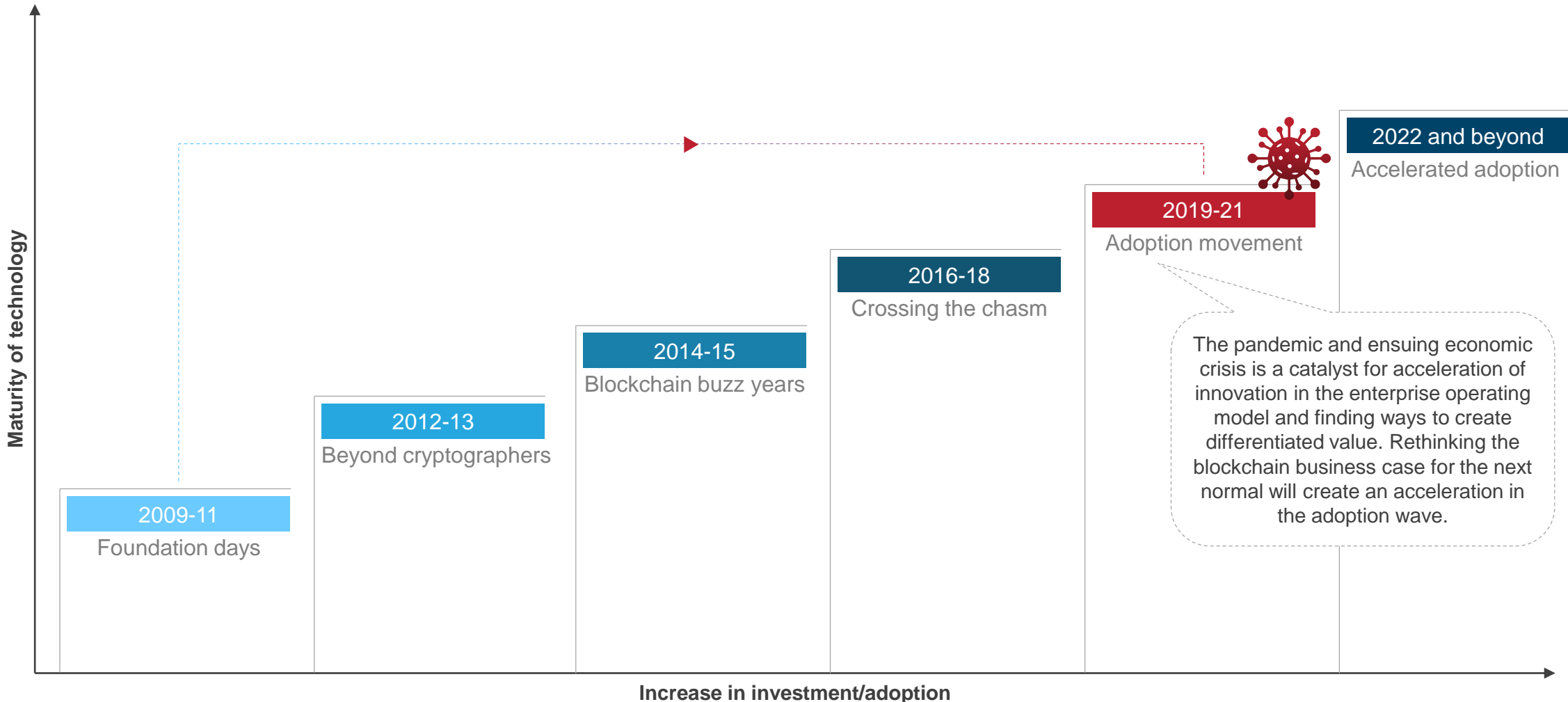




The Power of Blockchain in the Time of Uncertainty

August 2020

Rise of enterprise-grade blockchains has prepared industry participants for the adoption movement

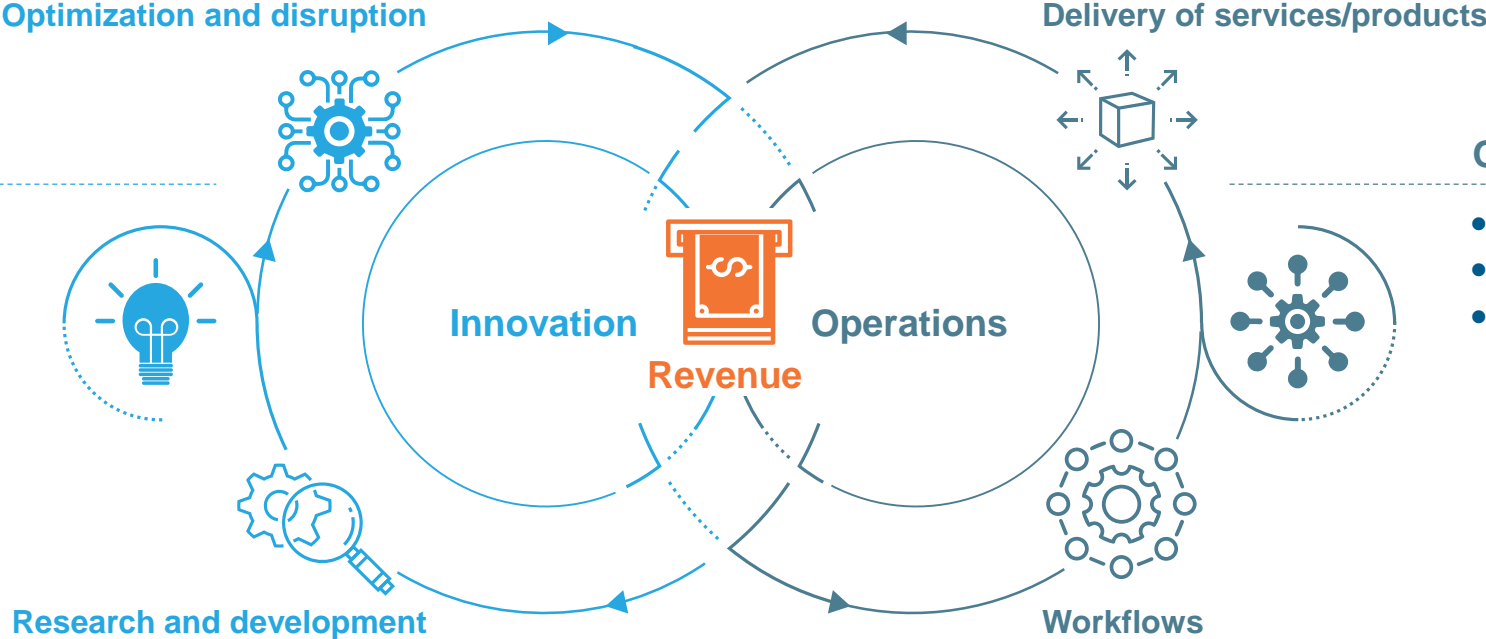


Source: Everest Group (2020)

Coronavirus pandemic will cause enterprises to build resilient and risk-optimized operating models, this will accelerate adoption of blockchain to support innovation in operations

Innovation cycle

- Exploration and feasibility
- Competitiveness and growth
- Potential to handle disruption



Operations cycle

- Technology stability
- Rigorous repeatability
- Stakeholder experience



COVID-19 impact on blockchain

Short term

- Innovation activities halted due to disruptions in cashflow
- Enterprises focus on core operations to better manage cash-flow

Medium term

- Enterprises realize the importance of radical digital adoption
- Rapid interest in readying blockchain use cases for operational use

Long term

- Enterprises look for new avenues to build resilience, grow revenue, and optimize processes
- Innovative technologies such as blockchain will form the foundation of the “New” enterprise

Network Resource Planner will be the next evolution of blockchain ecosystem encompassing the scope of blockchain solutions to be the next-generation of ERP

▶----- Evolution of the blockchain ecosystem -----▶



System integration

Solution orchestration

Network Resource Planner (NRP)

- Integrating blockchain with existing platforms
- Realize benefits of blockchain without extensive changes to architecture and applications

- Solution built using blockchain as the underlying technology
- Use case-specific solutions that augment existing platforms

- Blockchain completely replaces parts of enterprise platforms
- Industry-wide networks that are used by varied stakeholders

Blockchain providers are evolving to deliver better digital experiences in a productized manner. It is becoming increasingly apparent that building a strong network-based operating model will drive business outcomes. As a consequence, commercial models are also evolving to become more flexible.

Value propositions

Talent and engineering
Incremental innovation – blockchain integrating with existing systems

Digital enablement/experience
Modern ERP solutions powered by blockchain

New business/operating model
Connecting multiple participants on a common system

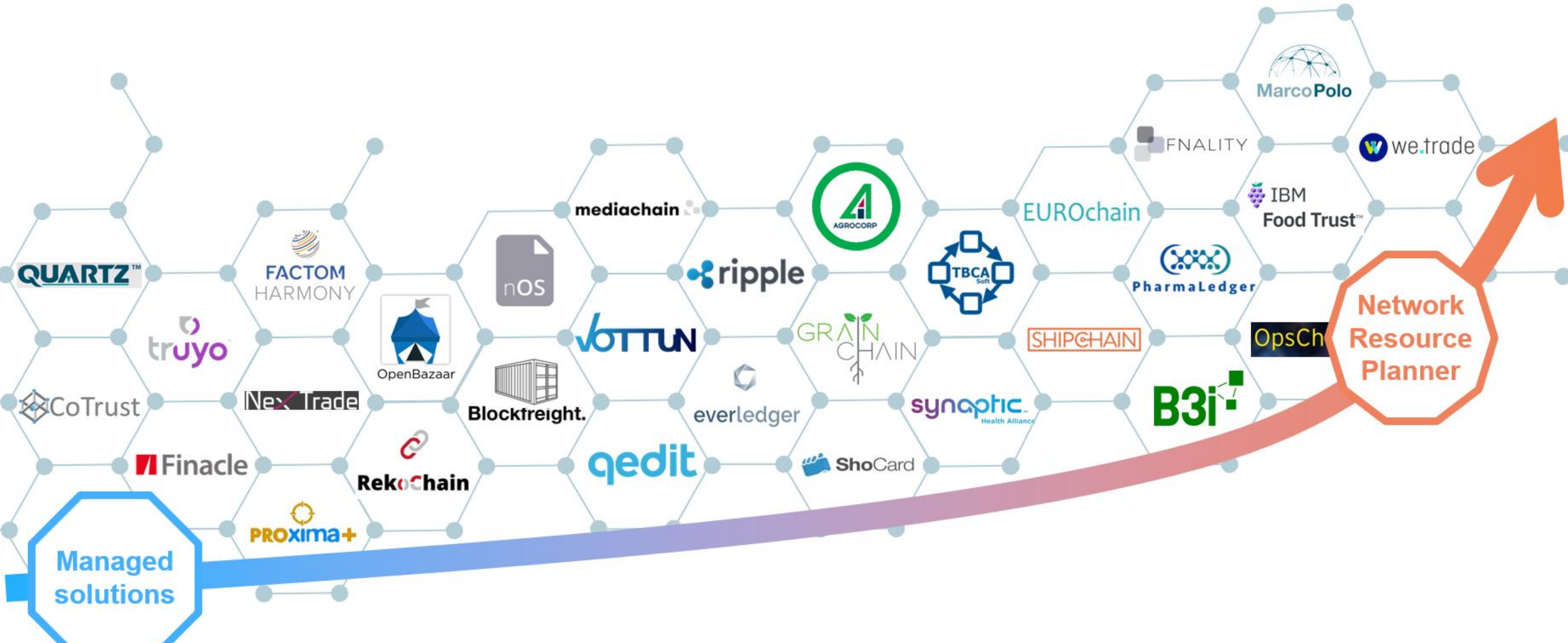
Evolving commercial models

SI-funded POCs or innovation funds
Time and material pricing

Beginnings of product pivot
Member- /node -based pricing

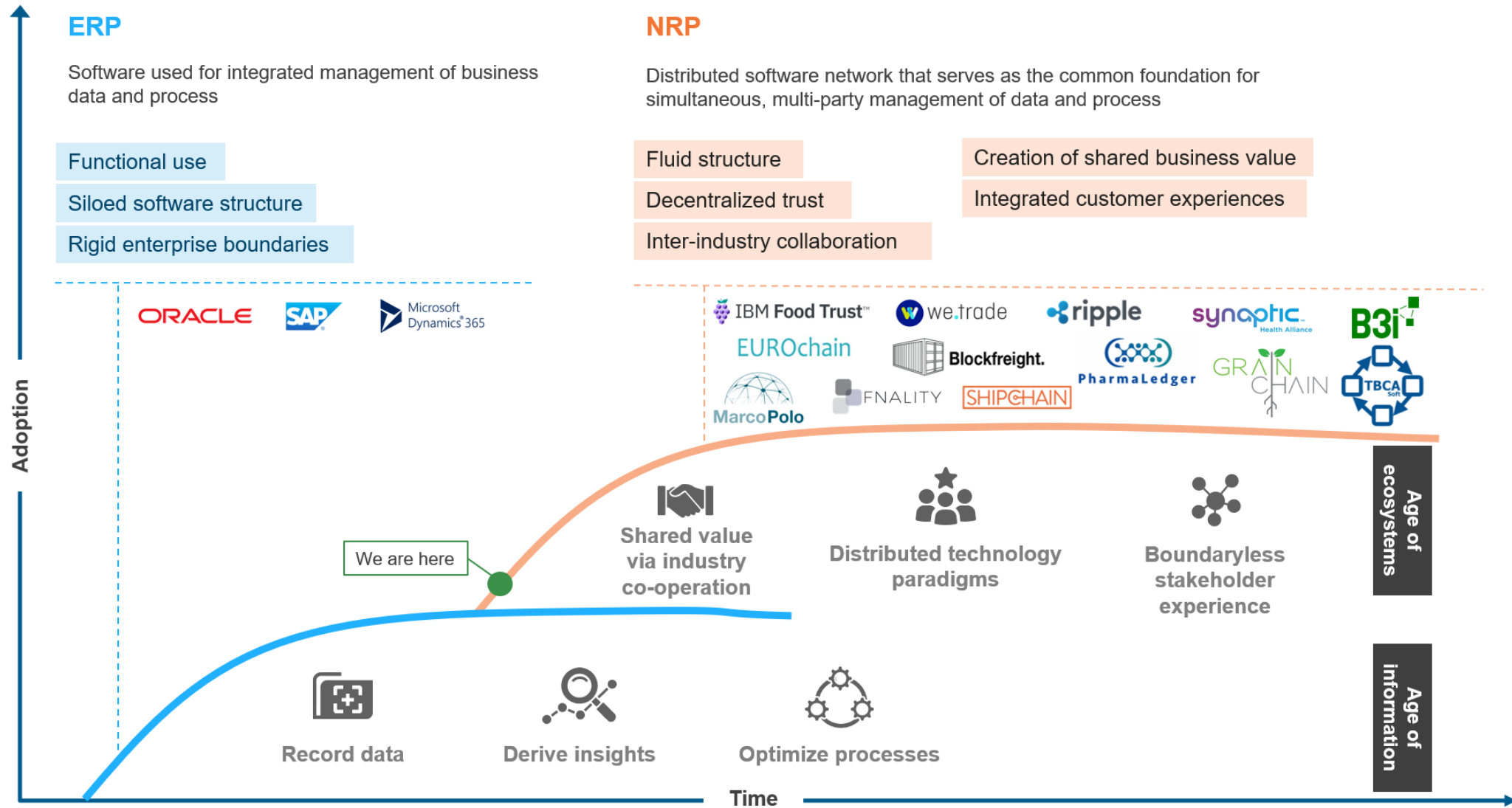
Extract value from business outcomes
Pay-as-you-go / transaction-based pricing

Managed solutions wave is making way for a breed of narrow-use case NRP



Evolution of enterprise blockchain into Network Resource Planners

NRP can become the natural progression of ERP applications as the scope of current blockchain networks continue to grow



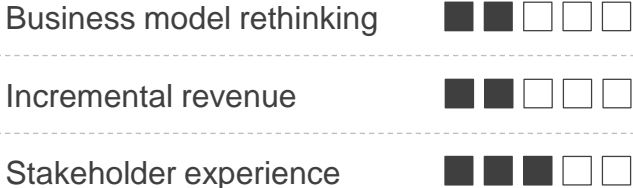
Interconnected super networks will rise to enable better co-operation, transparency, and new revenue realization avenues



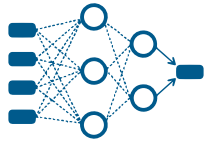
Capsule networks

- Network with fixed boundaries and used for niche use cases
- Often highly application-specific and verticalized
- Process optimization is the primary driver with an increasing interest in revenue realization
- Examples: Food and ingredient tracking and counterfeit drug tracing

Key drivers



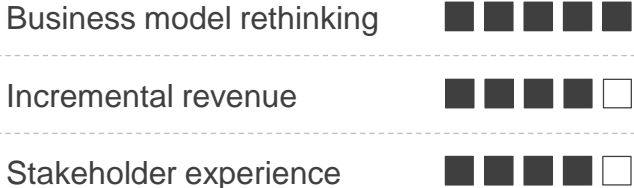
● --- Types of NRPs --- ●



Super networks

- Networks that cater to a broad set of industries and use cases
- Multiple networks available on the market that do similar things – can all be tethered to each other
- Such networks are extremely horizontal
- Examples: Public services and citizen services

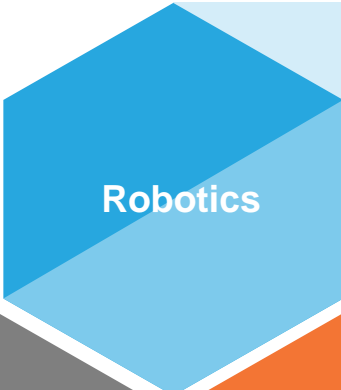
Key drivers



Source: Everest Group (2020)

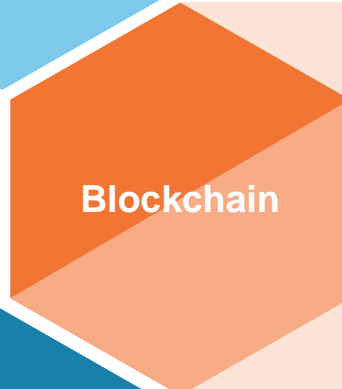
Supply chain management has been influenced by a convergence of digital technologies; blockchain forms the foundation of this transformation

- Reliable all-time localization and use of sensors for product quality, equipment status, etc.
- Global Positioning Systems (GPS), Global System for Mobile communications (GSM), etc.



- Automated Completely Knocked Down (CKD) assemblies in smaller lot sizes
- Automated warehouse management – picking, palletizing, and (un)loading
- Flexible renting and leasing schemes

- 3D printing, microwave, and based production technologies
 - Production locations
 - Production materials
 - Supplier configurations



- **Future foundational infrastructure for data and processes**
- **Proliferation of ecosystem thinking and inter-industry co-operation**
- **Enabling better trust and resilience**

- Predictive analytics for demand forecasting and capacity planning
- Advanced procurement with collaborative optimization
- Large-scale routing and purchases optimization



- Cloud-based tracking and storage
- Real time SCM data availability and synchronized IT systems
- Connected devices and fast distribution of analytics

Industry networks powered by blockchain (page 1 of 2)

High Moderate Limited

Agro-commodities network

A track-and-trace network that informs users of the product’s supply chain lineage, while also serving as a quality control mechanism against tampering, contamination, or counterfeiting.

Encompassed use cases			Notable networks		
Quality compliance, origin tracing, and tamper detection			IBM Food Trust, Farmer Connect, GrainChain, and Agrocorp		
Federal tailwinds	Regulatory barriers	Standardizations	Competitive intensity	Financial distress due to pandemic	Recessionary impact

Inventory/component tracking network

A supply chain track-and-trace network that can be used to validate the quality and authenticity of a component or material. Primarily targeted at manufacturing and maintenance sectors, these networks allow for maintaining supplier performance, regulatory compliance, and customer satisfaction.







Encompassed use cases			Notable networks		
Part assembly and inventory management			IBM Responsible Sourcing Blockchain Network, and SITA's MRO blockchain alliance		
Federal tailwinds	Regulatory barriers	Standardizations	Competitive intensity	Financial distress due to pandemic	Recessionary impact

Industry networks powered by blockchain (page 2 of 2)

High Moderate Limited







Life sciences network

Life sciences networks majorly encompass supply chain tracking, clinical trials management, and health data management. These networks enable better consumer experience, safety, data privacy, and regulatory compliance.

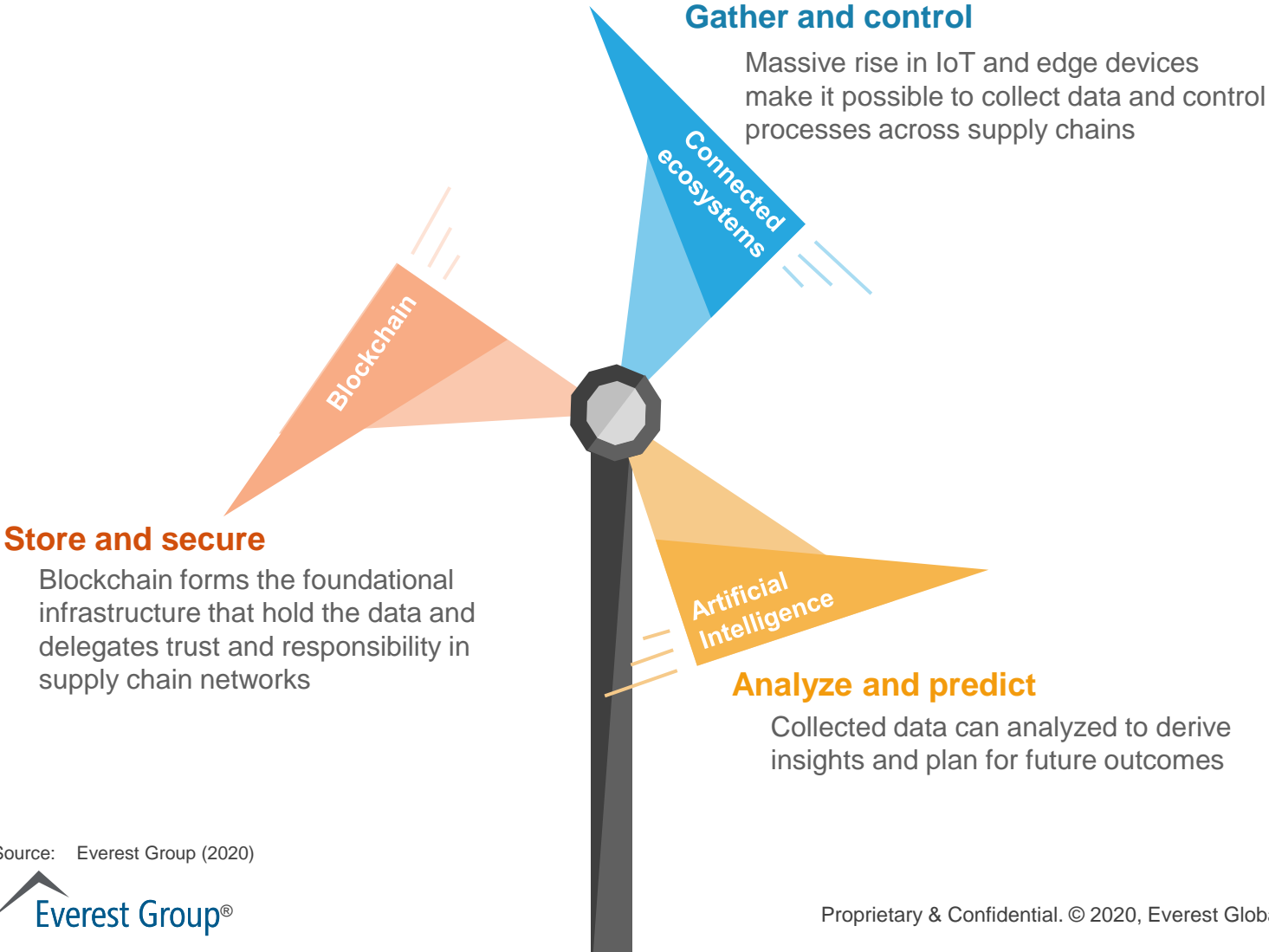
Encompassed use cases		Clinical trials and data management, pharmacovigilance, and pharmaceuticals tracing		Notable networks		Pharmaledger and Pharma Utility Network (IBM and Meck)	
 Federal tailwinds	 Regulatory barriers	 Standardizations	 Competitive intensity	 Financial distress due to pandemic	 Recessionary impact		

Trade finance network

Blockchain networks can help effectively execute trade transactions by making Letters of Credit more accessible. Such a network would improve stakeholder experience through faster settlements, robust pre-defined contracts, and better compliance for both the lender and the creditor.

Encompassed use cases		Cross-boarder payments, settlement, and credit data management		Notable networks		We Trade and TradeLens	
 Federal tailwinds	 Regulatory barriers	 Standardizations	 Competitive intensity	 Financial distress due to pandemic	 Recessionary impact		

Business benefits of supply chain management initiatives will be amplified by the synergistic application of other digital technologies



100% = 44

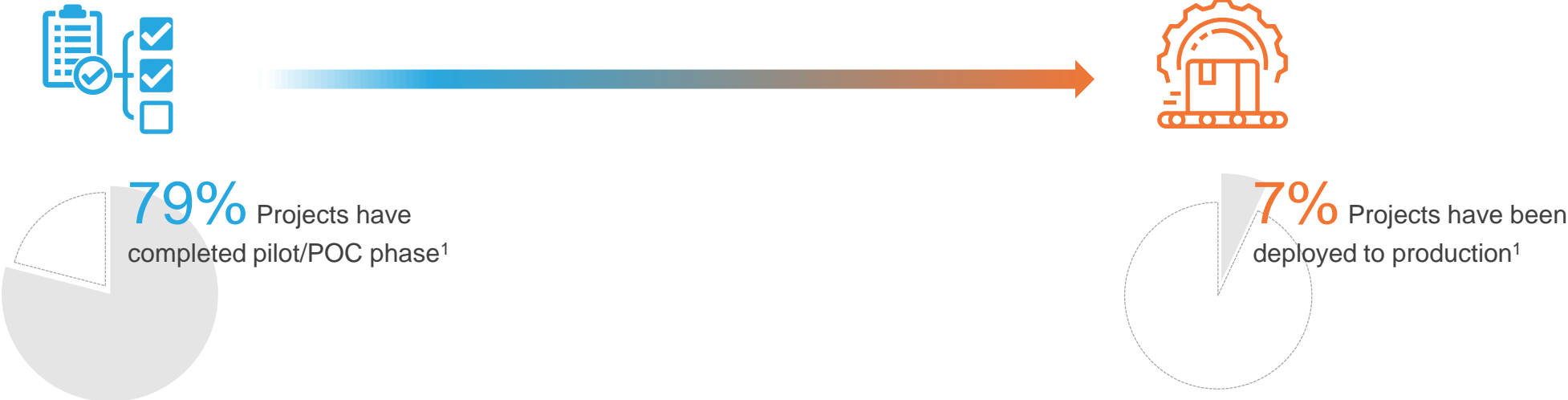
57% case studies using blockchain in conjunction with connected ecosystems

43% case studies using blockchain in conjunction with AI and analytics

Source: Everest Group (2020)

Target business executives and improve the ease of adoption to accelerate movement of POC to production

Pilot to production conversion has remained low. This low penetration signals untapped demand and/or failed POCs



Chasm of adoption

Lack of business buy-in

Limited ease of adoption

¹ As per Everest Group estimates
Source: Everest Group (2020)

Key learnings from 80+ enterprise conversations on their services vendor selection rationale point to differences in priorities for business and technology executives

Importance
Low High

Network considerations



Engineering and technology



Vision and value realization strategy



Consortium maturity



Stakeholder experience



Technology executives

Business executives

Business executives are looking at enterprise-grade technology that is easy to build and easy to buy – thus making scaling blockchain possible by making it invisible



Easy to build

- Driven by increasing focus on customer experience
- Minimal effort to set up, customize, integrate, and deploy; and decrease in implementation costs
- Technology complexities abstracted to functional level for ease of use
- Encourages scaled adoption



We couldn't use open frameworks because privacy of data was key. Managed platform made it easier for use to deploy to a cloud of our choice"

CTO, large media and advertising services firm



Time-to-market and scaling were important to us. We were looking for partners with co-development ability and flexibility in kinds of solutions that could be built"

Senior Director, communications platform and services firm



Easy to buy

- Innovative pricing models that cater to swift scalability during peak demand
- Flexible pay-as-you-use models will become prevalent as solution providers look to scale adoption



Market hasn't found appropriate pricing. Currently in POCs, cost for network is only increasing slightly with each node addition. However, the cost difference will be substantial in the production phase"

Lead innovation manager, large Asian stock exchange

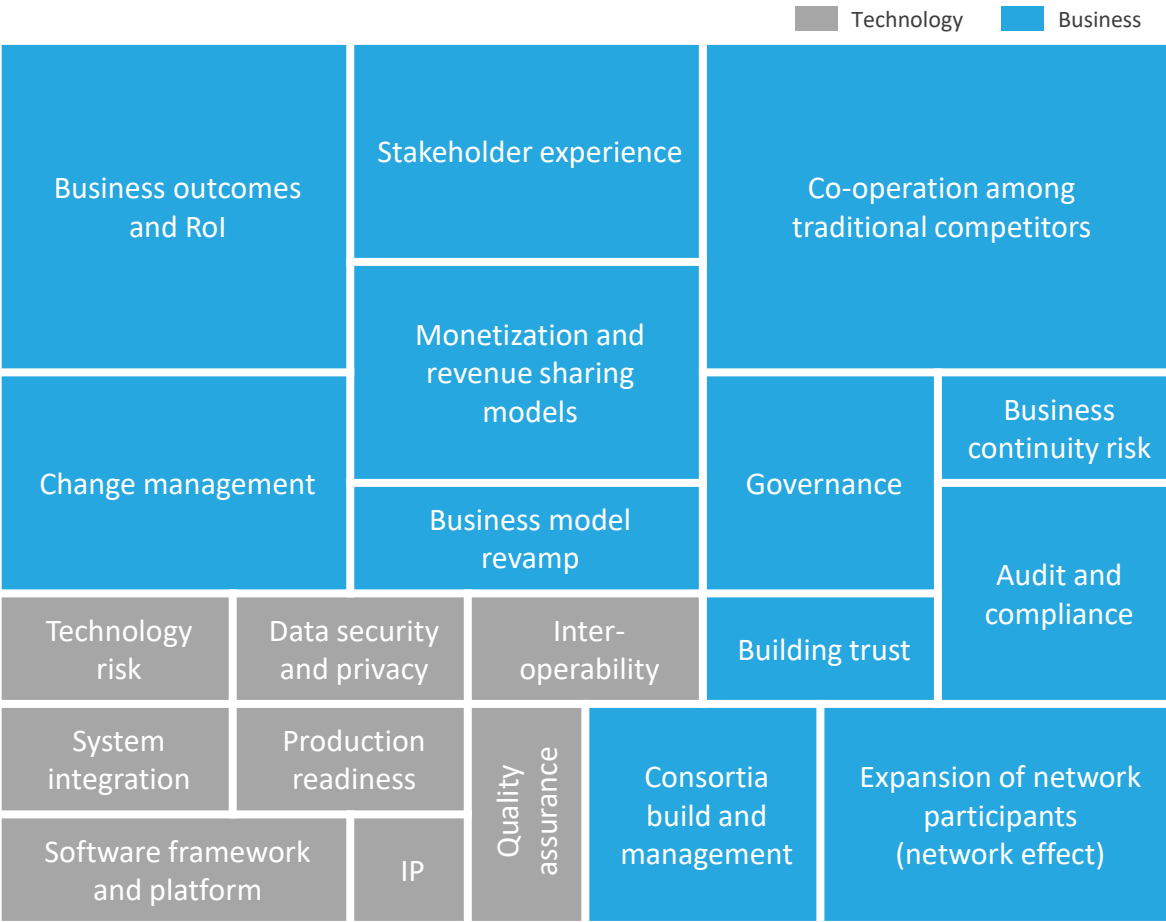


There are examples of use cases where DLT is adding costs instead of increasing productivity. Most productions are low volume cause of the nascency, but issue of cost and commercials will need addressing, going forward"

Managing Director, large post-trade services firm

Building a network is only a 10% technology problem; enterprises will encounter greater struggles in building and managing the business model for the network

Scale of key enterprise challenges when adopting blockchain networks



Key business challenges

- Creating cohesion among competitors in a collaborative environment to ensure consensus and fairness
- Governance, monetization, and optimization of ROI will be key to encouraging broader adoption
- Network lock-in risk may deter participants from fully committing to the network. Addressing these concerns through standardization will be key to creating viable networks
- Managing change brought on by blockchain adoption will be complicated by discord with existing processes and limited understanding of technology among talent/users
- Business continuity will be a key talking point in the aftermath of COVID-19, as enterprises ensure that committing to a network does not increase the risk of operations disruption

A 4-step approach to mitigating these business challenges

- 1 Crystalize foundational approaches and identify key stakeholders
- 2 Build minimum viable ecosystem to demonstrate potential
- 3 Define a governance structure and incentive model for network scaling
- 4 Grow the ecosystem across industries by activating network effects



Stay connected

Website

everestgrp.com

Social Media

 [@EverestGroup](https://twitter.com/EverestGroup)

 [@Everest Group](https://www.linkedin.com/company/everestgrp)

 [@Everest Group](https://www.facebook.com/everestgrp)

 [@Everest Group](https://www.youtube.com/everestgrp)

Blog

everestgrp.com/blog

Podcast

DigitalReaLTY



Dallas (Headquarters)

info@everestgrp.com
+1-214-451-3000

Bangalore

india@everestgrp.com
+91-80-61463500

Delhi

india@everestgrp.com
+91-124-496-1000

London

unitedkingdom@everestgrp.com
+44-207-129-1318

New York

info@everestgrp.com
+1-646-805-4000

Toronto

canada@everestgrp.com
+1-416-388-6765