

# Blockchain in Capital Markets: More Evolution Than Revolution

Opimas report excerpt,  
prepared for NuArca

Axel Pierron



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# STATE OF THE ART

## LEVEL OF MATURITY

Since blockchain technology has been widely commented on in the capital markets industry, barely a week goes by without an announcement from market participants about a new initiative, partnership, or working group to test how the technology could be implemented in the various operations of capital markets. The release of the Corda platform by the consortium R3 in Q3 2017 prompted a significant increase in the number of announcements.

However, there is still a lot of technical debate around the technology and how it will evolve. In fact, a number of financial institutions, including J.P. Morgan, Goldman Sachs and Morgan Stanley, have left the R3 consortium due to disagreement on the technology and roadmap, and while numerous technology providers of blockchain platforms have emerged in the last three years, the reality is that they have a very heterogeneous mastery of the technology.

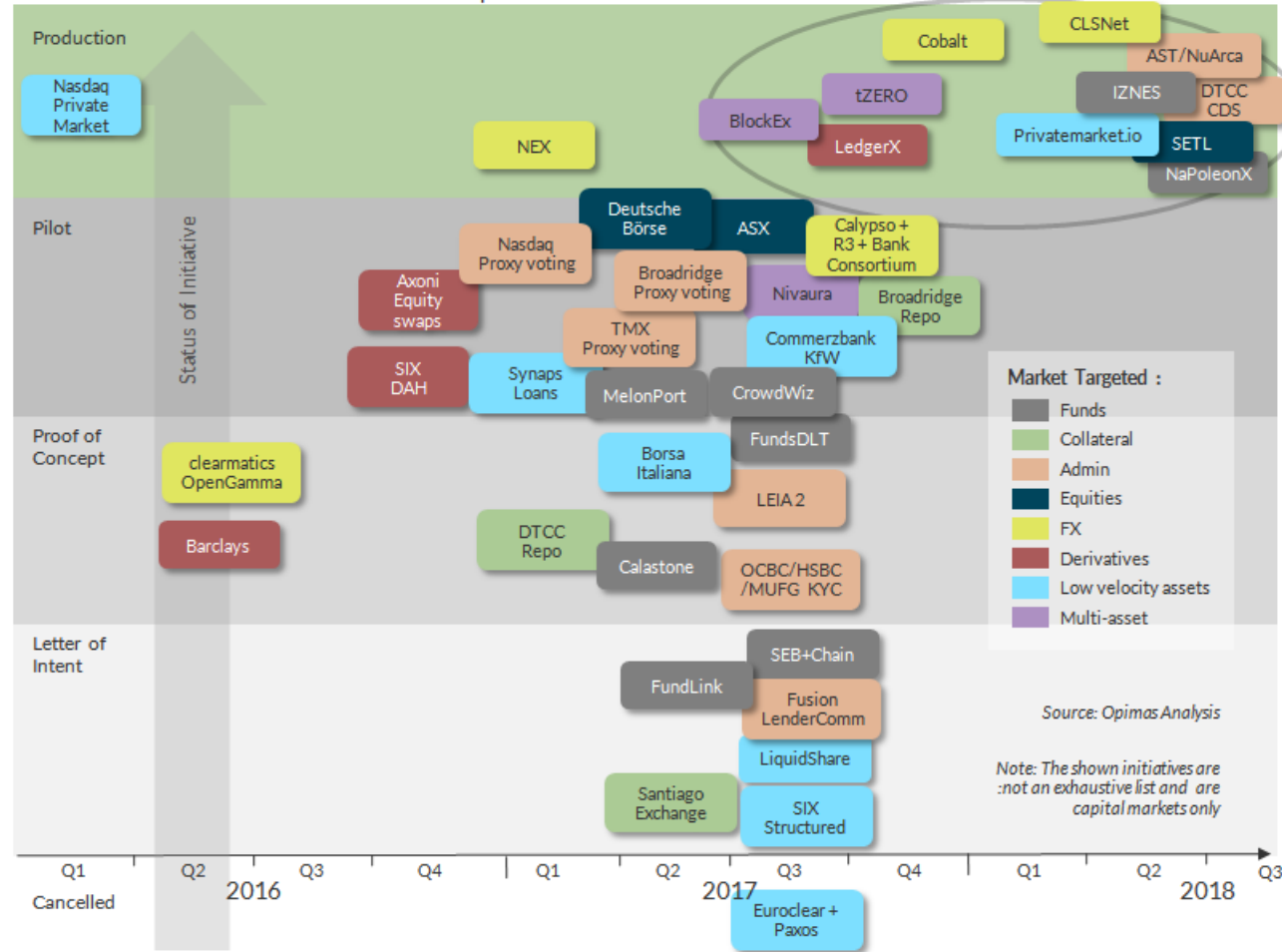
In addition, the relevance of numerous use cases is still being questioned, as market players wonder if a traditional technology approach would not be more appropriate to

solve the current business challenges. At this point, the absence of experience and hard data to judge the validity of the implementations being tested leaves the industry with only theoretical analysis and extrapolations rather than real numbers to evaluate the promise around blockchain's impact on capital markets operations. Nevertheless, the industry has taken very seriously the disruptive potential of this new type of infrastructure, and we are witnessing myriad initiatives being launched by various types of market participants, including new entrants, investment banks and infrastructure providers across various markets and operations (see Figure 1).

Nevertheless, despite the number of initiatives announced over the past two years, only a limited number will be delivered in 2018. While this will provide the industry with better elements to evaluate, it will be too soon to really determine their potential as the ecosystem will have to adapt and absorb the technology before a final assessment can be made.

FIGURE 1. NUMEROUS BLOCKCHAIN INITIATIVES HAVE BEEN ANNOUNCED, FEW WILL BE DELIVERED IN 2018

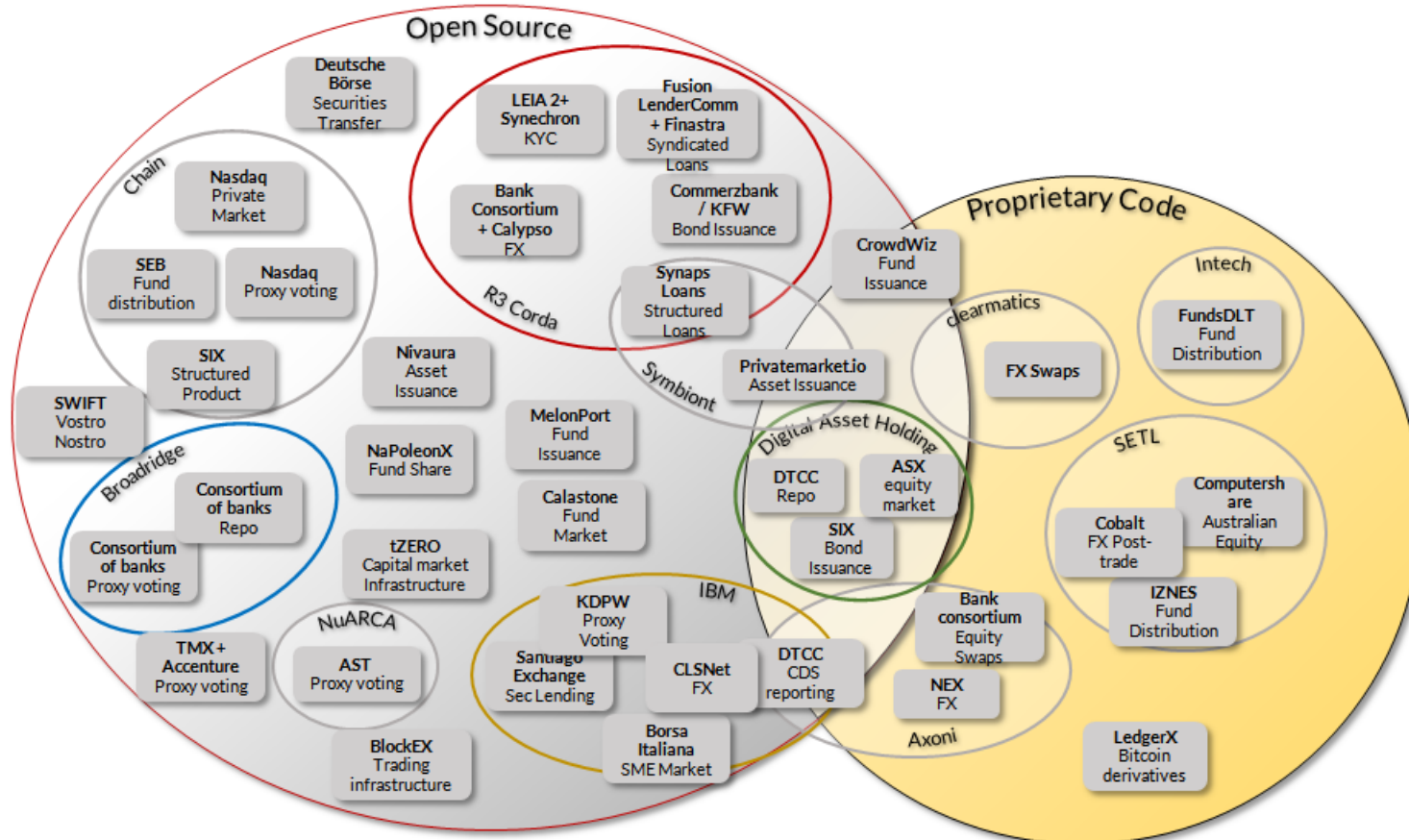
Status of Selected Blockchain Initiatives in Capital Markets



Source: Opimas analysis

FIGURE 2. OPEN SOURCE-BASED INITIATIVES REPRESENT THE BULK OF CAPITAL MARKETS BLOCKCHAIN PROJECTS

Technological options and providers in capital market blockchain initiatives



Note: The shown initiatives are :not an exhaustive list and are capital markets only

Source: Opimas analysis

## PROXY VOTING

There are numerous initiatives leveraging blockchain technology in capital markets, including proxy voting. The current proxy voting process is highly fragmented and inefficient, as often the rightful shareholder can be difficult to reach, the transfer of voting rights from users to proxies is ineffective and plagued with errors. Further, investors usually do not have transparency on how their proxies actually voted on their behalf. Considering the inefficient nature of the legacy operations, numerous market players are launching projects to leverage blockchain technology in this space. Nasdaq has been a pioneer in this field, testing a proxy voting solution for the Estonian market earlier this year. It was soon followed by other infrastructure providers such as TMX and KDPW (the Polish CSD), and market players like AST and Broadridge.

## INITIATIVE TO WATCH

### AST

**Use Case:** The NuArca development team has leveraged AST's historical transaction peaks and data requirements across multiple data sources to design and build an infrastructure that efficiently supports the vast volumes of data required for mutual funds and corporate proxy solicitation and tabulation services (AST is a leading provider of routine and complex proxy solicitation and tabulations services to mutual fund families and corporate issuers). The solution provides a secure audit trail and transparency of the vote capture and tabulation results to ensure confidence in the results.

**Blockchain platform:** Hyperledger Fabric

**Technology Partner:** NuArca

**Partners/Members:** AST, NuArca, and future brokers and custodians

**Status:** Scaled pilot currently operating with 8 million shareholders representing over 1 trillion voting shares - production go-live in March 2018.



### About the Report's Author

Axel Pierron, a founder and managing director at Opimas LLC, leads the firm's asset-management and securities-processing practices, advising many of the world's major financial institutions on their business, financial, operations and technology strategies.

### About Opimas

Opimas is a management consultancy focused on capital markets, serving leading financial institutions around the world. Our specialisation allows us to bring our expertise to bear from the very beginning of projects, to provide insight and craft strategies for our clients more quickly, without sacrificing quality. In addition, Opimas continuously invests considerable resources, representing about one third of our revenues, in market research. This investment allows us to create a pool of intellectual capital on issues of strategic importance to our clients.

Uniquely in the consulting industry, Opimas pursues an entirely open approach to knowledge sharing, providing our clients direct access to our entire pool of intellectual capital. This gives our clients the latitude either to support their strategic decisions independently, while relying on our knowledge base, or to engage directly with our consultants on a project basis.