

August 2018

Blockchain is here. What's your next move?

Global Blockchain Survey 2018



www.pwc.com/blockchainsurvey
Strictly private and confidential

The Essential Eight

emerging technologies
every organization should
consider right now



Artificial
intelligence



Virtual
reality



Blockchain

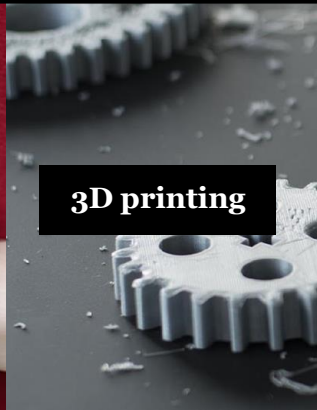


Drones

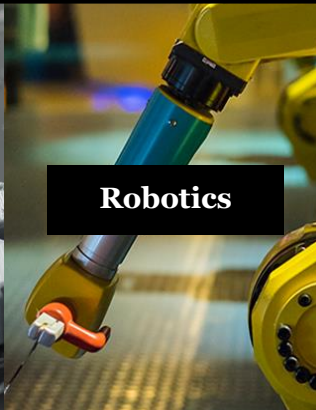
Zero in on the **eight** that are having the biggest
business impact right now.



IoT



3D printing



Robotics



Augmented
reality

Blockchain is changing everything.

In 2030, blockchain could generate **\$3 trillion** a year in business value...

GARTNER

...and **10% to 20%** of the global economic infrastructure could be running on blockchain-based systems.

PWC

84% of executives have at least some blockchain involvement — with **15%** having a live project.

PWC 2018 GLOBAL
BLOCKCHAIN SURVEY

... but what is **blockchain**?

A **blockchain** is a distributed,
tamper proof digital ledger.

Transactions are verified through **consensus** — participants confirm changes with one another—and **cryptography** ensures integrity and security. This eliminates the need for a central certifying authority.



Four key characteristics set blockchain apart from other technologies.



Distributed ledger

Every participant in the network has simultaneous access to a view of the information



Consensus

Verification is achieved by participants confirming changes with one another, replacing the need for a third party to authorise transactions



Cryptography

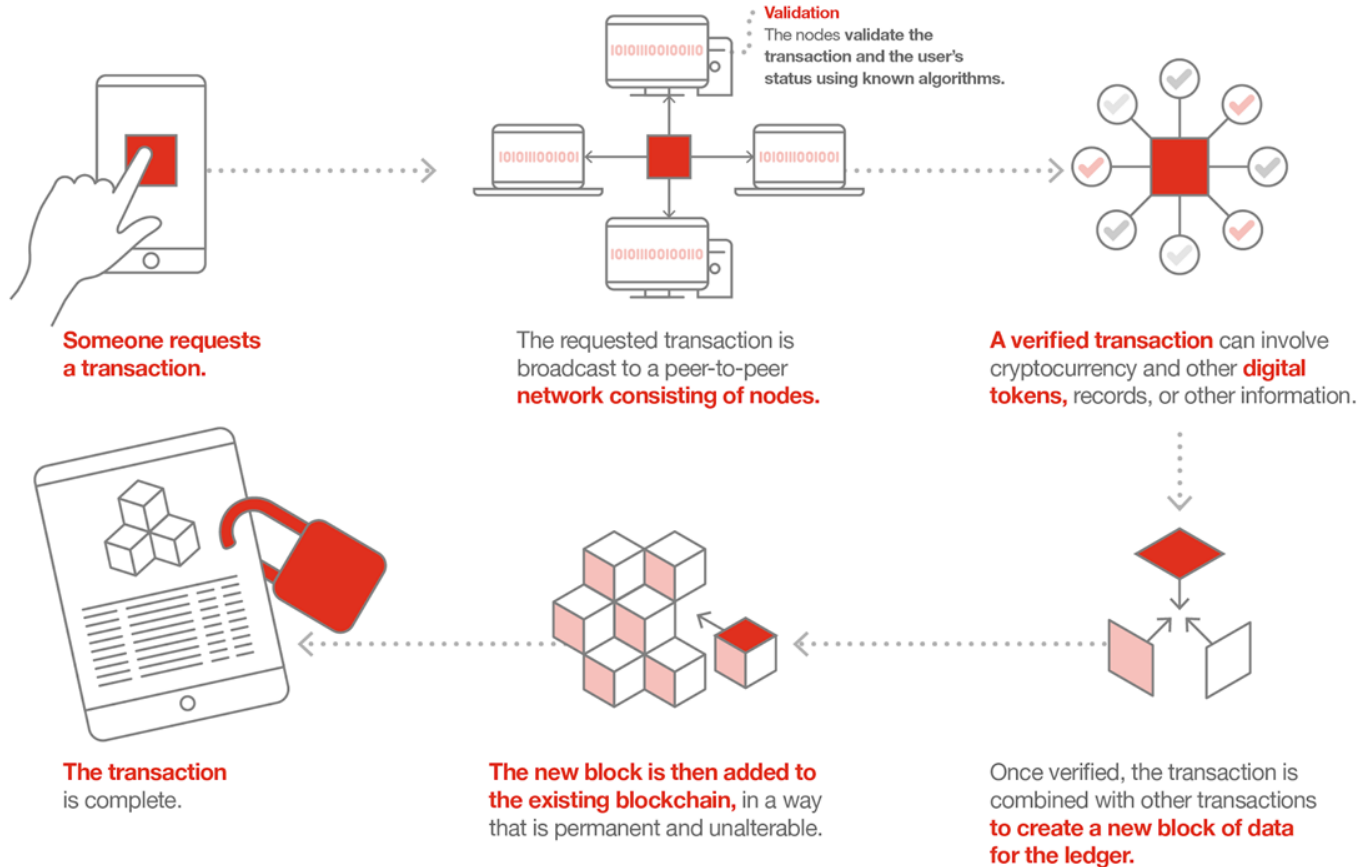
Integrity and security of the information on the blockchain are ensured with cryptographic functions



Smart contracts

The ability to run additional business logic means that agreement on the expected behavior of financial instruments can be embedded in the blockchain

How blockchain works



Digital tokens: reimagining processes and business models

Digital representations of assets, securities, and currencies, which can be used to fractionalize asset ownership, increase liquidity, and improve transaction speeds among token holders.



Currency tokens

Like Bitcoin and Ether, these are payment consideration similar to traditional fiat currencies.



Utility tokens

Rights to goods or services, such as data storage, advertising rights, or energy propositions.



Commodity tokens

Rights to the value of an underlying commodity, such as oil or coffee beans.



Security tokens

Investment interest in a company, including entitlement to profits or rise in company value.



**So what does this mean for
business today?**

Blockchain impacts every part of the business



Supply chain
and logistics



Finance
effectiveness



Loyalty
programs



Identity
management



Digital
currencies



Records
management



Audit and
compliance

Benefits



Increased transparency
and traceability



Faster
transactions



Elimination of
intermediaries



Lower
costs

Barriers



Regulatory
uncertainty



Complex
technology



Collaboration
challenges



Trust
issues

Executives see blockchain's promise, but can they trust it?

Companies must confront blockchain's **trust paradox** — a technology designed to foster trust is being held back by trust issues:

Lack of confidence in complex tech

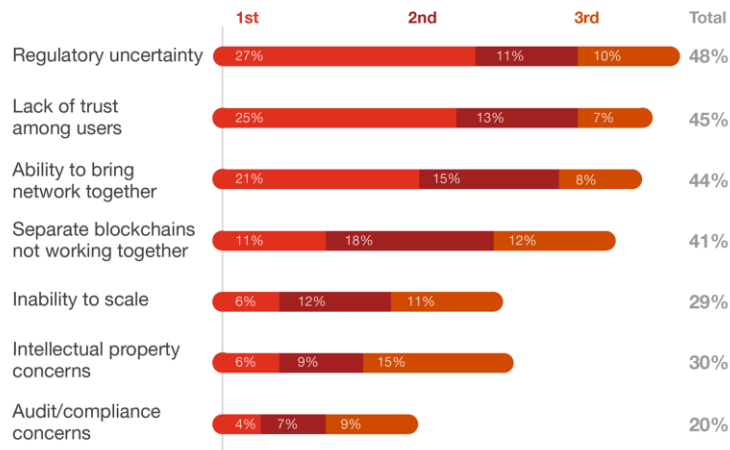
Limited understanding of blockchain

Distrust of ecosystem partners

Discomfort over regulatory uncertainty

The biggest barriers to blockchain adoption

Percentage of respondents ranking top three barriers to blockchain adoption



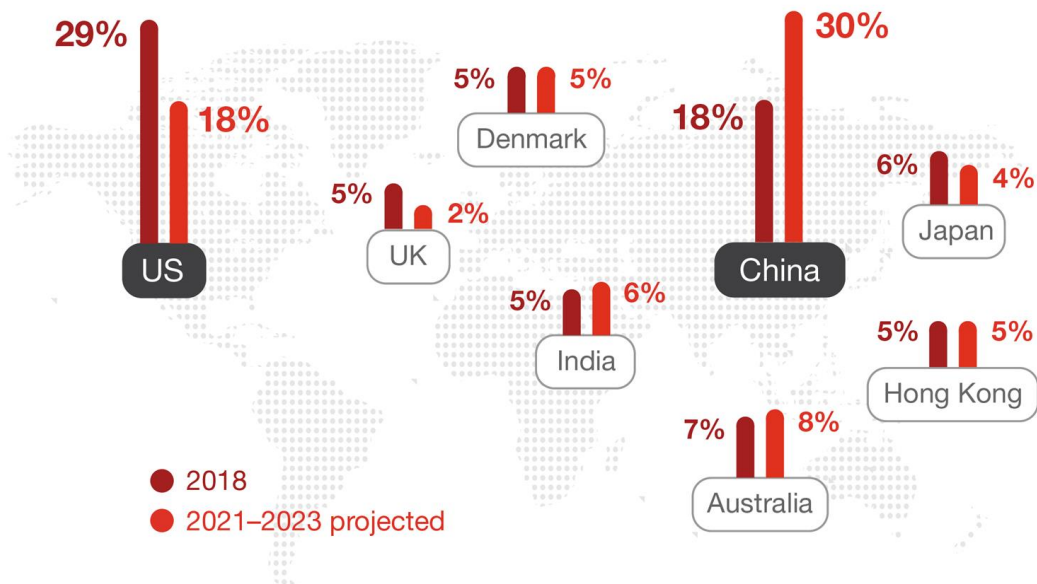
Note: Base: 600.

Q: Which of the following will be the biggest barriers to blockchain adoption in your industry in the next three to five years?

Source: PwC Global Blockchain survey, 2018

Who's leading in blockchain? US today, but China tomorrow.

Executives think the US is most advanced today, but in 3 to 5 years China will be.



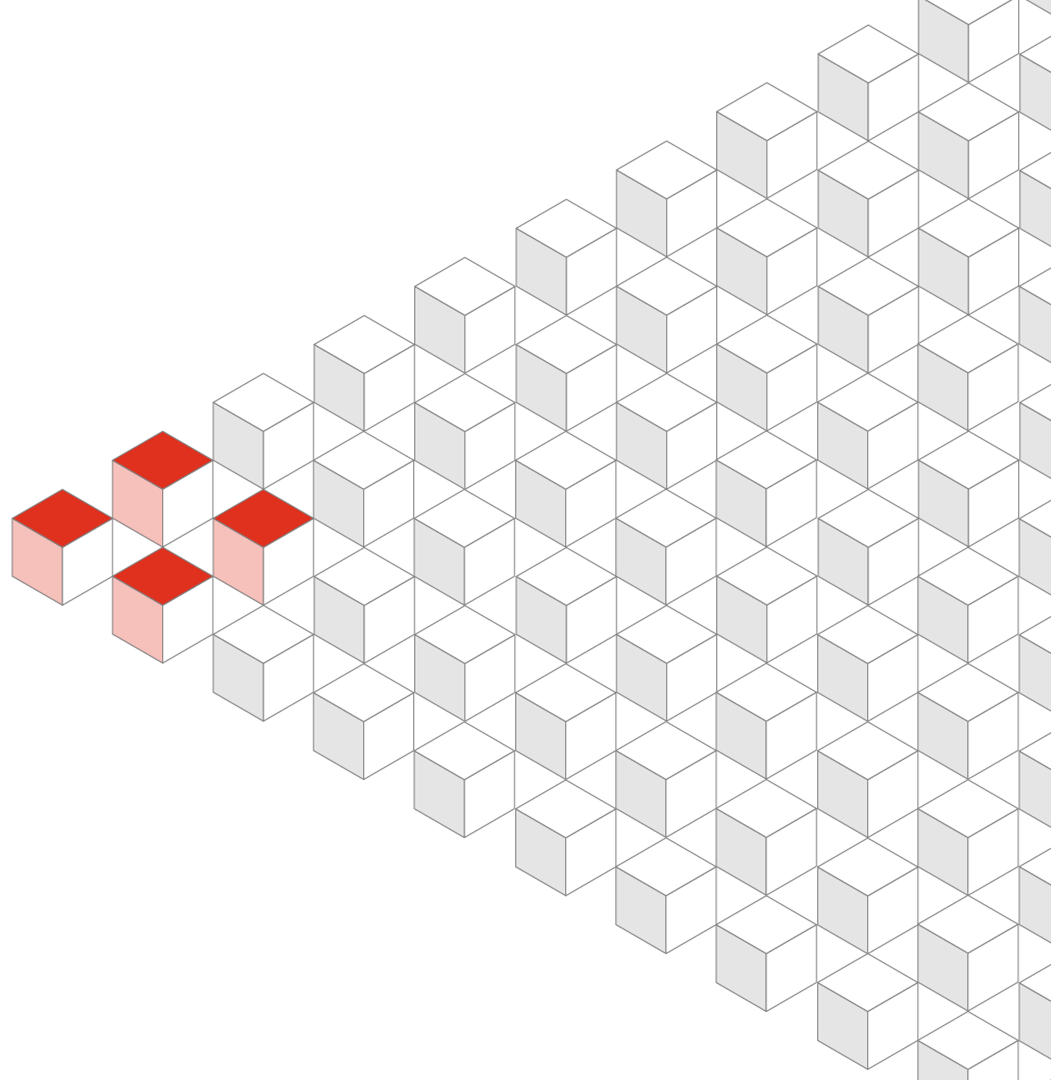
Note: Base: 600.

Q: Which of these territories are most advanced in developing blockchain projects?

Source: PwC Global Blockchain survey, 2018

4 strategies to navigate the new world

How to overcome blockchain's
trust paradox.



1

Make the business case: where and how to start

**Commit to new
ways of working**

**Frame the problem
and solution**

**Start small, then
scale out**

The blockchain checklist: Is the technology right for you?

If your project checks four out of the six boxes, blockchain could be an applicable solution.



Multiple parties
share data



Multiple parties
update data



Requirement for
verification



Intermediaries add
complexity



Interactions are
time-sensitive



Transactions
interact



Build an ecosystem: new rules for new relationships

**Focus on a
cooperative few**

**Broaden your
network**

**Work across the
value chain**

Consortia engagement by type of blockchain project

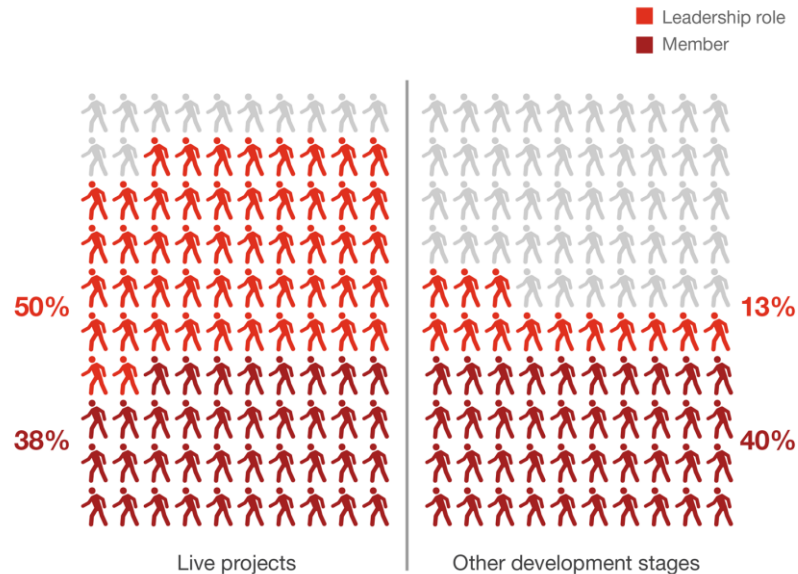


Image not to scale

Note: Bases: Live, 92; other stages (none, research, pilot, development, paused), 513.

Q: Which of the following best describes your organisation's involvement with a blockchain industry consortium?

Source: PwC Global Blockchain survey, 2018

3

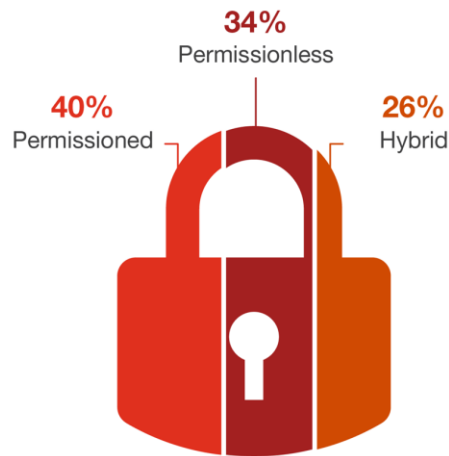
Design deliberately: determine rules of engagement

**Confront risks
early**

**Consider privacy
implications**

**Invest in data and
processes**

How respondents are designing their blockchains



●
Permissioned:
restricted access

●
Permissionless:
open access

●
Hybrid:
mix of permissioned
and permissionless

Note: Base: 389.

Q: For your organisation's projects, how do you address membership/participation?

Q: For your organisation's projects, how do you address network access?

Source: PwC Global Blockchain survey, 2018

Navigate regulatory uncertainty: watch, but don't wait

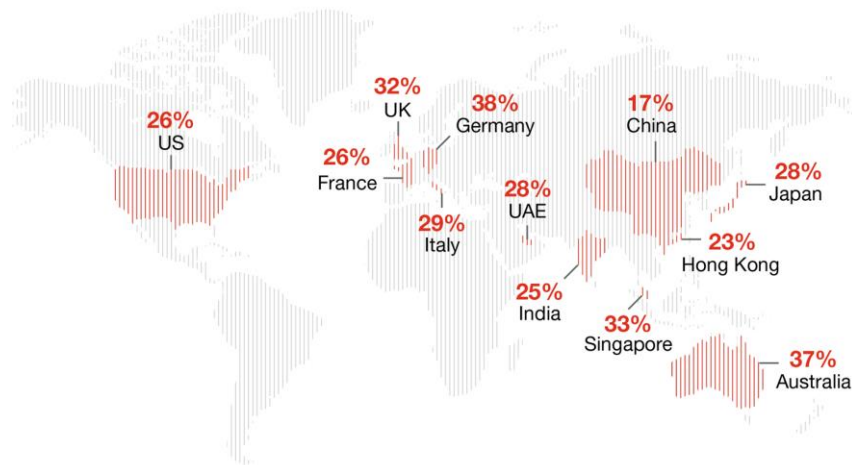
**Shape the trusted
tech discussion**

**Monitor evolving
regulation**

**Use existing
regulation as a guide**

Mapping compliance concerns

Percentage of respondents in territory who report that regulatory uncertainty is the biggest barrier to adoption in the next three to five years



Note: Bases: 37, 30, 30, 41, 42, 57, 32, 144, 31, 51, 31, 54.

Q: Which of the following will be the biggest barriers to blockchain adoption in your industry in the next three to five years? (Rank one)

Source: PwC Global Blockchain survey, 2018

The background of the image features a dark, abstract representation of a blockchain network. It consists of a dense web of thin, light-colored lines connecting numerous small, glowing nodes, creating a complex, interconnected mesh that resembles a globe or a vast digital landscape. The overall color palette is dark, with shades of black and deep brown, punctuated by the bright, warm glow of the nodes and the yellowish light source on the left.

Blockchain is rewiring commerce.
Whether you lead or follow,
start now.

Thank you

