Consortium Formation

Overview

Focus Areas

1. Prevalence of consortia in scaling blockchain solutions
2. To join or not to join a consortium
3. Blockchain consortia landscape
4. Different consortium elements and deliverables
5. Blockchain consortium business models
6. Navigating the pre-consortium agreement: key to-do's
7. Navigating the pre-consortium agreement: key considerations
8. Learning from others: key lessons

Tools and Resources

9. Main steps to take when forming a consortium
10. The pre-consortium agreement: issues to resolve

Overview

Among and across supply chains, one common approach to blockchain exploration and adoption that has emerged is to form a consortium among multiple stakeholders with the intent to create, deploy, accelerate, and scale industry-wide solutions. The consortium model allows participants to take advantage of blockchain technology by balancing the benefits, which often include allowing competitors to collaborate to create decentralised networked solutions to solve shared problems, while also protecting their competitive advantage individually, keeping sensitive data confidential.

As this technology continues to emerge, the consortium approach can take Research and Development (R&D) to the next level beyond what an enterprise may be able to achieve alone to develop new blockchain solutions that address specific supply-chain use cases. The consortium can evolve as the solutions are deployed to encourage adoption, create standards, and interoperate with other business organisations and additional consortia. For example, a proof-of-concept (PoC) may start out in-house at a single company or with a small group of participants within an industry, then grow over time in terms vertical and horizontal participation, technical sophistication, or both.

1. Prevalence of consortia in scaling blockchain solutions

Why do supply-chain organisations often form consortia as vehicles to explore the potential of blockchain? What about the technology lends itself to this collaboration model in particular?

The module Ecosystem emphasised the importance of proving the business value of blockchain for all stakeholders, not just an organisation. It also explained the key drivers with blockchain technology that encourage collaboration; in that blockchain is the ultimate distributed networked technology that offers the opportunity to re-allocate trust in a decentralised manner, and collaboration is required to reap the benefits. This module will focus on consortia - one prominent method and model that organisations are using today to organise collaboration and create network effects – and more specifically on the early stages of consortium formation.

Collaborative business structures are not new. Joint ventures (JVs) and consortia have operated for decades. So what is it about blockchain that particularly lends itself to consortium-based business arrangements?

One hint lies in the longstanding history and culture of open technical standards[47] – an area of technology that has largely operated on a consortium model dating back at least to the 1990s. These types of business arrangements have continuously and successfully operated for years.

As blockchain technology has emerged beginning with publication of Bitcoin whitepaper in 2009[48] and more recently started to gain traction, many of the popular distributed-ledger protocols have also been openly licensed. To support the development, use, and interoperability of these protocols, industry consortia have coalesced around them, extending the organisational structure and tradition of open-source software previously established in projects like the original development of the World Wide Web and Linux operating system.

Of course, JVs exist throughout many different industries. Yet a looser consortium model is increasingly prevalent in the blockchain space, even in lieu of a more formal JV, because in many instances the latter is just too complicated. In the 2019 Deloitte Global Blockchain survey,[49] 81% of the participants surveyed responded that they are already participating in a blockchain-related consortium or will join one in the next 12 months.

The consortium model is especially useful as a way for competitors to organise themselves[50] when approaching emerging decentralised software solutions as collaboration is needed to take advantage of the true benefits that blockchain technology has to offer. As the global business environment becomes more competitive due to emerging technologies and digital transformation, and understanding that blockchain is a team sport, "coopetition" is born.

Competitors and other participants within the same industry who are researching and experimenting with blockchain technology may form a variety of consortia to take their R&D to the next level or to develop joint blockchain digital platforms, even while remaining strategic rivals. For example, they may still compete by building rival applications on top of the blockchain platform they are jointly maintaining via a consortium.

The consortium arrangement often forms organically with a few companies or among participants in an ecosystem or even through an initiative of some

"

Blockchain-based collaboration cannot come from a single company. Industry collaboration has to proactively drive disruption, innovation, and transformation throughout the industry by identifying and modeling areas where distributed autonomous software agents can transact on behalf of people, businesses, and things.

Henrik Hvid Jensen, Senior Blockchain Adviser, Trustworks

"

participants within a single company who are interested in exploring blockchain technology further. They may start out with a PoC in-house or with a small group of participants within an industry or across a market vertical.

When such experiments succeed and begin to grow in usage, it may be necessary to work more formally with other industry competitors, suppliers, and participants to enable interoperability, set more stringent data and protocol standards, and to ensure industry-wide adoption. At this stage, the formation of a consortium is one approach.

At this point, careful thought about the consortium formation is required because the size of a consortium can grow quickly.

There are several key questions that one should consider before determining which type of consortium, new or existing, is right for the organisation. These questions include the following:
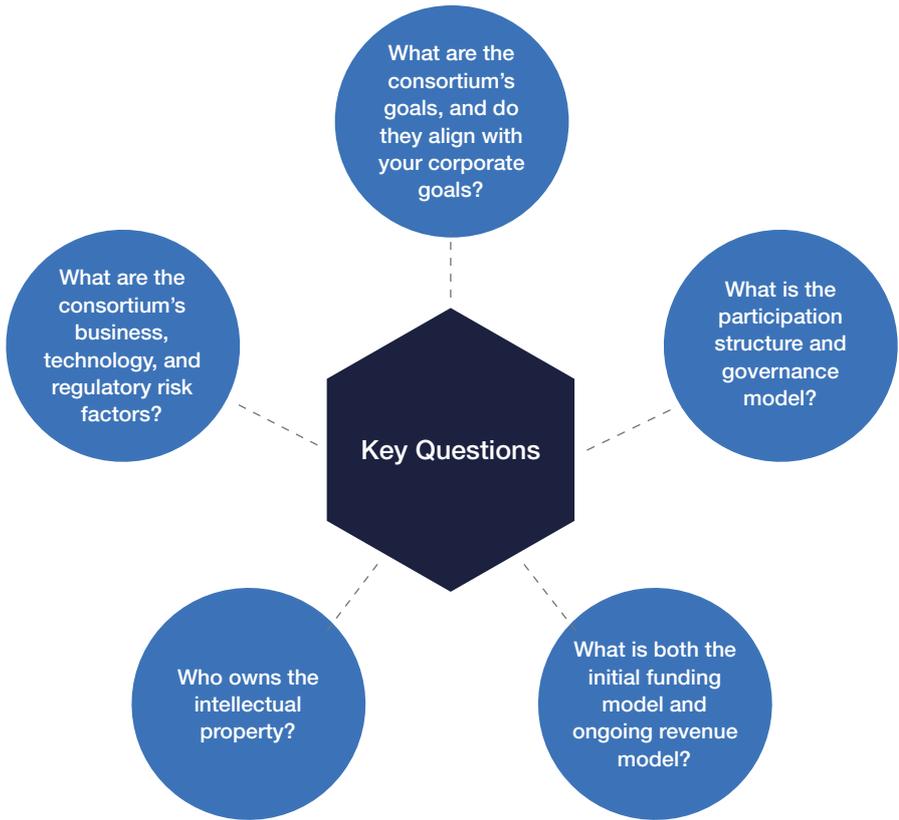
Figure 3.1 – A rapid analysis of whether a new or existing blockchain consortium is right for the use case and organisation

2. To join or not to join a consortium

Is there a blockchain consortium that is already active in the industry that can tackle a specific use case, or one already working on a similar problem?

If a consortium in the industry exists, what is its size in terms of market share? What is the progress of the consortium? These questions are essential to analyse whether it makes sense to join an already established group or form a new one. A cost-benefit analysis is therefore recommended when making such a choice.

Before pursuing a blockchain solution, decision-makers need to think hard about whether they wish to join a blockchain consortium or trade partnership that is already active in the respective industry or specific to their desired use case.

It is often substantially cheaper and less time-consuming to accept an imperfect solution over a custom one. After all, the latter tend to become useless in cases where a consortium solution eventually morphs into an industry standard.

Obviously, if organisations believe they can mount a credible challenge to existing solutions, gain critical mass to make them successful, and possibly become a dominant solution, designing and owning that solution is a viable strategic option.

To a lesser degree, the same question is true for initiatives within an organisation. If there are ongoing blockchain projects or deployments within the organisation, it is often easier and faster to leverage those existing resources before embarking on a second or third initiative that leverages a new platform or protocol. In this way, all previous investments can be leveraged.

What makes collaboration in a blockchain consortium appealing?

Much of this has to do with the very nature and architecture of the technology itself. It is often said that blockchain is a "team sport". This is because the technology is at once: a) nascent, b) distributed in nature, and c) there is necessary involvement of business people and technologists to work together to create and apply solutions. Including:

> *Convince your organisation to accept a 'shared endeavour' mindset; Blockchain/DLT (distributed ledger technology) is a team sport! Be prepared to share development, share maintenance and share operations to truly take advantage of the network effects that will present themselves. Education of the decisionmaking organisational layers in the business as to the real value of DLT is key, thereby dispelling myths associated with the technology.*
>
> **Bob Crozier,** Head of Allianz Global Blockchain Center of Competence and B3i Board Member

Nascent — Given the nascent nature, blockchain consortia must not only further develop a technology, operate within existing, often vague regulations, and determine use cases, but must also determine standards and create mechanisms for integration with current technologies and operations. Consortia often form to focus on one or two of these areas, but since blockchain is so new, all these areas must be considered, adding to the complexity of operations

Distributed — The championing of individually developed internal blockchains may be in conflict with a consortium developed blockchain due to possible sunk cost when an organisation has already developed (or planned to) create its own internal blockchain, but the consortium developed technology may be more welcomed and adopted by the industry than an individually developed solution

Open-Source — Blockchain consortia often start with open-sourced solutions, but customise with proprietary software developed specifically to be useful to and serve the entire network/consortium members

Define Standards — With blockchain being so (relative to traditional technologies) new, unsettled, and with very few production examples, there is already disagreement on simple things like terminology, and then bigger issues like which protocol is favorable, and can the protocols interact?

Interoperable Solutions — To create interoperable solutions that scale industry-wide within and across these ledgers, it is imperative for industry participants to collaborate and co-design standards and solutions

Peer-to-Peer — More than with other emerging technologies, blockchain applications are premised on networked and peer-to-peer engagement around shared distributed ledgers

Figure 3.2 – Blockchain is a team sport – it requires collaboration to truly unlock the benefits of its features

3. Blockchain consortia landscape

Which types of blockchain consortia are prevalent today?

Today's blockchain consortia are organised in varying ways and can evolve over time to accommodate more than their initial purpose. One issue to resolve and a common question an enterprise asks is whether it should join more than one consortium. The best way to frame this inquiry is to ask what business problem the enterprise is trying to solve,[52] and which group or groups are addressing these issues. It may be that more than one group or technology protocol is being tested for a particular solution, and varying levels of interoperability may exist in different protocols. Since the real world is early on in the evolution of the technology, there may be several groups to join to test different solutions.

Common ways for groups to organise can be seen as a continuum ranging from those who form around protocols, standards, business verticals, business horizontals, or government-mandated groups. Increasingly, interoperability is becoming a focal point for these groups. Because there are so many ways in which consortia are organised and different groups offer different solutions, businesses may find it necessary to join more than one consortium.

Following is one way to think about how a consortium today can be organised.

1 **Business-led and government mandated consortium:** In this model, collaborating companies or regulated entities seek to solve a common business problem or facilitate improved processes among themselves. These groups can be organised by vertical or horizontal participants.

2 **Protocol-led consortium:** This model of a blockchain consortium is formed to develop and maintain a specific blockchain protocol, usually regardless of industry or use case. These types of consortia can evolve to add business groups that address specific use cases on top of the protocol so that there are consortia or groups hosted on top of an original consortium.

3 **Standards-led consortium:** This type of consortium typically convenes participants within the same industry or field to develop blockchain standards in order to unlock interoperability and new business models. This type of ecosystem may not develop a blockchain solution at all, or it may include a variety of tech providers to test several different possible solutions.

Figure 3.3 – One way to think about the different types of consortia out there

4. Different consortium elements and deliverables

Which type of blockchain consortium should be formed?

A consortium should understand its purpose and relationships both internally and externally. The planning for this type of business arrangement requires

analysis and agreement regarding different elements of the relationship, possibly including deliverables and business structure, among other things.

Collaborative deliverables for a blockchain consortium can take many forms. The following are typical deliverables prevalent in many blockchain consortia to date. In such groups, it has so far been common for members to:

- **Design and develop a common blockchain-based digital platform and/or application for a given industry or ecosystem.** This typically starts with a joint PoC for a shared digitised platform to reduce friction, cost and accelerate adoption to test collaboration among organisations. The blockchain platform will have an agreed-upon technical architecture, platforms neutrality, and no vendor lock-in, with a goal of shared processes to reduce friction, minimise cost, and accelerate adoption. Further, a decentralised infrastructure should be able to support legacy centralised apps on top of the blockchain framework. Backward integration tools to existing systems should also be provided.
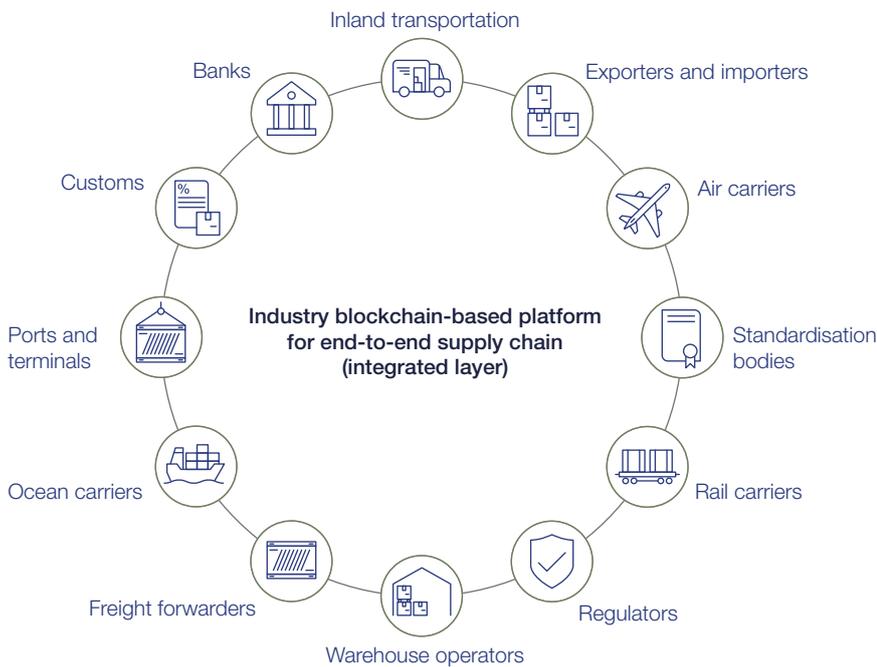
Figure 3.4 – Example of an industry blockchain-based platform for end-to-end supply chain (industry integrated layer).

- **Set industry standards.** Consortium partners often seek to complement and accelerate existing standardisation efforts on data and protocols. After a PoC is made in-house, perhaps at one partner company, it is critical for organisations to work with other industry competitors, suppliers and participants to set standards as the PoC is further developed into a production-ready solution.

- **Share research and development.** Consortia often serve as a handy tool to do industry-specific open innovation. This may take the form of an open-source working group dedicated to collaborative R&D around blockchain technology. Such working groups may also seek to identify desirable, feasible, and viable industry use cases. They also enable industry participants to learn from and build upon one another's work.

5. Blockchain consortium business models

What types of business structures are useful to consider for a blockchain consortium?

Two of the most common business models for consortium-led blockchain ventures are as:

- **Non-profit entities**

- **For-profit entities**

The non-profit approach may be focused on an industry challenge that has a significant social impact. These groups may operate as open-source projects and have public or third-sector involvement.

Increasingly, there are some enterprise businesses that prefer a non-profit model to protect against potential antitrust concerns. In the case of RiskStream,[54] certain of the insurance industry have organised as a non-profit to create a platform that is a utility for the industry. Enterprises employing this model may use a two-tier approach: create the underlying platform as a non-profit such as RiskStream or create a for-profit ecosystem that sits on top of the platform.

Alternatively, the platform could be created by a for-profit entity and then turned over to a non-profit – likely a foundation or similar entity – that will manage the platform thereafter.

The pure for-profit model is used where development is driven by the private sector and where there is the promise of an exceptional medium-term valuation as seen in many supply-chain ventures. Many blockchain consortia today follow this model. The actual commercial structure may ultimately be spun out as a JV as in the case of the eight banks that joined to form Contour,[55] or they may have a hybrid commercial model where the intellectual property (IP) is helped by just a few members and the technology is leased out by others. These types of spin-outs occur well after the initial pre-consortia steps are taken.

Antitrust issues are a perennial concern for consortia. Caution should be noted in the for-profit scenario regarding possible antitrust claims and checks against collusive behaviour should be strongly monitored and implemented. Regulatory permissions should be obtained when necessary. For instance, TradeLens, a blockchain shipping consortium originally developed by IBM and Maersk GTD, was recently granted an antitrust exemption[56] by the Federal Maritime Commission so that the five major container line shipping companies participating can effectively cooperate in providing data for use on the platform.

Further, providing integration tools are a critical offering. These types of tools might help to allow smaller, less technologically supported and sophisticated entities to join a network which can help neutralise antitrust concerns.

The traditional utility model: another business model

Another model exists that can encourage broad market participation, while also providing initial investors with a means for creating and recouping value around a new platform – the traditional utility model.

In this model, a consortium first provides basic capabilities – network consensus, transaction distribution and verification, basic smart-contract templates, tokenised assets, or digital documents, among other possibilities – as a kind of utility. Usage fees are established using a cost-based model, and any excess revenue is distributed back to all market participants based on some measure of use, such as volume or value channelled through the platform. IP rights are retained by initial investors, participants, or the platform's creators.

This arrangement addresses the issue of founding members having too preferential a position relative to other participants. The consortium can then focus, through a second legal entity, on establishing second-order benefits unlocked through wider adoption and effective use of the base layer.

The graph below shows the range of some blockchain consortia that exist today. Most are organised around a for-profit model, but that does not mean the non-profit model is not viable. In fact, a non-profit environment might lend itself to defusing antitrust challenges. The technology led consortium focuses on standards and tend to offer open-source solutions.
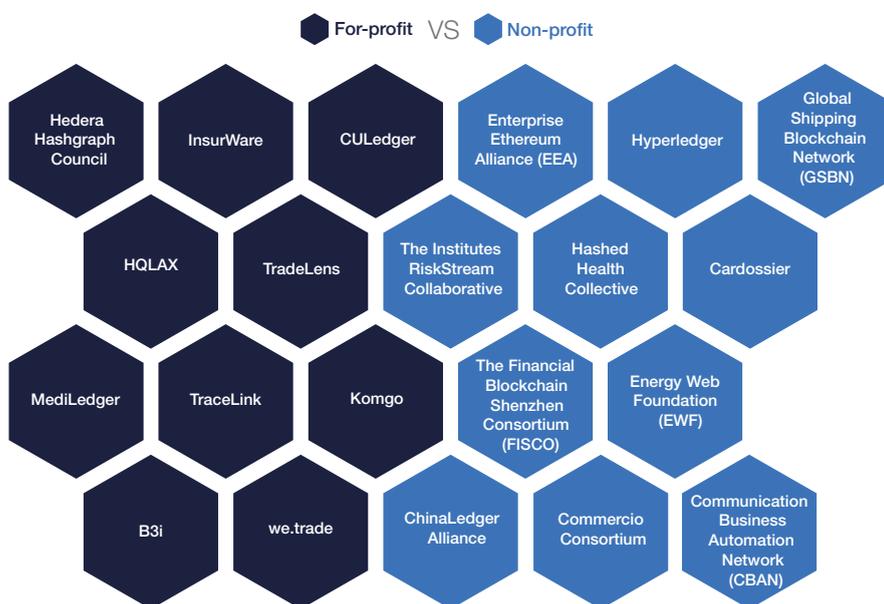

Figure 3.5 – Examples of consortia organised by for-profit versus non-profit (as of January 2020)

6. Navigating the pre-consortium agreement: key to-do's

What are the important steps in creating and setting up the pre-consortium agreement?

A pre-consortium agreement is often used to define the expectations that all parties bring to the table of a new collaboration. Properly done, the pre-consortium negotiation and agreement can act as a road test for the participants to see how they might work together in a more formal relationship in the future.

At the outset, four challenges must be met which collectively can be referred to as the Code of Practice. They include 1) agreement on the set-up of the organisation, 2) enumeration of shared goals, 3) the operating rules and responsibilities, and 4) the memorandum of understanding (MOU) committing the agreement to writing.

1. Define the organisation's business case and structure

Potential consortium members should convene to workshop ideas for use cases, business justification, viability and related factors. They should receive a detailed business value or use case outline with potential return on investment (ROI) suggested. ROI can be more than financial return and may include the assurance that their peers will not outpace them in technology development. There should also be a short-term and long-term version to address areas of concern and garner buy-in. Participants should be provided with information outlining the minimum number of members required to establish a viable ecosystem to support and drive future success. Remember, however, to set realistic expectations. The technology, regulatory, and cooperative platforms for blockchain are all still nascent, and software takes time to collaboratively develop and deploy.

2. Define shared goals and key success factors

Members and potential members should discuss their individual and shared goals for the consortium and establish agreement on key factors related to its purpose, vision, and definition of "success". Members may also want to agree on a pilot use case or PoC. It is important to break the big ideas and vision of a consortium into something that can be implemented.

3. Define operating rules and responsibilities

Once the ecosystem has been defined and analysed, stakeholders have been identified, and a group has come together to engage in common activities, the group should understand and explore how it will set out governing and operating rules. This can be done and documented with a clear delineation of rights and responsibilities. An operating model should be selected and adhered to. Care should be given to antitrust concerns, and plans should be discussed if regulatory permissions are required.

Consortia always benefit from early alignment and buy-in among potential members.

Members should design and agree upon a governance structure acceptable to all participants including selecting the party who is in charge of facilitating the organisation and coordinating the other members. Members should also agree on how much input or control each participant will have in the consortium, and agree on a regular meeting schedule to address issues relating to the consortium's overall performance and growth potential, and establish appropriate committees and boards to execute on such governance like Board of Directors, Board of Advisors, Business and/or Technical Steering Committees, IP and/or legal committees. Exit and entry procedures should also be agreed upon at the outset.

4. Draft the Memorandum of Understanding

If the group is not yet committed to forming a consortium but wants to try out the group relationship in the context of blockchain activities, the group should consider drafting and entering into pre-consortium agreements in the form of a Memorandum of Understanding (MOU). This document will set out clear rules and responsibilities for participants, as well as the role of the group itself. Even if the group has already decided to create a consortium, C-level buy in, receipt of funding, as well as gathering a large enough participation base can take a long time. MOUs can be used to launch the activities to complete these

steps.

Again, attention should be paid to creating an agreement that does not create antitrust issues.

It is best to document the scope and arrangement in writing so there is a clear allocation of responsibility, risk and liability. MOUs can either be binding or non-binding, and their form is highly flexible and not uniform because their content is determined by the pre-consortium objectives. There are no standard forms or templates. Typically, the MOU addresses goals and priorities, sets out services offered, enforces mutual respect of individual and group organisational practices, provides indemnity and liability, sets out contributions, operations, governance (the module Consortium Governance covers detailed governance considerations), offers amendment/modification processes and rules for exits and new member admission. It is always a good idea to "time" the MOUs and establish a timeframe goals of turning such agreements into official participation contracts.

7. Navigating the pre-consortium agreement: key considerations

What are important pre-consortium agreement considerations?

Consideration 1: Agreement should match group objectives

A blockchain consortium usually involves complex relationships among established industry players working alongside competitors and the start-ups who may be trying to displace them by offering solutions that re-configure existing business relationships or offer new types of technology solutions.

In the midst of these complicated relationships, they are all trying to understand, explore, and create industry solutions using an emerging technology that while increasingly understood, has not yet had its value proven at scale.

In other words, consortia aren't easy by any stretch.

With that in mind, a consortium agreement can provide stability as it spells out formal and detailed rules and responsibilities. Consequently, the consortium agreement may take many months to negotiate. Each member will contribute funds, and/or know-how, equity or some combination of the three, while retaining their separate individual legal status. If the consortium is not a separate legal entity, rights and responsibilities should be set out in the more informal draft documents as mentioned in the previous focus area. Later on, if/when the group is formed separate legal entity, the consortium, takes on the risk, perhaps owns or jointly owns the IP, and governs the activities, including how profits are divided and distributed.

A consortium does not form out of thin air. Usually a few industry players get together in a working group to explore blockchain technology within and across an industry. This working group can be regarded as a "seed group" that precedes the formation of a formal consortium. Not all working groups lead to consortium formation. But those who do can benefit from having a pre-consortium agreement in existence as a roadmap.

Pre-consortium agreements, by contrast, are more flexible than consortium agreements, and are created for the short term or for a very limited purpose.

They are negotiated relatively quickly, and they tend to support a single use case or short-duration research and exploration. Thus entities seeking to build use cases or test concepts often enter into pre-consortium agreements to set expectations, distribute responsibilities, and manage IP. The pre-consortium agreement can represent the "toe in the water" approach to working with others as a group heads toward forming a formal consortium.

Consideration 2: Groups are start-ups by nature

Pre-consortium groups and nascent consortia tend to be leanly staffed and share certain characteristics of start-up companies.[57] Many of these start-up characteristics can be harnessed to enable the group to work effectively to reach its goal.

A blockchain group's agreements are typically created at the initial stage when the group forms to build a solution or set up testing among several parties. Attention should be paid to developing the group's culture which will evolve over time. Often participants may be, in part, competitors, and agreements should be put into place at the outset to avoid uncertainty, misunderstandings, and fallout if the group dissolves or one party leaves. Likewise, provisions should be made to create the ability to add additional members on an ongoing basis or to work with other consortia.

Pre-consortium agreements are generally intended to govern over a short term, but terms from the agreement can carry over to more complicated formal arrangements entered into at a later time as the group evolves. Many of the agreed-upon items – for example, the rights and responsibilities attached to the continuing use of pre-consortium IP – can be later negotiated and folded into a more formal consortium agreement.

This later agreement will include understanding of how contractors will be paid and setting up the requisite bank accounts and tax reporting and designating one or more of the consortium members to act on behalf of the group to handle issues like payments. The pre-consortium group will in all likelihood have to hire independent contractors and vendors. Formal structure should be put in place regarding bank accounts, tax records, and supplier payments. If necessary and agreed to, a separate legal entity can be created to handle those functions. However, jurisdiction and operations will have to be sorted out if a new entity is formed.

Consideration 3: Educate the organisation

When assembling a new MOU that can lead to the formation of a consortium, there is a strong educational component necessary to sell the value of the narrative to the potential stakeholders. Remember, leaders within many potential partner organisations may be unfamiliar with the basics of blockchain technology. Thus, it is paramount to communicate clearly and consistently why a proposed business arrangement leading to a consortium is important and what business value it will bring.

In fact, this educational piece should continue even once the consortium is formed, since software takes time to develop, and members will need to maintain industry support for the long haul. In addition, new partners may enter the consortium over time and need to familiarise themselves with basic information as they enter.

"

Education is a big part of forming any new blockchain consortium. Especially for the sake of new comers to the blockchain space, be clear and consistent in explaining the importance and business value of a potential new consortium.

Ashley Lannquist, Co-Founder, Mobility Open Blockchain Initiative

"

8. Learning from others: key lessons

What are the key lessons learnt from others who have participated in blockchain consortia?

Figure 3.6 – Lessons and best practices from tested-and-tried consortia and projects

The following is an overview of vital insights and lessons captured by the Forum through research, meetings and interviews with 25+ blockchain consortia in 2019 and 2020.

Appoint an independent executive director who is either a respected industry or experienced consortium leader

When possible and applicable, this leader should ideally leave his or her current job in the industry to work exclusively on the consortium. This establishes a level of industry neutrality that would not be possible if he or she remains affiliated with one particular organisation. This practice also affords the following possibilities, which are invaluable to a new consortium:

- Provides credibility to the venture, both within the industry and with the blockchain ecosystem broadly

- Leverages the director's network to bring in fellow industry participants

- Provides expertise and guidance on initial use cases

Role of an impartial party (nexus / glue / convener)

Many blockchain consortia had an impartial "nexus" organisation involved at the early stages to act as the glue to mobilise collaboration among additional competing organisations. For example, the MOBI consortium worked with the Media Lab at Massachusetts Institute of Technology to play this nexus role, and Energy Web partnered with the Rocky Mountain Institute. This may be especially important during the early days of a consortium, when antitrust policies are still being worked through. Having a "nexus" also provides the new consortium with neutral meeting space early on. The "nexus" also provides an experience level familiar with group formation otherwise unobtainable. However, it is not a prerequisite.

Inclusion of regulators and academics

In order to ensure the activities of the consortium are compliant and using best practices, it is recommended that consortium members involve representatives from regulatory, civil, and academic bodies, particularly if a regulated industry is forming the group. Regulators should be consulted, however need not be a direct part of the operating group.

Vertical versus horizonal participation and inclusion

A consortium can be formed either vertically among similar entities within an ecosystem or horizontally across an ecosystem. The consortium should have representation from across the industry. One key question is do members reflect a similar mix of the size and geography to their industry. Care must be taken to be inclusive including gender inclusion of representatives. This is especially imperative to foster true collaborative innovation and technology design, which sets the stage for industry adoption. A new consortium should seek top-tier industry players as well as newer, more specialised technology players. Further, dialogue stemming from an inclusive group garners greater resourcing and richer perspectives, and builds buy-in and validity to technology standards.

Technology and firm agnosticism

It is paramount that the consortium be flexible and capable of technological interoperability. While many consortia may align around and work well with one particular technology, the consortium should be flexible and fluent enough to be able to entertain other technologies. The blockchain space is still in its infancy, and its tools are rapidly evolving even as they are being deployed. Hence, maintaining some flexibility and capability for growth from a technical standpoint is important.

The consortium's management team and board of directors should not be employed full-time at an industry competitive organisation once the consortium has formed as a legal entity. If the group is operating under an MOU, care must be taken so that "seconded" employee loyalties fall to the group goals first, and then to their supporting company. Consortium participants should also be diverse and represent various blockchain protocols and technologies, as well as various industry competitors and participants and not be driven by the interests of one or a few dominant companies.

Further, technology vendor lock-in without interoperability, and potential stack integration issues where solutions are designed to operate only with one technology platform or vendor at the cost of platform flexibility, is a serious risk. Technology silos are to be avoided. Ensuring representation and participation from across platforms alongside interoperability measures and universally applicable data standards is imperative to reduce this risk.

> *Have a "break-the-ice" kick-off session and get to meet all the participants in person: too many stakeholders not knowing each other's roles and functions good enough can quickly create a project management mess. We advise to have only one key point of contact representing the company that will dispatch the information to their respective internal stakeholders.*

Nicolas Verschelden, Managing Partner Dream Tech Alliance, AB InBev

> *Based on our experience, the following are some best practices with blockchain consortia:*
> - *Take an iterative approach to test conceptual assumptions early on.*
> - *Identify the critical stakeholders early on and map their incentives and concerns.*
> - *Incrementally build out the software, including a validation loop after every increment*
> - *Don't commit to protocols or platforms too early in the process.*

Tobias Disse, Chief Executive Officer and Co-Founder, Kryha.io

Notably, when working groups for blockchain innovation are founded and led by a single major industry player, trust can be easily eroded, and cohesion lost if that major industry player dominates the group. Historically, a single major company leader could pressure adoption of its technology preferences across a supply chain which leads to the very siloed behaviour blockchain technology solutions want to alleviate. With blockchain and software solutions in general, one has to start somewhere. So, it is likely a group will organise around a dominant protocol, and may even a dominant vendor. These protocols are not yet generally scaled or interoperable. When structured this way, groups are thus far struggling to gain adoption and industry buy-in. Care must be given to anticipate how interoperability and standards will work to create resilient solutions and groups.

Craft an MOU and any initial participation documents as non-binding

If the consortium intends to become a formal entity, including a partnership agreement with fees and other aspects, it is valuable to first craft an MOU as an initial document upon which future members agree. The MOU serves multiple practical purposes, in addition to setting an initial intent for participation and understanding. See more details on this in the previous focus areas which outline the pre-consortium agreement.

Show critical mass before launch

Before the consortium is publicly and officially launched, it is valuable to gather a strong group of industry and blockchain leaders. If the group is too big, it will not be viewed as workable. However, there is a fine line, and establishing critical mass, accompanied with a well-organised promotional campaign to announce the launch, is critical for rapidly establishing the credibility of the ecosystem. This will attract future participants and help build real momentum for the project community.

Attracting a strong board of advisors can also help with brining other industry players along.

Develop strong antitrust and governance policies

Policies should be devised by legal experts and advisors and include buy-in from the participants to ensure they meet all needs. Additionally, a review should be undertaken to understand whether there are regulatory barriers that may be overcome through government permissions. If so, be prepared to move forward on that front.

See the module Consortium Governance for a detailed overview of governance considerations.

Company representatives evangelise in-house

Typically, one or two individuals from each organisation in the consortium or open innovation group will represent that organisation in consortium meetings and working groups. This individual is a leader and interlocutor on behalf of that organisation, representing its interests and providing value from that organisation to the working group.

The responsibility also falls on this individual to advocate for and represent the consortium within his or her organisation. For better or worse, this individual is charged with building internal support for the consortium's vision, securing sponsorship, drafting organisation documents, obtaining approvals, and funding for the efforts. This places the embryonic consortium "brand" on the representative's head. Strong internal communication structures should be put in place as soon as possible. This responsibility is key to continuing external support, and the consortium should help support individuals for this purpose.

"

Agree on a locked number of participants for each round: you can increase after phase1 but avoid adding extra participants in the middle of the project.

Nicolas Verschelden, Managing Partner Dream Tech Alliance, AB InBev

"

Very quickly, any meeting that includes multiple competitive organisations in one place will push against antitrust laws unless clear policies and procedures are in place to mitigate such concerns.

The consortium can provide support by creating documentation articulating the value of blockchain for the industry, potential use cases, and ideas as to how to communicate these concepts and the strategic value of R&D to management. The company representative is then responsible for sharing these documents with managers internally and establishing buy-in.

Establish a foundational use case

If possible, the consortium or working group can anchor its efforts and vision on developing a PoC, pilot, research report, or standards document for an initial use case whose value is universally acknowledged. This serves to test the value and success of the initial collaborative format and working group, to provide a clear example externally and internally, and to guide initial focus. This use case may be identified as one that several organisations have already created PoCs or conducted research about, where innovation and implementation stalled without establishing a broader network for adoption or addressing industry-wide technology or implementation concerns.

9. Main steps to take when forming a consortium

Building on the important areas covered in previous focus areas, here is a summary of issues in priority order that must be resolved when forming a consortium. The process review below is intended to serve as a useful starting point of key steps to consider.

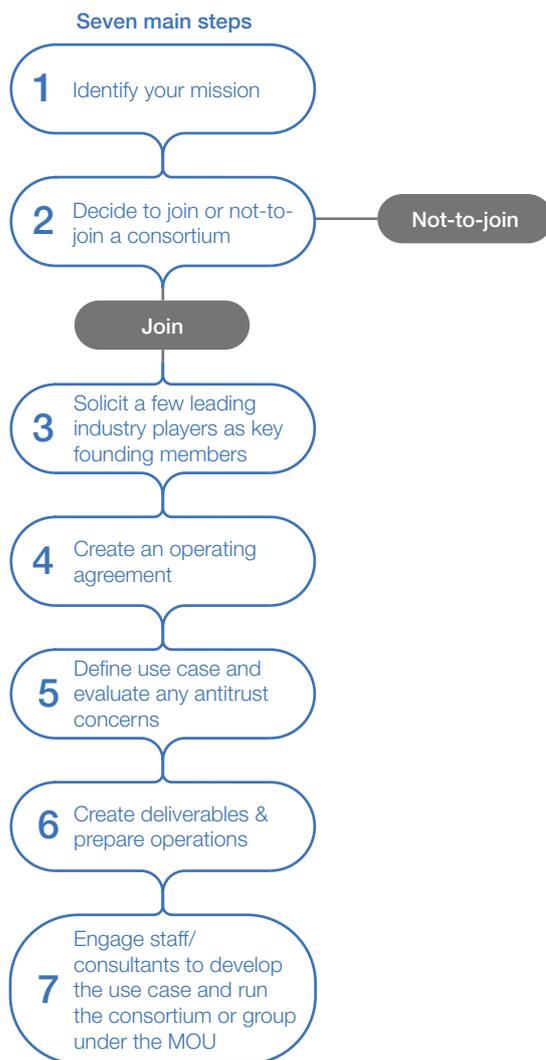| Example questions	Seven main steps
What business problem are you trying to solve?	**1** Identify your mission
Is there a blockchain consortium that is already active in the industry or specific to the use case the organisation is trying to address?	**2** Decide to join or not-to-join a consortium — Not-to-join / Join
Who are the key players that can drive industry support?	**3** Solicit a few leading industry players as key founding members
Do you need a formal or informal agreement?	**4** Create an operating agreement
Is the use case a hot topic for anti-trust? How will anti-trust risk be mitigated?	**5** Define use case and evaluate any antitrust concerns
What needs to be in place to support operations? e.g. payroll, tax accounting.	**6** Create deliverables & prepare operations
How will the consortium be staffed?	**7** Engage staff/consultants to develop the use case and run the consortium or group under the MOU

Figure 3.7 – Seven main steps and example questions when forming a blockchain consortium

Seven main steps to form a consortium

1. **Identify your mission:** Identify a real problem and make a sound business decision that blockchain is appropriate technology. What business problem is one trying to solve?

2. **Start a new one or join an existing one:** Decide whether to start a consortium or join an existing one. It is often easier and faster to leverage such underlying tech than to embark on a new project. Is there a blockchain consortium that is already active in the industry or specific to the use case the organisation is trying to address?

3. **Solicit leading players:** If one decides to form a new consortium, solicit some leading industry players as key founding members to act as a seed group. Who are the key players that can drive industry support?

4. **Create an operating agreement:** As a minimum, an agreement should be a Memorandum of Understanding. Do you need a formal or informal agreement?

5. **Define your use case and evaluate any antitrust concerns:** Define a use case that the consortium will try to develop. When use cases are selected, the consortium should also evaluate any antitrust concerns. Is the use case a hot topic for antitrust? How will antitrust risk be mitigated?

6. **Create deliverables and prepare operations.** Set-up actual operations and processes. What needs to be in place to support operations such as payroll and tax accounting?

7. **Engage staff or consultants to develop the use case and run the consortium or group under the MOU.** Consortium resources can consist of dedicated employees, member organisation volunteers/ workstreams, and others. How will the consortium be staffed?

10. The pre-consortium contract: items to resolve

If the group is not yet committed to forming a separate legal entity, but wants to try out the group, they should consider drafting and entering into pre-consortium agreement (a Memorandum of Understanding (MOU) Agreement is the most likely vehicle that will be used).

Below is an expanded list of common concerns a consortium might face in its initial formation stage. Of course, each group that forms in real life may have unique considerations of its own, in which case it will make sense to customise from this general overview of concerns. Any issues from prior working groups now transitioning toward a consortium arrangement need to be identified and resolved when entering into pre-consortium agreements. But, with that caveat, this list should be a good starting point for formulating a pre-consortium agreement.

Mission and goals

☐ Align on the business problem this initiative is aiming to solve

☐ Decide on the key drivers of the group: standards, organise around a protocol, organise around a vertical, organise around interoperability, government authorised group or other

Legal agreement

☐ Set out operating rules and responsibilities as a detailed MOU or in a separately drafted operating agreement

☐ Set out rules for IP

☐ Set out proper committees like steering committees (both business and technical or hybrid), legal and IP committees, board of governors/ directors, board of advisors

☐ Set out rules and terms for additional members to join and for exits

☐ Set up operating bank accounts and tax processing

☐ Decide on use cases. This may require a workshop

☐ Staffs either internally or outsource to design, code and deploy use cases

Structure

☐ Legal entity structures

☐ Operating Agreement - how the business is to be paid for and operated, including communication and responsibilities, both internally and externally. Also, how technology decisions including interoperability concerns are to be made (initial and ongoing choices, development, reviews, testing, changes, and updates)

☐ Data management and ownership

☐ Voting structure to operate the agreement

☐ Committees required for the consortium

☐ Funding & contributions set out (monies, in-kind, combination of monies and in-kind and how those funds are to be used)

☐ Covenant to enforce mutual respect of individual entity practices

☐ Covenant to enforce mutual respect group organisational practices

☐ Provision of indemnity

☐ Allocation of liability (joint, several, etc.)

☐ Dispute resolution

☐ Regulatory interface if necessary

☐ Amendment and modification processes

- ☐ Rules for exits including voluntary resignation and removal of participants and any pay-outs

- ☐ Rules of new member admission and requirements

- ☐ Antitrust analysis and applications for exemptions if relevant

- ☐ Smart contract legality

- ☐ IP obligations and rights – decide who owns different types of IP generated and how are the IP rights licensed and administered
  - The consortium is sole owner
  - The business network designer is sole owner
  - IP ownership is shared among different parties
  - IP arrangements defined upon exit
  - Initial IP rights and prior art considerations

Operations

- ☐ Define initial consortium duties, roles and responsibilities of each member, including secondment rules

- ☐ Use case development (and anti-competitive implications, if any)

- ☐ Enumeration of services offered

- ☐ How are payments to service providers made? In a pre-consortium fashion, for these companies to work together and have a means (bank account) to pay the technology or other partners, the consortium will either have to 1) establish a legal entity 2) appoint one of the companies to act on behalf of the group to handle payments

- ☐ Brand creation of group, marketing strategy and support by the pre-consortium group

- ☐ Marketing duties and obligations or pre-consortium members and corporate marketing support supplied by members

- ☐ Hiring and managing vendors and consultants as well as creating staffing plans

- ☐ Define the main consortium deliverables – some typical deliverables include:
  - Standard setting
  - Sharing of research and development
  - Design and develop a joint blockchain-based platform
  - Hybrid settings involving multiple options of the above