

## Group Briefing

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# Proposal For Standardisation of Blockchain and Electronic Distributed Ledger Technologies

### KEY CONTACTS

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International standard setting is a complex area, with a multi-step process applying to the formulation of standards. The rise of the financial technology or FinTech sector has given rise to potential substantial opportunities for business supplying FinTech solutions, substantial benefits for consumer and business users of Fintech solutions and consequential concern among regulatory authorities and legislators as to how to deal with this new and booming sector. At present and for the immediate future, the area is largely not subject to specific rule setting or law. That may change in the medium to long term and we have recently seen the EU Commission launch an internal task force to review and recommend Commission approach and initiatives in the area<sup>1</sup>.

### STANDARDS AUSTRALIA PROPOSAL

As part of this general focus on FinTech we have recently seen the first initiative at the international standard setting level. Standards Australia (SA), the national standards authority, put forward in April 2016 a proposal addressed to the International Organisation for Standardisation (ISO) for the standardisation of blockchain

and distributed ledger technologies.<sup>2</sup> As explained in the SA press release, *“this follows consultation with stakeholders which uncovered that interoperability between different protocols is the key to unlocking the potential of blockchain”*.

The proposal scope is to support interoperability and data interchange among users, applications and systems, both nationally and internationally. The SA proposal was approved by the ISO Technical Management Board in September 2016. The Technical Management Board approved the establishment of a new technical committee on blockchain and distributed ledger technologies and allocated the secretariat to SA. Thus, SA will manage the subsequently established international body, to be known as the Secretariat of the International Technical Committee for Blockchain Standards (ISO/TC 307) (the **“Secretariat”**).

There are currently fifteen other participating countries involved in the proposal, including the UK, the US, Canada, China and Germany, as well seventeen observing countries, including Ireland, Argentina, Spain, Switzerland and South Africa. It is likely that a number of the observers will move to

This document contains a general summary of developments and is not a complete or definitive statement of the law. Specific legal advice should be obtained where appropriate.

<sup>1</sup> For discussion of EU Commission initiative see: <https://www.scl.org/articles/3834-european-commission-s-internal-task-force-on-fintech>.

<sup>2</sup> See: <http://www.standards.org.au/OurOrganisation/News/Documents/Media%20Release%20-%20International%20Blockchain%20Standard%20-%202014%20April%202016.pdf>

participant status, which is a common procedural step in the standard setting world. As the authors are Irish lawyers, it is understood that the National Standards Authority of Ireland (NSAI) are working to gain support to move Ireland from observer to participant country status, to ensure Ireland has a role in shaping emerging international standards in this technology. The first International blockchain standard meeting is scheduled for April 2017.

### WHAT IS BLOCKCHAIN TECHNOLOGY?

Blockchain is (in crude summary) a digital platform that records and verifies transactions in a public and secure manner. This decentralised, cryptography based, solution offers the prospect for sharing financial, legal, physical or electronic information more readily than previously possible, across multiple sites and across the full range of public service, business and personal dealings, whether government to business, government to consumer, business to business, business to consumer or consumer to consumer, with the overall potential to redefine transactions in terms of simplicity and removal of potentially multiple steps, all of which involve participants or middlemen. Whilst the technology is still an emerging one (especially with reference to use case), its applications can be readily foreseen across a wide array of sectors, including, by way of example, government, consumer products and services, health, financial services, real estate and business in general.

### PURPOSE OF PROPOSAL

The SA proposal called for an International Technical Committee for Blockchain Standards (ISO/TC 307) to be established that would be responsible for development of a range of deliverables, including a series of ISO/IEC JTC 1 Standards and technical specifications to assist in the development, deployment, use and growth of this key enabling technology platform.

Current governance of blockchain

technology is unstandardised, with no single blockchain standard or protocol currently existing. The technical committee will consider key protocol elements, including permission models (private and public), smart contracts (contracts whose terms are recorded in computer language rather than traditional legal language), application programming interfaces and other elements.

The technical committee work program priority will be the development of specific standards to address critical areas such as terminology, process and methods, trust and interoperability, privacy and security and authentication. In addition to these priority aspects of standard development, the proposed work of the technical committee shall include:

- » defining the standard
- » creating the mechanism to be a gateway to multiple blockchains
- » creating a governance framework
- » ensuring interoperability and compatibility with existing financial standards
- » providing legal and regulatory compliance to each transaction across blockchains, and
- » working towards a regulatory framework that provides a mix of legal and technical rules.

### BENEFITS OF PROPOSAL

The SA proposal states that ISO leadership in developing standards for blockchain as a new field of technical activity will significantly benefit other ISO and ISO/IEC JTC 1<sup>3</sup> works streams, as well as having significant advantages for the private sector, government transactions and the Australian tax and banking system, according to the expectations of the Australian Treasury. In the private sector, for example,

blockchain can support transactions and reduce process management issues related to lengthy supply chains. It can reduce the need for duplication and reconciliation between parties and reduces market friction, making it easier for medium-sized enterprises to interact with local and national authorities. The blockchain technology can assist in a wide range of economic sectors including consumer products and services, health, minerals and precious stones, banking, real estate, transport and automobiles, and small and medium enterprise.

### JUSTIFICATIONS OF PROPOSAL

As part of the standard setting process proposal, justifications were required for consideration by the ISO and SA supplied the following justifications:

- » establishing blockchain standards will position ISO as a leading contributor to develop global solutions to facilitate data movement and information flows, thus enabling more efficient and timely transactions
- » there is no one blockchain standard or protocol currently in use. International standards will allow for interoperability and implementation and use of multiple blockchain related protocols
- » the development of blockchain and electronic ledger standards through ISO will assist this new emerging technology to be rolled out and deployed with greater clarity, certainty and market confidence
- » the widespread adoption and use of international blockchain standards could facilitate a new wave of innovation, productivity, employment and industry opportunities
- » the possibility of contributing to making the provision of public and private services more cost effective and efficient
- » the growing burden of KYC (Know Your Customer) compliance could be significantly reduced through

<sup>3</sup> ISO/IEC JTC 1 is a joint technical committee of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Its purpose is to develop, maintain and promote standards in the fields of information technology (IT) and Information and Communications Technology (ICT).

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- the development of international blockchain standards which utilise shared database(s) for undertaking business and transacting payments
- » blockchain has the potential to create significant benefits for developing countries by unlocking banking and other applications. For instance, real-time transfers of remittances can deliver financial independence for individuals in developing economies. Similarly blockchain can document land titles and owner registrations
  - » the development of international standards to support smart contracts has the potential to decrease contracting, compliance and enforcement provision costs
  - » the development of international blockchain standards will reduce transaction costs for SMEs when dealing with government and businesses

## CONCLUSION

It is important that possible stakeholders in Ireland and across a range of both participating and observer countries are made aware of the proposal made by SA to the ISO, so stakeholders can play a part in the creation of international standards on blockchain and digital ledger technology. Blockchain technology, including any international standards adopted by the ISO, will undoubtedly play a vital role in the development of many business and industry sectors, the most currently obvious of which is the FinTech sector. If Ireland and other non-participant countries wishes to keep up with developments on the blockchain globally they need to get actively involved in the early development of international standards for this ground-breaking and vitally important technology.

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