



HFS Horizons Report

Enterprise Blockchain Services, 2023

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Excerpt for Capgemini



The enterprise blockchain market is rapidly changing. Economic headwinds are forcing enterprises to prioritize investments with fast return on investments—which is not typical of blockchain. Meanwhile, innovation is transforming the market; public blockchains continue to win favor, and the emergence of Web3 and metaverse has created a new category of blockchain-fueled initiatives.

Smart service providers are transforming how they deliver blockchain services. A new focus on turnkey offerings delivers faster time-to-value and helps enterprise clients achieve real value with a new focus on production-grade initiatives.

But will it last?

Sam Duncan, Practice Leader

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Introduction

Introduction

- Macroeconomic headwinds have forced belt-tightening, and many enterprises have shifted their focus to the latest technologies, particularly metaverse and generative AI, resulting in a slowdown of enterprise blockchain growth. This slowdown has led to a focus on genuine value-adding engagements and a move away from useless proofs-of-concept.
- This *HFS Horizons: Enterprise Blockchain Services, 2023* report is a snapshot of leading service providers' enterprise blockchain services capabilities. It will examine how service providers leverage public and private blockchains to deliver outcomes for enterprise clients throughout their engagements. All service providers covered are considered significant players in the enterprise blockchain ecosystem, with a handful of production or close-to-production engagements.
- This report will be complemented by a snapshot report, *HFS Horizons: Public Blockchain Services, 2023*, which will delve into service providers' public blockchain-centric services capabilities.
- The report examines 14 service providers across a defined series of value propositions, execution and innovation, go-to-market strategy, the voice of the customer, and alignment with the HFS OneOffice criteria. The report highlights the overall positioning for all participants and the leaders for each sub-category.
- This report also includes detailed profiles of each service provider, outlining their provider facts, strengths, and development opportunities.
- We based this Horizons research on information collected in Q1 2023 through provider data submissions, structured briefings, networking events, and publicly available information sources. It was augmented by interviews with 300+ enterprise services clients from the Global 2000. We asked specific questions about the innovation and execution performance of the service providers we assessed.

Executive summary

- 1 Today's Horizon 3 market leaders for enterprise blockchain services**

We assessed 14 providers of enterprise blockchain services across value proposition, execution and innovation capabilities, go-to-market strategy, and market impact criteria. We identified the following Horizon 3 market leaders: Accenture, Capgemini, EY, Infosys, and IBM. These are the market leaders due to their ability to drive real value for enterprises with production-grade blockchain solutions, enabling ecosystems and inspiring key stakeholders across numerous industries. Further, these providers have developed deep capabilities, curated a rich ecosystem of partners, and demonstrated the ability to attract, train, and retain top-level talent in an extremely competitive market.
- 2 Growing focus on production-grade engagements**

Historically, leading providers have reported only a handful of enterprise blockchain engagements in the production environment, instead focusing on advisory and proof-of-concept services. However, as enterprises tighten their belts and search for emerging tech investments with quick ROIs and enterprise blockchain has matured, a fresh importance has been placed on production-grade engagements delivering real business value today. However, it's important to note that market leaders still only report 10%-20% of engagements in the production environment—a definite improvement—but there's still a long way to go.
- 3 Enterprises want partners with proprietary tools and accelerators**

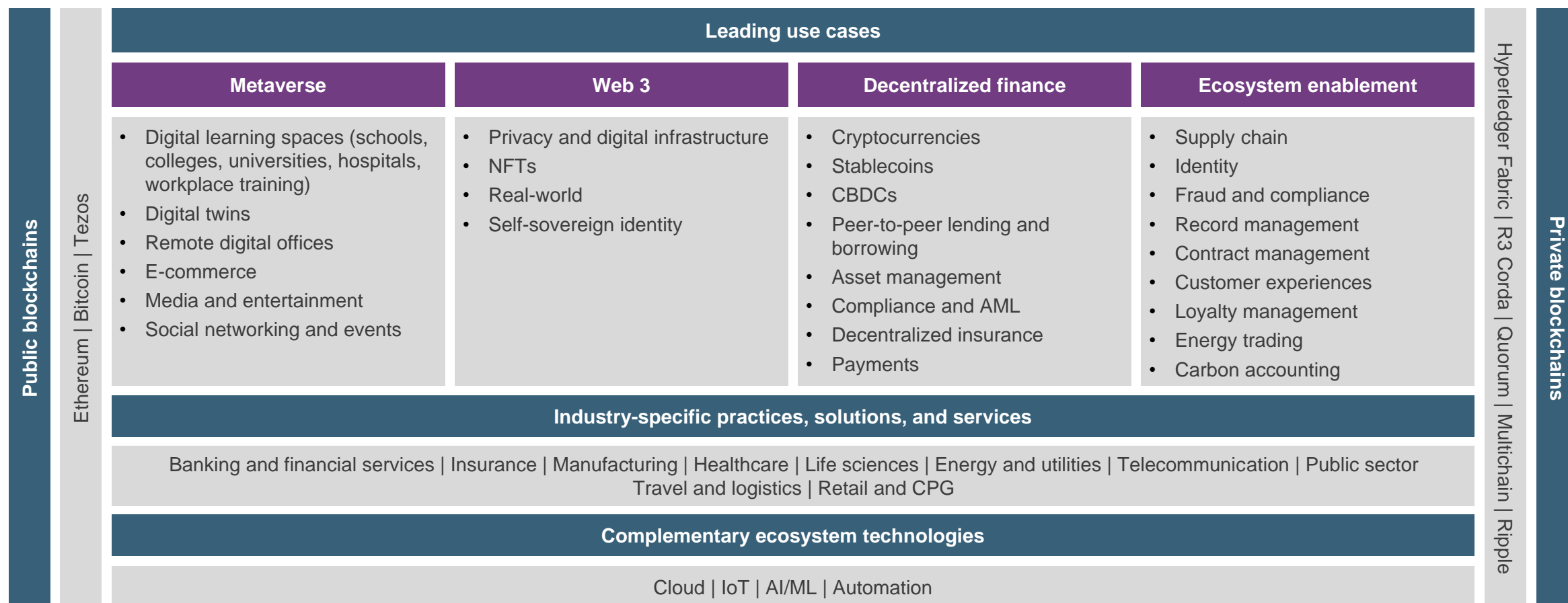
Our research has shown that internal stakeholder buy-in and overall nascency of blockchain solutions are the two biggest adoption hurdles for enterprises. Our candid conversations with leading executives revealed that selecting a partner with a catalog of relevant tools and accelerators can help ease these challenges by streamlining the adoption process. In response, we have seen a sharp increase in the number of service providers investing in productized enterprise blockchain offerings, tools, and accelerators, but we're not there yet. Service providers must ensure their offerings align with the latest innovations and that their enterprise clients know about them and how to leverage them effectively.
- 4 Public blockchains aren't going anywhere**

Enterprise adoption of public blockchains, particularly Ethereum, continues to grow. HFS has written about how continued innovation makes Ethereum a much more viable option for enterprises, including the growth of Zero-Knowledge Proofs, Layers 2s, Sidechains, and the famous "merge." When asked why they selected public blockchains, enterprises responded with scalability, stakeholder integration, and, as one client told us, "innovation will force everyone to public blockchain." In contrast, many enterprises told us they still favored private blockchains due to regulatory requirements.
- 5 Improving the breadth and depth of blockchain-specific offerings**

The partners of leading enterprise blockchain service providers told us they were generally very impressed with the providers, particularly their ability to co-innovate and drive ecosystem synergy through collaboration. However, across the board, partners agreed there is room for improvement when it comes to the breadth and depth of leading providers' blockchain-specific offerings. In particular, there were a handful of calls for providers to build cost-effective vertical solutions proactively to solve client challenges.

The HFS enterprise blockchain services value chain

The *HFS Horizons: Enterprise Blockchain Services, 2023* report focuses on delivering business outcomes through transformation and innovation with a particular focus on production-grade engagements.

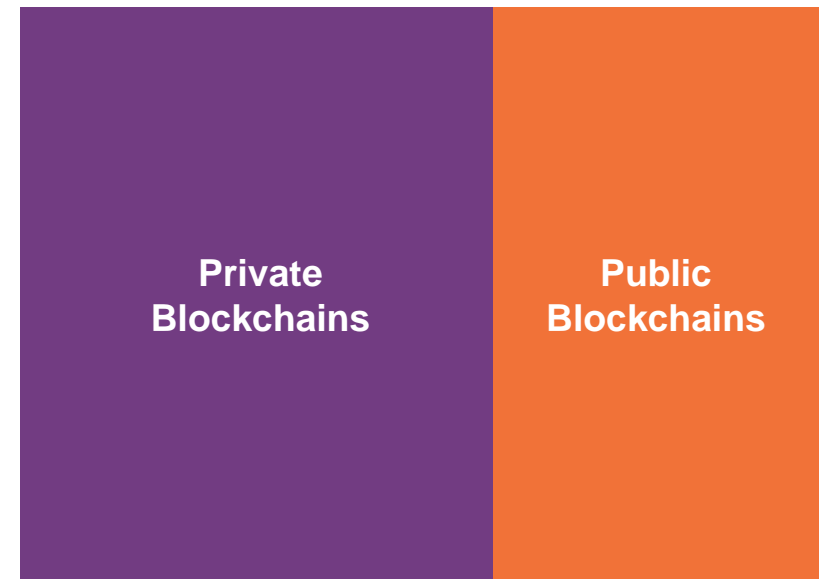


The HFS enterprise blockchain services value chain explained

HFS developed the enterprise blockchain value chain to depict our understanding of the enterprise blockchain ecosystem. It spans public and private blockchain services, which remain mostly interchangeable despite each bringing strengths and weaknesses. The value chain covers the full life cycle of the engagement across advisory, prototyping, piloting, and production. We expect service providers to deliver on these key levers:

- **Genuine use cases:** How do service providers help enterprises identify and deliver value through leading use cases with enterprise blockchain? Can they identify the right use cases to move beyond proof-of-concept to production and deliver it alongside the necessary advisory, consulting, and support services?
- **Ecosystem enablement:** Do they bring in the right blend of emerging technologies, industry knowledge, and technical experts to enable ecosystems for enterprises to generate shared value?
- **Going beyond the tech:** The learning curve is steep for enterprise blockchain, and service providers are expected to bring deep industry and process expertise to support enterprises, regulators, and ecosystem stakeholders throughout the journey.
- **Change management:** Blockchain is a team sport, and one of the biggest challenges continues to be bringing stakeholders together, which means leading service providers bring robust change management capabilities.

Nearly two-thirds of the enterprise blockchain ecosystem is private blockchains.



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Research methodology

Service providers covered in this report

 **accenture**

 Capgemini

Coforge

 cognizant

EVIDEN
an atos business

 **EY**

Globant 

IBM

Infosys[®]
Navigate your next

 **Mphasis**
The Next Applied

NTT DATA

tcs **TATA**
CONSULTANCY
SERVICES

Tech
Mahindra

U ■
S ■
T

Note: All service providers are listed alphabetically

Sources of data

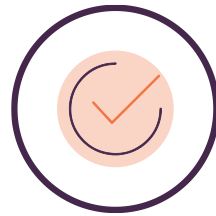
This report relied on myriad data sources to support our methodology and help HFS obtain a well-rounded perspective on enterprise blockchain service providers in our study. Sources are as follows:



Briefings and information gathering

HFS conducted detailed briefings with enterprise blockchain leadership from each vendor.

Each participant submitted a specific set of supporting information aligned to the assessment methodology.



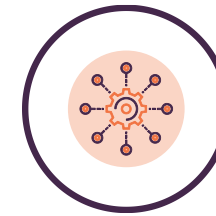
Reference checks

We conducted reference checks with 32 **active clients and partners** of the study participants via phone-based interviews and detailed surveys.



HFS vendor ratings

Each year, HFS fields **multiple demand-side surveys** in which we include detailed vendor rating questions. For this study, we leveraged our fresh from the field HFS Pulse Study data.



Other data sources

Public information such as press releases and web sites.

Ongoing interactions, briefings, virtual events, etc., with in-scope vendors and their clients and partners.

Assessment methodology

The *HFS Horizons: Enterprise Blockchain Services, 2023* report evaluates providers' capabilities across a range of dimensions to understand the **Why, What, How, and So What** of their enterprise blockchain services offering.

← Assessment dimension (weighting) →

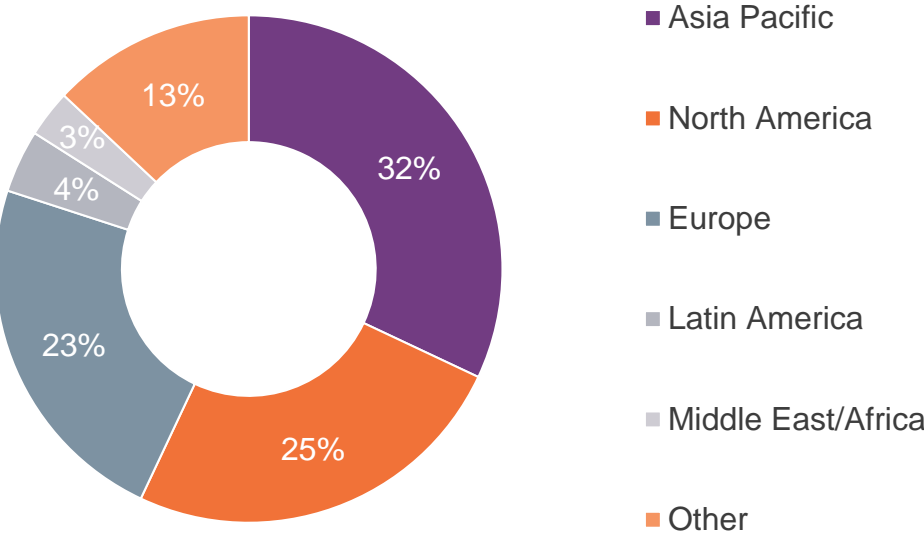
		Value proposition: The why? (25%)	Execution and innovation capabilities: The What? (25%)	Go-to-market strategy: The How? (25%)	Market impact: The So What? (25%)
Distinguishing service provider characteristics	Horizon 3	<ul style="list-style-type: none"> Horizon 2 + ability to drive OneEcosystem™ synergy via collaboration across multiple organizations with common objectives around driving completely new sources of value 	<ul style="list-style-type: none"> Horizon 2 + well-rounded capabilities across all value creation levers: talent, domain, technology, data, and change management Strategy and execution capabilities at scale Active contributors to leading consortiums and open-source initiatives 	<ul style="list-style-type: none"> Horizon 2 + driving co-creation with clients and ecosystem partners alike Demonstrated the maturity to lead multiple clients to production environments and drive true business value 	<ul style="list-style-type: none"> Horizon 2 + referenceable and satisfied clients driving new business models and enabling ecosystems on the basis of the partnership Perceived as a thought leader
	Horizon 2	<ul style="list-style-type: none"> Horizon 1 + ability to drive OneOffice model, breaking down internal silos with shared immutable ledgers, streamlining internal processes, and delivering enterprise-level business outcomes and stakeholder experiences 	<ul style="list-style-type: none"> Horizon 1 + global capabilities with strong consulting skills and partnerships with blockchain-specific technology and services firms Ability to support clients on their end-to-end enterprise blockchain transformation journey Consortium memberships 	<ul style="list-style-type: none"> Horizon 1 + proven and leading proprietary tools, assets, and frameworks A handful of clients in production and delivering some business value 	<ul style="list-style-type: none"> Horizon 1 + referenceable and satisfied clients citing the ability to innovate Perceived as a strategic partner driving business and technology transformation
	Horizon 1	<ul style="list-style-type: none"> Ability to drive functional optimization outcomes through cost reduction, speed, and efficiency 	<ul style="list-style-type: none"> Primarily focused on implementation Offshore-centric with strong technical skills Partnerships with leading blockchain platform providers (Hyperledger, Ethereum, R3, etc.) 	<ul style="list-style-type: none"> Robust deliver of enterprise blockchain solutions Focused on pilot and proof-of-concept engagements 	<ul style="list-style-type: none"> Referenceable and satisfied clients citing the ability to execute Perceived as a credible technology partner

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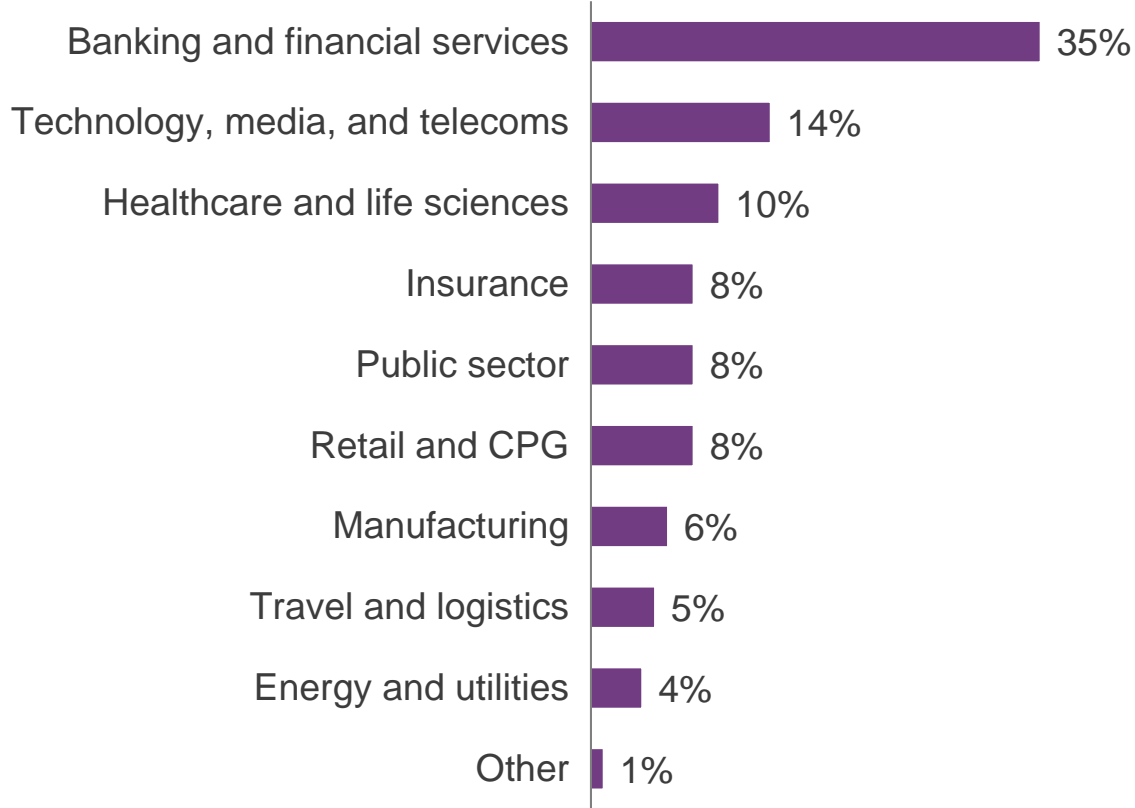
Demographics and market dynamics

Participant demographics

Enterprise blockchain services FTEs by region
In percentage



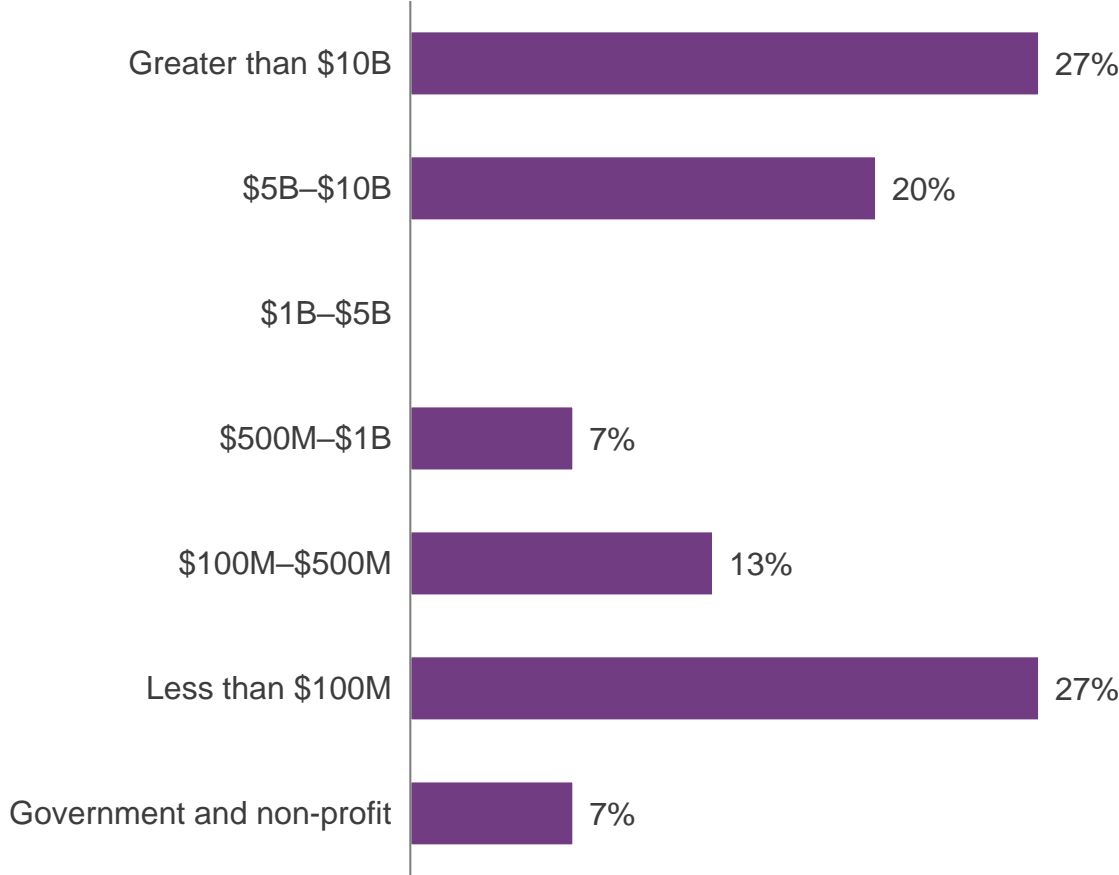
Enterprise blockchain services engagements by industry



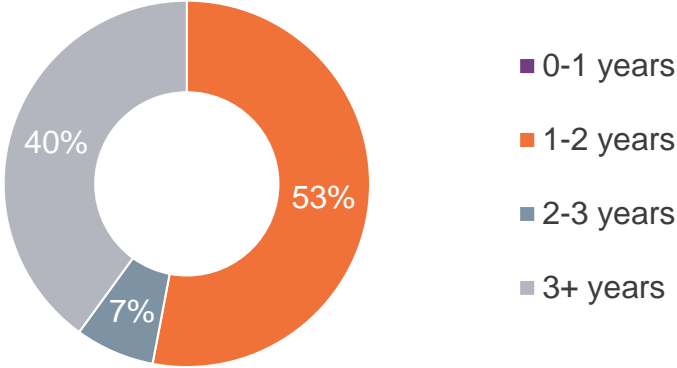
Sample: Data from enterprise clients of the 14 service providers covered in this report
Source: HFS Research, 2023

Reference client demographics

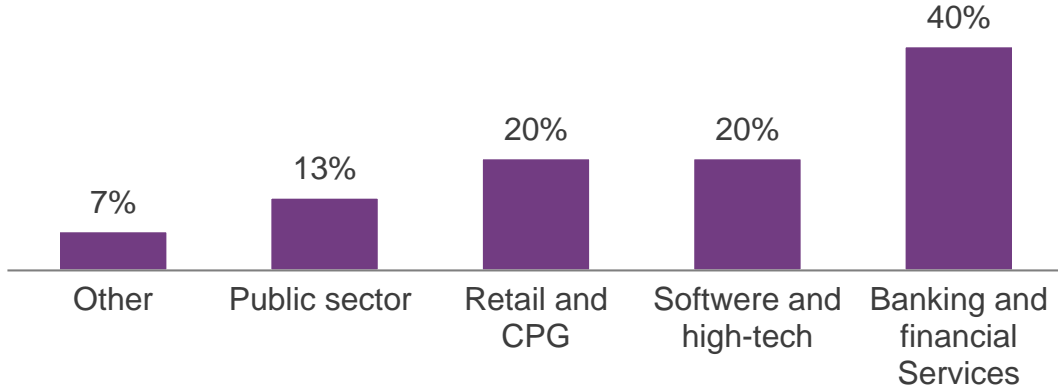
Reference clients, revenue distribution



Client references, length of blockchain journey



Reference clients, main operating sector



Sample: Data from enterprise clients of the 14 service providers covered in this report
 Source: HFS Research, 2023

Blockchain is already being used to underpin a broad range of initiatives

More hype than value

Invest if you want high-risk/high-reward, but they don't do much today

Interesting thought experiments

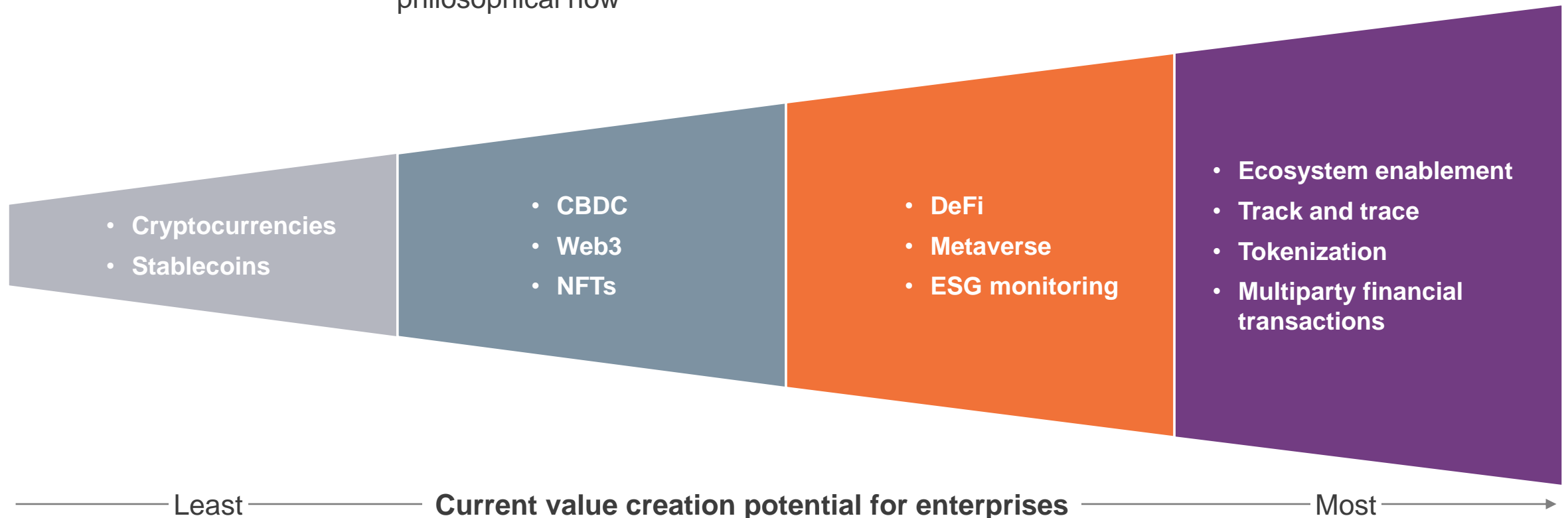
Potentially game-changing, but more philosophical now

Pilot and prove

Technology exists but needs a robust business strategy

Ready for primetime

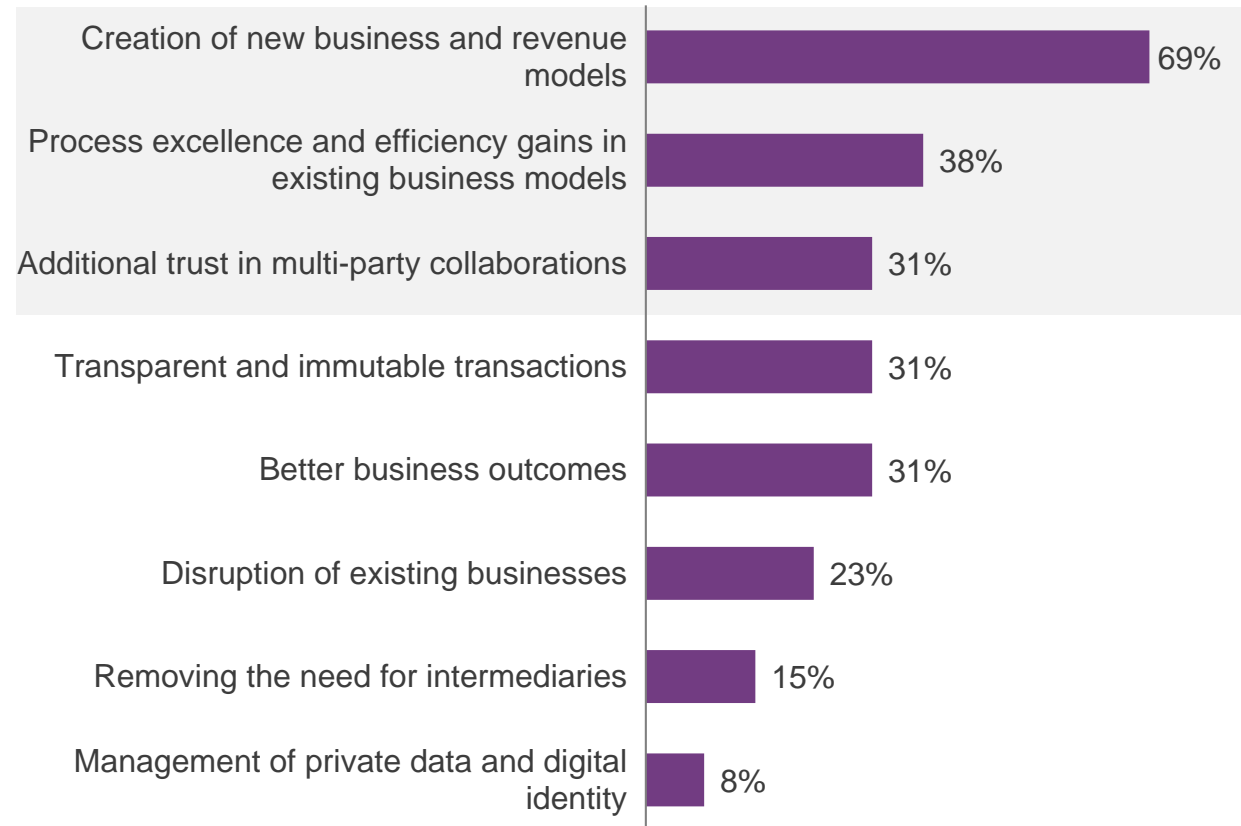
Already proven to drive business outcomes and new sources of value



Creating new business models and driving new efficiencies—blockchain is the technology for the job thanks to smart contracts and consensus-driven trust

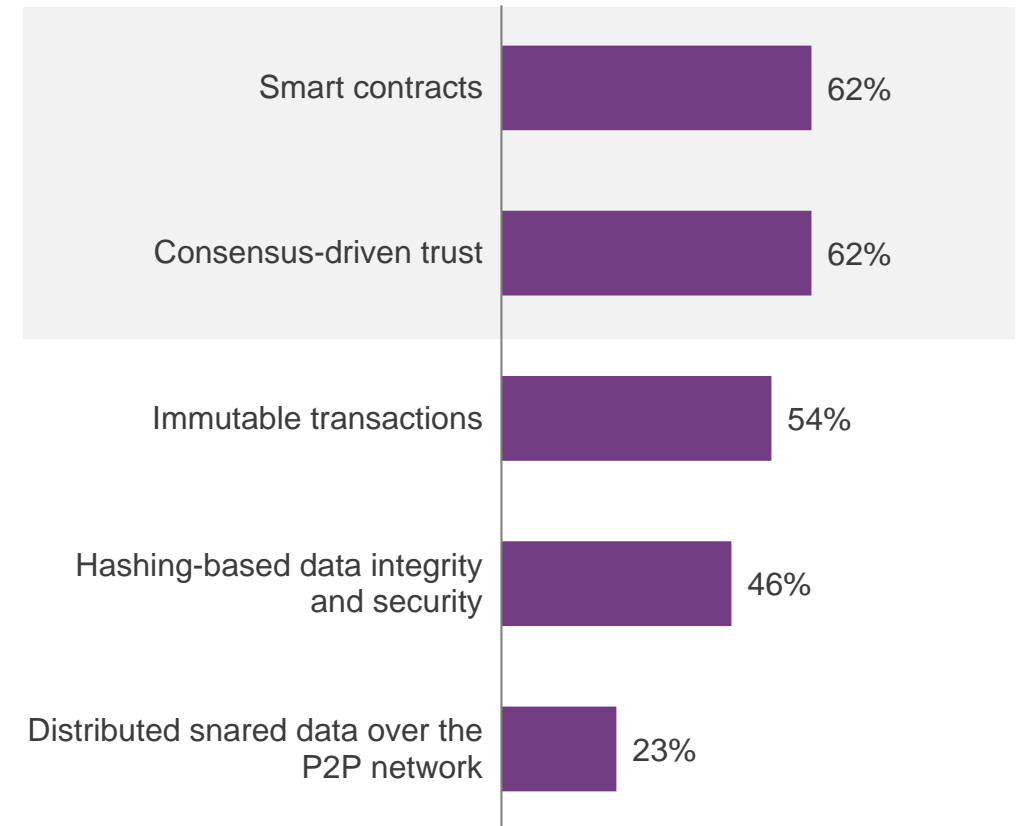
Q: What benefits do you hope to achieve from implementing a blockchain solution?

Select all that apply



Q: What are the key traits of blockchain that make it attractive for your situation?

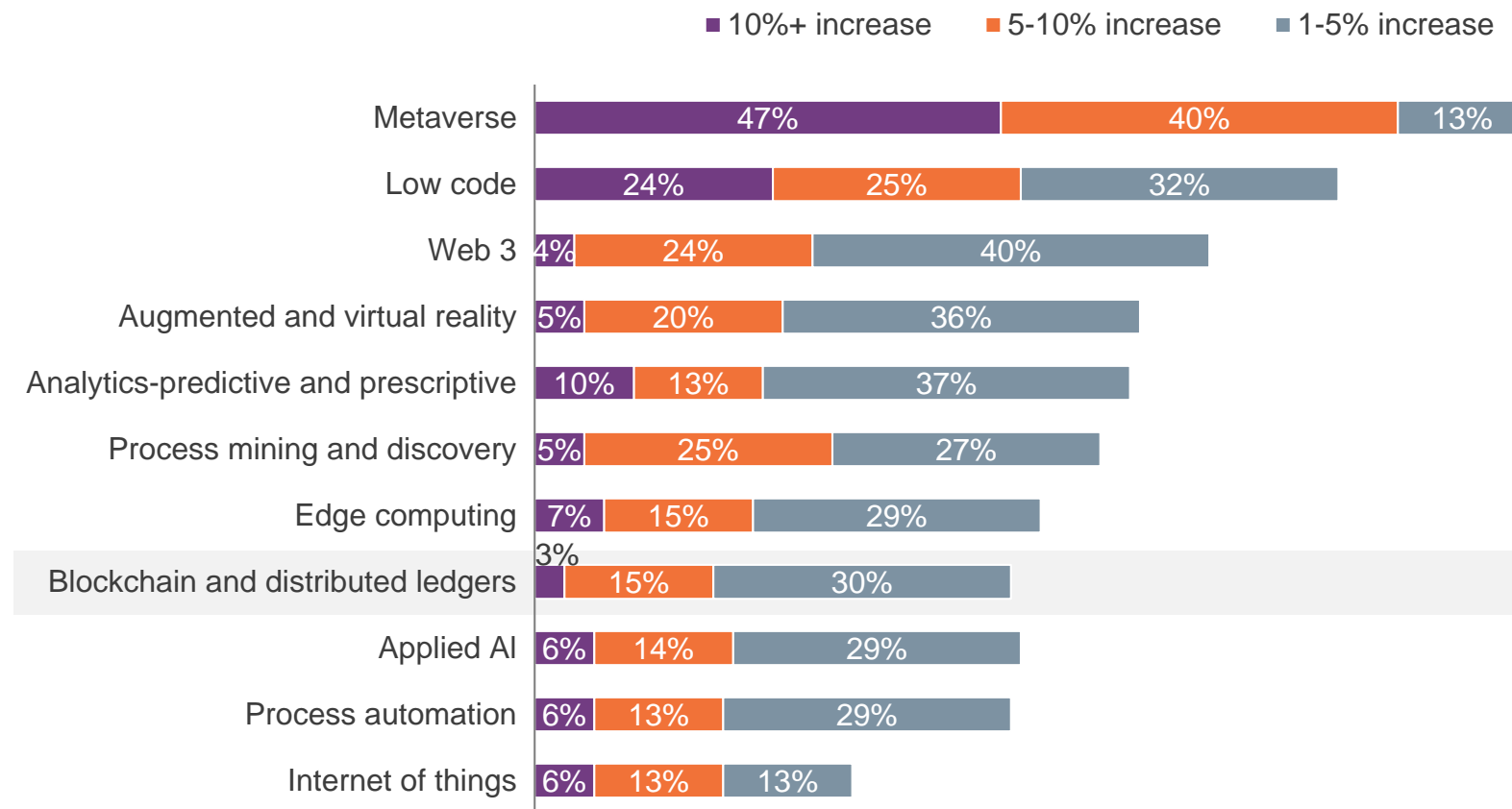
Select all that apply



Blockchain refers to both public and private blockchains.
Sample: Data from enterprise clients of the 14 service providers covered in this report
Source: HFS Research, 2023

Enterprise investment is flowing into metaverse and low-code—but enterprises report a moderate rise in blockchain spend

By how much does your enterprise plan to increase investment in emerging technologies in the next 12-18 months?



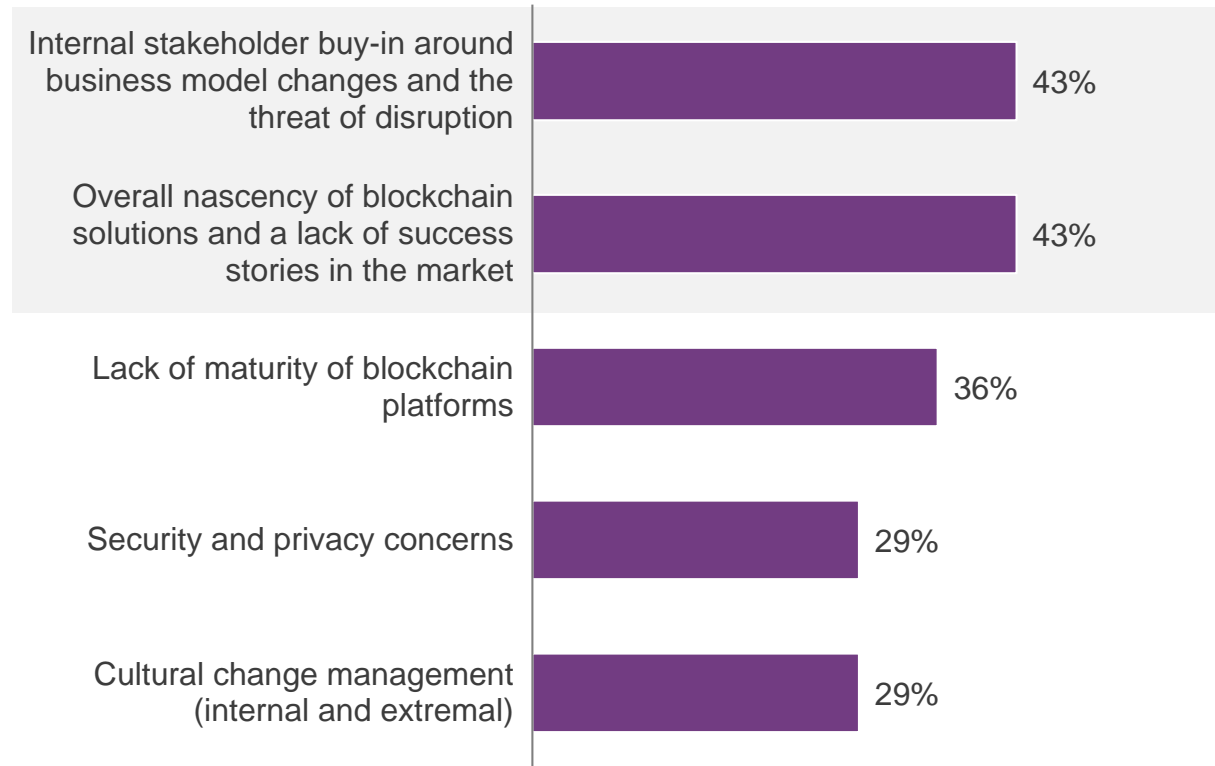
- Macroeconomic headwinds have forced enterprises to completely reevaluate their IT spending, focusing on investments with quick ROIs. Meanwhile, blockchain remains in the experimental stages for many enterprises, slowing the growth in spending on the technology.
- In parallel to this, a new wave of technologies are grabbing headlines, including metaverse and Web3, diverting investment funds away from blockchain and slowing spending growth.
- However, it's important to note that enterprise blockchain spending growth has only slowed—it is still growing. Enterprises are finally cutting through the hype and getting real about enterprise blockchain.

Blockchain refers to both public and private blockchains.
Sample: HFS Pulse H1 2023: n=592 Global 2000 leaders
Source: HFS Research, 2023

Stakeholder buy-in and overall nascency of blockchain solutions remain the two biggest adoption challenges

What are the top three challenges that you faced on your enterprise blockchain adoption journey?

Rank 1-3 combined, top five answers only



Sample: Data from enterprise clients of the 14 service providers covered in this report
Source: HFS Research, 2023

Learnings and advice from early enterprise blockchain adopters

“

Prepare yourself for the complexity and conservatism of US financial regulation, specifically around Stablecoins and tokenized deposits.

– C-Suite executive, a leading US bank

“

Consider the specifics and long-term capabilities needs around scalability. Blockchain is not the most suitable for every use case, but it can play a critical part.

– Manager, a leading global pharmaceutical firm

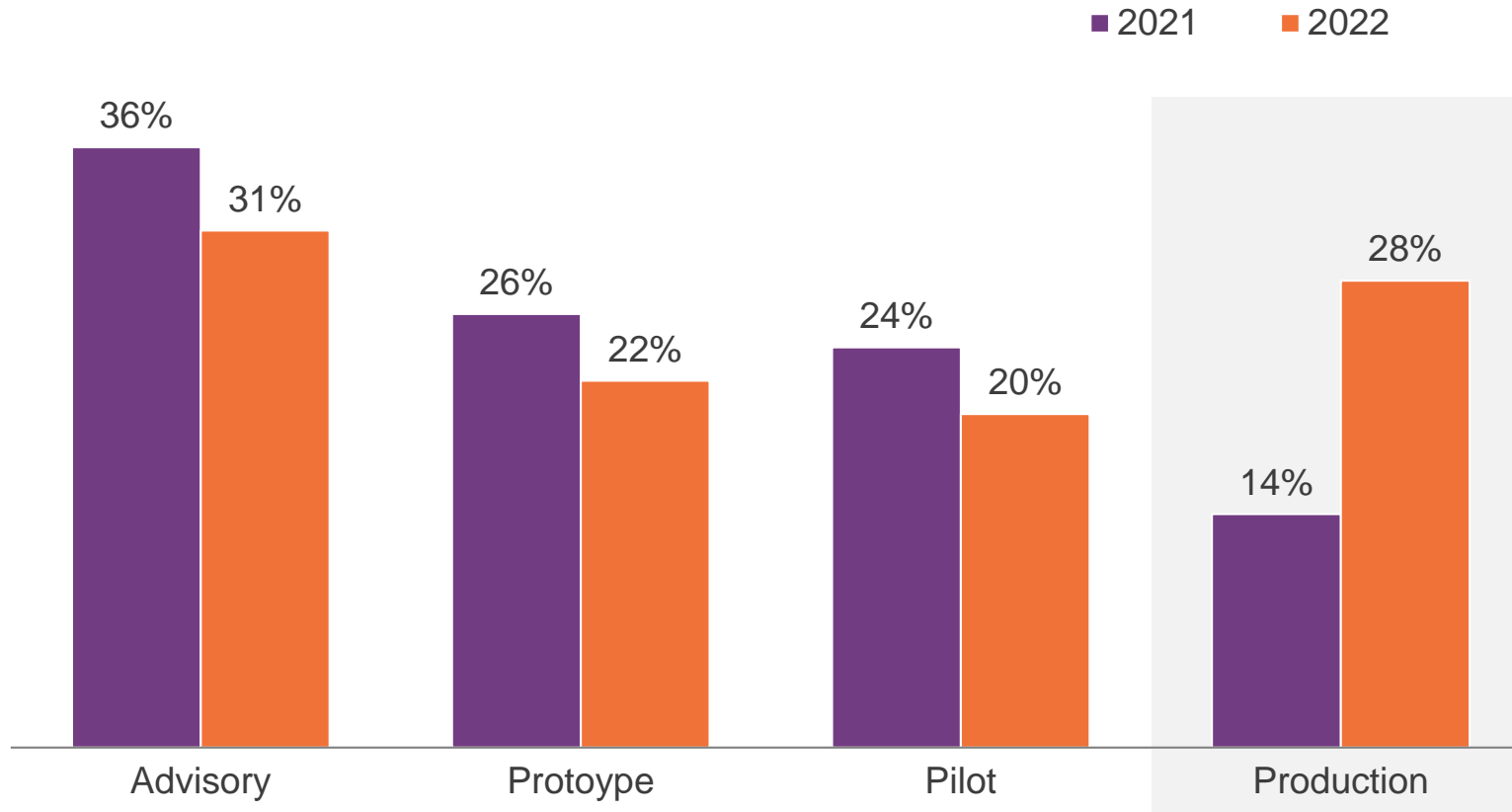
“

The technology is accessible and reliable. You need to focus on shareholder engagement and managing partners' expectations to make the system work.

– Manager, a leading global alcoholic beverage firm

There's a growing focus on engagements in the production environment as enterprises look beyond the hype

Number of engagements of leading service providers at each stage.

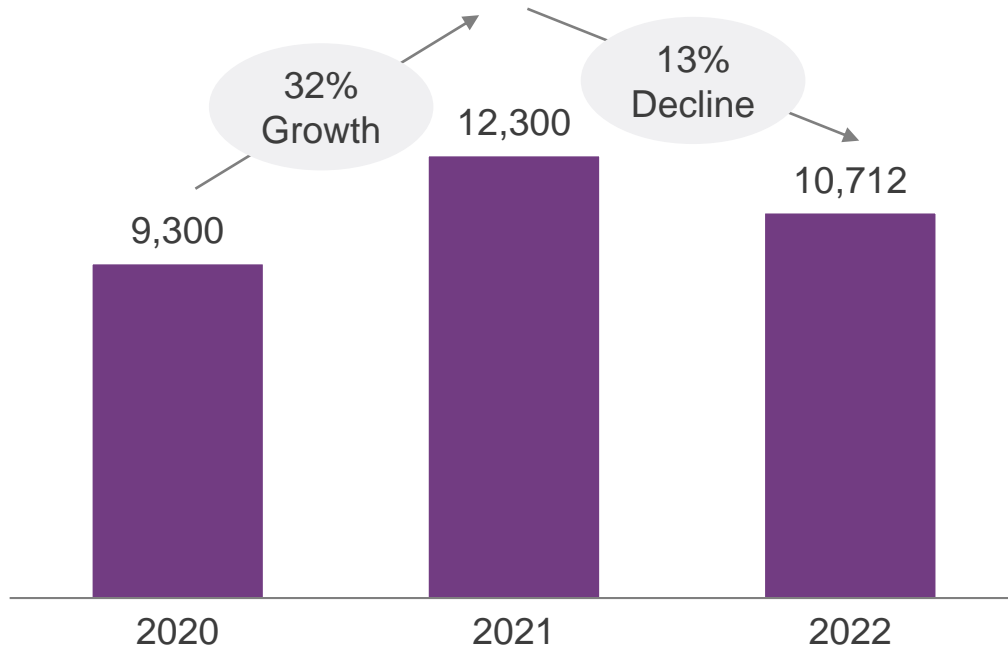


- The learning curve for enterprise blockchain is steep. Couple that with extensive hype, and you get engagements that never move beyond advisory and prototype. Unfortunately, that was the reality for too long.
- In 2021 we reported significant growth in the number of production-grade engagements, and that trend has continued this year.
- Enterprise focus on investments that drive value today is why we're seeing less advisory, prototyping, and pilot engagements and a growing focus on production-grade initiatives.

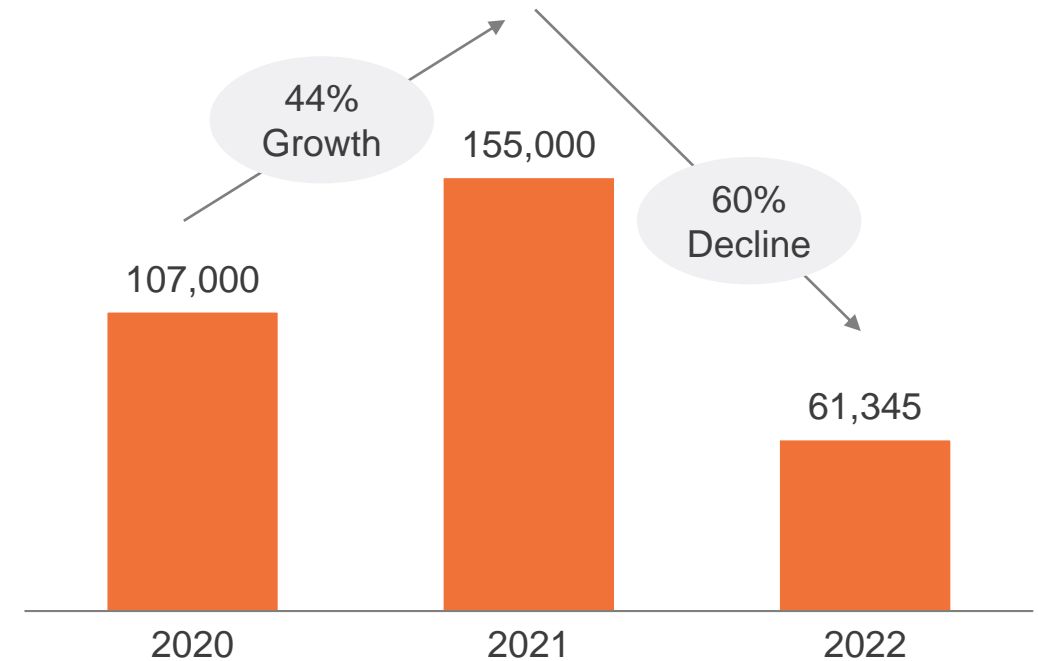
Blockchain refers to both public and private blockchains.
Sample: HFS estimates using data from the 14 service providers covered in this report
Source: HFS Research, 2023

Service providers are slowing their investment in dedicated and proficient blockchain FTEs

Growth of dedicated blockchain headcount



Growth of proficient blockchain headcount



- The headcount decline is in response to slowing demand for enterprise blockchain solutions as the hype and excitement dies down. We are seeing a number of service providers retrain their resources in other in-demand areas, such as metaverse and generative AI.
- One continued theme we heard from service providers was the challenge of finding skilled blockchain developers, particularly as they pivot to more Ethereum-focused offerings. Enterprises should look for a partner with skilled resources across different blockchain platforms.

Sample: HFS estimates using data from the 14 service providers covered in this report
Source: HFS Research, 2023

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Horizons results: Enterprise blockchain services, 2023

HFS Horizons—Summary of enterprise blockchain services providers assessed in this report

Providers (alphabetical order)	HFS point of view
Accenture	Driving market-wide innovation while providing end-to-end blockchain services
Capgemini	Working to become the go-to partner for decentralized finance
Coforge	BFSI focused enterprise blockchain provider with limited production-grade experience
Cognizant	Bringing its engineering expertise to production-grade initiatives
Eviden	Enterprise blockchain delivered with a security focus
EY	Defining the public blockchain market and a new API-first approach
Globant	Comprehensive enterprise blockchain offerings focused on production-grade initiatives

Providers (alphabetical order)	HFS point of view
IBM	Extensive ecosystem experience with the full weight of big blue
Infosys	A catalog of turnkey offerings and a rich partnership ecosystem to drive rapid adoption
Mphasis	Banking and financial services focused provider with mid-tier flexibility
NTT DATA	A firm grasp on the APAC market with the IP needed to fuel global success
TCS	Execution powerhouse with an ecosystem-first approach
Tech Mahindra	Multi-industry experience with a catalog of blockchain-fueled platforms
UST	Impressive client roster with off-the-shelf offerings to streamline adoption

HFS Horizons—Enterprise blockchain services, 2023



Horizon 3 is Synergy

Service providers demonstrate Horizon 2, plus

- Horizon 2 + ability to drive OneEcosystem synergy via collaboration across multiple organizations with common objectives around driving completely new sources of value
- Compelling thought leadership that helps clients to articulate their North Star
- Demonstrated the maturity to lead multiple clients to production environments and drive true business value
- Well-rounded capabilities across all value creation levers: culture, talent, domain, technology, data, and change
- Driving co-creation with clients and ecosystem partners
- Referenceable and satisfied clients driving new business models based on the partnership

Horizon 2 is Experience

Service providers demonstrate Horizon 1, plus

- Ability to drive OneOffice model and enterprise-level real business outcomes and stakeholder experiences
- Global capabilities with strong consulting skills and partnerships with blockchain-specific technology and services firms.
- Proven and leading proprietary tools, assets, and frameworks
- Consortium memberships
- A handful of clients in production and delivering some business value

Horizon 1 is Optimization Outcomes

Service providers demonstrate

- Ability to drive functional optimization outcomes
- Driving cost reduction, speed, and efficiency
- Partnerships with leading blockchain platform providers (Hyperledger, Ethereum, R3, etc.)
- Focused on pilot and proof-of-concept engagements
- Offshore-focused with talent in the domain and technical skills
- Referenceable and satisfied clients for the ability to execute

Note: All service providers within a Horizon are listed alphabetically

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Capgemini profile: Enterprise blockchain services, 2023

Capgemini: Working to become the go-to partner for decentralized finance



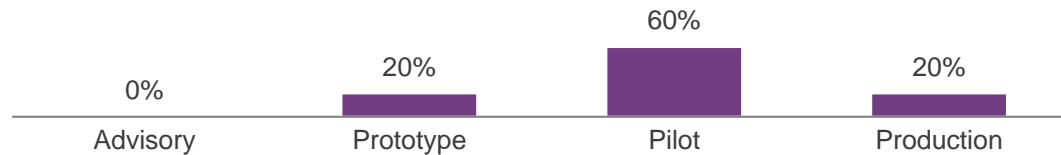
Strengths

- **Decentralized finance:** Capgemini is establishing itself as a decentralized finance leader, investing heavily in assets and services in the space, which is resonating when combined with its financial services expertise. Capgemini boasts numerous engagements exploring CBDCs and decentralized futures.
- **Financial services expertise:** Capgemini heavily focuses on financial services—it's the provider's largest business unit and posts double-digit revenue growth. Financial services firms are some of the biggest adopters of enterprise blockchain, particularly due to the rise of decentralized finance, and Capgemini is well-positioned to serve them by blending industry and technical expertise. Capgemini is reporting notable traction in other industries, particularly in retail, consumer products, and healthcare.
- **Platform approach:** Capgemini developed a deep understanding of blockchain platforms and which blockchains are best used for which use case. This is particularly important given its focus on financial services—a heavily regulated industry. Capgemini has engagements across public and private platforms.
- **Innovation approach:** Capgemini's Global Blockchain Garage and Applied Innovation Exchanges are designed to drive co-innovation internally and with clients.

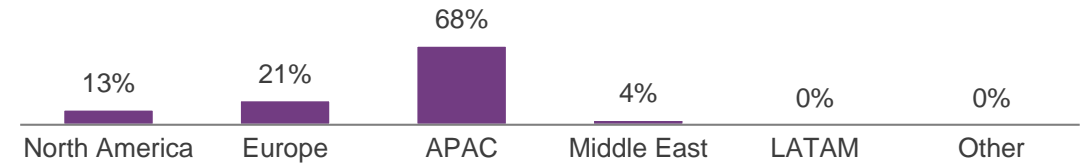
Development opportunities

- **Moving beyond pilots:** Capgemini has solid production-grade experience, but a good number of its engagements sit in the pilot phase. Capgemini should drive pilot engagements toward production or focus on value-adding projects to ensure they deliver the best-possible client outcomes.
- **Industry expansion:** Capgemini should look to build on its existing traction in other industries and further expand its presence in the likes of healthcare, retail, and insurance to drive more growth through its enterprise blockchain practice.

Provider's engagements by stage



Provider's geographic footprint



Ecosystem	Key clients	Global operations and resources	Enterprise blockchain investments
Acquisitions <ul style="list-style-type: none"> • Altran, June 2019 Partnerships <ul style="list-style-type: none"> • Ethereum • DAML • Lukka Technologies • Uniswap 	Number of clients: 400 Key clients <ul style="list-style-type: none"> • HSBC • Barclays • ANZ • DBS • BNP Paribas 	Dedicated blockchain headcount: 630 Blockchain proficient headcount: 890 Key delivery locations <ul style="list-style-type: none"> • North America • France • India • Australia 	Platforms and tools <ul style="list-style-type: none"> • BEADS • Insurance Marketplace • D-Plex Plainswap.org Solutions accelerators <ul style="list-style-type: none"> • FHIR Chain • Blockchain Interoperability

Read more about this company's public blockchain services [here](#).

6

HFS Research authors

HFS Research authors



Sam Duncan

Practice Leader

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Sam Duncan is a Practice Leader at HFS, based in Cambridge, UK. He graduated from Bournemouth University with a degree in economics. His interest in macroeconomics focuses on how the evolution of technology accelerated globalization. He also studied law, accounting, and investment management during his education.

Since joining HFS, Sam has developed his understanding of blockchain and continues exploring the latest applications of the technology across various industries. He applies his economics background to keep up with the latest banking and financial services industry trends, and he has a keen interest in insurance. He regularly contributes to the HFS Market Index, a quarterly report breaking down the performance and key events of the leading service providers throughout the previous quarter.



Saurabh Gupta

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Saurabh Gupta is President, Research and Advisory Services at HFS. He sets the strategic research focus and agenda for HFS Research, understanding and predicting the needs of the industry and ensuring that HFS maintains its position as the strongest impact thought leader for business operations and services research. He oversees HFS' global research function, managing the global team of analysts and operations across the US, Europe, and Asia.

He is a recognized thought leader, and he's passionate about solving business problems and bringing big ideas to life. With more than two decades of experience across client, provider, advisory, and analyst roles, he brings a uniquely realistic and wide-ranging perspective to our industry's challenges and opportunities. He has authored more than 200 research reports; he is a frequent speaker and regularly quoted in industry publications. He is well-known for spotting disruptive technology trends like blockchain, Web3, metaverse, cloud, AI, and automation and predicting their implications for different stakeholders through frameworks like the OneOffice™ and OneEcosystem™.



About HFS

Insight. Inspiration. Impact.

HFS is a leading global research and analysis firm trusted at the highest levels of executive leadership. Our mission is to help our clients tackle challenges, make bold moves, and bring big ideas to life by arming them with accurate, visionary, and thought-provoking insight into issues that impact their business.

Our analysts and strategists have deep, real-world experience in the subjects they cover. They're respected for their independent, no-nonsense perspectives based on thorough research, demand-side data, and personal engagements with industry leaders.

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