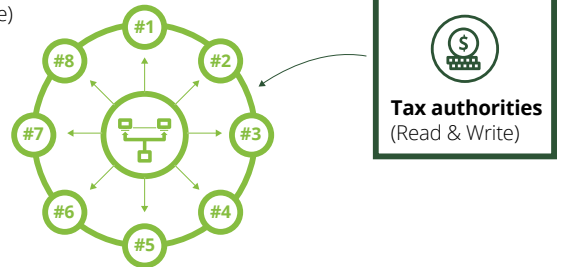
On both international and national level, the VAT system is fraught with a variety of problems. It is highly reliant on businesses themselves to correctly settle the amount of VAT and submit it to tax authorities. In addition, VAT is settled over a fixed period, for example, monthly or quarterly where misalignment on which dates count (e.g. invoice date or posting date) increases complexity. This makes controlling of VAT data troublesome as each company maintains their own ledgers and time their VAT settling differently.

Blockchain provides some interesting features, which could help counter these complications, by providing one single source of truth and the possibility to distribute information between several parties in a secure way. We postulate that these features could enable a better automatic VAT reporting in real time. Hence, the future of TAX reporting could be less rigid, complicated and more resistant to fraud. We believe that instant VAT reporting and automated VAT settlement based on two-sided validated invoices could heavily reduce the missing trader intra-community fraud (MTIC) of 50-60 billion euro every year. If a blockchain-based solution could bring just a fraction of the exorbitant amount back, the business case is a no-brainer.

## Digital invoices platform as the single source of truth for automated VAT settlement and reporting

When settling VAT transactions, invoices play a significant role, and this will not change on a blockchain-based solution. However, blockchain allows us to store digital invoices on the shared ledger that both seller and buyer have verified. On this immutable data foundation, smart contracts execute programmable processes with the possibility of automating of the VAT settlement and route it directly to the tax authorities.

**Business network**  
(Read & Write)



Business networks work as semi-closed environments where participants share and validate data.

This setup could help avoid situations where:

1. VAT reporting relies on individual businesses to correctly settle VAT amounts (e.g. in excel).
2. VAT statements are submitted in discrete time (e.g. monthly or quarterly submissions).
3. Risk of wrong or fraudulent submissions will be highly reduced.

**How would an automated VAT reporting setup look like?**

As the picture below shows, tax authorities receive information about the transactions weeks or months after creation. For the authorities this delay in information affects reporting as well as detection of fraud. For the companies the process means that the gains in refunded VAT are compared to the effort in documenting and applying for it.

In the proposed setup illustrated below, both buyer and seller will report the same VAT information based on an aligned and two point validated invoice with data and information aligned. Everything from the final invoice to the instant update of VAT balances are done automatically and stored digitally on the blockchain with a clear and transparent audit trail.

**What is holding us back?** Implementing blockchain would require changes to legal systems, reforming laws on IT systems, intellectual property and legal identity. Challenges listed below (not exhaustive) are some of the questions that need assessment:

- VAT legislation is highly complex. Tax law is ambiguous and a moving target because rules and guidelines continuously change. Hence difficult to update underlying rules (in smart contracts) for automated VAT settlements.
- Cross border trades are notoriously difficult in a VAT perspective. If countries were to consider a full-scale solution including cross-border transactions there will be a need for EU enforced guidelines and reforms requiring a willingness to collaborate and strive towards a common solution across countries.
- Business Blockchain requires strong governance principles. Should the EU set governance principles or should local governments? Is it possible to have a uniformed governance without compromising the fundamental idea of decentralization that blockchain advocate for (EU, Local governments and/or companies)?
- Who should own the solution? A setup should be built, updated and integrated with other systems. Who will own this responsibility (EU, Local governments and/or companies)?
- Why should companies participate? Numerous reports show that companies (mainly larger corporations) yearly miss out on significant VAT amounts. An improved and automated solution could mitigate this. Hence, a financial incentive for companies to strive towards a VAT blockchain solution.

The listed challenges can seem overwhelming and cumbersome. However, we believe an important question to keep in mind is – do we see a clearer resolution or alternative if we want to close the enormous VAT amount being lost each year?

**Months**

**Minutes**





Case

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# How blockchain aids treasury within finance departments

# How blockchain aids treasury within finance departments

By bringing all parties across companies into a single platform to allow sharing of real-time information and automated intercompany reconciliation, blockchain can enhance corporate treasury functions.

Key challenges in treasury still exist. According to Deloitte's 2017 Global Corporate Treasury Survey (see link here), we see that treasury departments struggle with a variety of challenges that have persisted throughout the years. Over 200 corporates participated in the survey, and three of the key challenges experienced by the respondents were:

- Problems with FX volatility/fluctuations (53 per cent)
- Visibility into global operations, cash and financial risk exposures (43 per cent)
- Problems with either cash repatriation or liquidity (40 per cent).

For a deep dive into some of the above key challenges, we suggest reading our point of view on intercompany accounting (see link here).

To better understand these challenges, we will look at the process of intercompany trade across borders. When products move from country to country, the asset value of the product is typically booked in the ERP system of the intercompany trade partner in local currency. In our example, the asset is created and booked in Singapore in SGD. The asset will be sold to Germany (for further development) and then completed in Denmark.

Singapore			Germany			Denmark	
Debit:	Products	›	Debit:	Products	›	Debit:	Products
Kredit:	100 SGD		Kredit:	20 SGD		Kredit:	13 EUR
			Debit:	13 EUR		Debit:	13 EUR
			Kredit:	Products		Kredit:	97 DKK
			Profit:	2 SGD		Loss:	1 EUR

During the chain of transactions, several challenges could arise. Currency fluctuations are one of these, as shown in the diagrams above in the loss/profit at each point of transaction. While the transactions themselves are not difficult to handle, they are still time consuming for modern treasury functions to reconcile. For every touchpoint in the supply chain, humans must interact to ensure that the books are aligned across companies. The more touchpoints in the supply chain, the more time is spent on reconciliation. Our

customers experience the following problems when it comes to currency fluctuations and ERP systems:

- The same FX rates are used in ERP systems across geographies or companies, but the value of products changes due to market volatility or fluctuations in the actual FX-rates.
- Different countries have different FX rates loaded in their ERP systems for the same currency pair, which leads to inconsistencies between accounts.
- Different parties across companies can also have different functional currencies in their ERP systems, which makes it difficult to reconcile transactions.

As described above, products are being moved around all the time across companies. The net FX exposure is therefore ever-changing. For every country the company does business in, the larger FX risk it exposes itself to. Today, companies must monitor every combination of FX exchanges for the countries they do business in. Due to the sheer nature of different currency combinations, it is currently difficult to monitor FX risk in a global company without a proper tool to account for the ever-changing FX exposure.

Finally, a challenge arises with the actual transfer of money between the trading companies. At the moment, the only way to transfer money is through banks. It can take a bank one-five days to process a transaction, depending on the countries involved and the banks used for the transfer. This can create a gap in the audit trail of the money flow. The gap poses a problem as:

- It complicates reconciliation
- It impacts liquidity and visibility
- Bank fees are increased due to high volumes and high frequency of transfers

To complicate the matter further, 28 per cent of the companies in Deloitte's 2017 Global Corporate Treasury Survey replied that they currently have no system in place for FX and interest rate risk management, and 7 per cent had developed their own solution. Adding to this, knowledge about next-generation technology enablers was scarce, as 54 per cent were still trying to understand or did not at all understand the concept of blockchain.

### Corporate coin as an enabler for treasury

In Deloitte, we see blockchain technology as a tool for bringing all parties involved in intercompany settlement onto the same platform. This will allow one source of truth by way of a single currency in the form of a corporate coin (CC), facilitating treasury functions to become more efficient. A proposed solution follows below.

CCs can be created as an intercompany digital currency used for the settlement of intercompany transactions. We propose a solution where all intercompany transactions are settled with CCs on a blockchain. To understand the solution, you can compare CCs to bank notes. Today, we use bank notes to settle transactions, and we imagine a set-up where intercompany transactions are being settled with a digital fiat currency that is connected (tokenised) to the liquid assets in the company.

We imagine that the exchange rate – and thus the value – of the CC is fixed to a common currency used in the company, for example the company's operating or reporting currency. Fixing the CC's value makes it easier to monitor risk as well as reconciling accounts. Some companies have already implemented a similar solution where transactions are settled by way of an in-house banking model. While this solution solves some of the existing challenges, it still falls short in other areas of the intercompany trade process:

- The solution does not eliminate FX risk.
- The solution needs monitoring to ensure accordance with transfer pricing regulations.
- The solution does not always make it easier to monitor FX risk.

On a blockchain, both parties need to agree on a transaction before it is recorded. The process is simplified with smart contracts enforcing an agreed set of fixed rules within the companies. All transactions on the blockchain are distributed to all parties in the company and are immutable. Since all transactions are visible on a need-to-know basis, a common source of truth appears within the companies, and miscommunication is minimised. To understand how blockchain can minimise miscommunication, you can read the first included article about the procure-to-pay (P2P) process.

### Corporate coin in treasury

We see business blockchain for treasury as an enabler for creating a transparent communication platform with verified and aligned data across multiple entities - a distributed database that provides a unique single source of truth between parties across companies.

Moving products internationally becomes simpler, as the asset's value remains the same when being moved across companies with its value in CCs. Since all transactions are settled in CCs, there is no profit or loss that needs to be accounted for.

Singapore			Germany			Denmark	
Debit:	Products	›	Debit:	Products	›	Debit:	Products
Kredit:	100 CC		Kredit:	100 CC		Kredit:	100 CC
			Debit:	100 CC		Debit:	100 CC
			Kredit:	Products		Kredit:	100 DKK
			Profit:			Loss:	

By using the same currency for all transactions intercompany, exposure to FX risk is limited. Due to the smart contracts imposed on the blockchain system, whenever a company in another country receives a product, it automatically sends the appropriate number of CCs. This solution limits the exchange of fiat currencies, which leads to a decreased need for clearing and settlement by external banks. This has several benefits:

- It improves liquidity, as money remains in the company.
- The time gap between transactions is reduced, since there is no need for a bank as an intermediary for these transactions.
- Exchange and bank fees are minimised, as the volume of transactions is reduced.
- Lastly, monitoring FX risk becomes significantly easier. Exposure to foreign currencies is limited, since all transactions are settled with CCs. Instead of exchanging fiat currency on a per-transaction basis, it can be exchanged on a monthly or yearly basis.

### What is holding us back?

We see three key difficulties with a full-scale CC solution:

- Transfer pricing regulations by governments
- Connecting the blockchain to ERP systems
- Exchanging CCs to fiat currency.

**Transfer pricing regulations are complex.** If countries were to consider a full-scale solution, including cross-border transactions, there would be a need for enforced guidelines and reforms by the local governments. A full-scale solution requires a willingness to collaborate and strive towards a common solution across countries.

**Connecting the blockchain to ERP systems is required.** We envision business blockchains working as a shared solution that connects current systems within each company. On a technical level, the connection needs to be able to function with a variety of ERP versions and be able to handle a potentially large number of transactions. We see a problem with the integration between the blockchain system and the ERP systems.

**Exchanging the CCs to fiat currency needs to be done at some point.** While intercompany transactions can be settled with CCs, employees and external partners still require fiat currency. An exchange agreement with a bank is therefore required to convert CCs into the local fiat currency. Further this can prove to be a challenge for restricted currencies.

Case

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# Setting up a business blockchain

# Setting up a business blockchain

Blockchains have many uses within Finance, as the previous articles have shown. Here is how to start developing a business blockchain proof of concept (PoC) and how to lay the foundation for a minimum viable ecosystem (MVE).

As blockchain technology matures, we have seen a rising interest from CFOs in using blockchain technology. In the latest Deloitte CFO Survey of 2018 for the Danish market, the percentage of CFOs who find blockchain relevant has increased from 44 per cent to 88 per cent in a single year. The survey can be found [here](#).

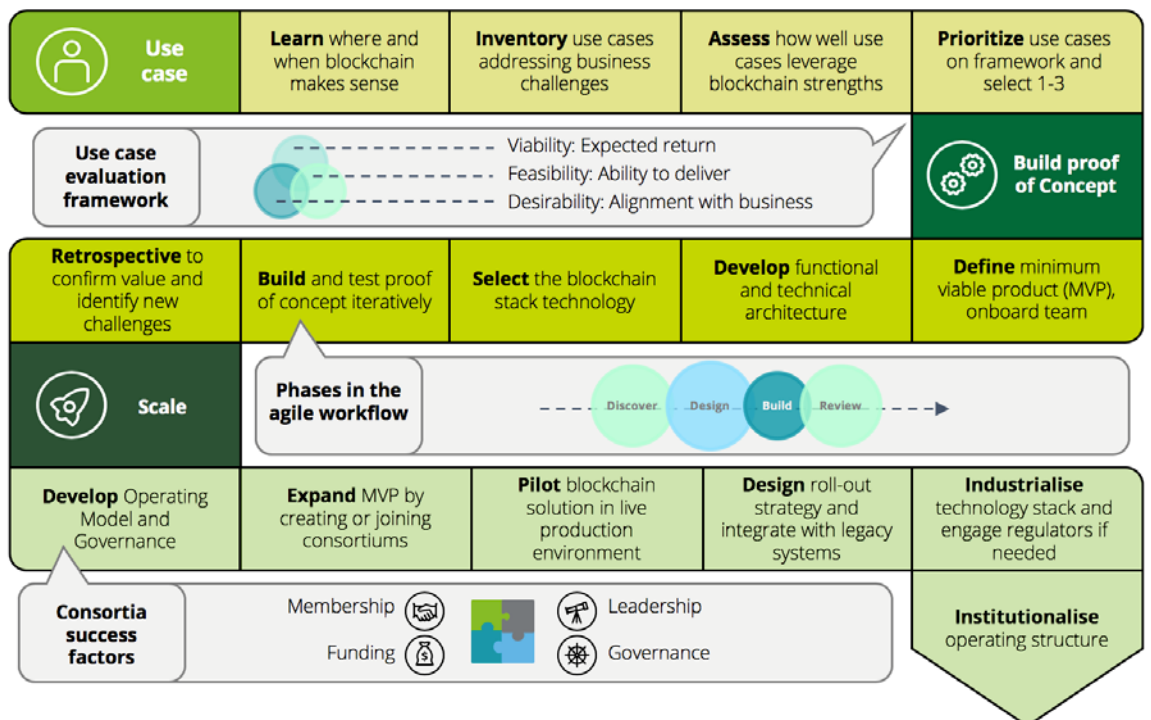
When companies consider the possibilities for blockchain solutions, they use the phrase: think big, start small, scale fast. Later, we will provide examples of how blockchain projects are executed throughout the world.

We recommend starting the journey by developing a use case guided by fitness factors. These factors help you determine whether blockchain technology could be a viable solution for your use case. Some of the most important fitness factors are the number of participants in the ecosystem, the complexity of the business purpose, recordkeeping and regulatory compliance and the need for real time transfer of assets or payments. Here, we will use the procure-to-pay (P2P) use case.

In the first article, we explained in depth why the P2P process is a viable use case for a blockchain solution. However, one of the most important aspects of the P2P process fitness score is that it contains several participants in terms of sellers and buyers. A use case can be constructed for the top three vendors of a company and expanded to the rest of the company's vendors and the vendors of the vendor. Furthermore, P2P has a relative complex business purpose as it encompasses multiple forms of communications between the stakeholders in the company, the distributors and the ERP systems. A blockchain solution also provides a better way to record data in the process, which is not currently available due to constraints in either the ERP systems or the lack of trust between the entities. Lastly, blockchain allows for real time transfer of assets, information or payments (if the companies agree), all of which are components of the process. Looking at the P2P process and reviewing it using the fitness factors, we therefore see it as an ideal and important process to design a use case and solution around.

Below, Deloitte's blockchain roadmap shows generic activities during a project from use case to developed and functional solution:

The Deloitte project roadmap for blockchain solutions



**Building the proof of concept**

After defining the use case, a basic premise in the project framework is that the journey for a blockchain solution starts with creating a minimum viable product (MVP) as well as a minimum viable ecosystem (MVE).



MVP is a term that is typically used within agile development, where the mantra is “fail fast and learn”. This also goes for blockchain development - however, it is also important to consider early in the process who the minimum viable ecosystem (MVE) should consist of. An example of an MVP for the P2P process is to send and receive invoices with up to five line items. In P2P, we define the MVE by how many vendors to include on the blockchain in order for the solution to create value. In general, for businesses with few strategic vendors, the required amount is less than for companies dealing with a vast variety of vendors. After defining the MVP and MVE, the process of building the PoC starts. Though the MVE might have been set at multiple vendors, it is not necessary to include all vendors from the beginning. However, there should be a clear plan for including multiple vendors to achieve the defined MVE. Besides selecting the possible participants in the MVE, the ground rules of who is

responsible for maintaining code, how to maintain code, adding and removing members, division of cost etc. are some of the more practical matters that you need to consider.

**Blockchain is all about humans**

Setting the right team is paramount, and this also goes for blockchain projects. The following chart shows a specific example of roles that need to be involved in a P2P project.

Collaboration must start at a strategic level, as a blockchain solution means a move from a silo-based approach to cross company collaboration for most companies. In the P2P example, it is natural to include the CFO, but the matter will likely be on the agenda of the CEO or chief strategy office (CSO) as well. Below the strategic layer, parallel teams from the buyer and the vendor consist of a project lead who coordinates with the strategic layer and subject matter experts (SME). The SMEs represent both the business and the technology as it is pivotal to include representatives from the affected business units in order to ensure buy-in and a feasible solution.

With the right stakeholders engaged, the process now moves further down the framework, and the iterative process of building the PoC begins. As the process moves forward, the SMEs engage in every step in order to ensure that the technology facilitates the business and that the affected stakeholders know how the new solution will affect their day-to-day operations. The next article will further explain the process and provide a timeline from PoC to scaled solution.



Case

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**Co-creation and  
full-scale business  
blockchain  
implementation**

# Co-creation and full-scale business blockchain implementation

How can companies approach a business blockchain implementation project? In the following we focus on how to progress from designing and building a qualified proof of concept (PoC) to establishing an ecosystem and, moreover, on how to expand the PoC to a full-scale and commercialised enterprise solution.

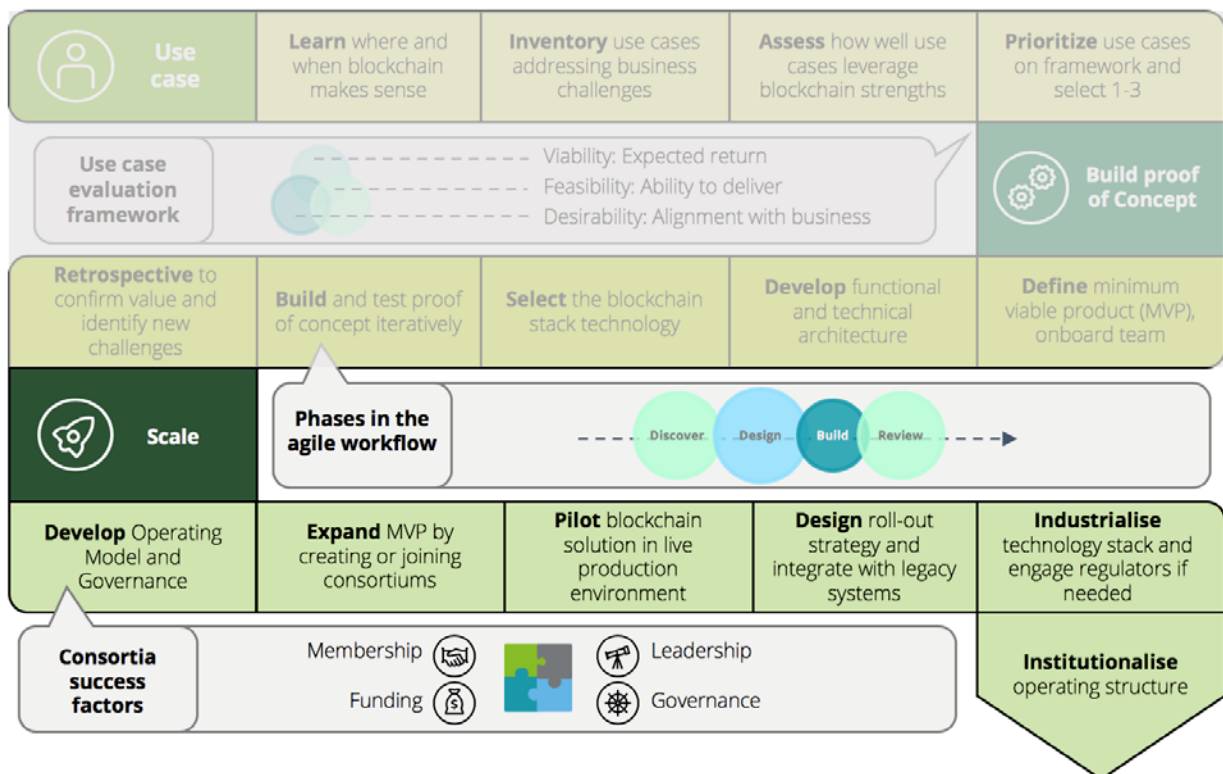
After a promising use case has been defined, any blockchain project should move into a PoC phase. The main purpose of building a PoC is to build an actual solution that can be tested and validated under conditions similar to a real environment. Focus in the previous articles has been on these two steps: defining the use case and building the PoC.

This article focuses on how to advance from a tested and accepted PoC to a full-scale solution that includes several participants. This transition is obviously the most complicated. When the number of participants increases, it induces complications in terms of technical durability, legal considerations and necessary collaboration between stakeholders during and after the implementation.

Deloitte suggests an implementation approach where the minimum viable ecosystem (MVE) and the minimum viable product (MVP) are created and validated by positive test results in a pilot environment.

This is carried out by expanding the ecosystem to 3-6 participants, one at a time, to test and reach the MVE. Expanding the ecosystem is done based on a refined PoC solution.

Evolving the MVP and MVE serves the purpose of continuously refining the platform and its functionalities to ensure acceptance before going live. In terms of legal aspects, a lasting and harmonised operating governance model should be created and accepted by key participants.





**Timeline and activities in a co-created setup of a full-scale blockchain implementation**

The timeline for a full-scale blockchain implementation project is not entirely different from a normal project timeline. The implementation goes through different stages that serve different purposes. The detailed activities within each stage depend on the chosen project approach – traditional waterfall approach or agile implementation.

In the below timeline, the PoC phase (Build – MVP and MVE) has been included to illustrate and stress that a blockchain project should always start by assessing the durability of the fundamental idea or use case. The MVP and MVE should be the starting point for expanding the solution.

In Deloitte, we advocate an agile approach to developing the MVP and MVE – fail fast and learn. The project timeline consists of six stages that can all be carried out in sprints using an agile implementation method.

In addition to the core stages in the implementation (development and implementation of the solution), there is a legal operating model track.

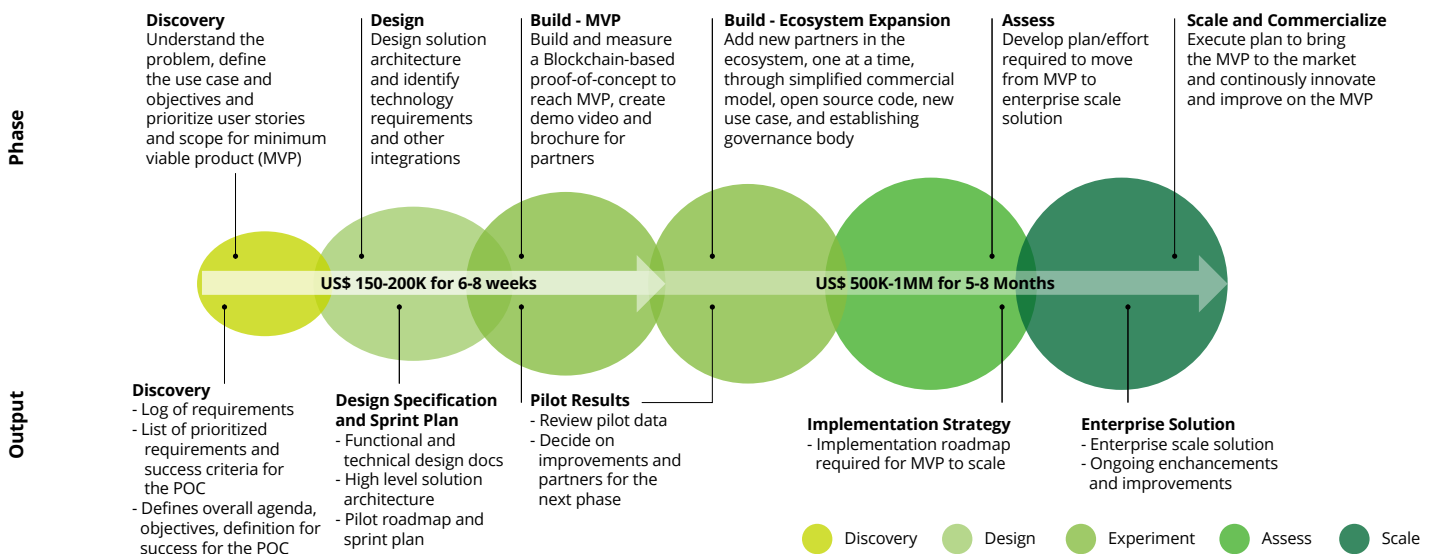
**Build – MVP and MVE:** this is where we build and measure our blockchain-based PoC. If we continue with our example from previous articles, this would be our procure-to-pay process (P2P). In this example, the results from building and testing our procure-to-pay PoC should bring us closer to the final solution. Insights and results from the build phase should be reviewed with consortium partners and together ensure an improved and refined solution before entering the next phase.

**Build Ecosystem Expansion:** in this phase, we add new partners to the ecosystem. Normally, we do this one partner at a time based on a simplified commercial model. It is also at this stage we review and stress-test the established governance body. It is often in relation to setting governance principles that we experience the first discussions and misalignments between involved parties; we strongly advise not to neglect this part and process early on.

**Assess:** in this phase, we develop a plan and outline technical requirements for moving from MVP and an expanded pilot environment to a full-scale enterprise solution. The outcome should be a clear implementation strategy with a roadmap and defined requirements for newcomers. This is both in terms of the technical solution and the legal side of the consortium.

**Scale and commercialize:** here, the consortia finally execute the plan to bring the MVP to market and continuously innovate and improve the MVP. Ongoing enhancements and improvements should be made and implemented as the number of members in the consortium increases.

**Legal Operating Model:** throughout the implementation, there will be an ongoing and important legal and governance track within the project. Discussion could or will involve ownership rights, technical update procedures, cost split and allocations, legal requirements for onboarding additional participants, etc. The outcome should be legal and governmental policies and fundamental guidelines that are developed in collaboration and accepted by the MVE.



**Implementation success depends on cross-entity collaboration and clear governance principles**

The true value from blockchain emerges when several companies use the technology to communicate, share and align information. Moreover, the value exponentially increases with the number of participants. From a pure value perspective, these are interesting features. From a project implementation perspective, the higher number of stakeholders can induce some challenges.

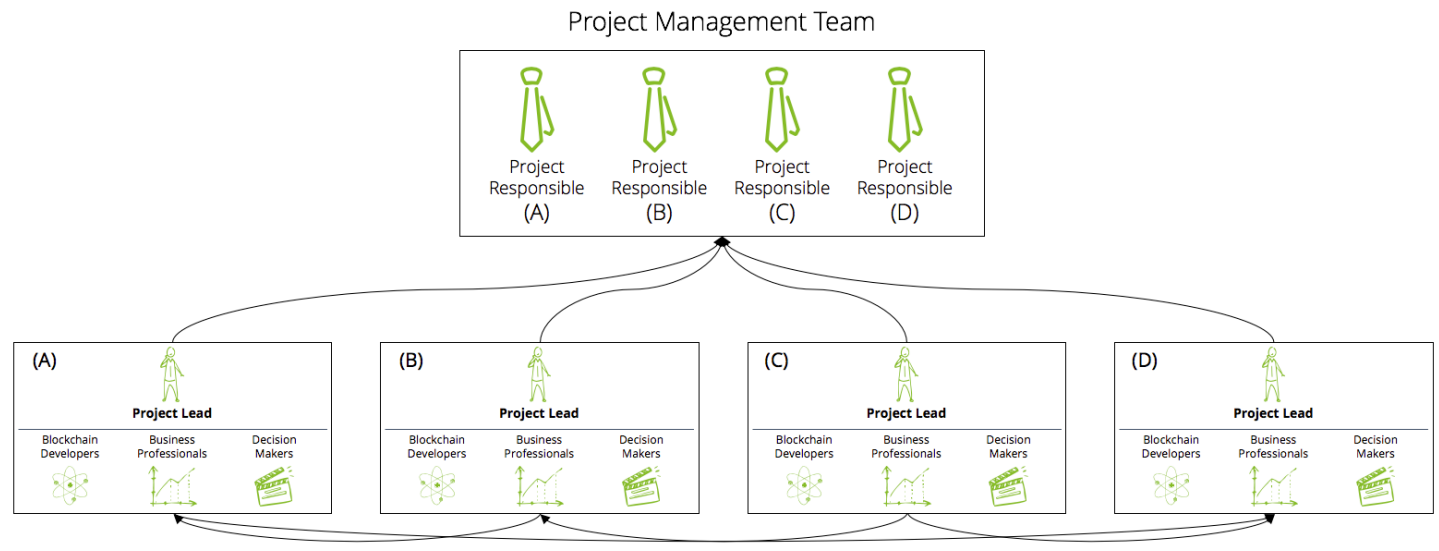
The model below highlights the complexity of a blockchain implementation project. A full-scale implementation requires involvement from participants from different entities. Moreover, within these separate entities, independent projects and agendas that are ongoing can be disconnected from the overall project. This means that the implementation takes place in a complex vertical and horizontal collaboration matrix.

This calls for strong and clear responsibilities between project participants. We suggest forming a consolidated project management team that includes all stakeholders. We have experienced that this can help bring down most of the

communication silos. Moreover, from a change management perspective, it has shown to be extremely effective that all entities get uniformed and that communication from the project management is aligned.

We postulate that the number of participants in a full-scale implementation project should be limited. This could be 3-6 participants. This helps and eases the communication and collaboration in the implementation phase. In addition, 3-6 participants ensure that the legal operating model is not specified by only one or two actors. Hence, there is a greater possibility that participants later will accept the defined governmental terms.

Even though it can seem immense and troublesome to create and facilitate this type of platform and project, you should never forget the benefits. Keep in mind that the solution should be scalable, cost efficient and facilitate close and beneficial collaboration between relevant stakeholders. In Deloitte, we advocate that companies should start or accelerate their blockchain journey and reap the positive benefits in the future.



# Get more insights: Reach out to Deloitte Consulting

In Deloitte Denmark, we have a dedicated group of finance consultants exploring how business blockchains can be used to improve finance functions. For links to additional information, for example academic papers, blogs and podcasts, feel free to reach out to us:

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