

# Blockchain Enterprise Survey: Deployments, Benefits & Attitudes



August 2017

## Foreword

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# Objectives, Methodology & Key Takeaways



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# Survey Introduction & Methodology

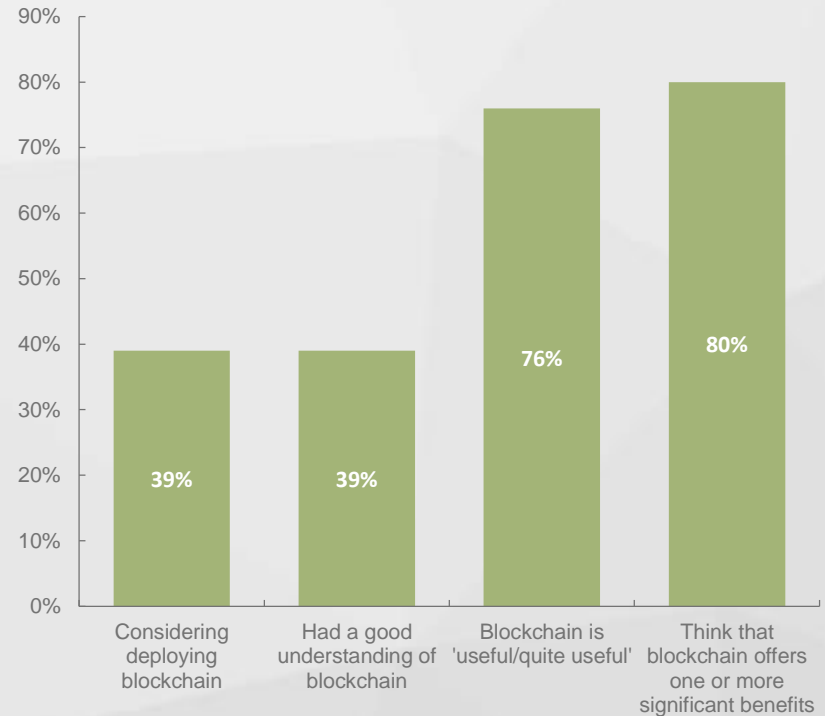
## Survey Objectives

- The **Blockchain Enterprise Survey** aims to provide a greater understanding of current and planned enterprise deployment of blockchain solutions, including an assessment of the perceived key benefits and challenges arising from blockchain implementation. The Survey also seeks to gauge the level of enterprise investment in blockchain technology and discover which companies are regarded as having the strongest leadership credentials in the space.
- The Survey results are presented here and have also informed the research in the **Deep Dive Strategy & Competition** document of **The Future of Blockchain 2017-2022** report. This research analyses the key trends shaping the blockchain landscape, provides an opportunities assessment for blockchain deployments across an array of industries and use cases and assesses the capabilities of, and prospects for, a number of the leading players in blockchain technology today.
- **Methodology**
  - In June 2017, Juniper Research invited company founders, executives, managers and IT specialists to respond to an online survey on their respective companies plans for, and their own attitudes to, the implementation of blockchain technologies.
  - Respondents were incentivised to respond with the offer of executive summaries of the Survey findings and the Deep Dive Strategy & Competition research document.
  - We received 369 responses to the Survey.

# Key Takeaways

- **Blockchain deployments are rapidly becoming mainstream.** Nearly 40% of respondents' companies are deploying blockchain technology, rising to 57% amongst companies with over 20,000 employees
- In part, this is due to **increased awareness and understanding of what blockchain entails**, particularly at Founder/CEO level.
  - a) While 76% of all respondents felt that blockchain could be 'useful' or 'quite useful', this rose to 82% amongst Founders/CEOs
  - b) 39% of all respondents stated that they had a good understanding of blockchain technology (47% amongst Founders/CEOs)
- **Companies implementing blockchain solutions are moving rapidly to full deployment.** Amongst companies who have reached the PoC (Proof of Concept) stage, two-thirds (66%) expected blockchain to be integrated into their systems by the end of 2018.

Respondent Top Level Perceptions of Blockchain



Source: Juniper Research

Sample: All Respondents (369)

# Key Takeaways

- **IBM is perceived to have the strongest leadership credentials amongst blockchain companies**, with 43% of respondents ranking it first amongst its peers.
- **Of companies that had already invested over \$100,000 in blockchain, 91% of those prepared to confirm investment will be spending at least this amount in 2017.** This suggests that most initial investments have delivered results that are sufficiently encouraging for companies to pursue more extensive trials and/or integrations.
- Nearly 90% of all respondents with a good or little understanding of blockchain felt that **there are multiple significant benefits to be derived from deploying the technology.**
- **Companies may have underestimated the scale of the blockchain challenge, particularly around interoperability.** The volume of concern about blockchain is significantly higher amongst companies which are committing to the technology. For issues such as interoperability, the proportion of respondents expressing concerns progressively increases as companies proceed to full deployment, while concerns also rise sharply regarding client refusal to embrace blockchain.
- **There is a perceived danger that the benefits from blockchain could be outweighed or substantially offset by their impact on client/partner relationships.** More than half (51%) of companies deploying blockchain are worried that their deployment will cause significant disruption to their clients.
- **There is a clear perception that current regulations are not sufficient to deal with issues arising from blockchain deployment.** Only 13% of respondents were satisfied with the status quo, with respondents citing areas such as KYC/AML (Know Your Customer/Anti-Money Laundering), privacy and data security where legislation would need to be created or updated.



# Blockchain Awareness, Deployment Status & Perceived Benefits

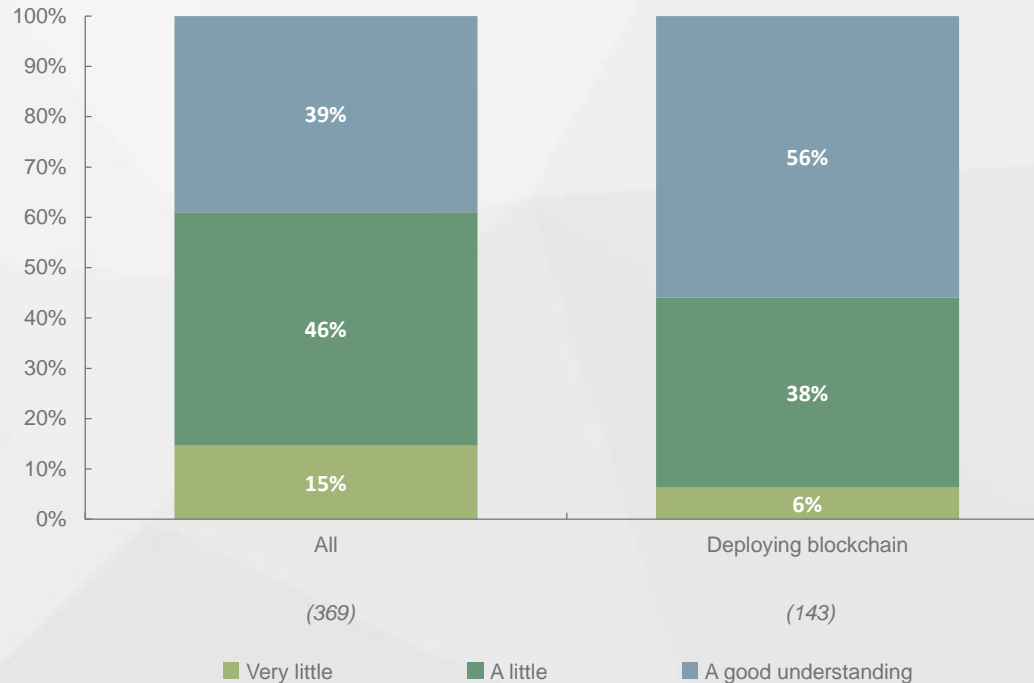


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# The Awareness Barrier has Been Breached

*'Nearly 4 in 10 respondents stated that they had a good understanding of blockchain'*



Sample: All Respondents (369)

Source: Juniper Research

## Key Takeaways:

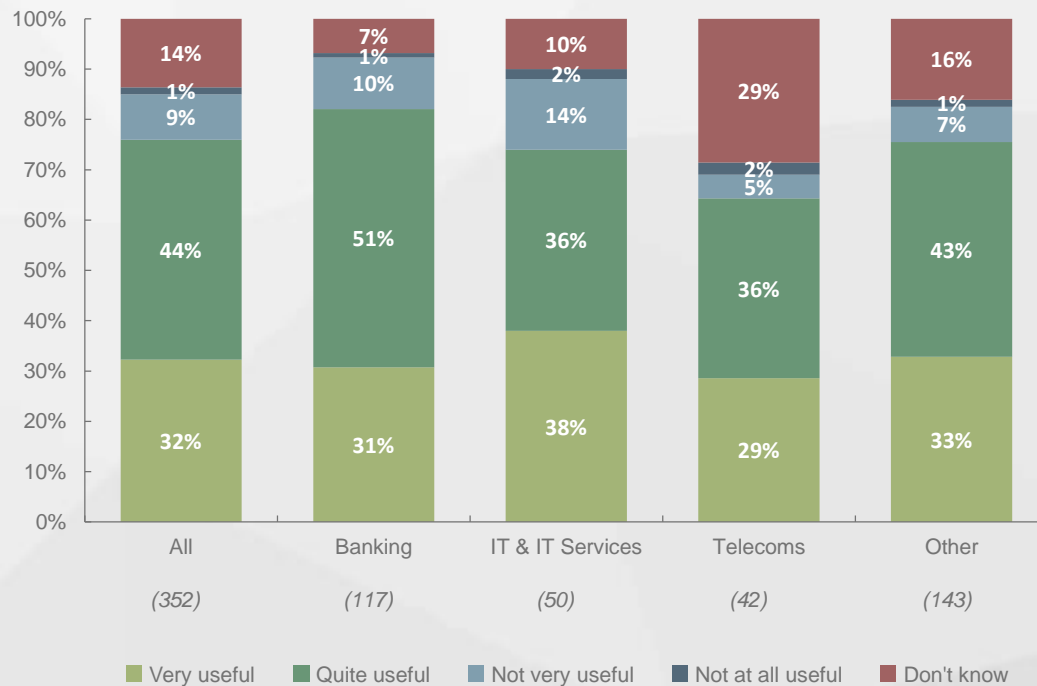
- Awareness levels rose to 56% amongst those considering, or actively, deploying blockchain.
- Awareness is significantly higher amongst respondents from the largest companies (over 20,000 employees).

## Analyst Comment

- The increasingly high levels of awareness significantly reduce the scale of the initial challenge facing platform and technology providers.
- Where previously discussions with technology providers might have begun with explaining the differences between Bitcoin and blockchain, they can now be pitched at, for example, the benefits of a particular blockchain.

# How Useful Will Blockchain be for Me?

*'More than three-quarters of respondents felt that blockchain would be very or quite useful'*



Sample: Those who do not consider blockchain irrelevant to their business (352)

Source: Juniper Research

## Key Takeaways:

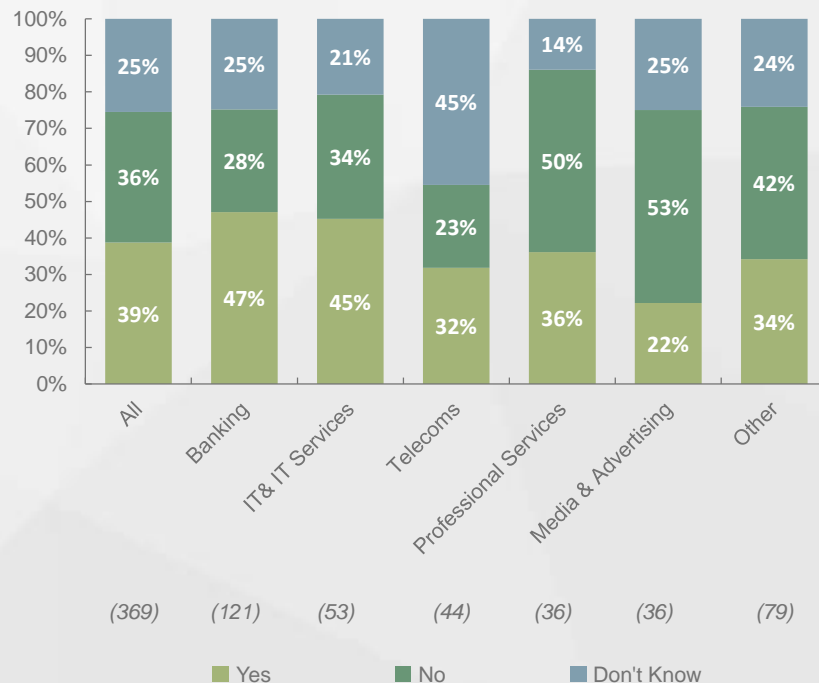
- There was a significantly higher level of uncertainty about the relative merits of blockchain amongst Telecoms respondents than in other verticals.
- Similarly, uncertainty levels were markedly higher amongst managers (21%) and analysts (17%) than founders and executives.

## Analyst Comment

- Those who will be charged with the implementation and integration of blockchain technology have yet to be fully convinced of its benefits.
- However, the fact that over 60% of respondents in every vertical surveyed felt that blockchain would be useful for their industry suggests a wide range of use cases.

# Who is Deploying Blockchain Technology?

*'39% of all respondents indicated their companies are deploying blockchain technology'*



Sample: All respondents (369)

Source: Juniper Research

## Key Takeaways:

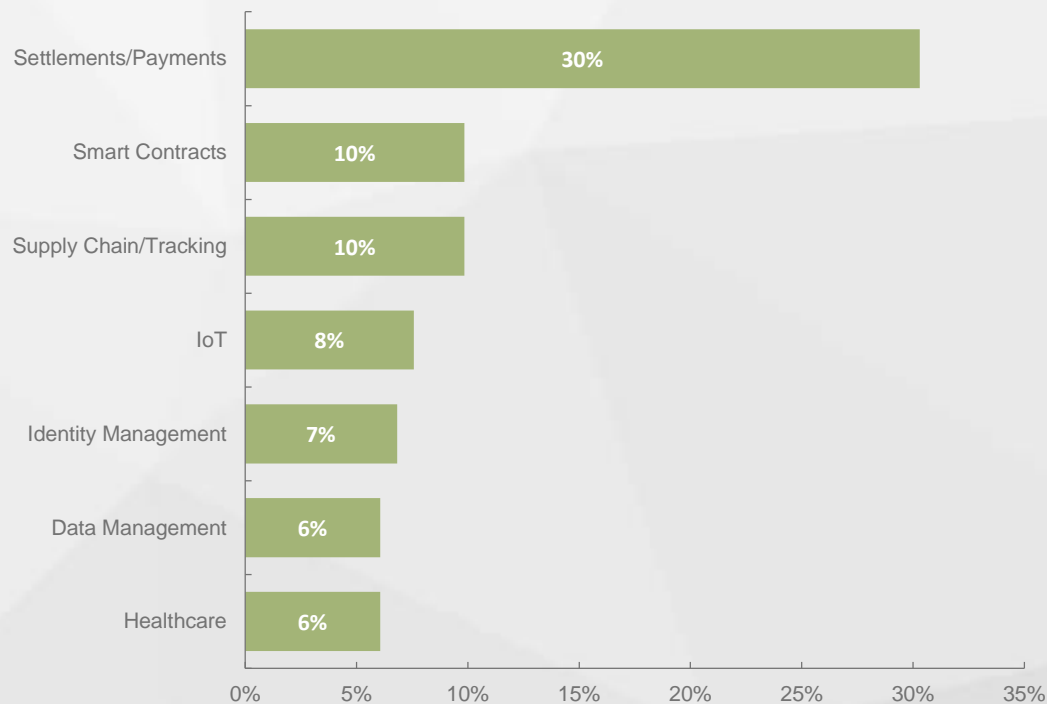
- Nearly 40% of respondents' companies are deploying blockchain technology, rising to 57% amongst companies with over 20,000 employees.
- Deployment rates are highest amongst banking and IT companies.

## Analyst Comment

- Very high level of 'don't knows' in telecoms companies suggests uncertainty as to optimal use cases in this vertical.
- While some use cases identified in the media/advertising space, these are less well defined than the early adopter verticals, hence also a relatively high proportion in media/advertising who consider blockchain 'not very/not at all useful' for their business.

# Why are Companies Deploying Blockchain?

## *'Settlements/Payments dominating early deployments'*



Sample: Those deploying or considering deploying blockchain (132)

Source: Juniper Research

### Key Takeaways:

- Nearly 1 in 3 of the proposed use cases for blockchain revolve around settlement and payments, reflecting financial institutions' 'first mover' status in the space.

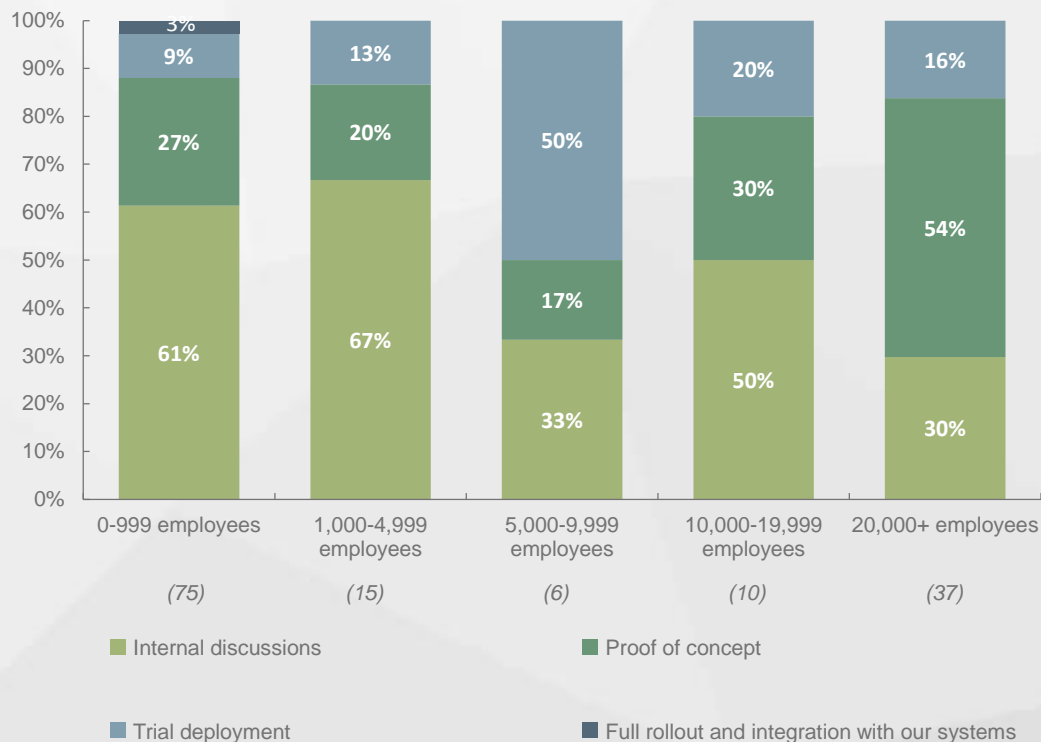
### Analyst Comment

- While settlements was one of the first use cases to be identified for blockchain, the technology's versatility is demonstrated by the range of applications identified by respondents.
- Logistics and supply chain management is fast emerging as the leading deployment opportunity outside the financial sector.

# Largest Enterprises Accelerating Deployments



*'Nearly half the companies considering deploying blockchain have moved past internal discussions'*



Sample: Those considering or actively deploying blockchain (143)

Source: Juniper Research

## Key Takeaways:

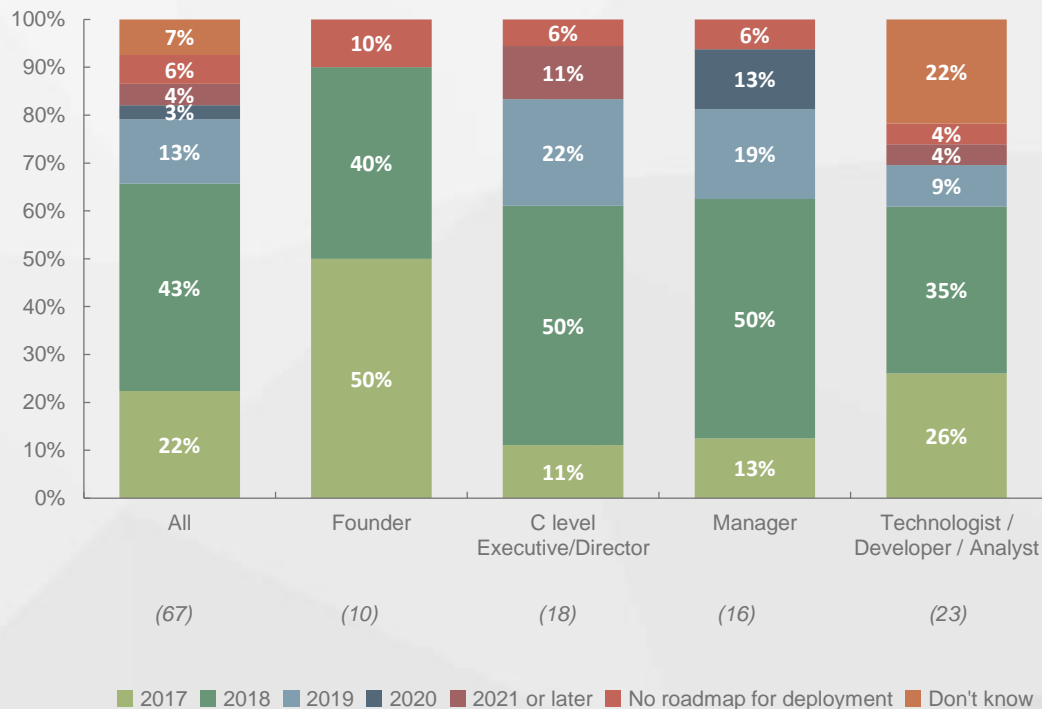
- Amongst all companies deploying blockchain, most (51%) are still at the internal discussion stage.
- However, amongst the largest companies deploying blockchain, more than half (54%) had reached the PoC stage, with a further 16% at trial deployment.

## Analyst Comment

- Many large enterprises have moved swiftly to PoC stage and beyond, suggesting that they have already been convinced that blockchain can deliver tangible benefits.

# When Will Blockchains be Deployed?

*'Two-thirds of companies deploying blockchain anticipate completing integration by 2018'*



Base: Those deploying who have a proof of concept or trial deployment (67)

Source: Juniper Research

## Key Takeaways:

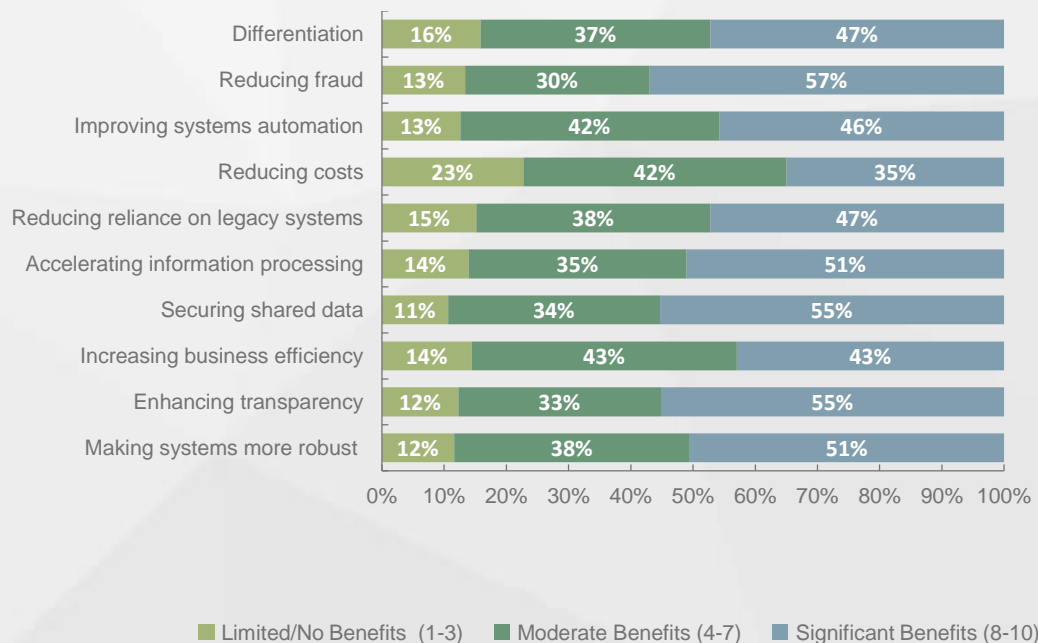
- Amongst companies who have reached PoC stage, two-thirds (66%) expected blockchain to be integrated into their systems by the end of 2018.
- Integration is taking progressively longer as companies get larger. Amongst smaller companies (0-999 employees) that had reached the PoC stage, 81% expected integration by 2018, versus 57% of the largest (over 20,000 employees).

## Analyst Comment

- It is possible that some respondents are being overly ambitious on deployment schedules; technologists and analysts were significantly less willing to commit to completion dates (22%) than managers and CEOs.

# What Benefits will Blockchain Bring?

*'Fraud reduction, data security and increased transparency perceived as key benefits'*



Sample: Those who have a little/a good understanding of blockchain (315)

Source: Juniper Research

## Key Takeaways:

- Nearly 90% of all respondents felt that there were multiple significant benefits to be derived from blockchain deployments.
- However, blockchain is generally thought to be less likely to deliver cost reductions.

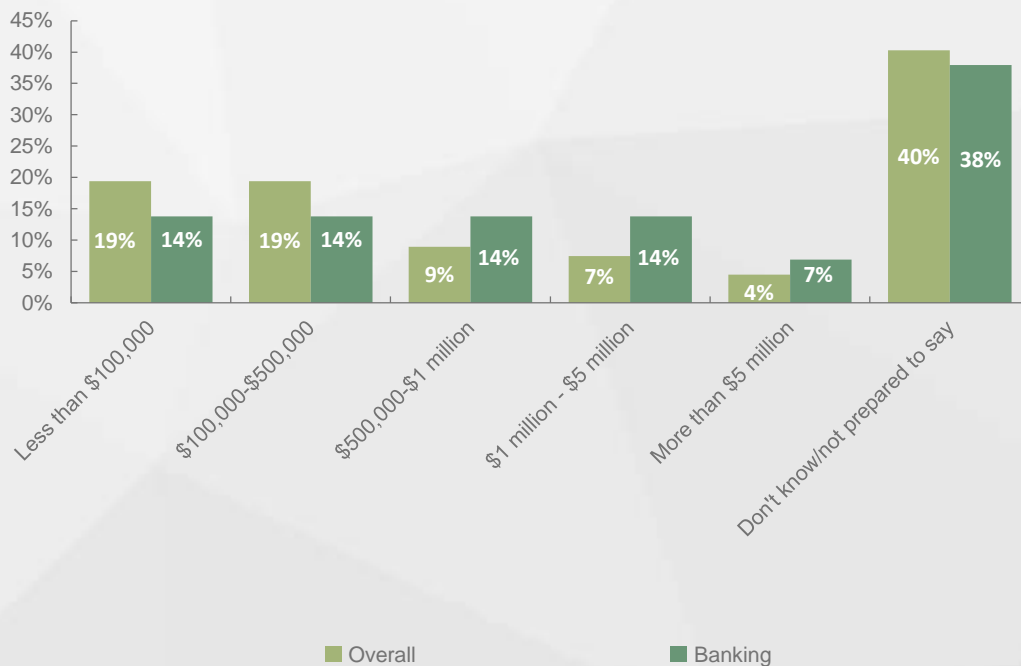
## Analyst Comment

- While there is a degree of commonality around overall scores, verticals have disparate rationales behind blockchain deployments.
- Hence, 89% of healthcare respondents felt that blockchain would deliver significant benefits in securing shared data, while 78% believed there would be similar benefits in terms of making systems more robust against hacking.



# How Much have You Invested?

*'Most companies have currently invested less than \$500,000'*



## Key Takeaways:

- Amongst respondents who were prepared to confirm investment levels, the majority (65%) indicated that their companies had invested less than \$500,000 in blockchain.
- However, 7% of all companies making deployments, that had more than 20,000 employees, and 7% of all banking respondents, indicated that their investments had already exceeded \$5 million.

## Analyst Comment

- Financial institutions have been the earliest adopters of blockchain and many have understandably allocated significant budget given the perception of the efficiencies the technology can offer.

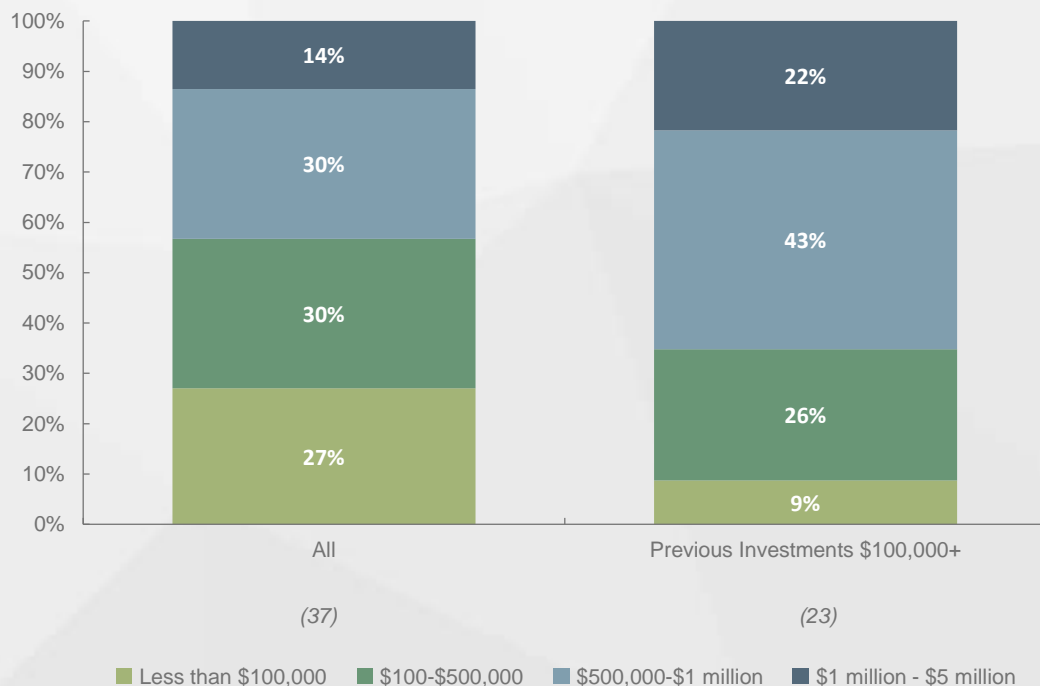
Sample: Those deploying who have a proof of concept or trial deployment (67)

Source: Juniper Research

# How Much do You Plan to Invest?



## *‘Companies planning on maintaining or increasing investment in 2017/2018’*



### Key Takeaways:

- Amongst companies that were prepared/able to confirm investment levels, 43% indicated that they would be spending more than \$500,000 over the next 12 months.
- Of companies that had already invested over \$100,000 in blockchain, 91% of those prepared to confirm investment will be spending at least this amount in 2017.

### Analyst Comment

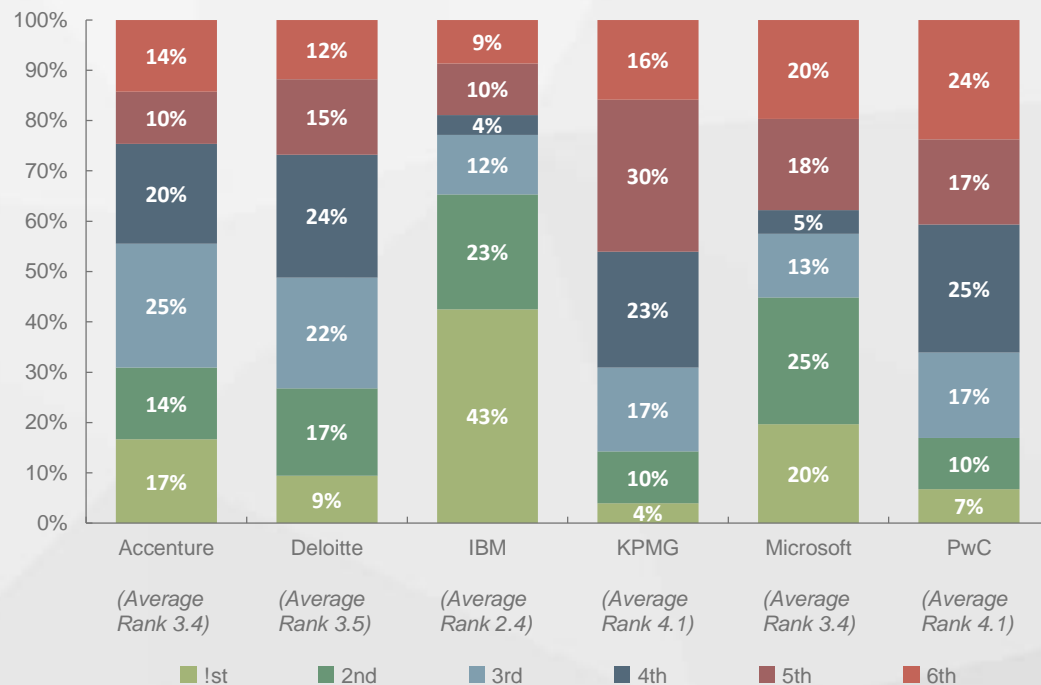
- The results suggest that most initial investments have delivered results that are sufficiently encouraging for companies to pursue more extensive trials and/or integrations.

Sample: Those deploying who have a proof of concept or trial deployment and prepared to confirm investment levels (37)

Source: Juniper Research

# IBM Heads Blockchain Leadership Rankings

*'IBM ranked first for leadership credentials amongst all industry verticals, regardless of company size'*



## Key Takeaways:

- IBM was ranked first by 43% of all respondents, including 58% of telcos, 29% of banks, 53% of large companies and 40% of companies which had already invested in blockchain.

## Analyst Comment

- IBM has established itself as the leading provider of blockchain technology in the world.
- Since January 2016, it has announced more than 30 clients for blockchain solutions, across an array of industry verticals.
- IBM Blockchain was the first commercial deployment of Hyperledger Fabric v1.0 and allows clients to create a skeleton application User Interface to expedite application development.

Sample: Those deploying or considering deploying blockchain (126)

Source: Juniper Research

# Blockchain Barriers, Challenges & Regulatory Requirements

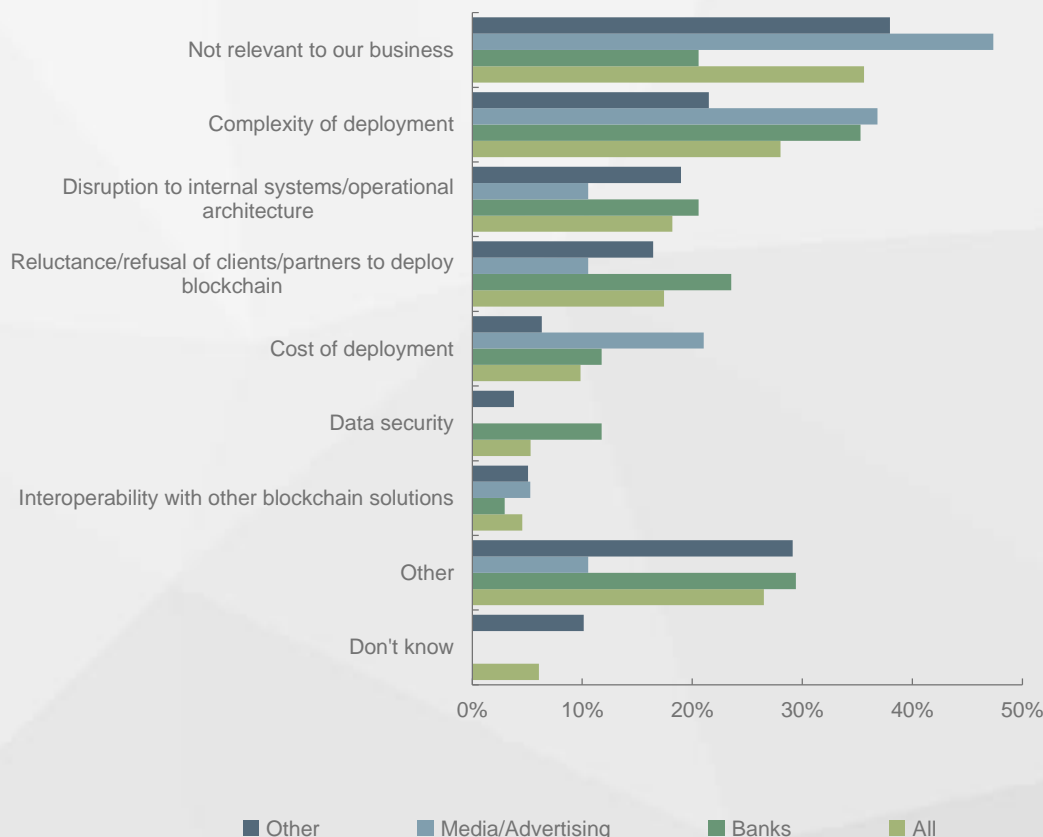


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# Why haven't You Deployed Blockchain?

## *'Lack of relevance key reason for non-deployment'*



Sample: Those not considering deploying blockchain (132)

Source: Juniper Research

### Key Takeaways:

- Lack of relevance and complexity were the most commonly cited reasons for non-deployment.
- The proportion of banks citing lack of relevance was significantly lower than the average (21% against 36%).

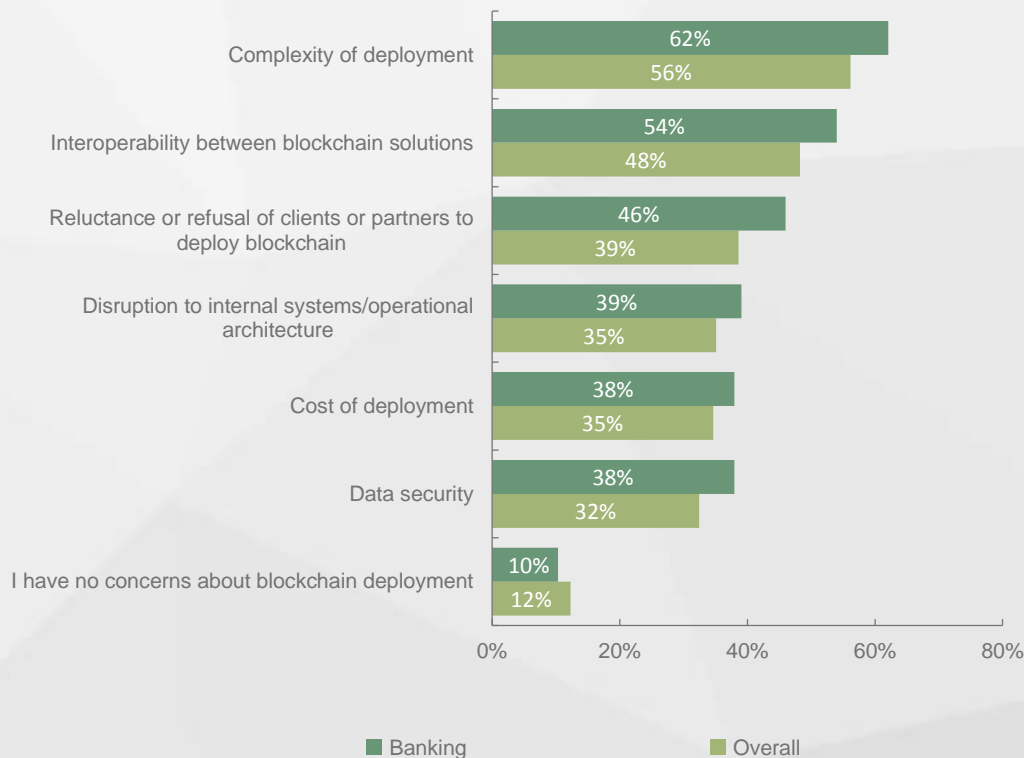
### Analyst Comment

- The overwhelming majority of banks now see that blockchain can address issues around speed and transparency of settlement; those which have not yet engaged with the technology are primarily exercising caution due to concerns about complexity.
- Elsewhere, particularly in media and advertising, relevance needs to be more clearly demonstrated before adoption will increase.

# What are Your Concerns about Blockchain Deployment? (1)



## *'Banks raise complexity, interoperability concerns'*



### Key Takeaways:

- Banks were notably more concerned about the complexity of deployment (62%), interoperability of solutions (54%) and security (38%) than other industries.
- Smaller companies were more concerned about the reluctance of their partners to deploy blockchain (46%) than other companies.

### Analyst Comment

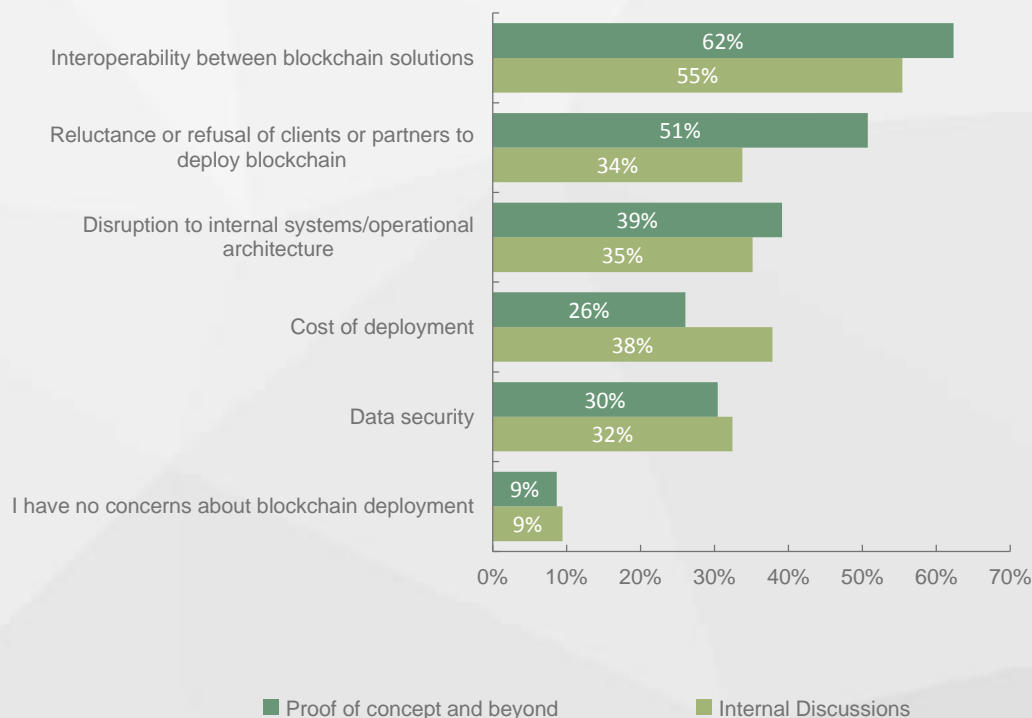
- Ledger interoperability will be essential if blockchain is to be widely used for financial settlement.
- Smaller companies dependent on a small number of key clients might be exposed should those clients not adopt interoperable solutions.

Sample: Those deploying, considering deploying or who don't know if they're deploying blockchain (237)

Source: Juniper Research

# What are Your Concerns about Blockchain Deployment? (2)

## *'Interoperability fears rise as enterprises move to full deployment'*



Sample: Those considering or actively deploying blockchain (143)

Source: Juniper Research

### Key Takeaways:

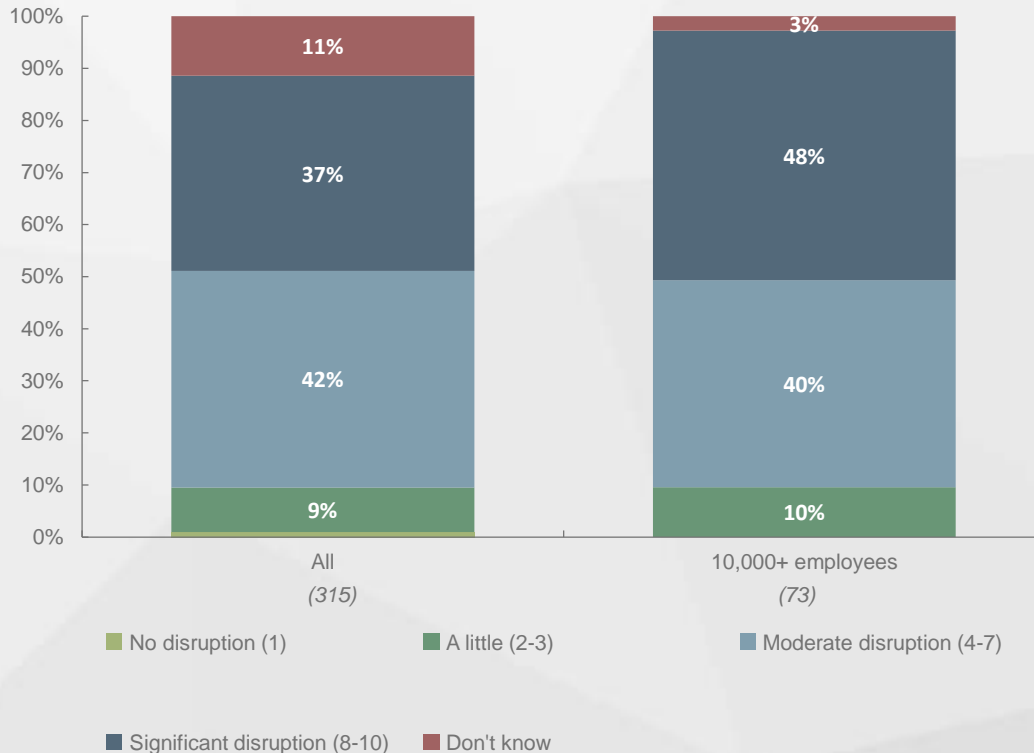
- The volume of concerns are significantly higher amongst companies committing to blockchain.
- Issues such as interoperability levels progressively increase as companies proceed to full deployment, while concerns rise sharply regarding client refusal to embrace blockchain.

### Analyst Comment

- The findings suggest that companies may have underestimated the scale of the blockchain challenge, particularly around interoperability.
- Conversely, cost becomes less of an issue as deployment moves past internal discussions, suggesting that initial fears may have been overstated.

# How Much Internal Disruption will Blockchain Cause?

*'Around 37% of respondents felt that it blockchain deployments would cause significant internal disruption'*



Sample: Those who have a little/a good understanding of blockchain (315)

Source: Juniper Research

## Key Takeaways:

- Proportions were similar amongst both those who are and are not deploying the technology.
- Employees at larger companies (over 10,000 employees) feel it would cause significantly more disruption to their internal systems than other respondents.

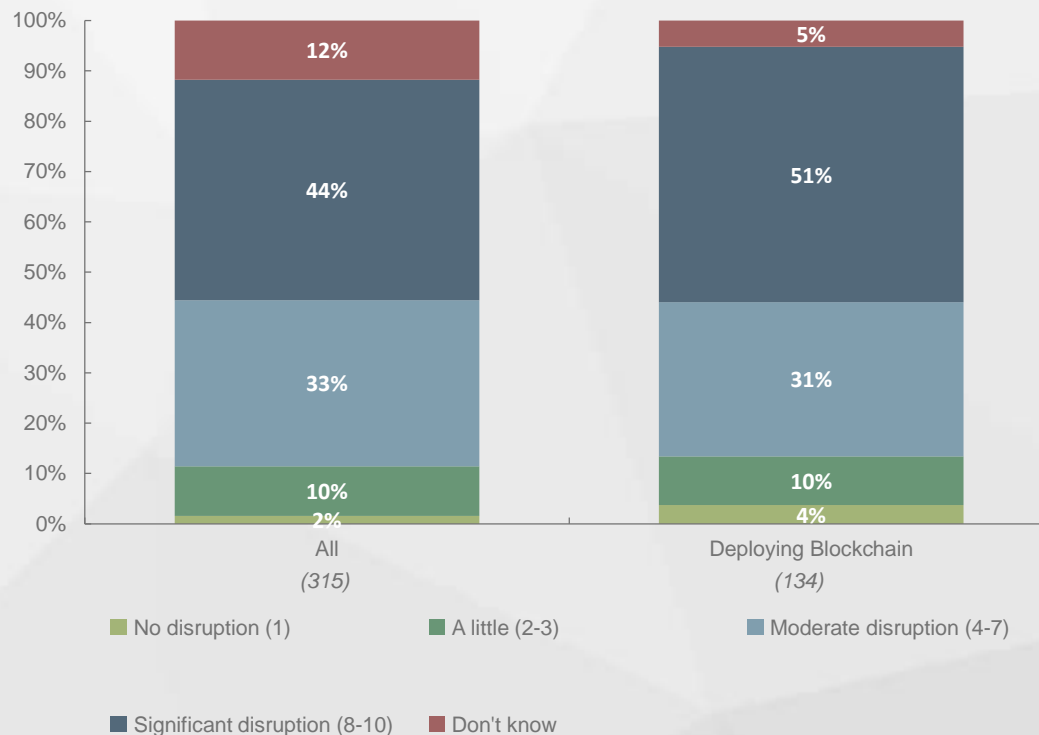
## Analyst Comment

- All verticals recognise that the implementation of the technology would result in a degree of disruption; hence the need for rigorous analysis to gauge whether the medium term benefits are likely to outweigh any disruptive impacts.



# How Much will Clients Be Impacted?

*'44% thought it would result in significant disruption to their partners'*



## Key Takeaways

- This number was higher still (51%) amongst those actually deploying blockchain.
- The proportion of 'don't knows' is significantly lower amongst those deploying blockchain, reflecting the greater understanding gained from engagement with the technology

## Analyst Comment

- Understandably, companies fear that the impact on clients, who may or may not be implementing blockchain, is likely to be even more significant than internal disruption.

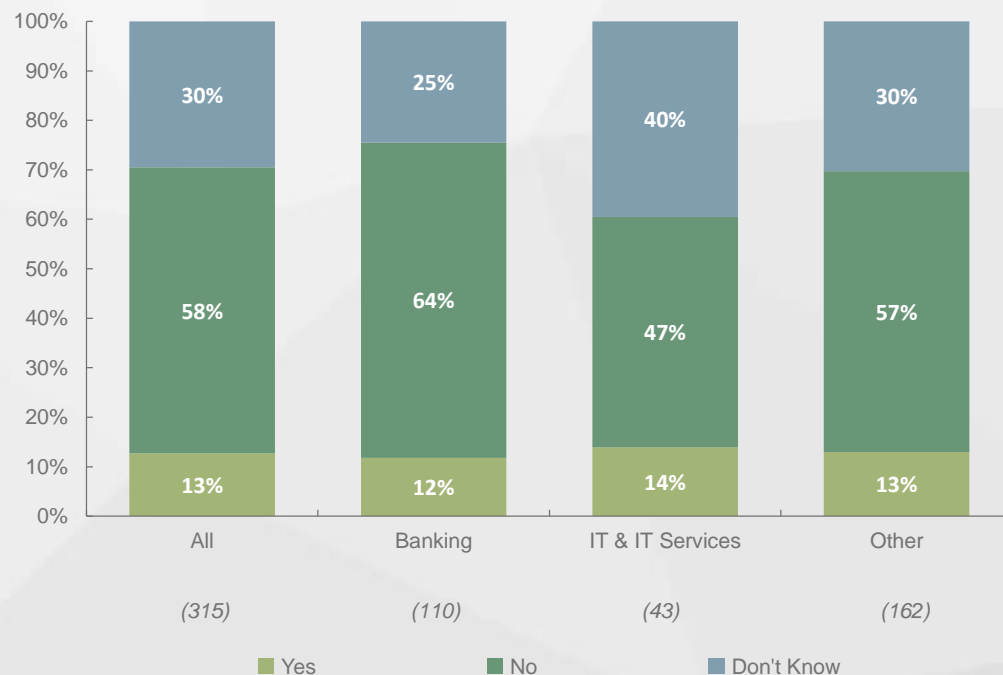
Sample: Those who have a little/a good understanding of blockchain (315)

Source: Juniper Research

# Does Blockchain Require Additional Regulation?



*'A majority of respondents (58%) felt that there was insufficient regulation in place'*



Sample: Those who have a little/a good understanding of blockchain (315)

Source: Juniper Research

## Key Takeaways:

- When 'don't knows' are excluded, this proportion rises to 82%.
- Respondents cited arenas including KYC/AML, privacy and data security where legislation would need to be created or updated

## Analyst Comment

- Integrating ledger technology into existing regulatory regimes as SEC and CFTC have sought to do, may be a challenge.
- Hence, most verticals/use cases will require new legislation..
- Some bodies (eg UK's FCA) have introduced sandbox frameworks to test innovation and identify potential weaknesses in legislation arising from tests.

