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FIX UP, LOOK SMART

As smart leases and distributed ledger technology continue to disrupt the traditional real estate sector, Mishcon de Reya has joined forces with the Land Registry and other bodies to innovate through collaboration

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Distributed ledger technology systems are viewed as a powerful way to enhance – or supplant – traditional transaction mechanisms. Our view is that this applies as much to assets like houses and construction materials as it does to the payment systems and currencies that have received more press coverage.

Over the past 12 months, the Mishcon de Reya proptech team has collaborated on a number of research projects to test how distributed ledger technology can be employed across several real estate scenarios. The end result is three proofs of concept:

1. Tracking the life cycle of construction materials from fabrication to build to reuse and contribution to a circular economy

Working alongside other members of the Construction Blockchain Consortium, including Arup and Tata Steel, we have devised a proof of concept that would use a smart contract to track a steel beam through its life cycle from creation to use and then reuse following demolition.

Initial research has concluded that tagging valuable construction materials with original specification data and Internet of Things sensors, in combination with a digital register, might allow materials to retain significant value throughout a building's lifespan. This could enable owners to securitise those assets and create new funding models.

2. The creation of a smart lease with a digital record verified by trusted parties

This proof of concept, in collaboration with the Global Legal Blockchain Consortium and AEW UK, is interesting because distributed ledger technology will allow the parties to agree a lease, their lawyers and agents to validate the key terms of the lease on a distributed ledger and embed those terms digitally within the completed document, thus saving time and improving visibility among all parties.

The creation of a smart lease with embedded lease data and smart or self-executing clauses means that leases could self-update property management systems and self-calculate turnover rents. In addition, a trusted record of the key terms will be created, which might allow future owners to rely on the data without the need for traditional due diligence.

3. The digital transfer of real estate using a self-executing smart contract

This proof of concept forms part of the Land Registry's digitisation initiative, Digital Street. We are working alongside the Land Registry and other partners including My Home Move to trial the UK's first digitised end-to-end residential property transaction (backed up by the traditional legal processes that underpin all transfers of property).

The transaction uses Corda (a distributed ledger protocol). The smart contract will be self-executing once various conditions are met – for example, the correct level of funding and lender consent.

This distributed ledger technology project is important because it is an R&D project led by the body responsible for maintaining the register of land for England and Wales, and the results of the proof of concept will inform future decision-making.

Individually, any of these initiatives would cause an impact in the real estate market but, in aggregate, if these projects were successfully integrated into asset lifecycle they would meaningfully change current business models.

The key to adoption of distributed ledger technology in our sector will be to find solutions that create real value. If it can be shown that buildings with verified digital histories retain a higher value because owners have certainty over the value of the asset at the end of its lifespan and/or can be traded more quickly, thereby increasing the liquidity of that asset, then this will be the boost that distributed ledger technology needs to move into the mainstream.