

it has developed its own DLT Corda platform. The startup Provenance uses the Ethereum blockchain, while other companies which offer blockchain-based solutions to track products and enhance supply chain transparency, such as Everledger, are built on Hyperledger Fabric. While each of these projects is, individually, of interest, the lack of interoperability of the platforms on which they have been built limits the use and scalability of both the technology and the projects. *Ad hoc* bridges between two specific platforms can, of course, be built, but such tailor-made solutions cannot easily be scaled up.

Interoperability issues matter particularly for international trade, as a single international trade consignment can touch various ledgers, from finance to logistics, customs, and provenance.

The development of interoperability solutions¹⁷ is therefore critical to avoid conflicts between disparate approaches and ensure that blockchain networks talk to each other, thereby allowing the technology to be used to its full potential. The Blockchain community is well aware of the stakes at play and is actively researching technical solutions.

While the idea of different blockchains interacting with one another still seemed a distant possibility just a year or two ago, concrete solutions are now starting to emerge. At the intra-ledger level, the Enterprise Ethereum Alliance, for example, unveiled in May 2018 an open-source cross-platform standards-based framework for Ethereum-based permissioned blockchains that would allow interoperability between permissioned blockchains built on the Ethereum public blockchain (Higgins, 2018).

Although significant, this new development will not solve the issue of interoperability between ledgers built on different platforms, but on this front too matters are moving forward. Active work is being carried out under the Hyperledger project to develop various inter-ledger interoperability solutions, including Hyperledger Sawtooth and Hyperledger Burrow, which can execute Ethereum smart contracts code,¹⁸ and Hyperledger Quilt, which proposes interoperability between ledger systems by implementing a payments protocol to transfer value across systems.¹⁹ And in May 2018, two startups, Clearmatics and Axoni, demonstrated how a financial derivative could be originated on one enterprise blockchain and settled on another. Interoperability is now emerging as a key design goal of distributed ledger technology (Allison, 2017a).

In addition, in November 2017, companies behind three blockchain platforms – Aion, ICON and Wanchain – announced the creation of a new advocacy group, the Blockchain Interoperability Alliance, aimed at developing globally accepted