



FORRESTER®

# Enterprise Commitment To Blockchain Remains Strong

Explore The Shifting Market Perceptions  
Of Private And Public Blockchains

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FORRESTER OPPORTUNITY SNAPSHOT: A CUSTOM STUDY COMMISSIONED BY EY AND DELL TECHNOLOGIES | MAY 2021

## Make The Most Of Blockchain Technology

While still nascent, blockchain technology has been adopted by enterprises at a steady pace. The onset of the pandemic in 2020 even accelerated some blockchain initiatives, especially those related to supply chain and logistics. However, most projects to date have been via private blockchains. And while interest in public blockchains exists, firms have yet to fully embrace this technology.<sup>1</sup> However, this may change as concerns around network lock-in, scalability, and service supplier availability spur enterprises to consider public.

EY and Dell Technologies commissioned Forrester Consulting to conduct custom research with 289 global blockchain decision-makers to explore how firms' impressions and experiences with private and public networks have shifted over the last several years.<sup>2</sup>

### Key Findings



Firms continue to plan for and implement blockchain technology. Enterprises still favor private over public networks, but there remains strong interest in the public option.



Though security and privacy issues remain, scalability concerns have risen in importance for both private and public blockchains.



A general lack of diversity, flexibility, and competition characterize the service supplier ecosystem for private networks. Firms are open to exploring these options in public networks to ease concerns.

## Efficiency And Transparency Drive Blockchain Use Today

The drivers that spur blockchain adoption today are different than they were in fall 2019. Then, the desire to preserve data integrity and build new revenue models was top of mind, but in the past 18 months, drivers have shifted. Now, firms aim to improve operational efficiency and transparency. This new focus is likely COVID-19-related. The pandemic not only laid bare the lack of visibility in supply chains and highlighted the dependency on paper documents; it also increased the pressure to keep costs under control and use investments wisely. As a result, projects focused on efficiencies and transparency have been accelerated.<sup>3</sup> We can see these priorities reflected in top use cases also. Over 40% of respondents plan to implement digitization and notarization of document use cases in the next 24 months.

### Key Drivers Of Blockchain Adoption

(Sum of top 3 ranked, year over year)

● 2019\* ● 2021

Increased operational efficiency

50%

60%

Increased transparency

38%

51%

Preservation of data integrity

56%

48%

Ability to build new revenue/ business models

52%

47%

Base: 286 director+ business and IT decision-makers with decision-making authority around blockchain at companies with 500+ employees

Source: A commissioned study conducted by Forrester Consulting on behalf of EY/Dell, February 2021

\*Base: 212 director+ blockchain decision-makers in the US, Germany, France, Singapore, and Hong Kong

\*Source: A commissioned study conducted by Forrester Consulting on behalf of EY, September 2019

## Most Blockchain Use Remains Private

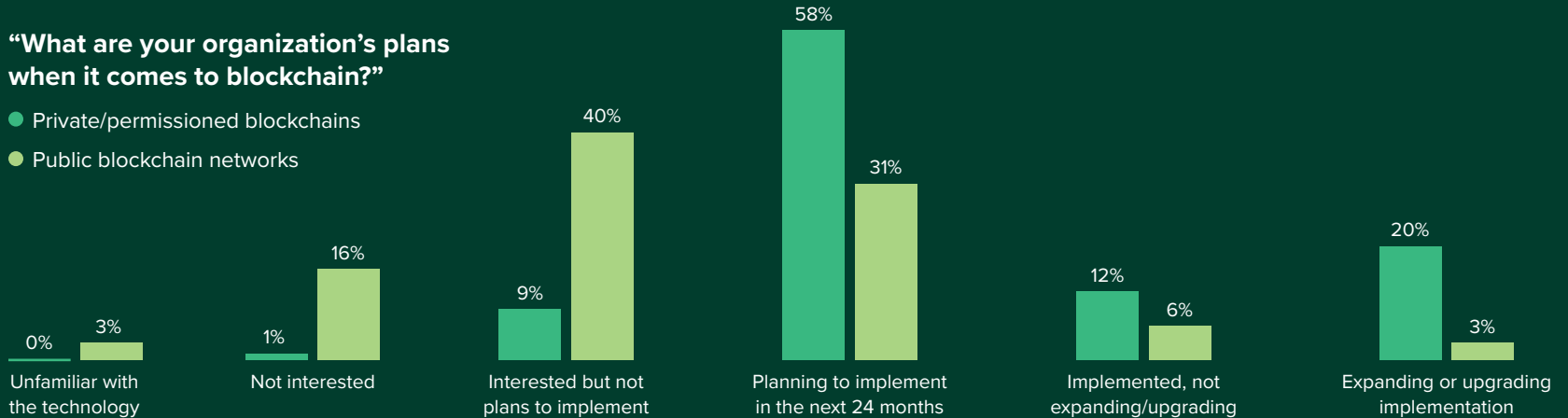
This year's study shows that private blockchain adoption still outpaces public.<sup>4</sup> As was the case in late 2019, most blockchain projects are still in the planning phase, but about one-third of decision-makers say their firms have implemented private blockchains. Despite popularity of private blockchains, there is still considerable interest in public networks. Forty percent of respondents are interested in using public blockchains, while another 31% have actually started planning to use public networks.



**Both public and private blockchain use remains fairly static over 2019's adoption rates.**

### “What are your organization’s plans when it comes to blockchain?”

- Private/permissioned blockchains
- Public blockchain networks



FORRESTER OPPORTUNITY SNAPSHOT:

Base: 286 director+ business and IT decision-makers with decision-making authority around blockchain at companies with 500+ employees  
 Note: Percentages may not total 100 because of rounding.  
 Source: A commissioned study conducted by Forrester Consulting on behalf of EY/Dell, February 2021

## Scalability Has Become A Top Blockchain Concern

As in the past, concerns around security, privacy, and lack of mature technology still loom large for both private and public blockchains. It's worth noting that scalability has risen to become a top concern. Though scalability was a concern for only 32% of 2019 survey respondents for blockchain generally, and 26% for public blockchain specifically, today it is a concern for about half of all respondents for both types of blockchain.

Public blockchain concerns have shifted as well. Concerns around data sovereignty and privacy have risen sharply as firms learn how difficult it is to preserve commercial confidentiality on a shared network. There has also been a shift from lacking executive support to lacking skills, indicating that firms may be moving from building the business case to actively planning to use a public blockchain.

### Top Private Blockchain Concerns



54%

Scalability concerns



51%

Security concerns



50%

Personal data privacy concerns

### Top Public Blockchain Concerns



60%

Security concerns



58%

Lack of control where the nodes are located (data sovereignty)



55%

Lack of technology maturity

## Private Blockchain Networks Lack Diversity And Competitive Services

Business decision-makers also worry about the services ecosystem for private blockchain networks. Nearly half of respondents using a private blockchain currently do not have the necessary functions and services available to them. Furthermore, two-thirds of respondents say that their current blockchain networks lack any ancillary or adjacent services.

Current networks also raise alarms for their lack of flexibility and competition: 63% of respondents are concerned about getting locked into a particular set of suppliers while another 54% note that available service supplier networks are not sufficiently competitive. These issues go hand-in-hand as decision-makers worry that they'll be forced to work with certain third parties simply because they're there and not because they are the best fit for their particular project's needs.

### Blockchain Decision-Makers Want A More Flexible, Diverse, And Competitive Services Ecosystem



**66%** of blockchain decision-makers say their current blockchain networks **lack ancillary or adjacent services**



**63%** of blockchain decision-makers are **concerned about getting locked into a set of service suppliers** for their network



**54%** of blockchain decision-makers find the **set of available services suppliers uncompetitive**

## Blockchain Is Better In Partnership

There's no need to go it alone. Over two-thirds of decision-makers say that they need third-party assistance to properly implement a blockchain solution. The VP of IT from a global pharmaceuticals brand noted: "This is not a journey you can do alone. To impact the life of people, you need to trust your partners."

The technology also becomes more useful when used in tandem with other solutions. Eighty-five percent of respondents agree that blockchain is more valuable when deployed in combination with technologies like internet of things (IoT) and AI. In fact, blockchain projects are most successful when teams understand that the solution must include more than just the blockchain element and integrate with existing systems and other technologies.<sup>5</sup>

**"How strongly do you agree with the following statements?"**

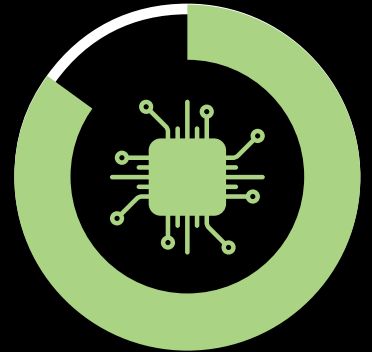


**69%**

"We believe we need third-party assistance to properly implement a blockchain solution."

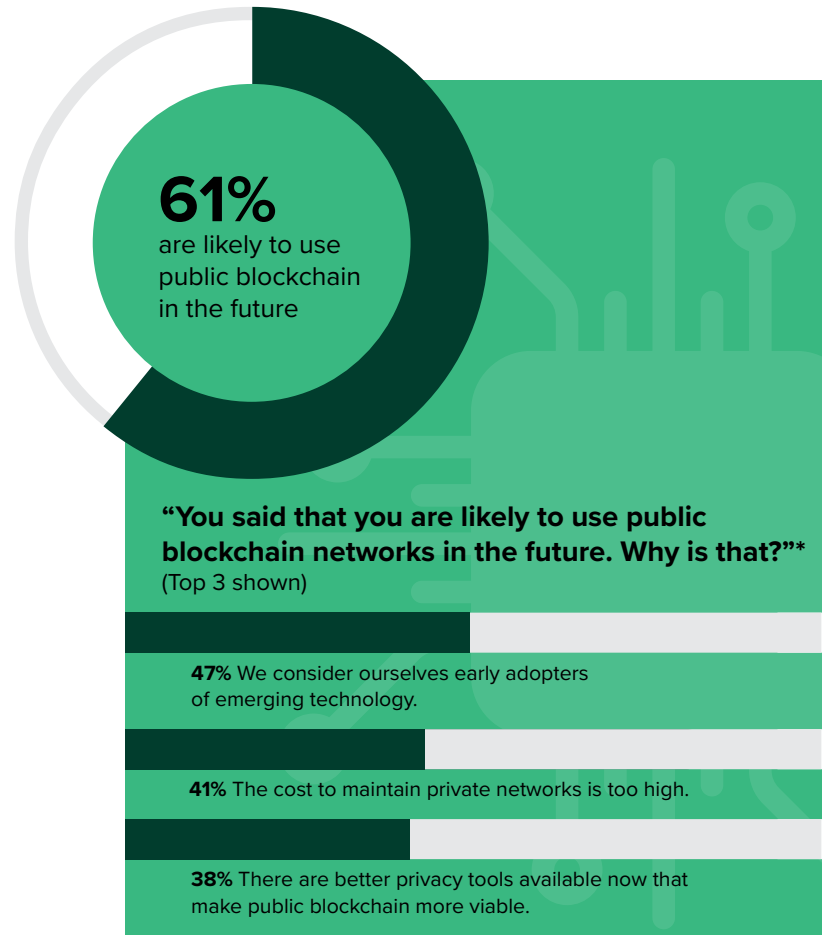
**85%**

"Blockchain becomes more valuable to us in combination with other deployed technologies like internet of things (IoT) or AI."



## Interest In Public Blockchain Remains

Many firms are likely to use public blockchain in the future due to difficulties with private networks and advancements in public networks. There is, however, less enthusiasm than there was at the end of 2019 (32% very likely in 2019 vs. 20% very likely in 2021). This shift is likely due to two factors. Because of the uncertainty and economic downturn of the COVID-19 pandemic, pure R&D endeavors as well as projects without a clear benefits case were often sidelined. Additionally, the proliferation of decentralized finance (DeFi) scams and speculative activity may be driving some executives away from public blockchains.<sup>6</sup> Volatile and often high network fees are another deterrent. Despite these concerns, Forrester doesn't advocate for abandonment of public blockchains, but rather for business leaders to take a long-term view of how these public blockchains can be best used to meet technical and legal requirements.





## Firms See Potential In The Public Blockchain Services Ecosystem

Stemming from their current frustrations with the availability of third-party service suppliers in private blockchain networks, many firms are also open to using third-party services on public blockchain networks. Though this ecosystem is still very nascent, they have the potential, down the line, to provide users with a potentially more dynamic and innovative set of service providers with which they can work. This can ease some of the issues firms currently experience with service providers on private networks.

“Which of the following statements best describes your knowledge of the breadth of third-party services currently offered on public blockchain?”

50%

I am **interested** in the services available on public blockchain but haven't used any.

“How likely is your firm to leverage third-party services in public blockchain networks in the future?”

37%

Somewhat likely

20%

Very likely

## Conclusion

Though blockchain adoption continues, enterprises are still working to find the best way to use this nascent technology. Today, only a small number use public blockchains. But as business leaders gain a better understanding of how public blockchain networks work and the limitations of private networks, interest in public blockchain will continue to grow. Decision-makers must educate themselves on the benefits of public and private blockchain and consider the different architectural options available to make the most of this technology today and in the future.

### **Project Director:**

Rachel Linthwaite,  
Senior Market Impact Consultant

### **Contributing Research:**

Forrester's CIO research group

## Methodology

This Opportunity Snapshot was commissioned by EY and Dell Technologies. To create this profile, Forrester Consulting conducted custom survey research with 286 blockchain decision-makers in the US, Singapore, Hong Kong, the UK, Italy, Germany, and France. Additionally, Forrester conducted three telephone interviews with similar respondents. The custom survey and interviews began in February 2021 and were completed in March 2021.

## Demographics

### GEOGRAPHY

35% United States

43% Europe

21% Asia

### COMPANY SIZE

36% 500 to 999 employees

43% 1,000 to 4,999 employees

13% 5,000 to 19,999 employees

7% 20,000+ employees

### TITLE

49% Director

37% Vice president

14% C-level executive

### TOP INDUSTRIES

12% Tech/tech services

12% Financial services

8% Retail

7% Manufacturing

## ENDNOTES

<sup>1</sup> In this study, we use the terms private and permissioned blockchains interchangeably to mean networks that require permission to join and where participants must meet joining criteria and may have to undergo a vetting procedure prior to joining. Public (or permissionless) blockchains are blockchains where anybody can participate without prior vetting or needing permission to join.

<sup>2</sup> This study includes comparisons to data collected in September 2019 and published in the EY-commissioned study, “Seize The Day: Public Blockchain Is On The Horizon.”

<sup>3</sup> Source: “COVID-19 Is Accelerating Critical Enterprise Blockchain Initiatives,” Forrester Research, Inc., August 17, 2020.

<sup>4</sup> In this study, we used the term “private” synonymously with “permissioned” blockchains.

<sup>5</sup> Source: “Webinar: Blockchain Predictions 2021: Is It Time To Stop Talking About Blockchain?” Forrester Research, Inc., February 10, 2021.

<sup>6</sup> Source: “Predictions 2021: Blockchain,” Forrester Research, Inc., October 27, 2020.

## ABOUT FORRESTER CONSULTING

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