Although blockchain has suffered from being overhyped in 2017 and 2018, this year many blockchain projects are beginning to operate: IBM's Food Trust continues to add members and Carrefour used the technology to launch a project to track organic chickens in Spain. Deloitte's 2019 Global Blockchain Survey found that 53 percent of companies have placed blockchain as one of their top five priorities (a 10 percent increase from last year), and Gartner reported that blockchain technology will create more than $176 billion worth of business value by 2025 and $3.1 trillion by 2030.

Blockchain projects are by their nature collaborative, requiring cooperation among multiple participants. The governance of these collaborative organizations is critical to the success of these projects. Governance is a widely discussed topic in the blockchain community for "blockchain platforms" such as Ethereum, Hedera Hashgraph and EOS. The discussion started with a November 27, 2017 article by Fred Eshram titled Blockchain Governance: Programming Our Future, and is continuing with a series of articles on Medium by a variety of authors including Vlad Zamfir and Steven McKie. For example, the Ethereum blockchain is undergoing a fundamental governance change by shifting its basic consensus mechanism (which determines which blocks are added to the Ethereum blockchain) from Proof of Work to Proof of Stake.

However, a second level of blockchain governance has rarely been discussed: governance of blockchain consortium projects ("Consortium Governance"). Although some enterprise blockchain solutions will be run by a
solution provider such as IBM, most enterprise blockchain solutions will be implemented by a "consortium" of enterprises, building one or more applications on top of a "blockchain platform." These consortiums are already forming in many industries to deal with the particular problems of those industries. They include B3i and RiskBlock Alliance in the insurance industry, and we.trade and Voltron in trade finance.

Consortium Governance will be as important to enterprises as "blockchain platform" governance, because the enterprises will work with this level of governance on a daily basis. Consortium Governance needs to address issues quite different from public blockchains. Susan Joseph, an experienced blockchain executive, notes that "putting in the proper governance and leadership of a consortium is paramount to its success." Jerry Cuomo, who leads IBM's engineering and product initiatives on blockchain, notes in his book Blockchain for Business that "because it permeates all aspects of the blockchain, governance is an integral component of a sustainable network."

The challenges of governance in blockchain project consortia are very similar to those solved (and continuing to be solved) by open source software (OSS) projects, such as Linux and OpenStack. They are quite different from traditional "for profit" companies. Blockchain project consortia should look to the experience of OSS projects to take advantage of their experience (and avoid their errors). The governance structure should address the following issues: ensure that all stakeholder groups in the blockchain ecosystem are represented, focus on implementation of the business model for the consortium (business to business, business to consumer), determine intellectual property ownership and licensing, and determine how to raise and spend funds to support the blockchain project.

Before enterprises can develop governance of the blockchain project consortium, they need to determine the business goals and business model of the blockchain project: for example, will the blockchain project operate as a back-office service provider (i.e. no direct customer contact) with a relatively limited number of participants, or will it act as a market participant, which will include outreach to the ultimate customer. This business model may also be affected by regulatory issues in the business. In the financial services industry, different activities may require different licenses (as an example, the we.trade consortium does not do direct payment processing for the end-customers because this would require a license; instead, the payments are effected directly by the member banks supporting the we.trade application).

Enterprises that are considering organizing or joining a blockchain consortium should consider the following four key issues:

1. **Entity Selection**

Although many individuals in blockchain communities are eager to make use of "on-chain" governance and "virtual organizations" such as decentralized autonomous organizations (DAO), these approaches are new and have many uncertainties. In fact, the first major decentralized autonomous organization, "TheDAO," was a failure due to errors in the "smart contracts" that were supposed to run the organization.

Consequently, most blockchain consortia will be governed through traditional entities. Another alternative is a "contractual joint venture" in which all of the rights and obligations are managed by contract. However, this structure has a number of disadvantages because unlike corporations, the participants are likely to have "joint liability" for funding shortfalls and disputes with third parties. In the United States and many European jurisdictions, such contractual joint venture would probably be considered a "de facto" general partnership in which all participants have joint and several liability to third parties and all participants can enter agreements for the "partnership." Decision-making can also be difficult since approval of all members may be required to take action. At least one blockchain consortium started with this structure but soon shifted to a corporate structure because of the difficulty of operating as a contractual joint venture.

The selection of the type and the jurisdiction of this entity structure will be driven by the location of the founding members and prospective members, HR considerations (where the developers are based), tax considerations (for example, the favorable tax treatment of IP rights in The Netherlands), possibilities for international roll-out (the uncertainties arising from Brexit have made a number of consortia reject the UK as a potential jurisdiction) and regulatory considerations (such concerns are particularly important in the financial services industry).

For example, a consortium of enterprises incorporated in Europe is likely to select a governing entity located in Europe with the Netherlands, Luxembourg, Belgium and Switzerland being frequent choices. A consortium of
enterprises which have all or a significant number of members incorporated in the United States is likely to choose a United States entity. Generally, this entity will be incorporated under Delaware state law because Delaware is widely considered to have the most comprehensive corporate law, as well as the best judges.

The choice of entity will depend on whether the consortium will be a for-profit or nonprofit enterprise. If the entity is a for-profit enterprise, it is likely to be formed either as a "C" corporation or a limited liability corporation. If the entity is a nonprofit, Delaware law provides for a nonprofit, nonstock corporation, which is used by many OSS consortia incorporated in Delaware.

2. Identifying Classes of Stakeholders

The stakeholders in the blockchain project consortium need to be identified in order to determine how such stakeholder classes will be represented and how the authority to make decisions will be allocated. For many blockchain projects, they will include companies in the industry, service providers to these companies (for example, freight forwarders in logistics blockchain project consortia), academic institutions, nonprofit institutions, software developers and users of the blockchain project. The consortium will also need to determine if the rights of the initial members will be different from later members.

The companies that wish to participate may vary dramatically in revenue (particularly revenue attributed to this industry). Most OSS projects provide for corporate memberships with different fee levels and representation on the governing board, such as the Board of Directors. The other stakeholders, such as users who do not fall into these categories and third-party developers of applications and documentation, may be represented by committees that report to the Board.

3. Form of Representation

Governance has several levels: (1) Participants (members or stockholders), (2) the Board, (3) committees of the Board, and (4) management. The Consortium Governance needs to allocate responsibilities among these levels.

Generally, the Board will set the policies for the management, who will implement such policies on a day-to-day basis; the Board will decide on issues such as budget, business model, hiring management and setting compensation. Some of these obligations can be delegated to committees of the Board, such as an Audit Committee or Compensation Committee (with the Board ultimately overseeing such committees’ decisions). However, it is common that some critical decisions, such as increasing fees, raising additional capital through capital calls, the composition of the Board and transferability of the interests in the consortia, will be reserved to the Participants. Company law requirements will also need to be considered, as in many jurisdictions the law provides that certain decisions are reserved to the shareholders (the Participants).

Once the stakeholder classes have been identified, the organizers must decide how they will be represented in the organization and how the Board will be structured. The major issues to decide on in relation to the Board are: size, method of appointment or elections, term of mandate, quorum (the number of Board members needed to transact business), percentage votes for approval (and any special percentages for certain decisions), appointment of officers and affiliated entity board limits.

If a Board becomes too large, it can be difficult to operate. On the other hand, the Board needs to represent the major stakeholders in the blockchain project consortium ecosystem. The OpenStack Foundation board has 24 members and operates well, but a Board of greater size might be difficult to operate effectively. Board nomination rights can vary depending on class of Participants: the highest level of corporate membership would generally have the right to appoint one or more individual members to the Board, whereas the lower levels of corporate membership can only have the right to elect a board member on a per class basis, only have the right to appoint a board observer (without voting rights) or no board member at all (but, for example, only a representative on one of the committees).

The quorum will depend on the size of the Board and the need that sufficient stakeholders are present to give the Board's decisions legitimacy. Similarly, the percentage of votes will depend on the Board composition and the need to provide legitimacy for such decisions. Frequently, the majority of Board members who form a quorum will be the requirement for routine decisions (our experience is that most Board decisions in well-run consortia are unanimous or near unanimous). Certain decisions, such as changing the size of the Board, changing the allocation of Board
seats among membership classes and approval of the budget may require percentage votes higher than a majority or a vote by the Participants themselves (see below).

Many OSS consortia ensure that a single entity (or group of affiliated entities) does not obtain undue influence over the consortium by limiting the number of Board members who can be from a particular entity or group of affiliated entities. This limit is frequently referred to as a “board diversity” requirement and also applies to an increase in the number of Board seats held by a single entity or group of entities arising due to a merger or acquisition.

4. Special Voting Rights for Critical Issues

Although Board approval is generally used for routine decisions for the project, the members may demand that some decisions require additional approval (such as the approval of the “class” of Participants).

The classes of Participants will typically require that any change in their rights must be approved by a majority or supermajority of the Participants of that class. These rights could include the number of Board seats for the class, the number of Participants of the class, the policy for admitting new Participants of the class, the method of election or appointment of Board members and the “director diversity” requirement.

The Participants could also require special “class” votes for other major issues, such as the software license for the blockchain project, the policy for use of the trademark for the blockchain project and changes in decision-making on determining future features of the blockchain project.

Blockchain consortium governance is still evolving and companies need to understand the trade-offs in collaborative governance frameworks. The most important term in the governance documents will be the process for modifying them.