NEAT EVALUATION FOR INFOSYS:

Blockchain in Business Process Transformation

Market Segments: Overall, Banking Capability, Government Capability, Telecoms & Media Capability

Introduction

This is a custom report for Infosys presenting the findings of the NelsonHall NEAT vendor evaluation for *Blockchain in Business Process Transformation*. It contains all the NEAT graphs of vendor performance, a summary vendor analysis of Infosys in blockchain services, and the latest market analysis summary.

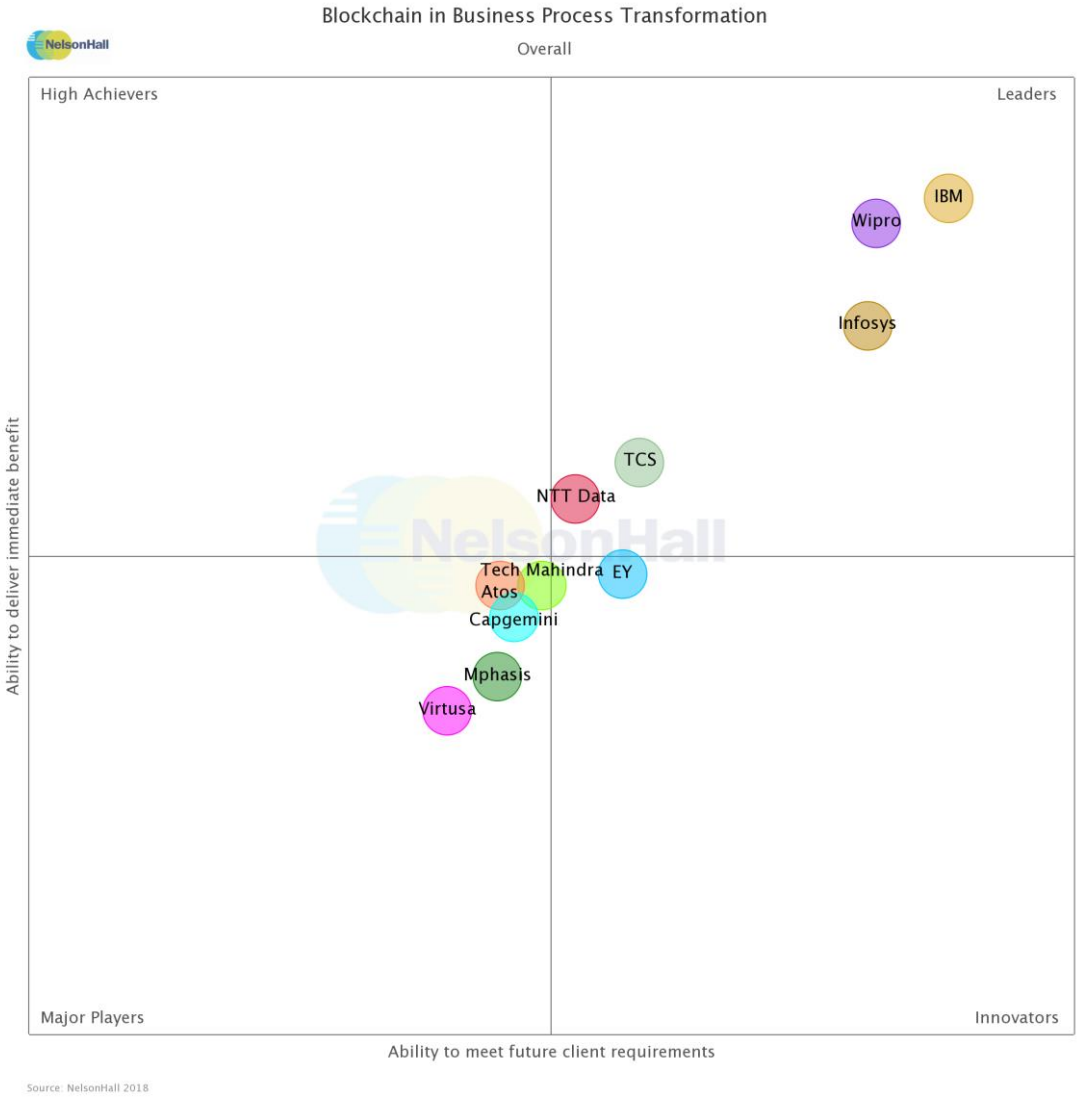
This NelsonHall Vendor Evaluation & Assessment Tool (NEAT) analyzes the performance of vendors offering blockchain services. The NEAT tool allows strategic sourcing managers to assess the capability of vendors across a range of criteria and business situations and identify the best performing vendors overall, and with specific capability in the banking, government, and telecoms & media sectors.

Evaluating vendors on both their 'ability to deliver immediate benefit' and their 'ability to meet future client requirements', vendors are identified in one of four categories: Leaders, High Achievers, Innovators, and Major Players.

Vendors evaluated for this NEAT are: Atos, Capgemini, EY, IBM, Infosys, Mphasis, NTT Data, TCS, Tech Mahindra, Virtusa, and Wipro.

Further explanation of the NEAT methodology is included at the end of the report.

NEAT Evaluation: Blockchain in Business Process Transformation (Overall)

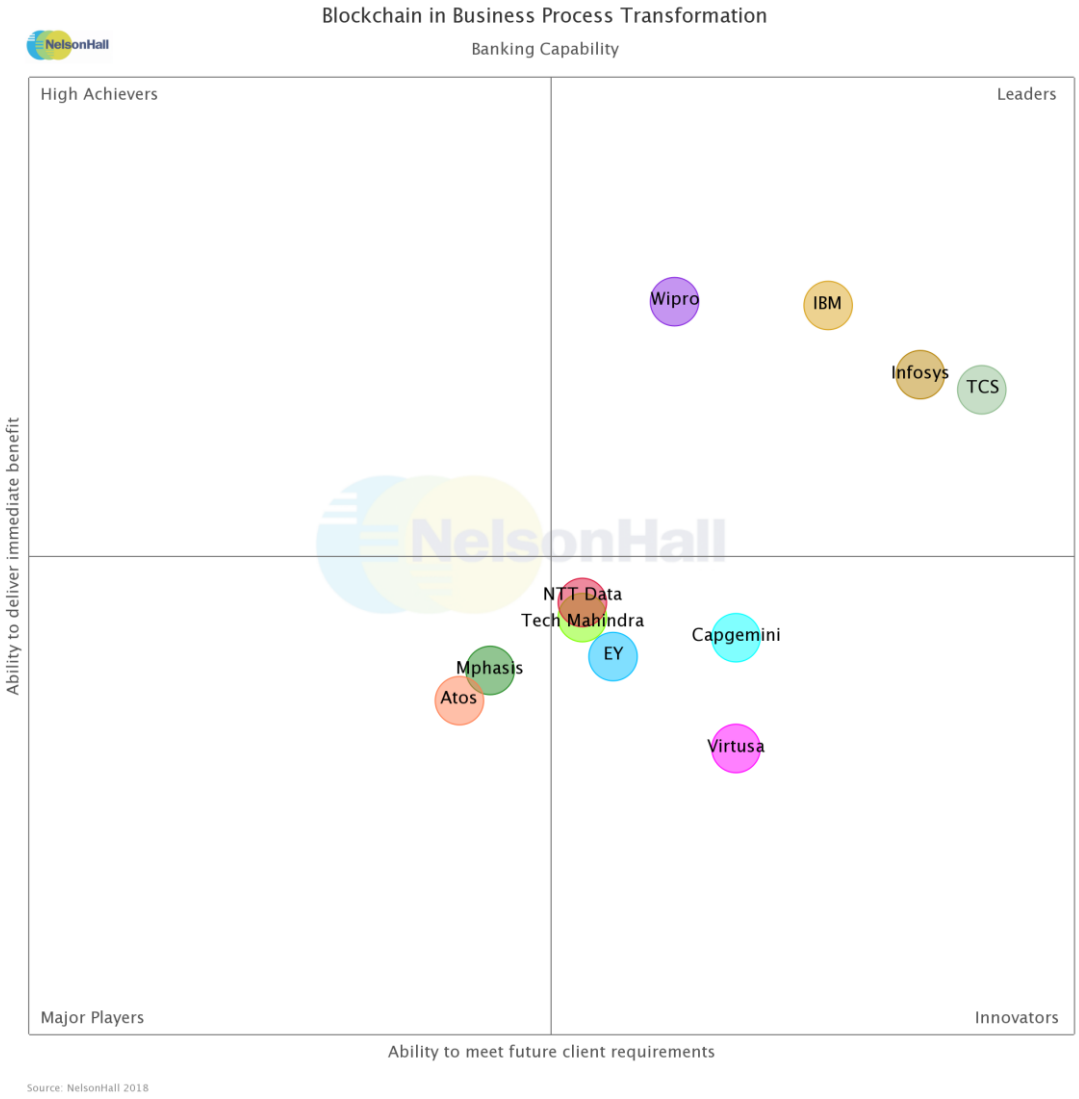


NelsonHall has identified Infosys as a Leader in the *Overall* market segment, as shown in the NEAT graph. This market segment reflects Infosys' overall ability to meet future client requirements as well as delivering immediate benefits to blockchain services clients.

Leaders are vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements.

Buy-side organizations can access the Blockchain in Business Process Transformation NEAT tool (Overall) here.

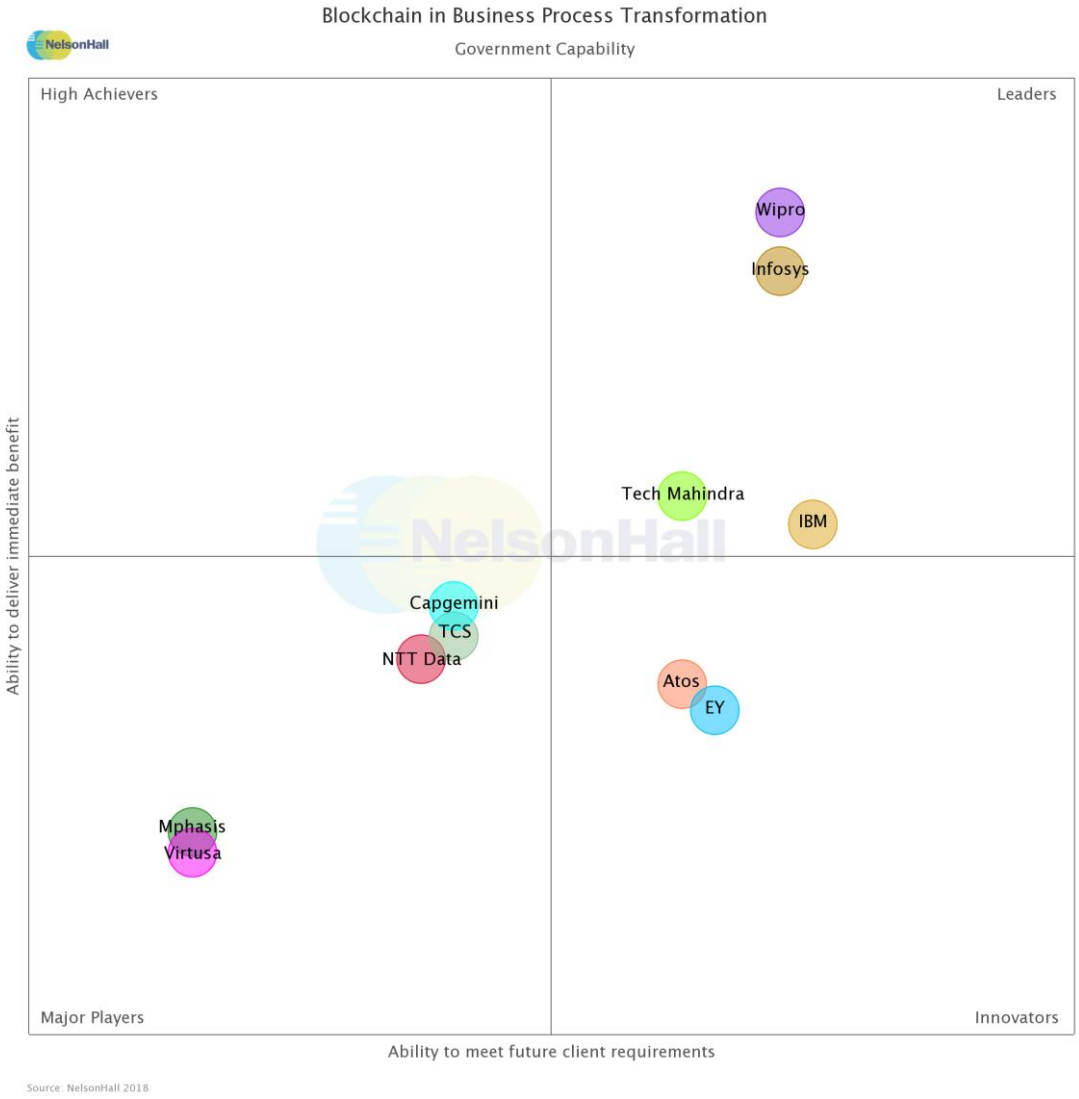
NEAT Evaluation: Blockchain in Business Process Transformation (Banking Capability)



NelsonHall has identified Infosys as a Leader in the *Banking Capability* market segment, as shown in the NEAT graph. This market segment reflects Infosys' ability to meet future client requirements as well as delivering immediate benefits to blockchain services clients in the banking sector.

Buy-side organizations can access the Blockchain in Business Process Transformation NEAT tool (Banking Capability) here.

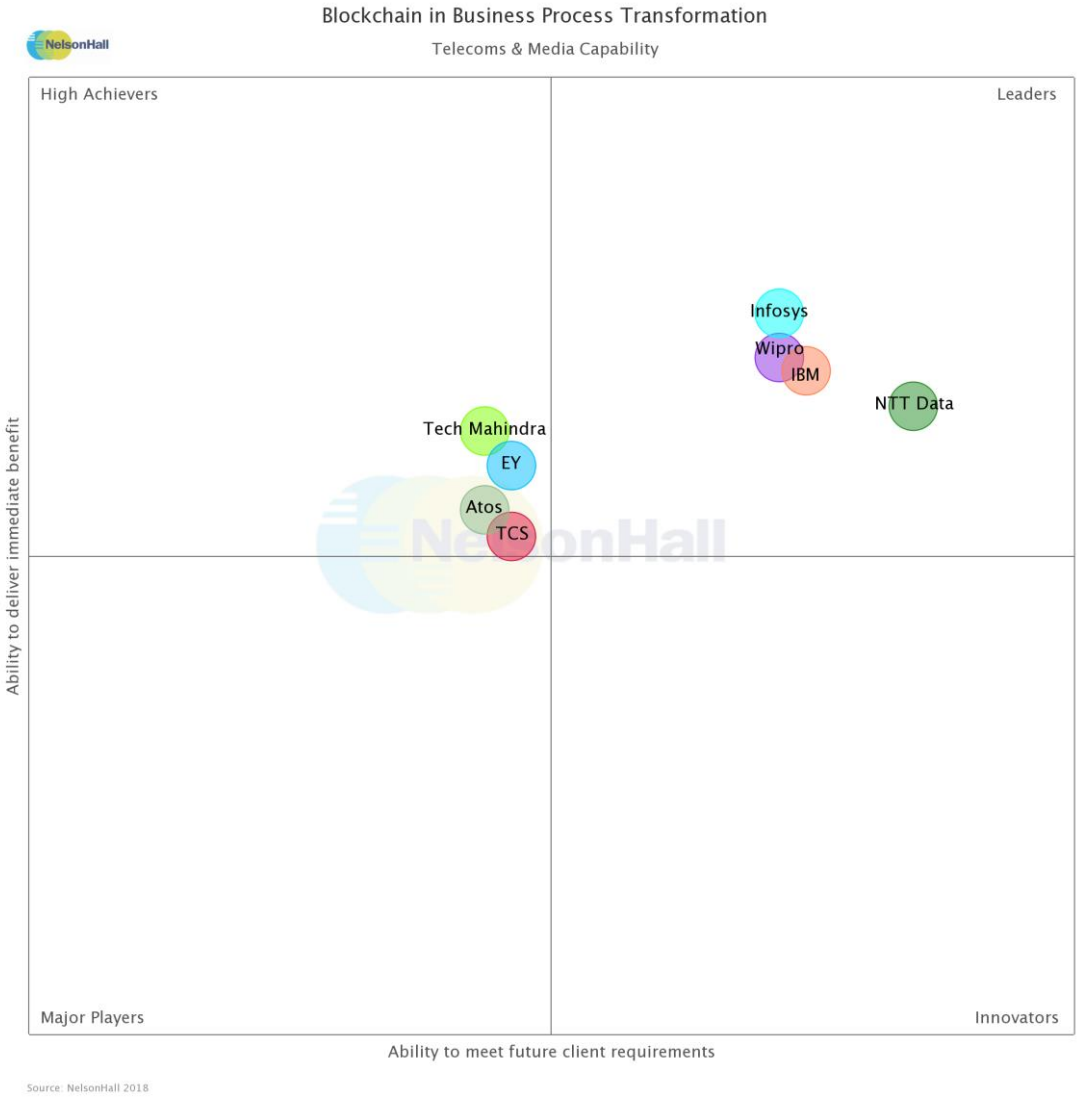
NEAT Evaluation: Blockchain in Business Process Transformation (Government Capability)



NelsonHall has identified Infosys as a Leader in the *Government Capability* market segment, as shown in the NEAT graph. This market segment reflects Infosys' ability to meet future client requirements as well as delivering immediate benefits to blockchain services clients in the government sector.

Buy-side organizations can access the Blockchain in Business Process Transformation NEAT tool (Government Capability) here.

NEAT Evaluation: Blockchain in Business Process Transformation (Telecoms & Media Capability)



NelsonHall has identified Infosys as a Leader in the *Telecoms & Media Capability* market segment, as shown in the NEAT graph. This market segment reflects Infosys' ability to meet future client requirements as well as delivering immediate benefits to blockchain services clients in the telecoms & media sector.

Buy-side organizations can access the Blockchain in Business Process Transformation NEAT tool (Telecoms & Media Capability) here.

Vendor Analysis Summary for Infosys

Overview

Infosys' blockchain work effectively began in 2015 in the company's Finacle unit with a focus on serving Infosys' banking clients. In 2016, the firm partnered with Emirates NBD and ICICI Bank to launch its first blockchain pilot.

By mid-2016, Infosys had created an incubation lab focused on the evaluation and assessment of blockchain technology. Industry verticals were included in the incubation process to develop segment working groups dedicated to evaluating blockchain application for specific use cases by vertical.

In May 2017, Infosys announced the completion of a pilot on a cloud-based blockchain network involving Infosys Finacle and a major commercial bank. These initial projects convinced Infosys management of the need for a separate service line organized around blockchain technology, and in August 2017, blockchain as a standalone service line was launched at Infosys. Since launch, Infosys Blockchain has expanded delivery, business development, and partnerships in the US, Europe, UK, the Middle East, and Australia and has plans to add 7,500 employees across its locations on blockchain technologies by March 2019.

Financials

Infosys does not disclose its Blockchain-specific revenues, but NelsonHall estimates its revenue from Blockchain projects at $15m.

Strengths

- Incubation-as-a-service model is appealing for organizations with defined needs
- Considerable established blockchain project presence in the telecoms sector
- Mature blockchain presence in BFSI, CPG, and public sector
- Finacle product suite provides established blockchain expansion point in embedded base
- Nia Provenance in the process of being proved in commercial agribusiness deployment
- Significant breadth of pilot and PoC activity across a wide variety of industries.

Challenges

- Accelerating integration of blockchain with other organizational technology assets.

Strategic Direction

Going forward, Infosys will enhance its:

- Incubation-as-a-service blockchain offering. Of Infosys' blockchain market share accelerators through 2019, incubation as a service may be the most significant driver, alongside client Blockchain network cocreation. The company's executive team expects incubation services to become a significant revenue and margin driver for Infosys in relation to its competition over the next five years. In growing this area, Infosys has committed significant resources to a number of resource areas within IaaS, including cloud migration and operations for blockchain projects, prebuilt blockchain configurations for common industry applications (supply chain and banking applications initially, with more slated for 2019), and additional technological and process accelerators for the IaaS testbeds.
- Client blockchain co-creation portfolio. Another key component of Infosys' revenue expansion strategy is the identification and pursuit of clients that would benefit from a shared Blockchain network - commercial trading partners, for instance, or members of a shared supply chain - and working as an intermediary to create larger, farther-reaching Blockchain networks on a common technology platform and application interface. This 'network of networks' strategy is similar to that espoused by IBM, but Infosys appears to be pursuing clients seeking a more competitive price point for their blockchain engagements.
- Blockchain technology partner ecosystem. Infosys' top partnership priority is the addition of smaller, focused startups to its partner portfolio. The company is actively in conversation with multiple small organizations that can either bring complementary or niche capabilities to its slate of offerings or accelerate its speed to market. Among the strategic additions to Infosys' partner portfolio are companies with technologies that bridge the physical to digital translation of assets in supply chain use cases, companies with deep domain solutions on blockchain in spaces like pharma, banking, retail and insurance, and startups with blockchain technology in horizontal solutions for supply chain and digital identity. The company expects to add these new partnerships actively over 2H2018.

Outlook

NelsonHall expects that Infosys will:

- Focus on connecting ‘networks of networks’ with blockchain
- Leverage investment in Nia Provenance to build SCM traction
- Build capability in incubation-as-a-service area.

Blockchain in Business Process Transformation Market Summary

Buy-Side Dynamics

Three primary factors dominate client demand for blockchain solutions: security of information, transparency of transaction data, and speed of settlement.

While the cryptographic aspects of blockchain provide clients with traditional IT security, the real appeal of blockchain implementations for many clients is the historical security of their information due to the immutability of blockchain records

Transparency and trust are often mentioned in the same sentence by vendors in NelsonHall's coverage universe, and with good cause: the ability to monitor the movement of goods and payments through a blockchain application provides all parties involved with assurance of shipment and payment performance

Whether the application is mobile roaming contracts in telecoms or royalty payments for video games, blockchain provides a means for immediate settlement of invoices and payments, accelerating the process of returning working capital to sellers.

Market Size & Growth

The global blockchain market is worth $610m (estimated in 2018), with average CAGR of 94% through 2022.

The United States, UK and Continental Europe, Japan, and South Korea are the largest and fastest-growing geos. Vendors are focused on the high-growth geographies for their expansion and brand development efforts.

Enterprise-scale organizations of $1bn in revenue and above will continue to be the primary demand-side force in blockchain.

BFSI, manufacturing, and healthcare are the strongest demand sectors, with telecom, logistics, and energy growing swiftly.

Challenges & Success Factors

Vendor selection is strongly influenced by similarity of proven commercial deployments to new engagements and the provider's vision for blockchain within digital transformation.

Principal challenges for vendors today are breadth and depth of solution experience by vertical market, horizontal process, and blockchain platform. Blockchain services providers are contending with the challenge of demonstrating proven capability and experience in a young and platform-fragmented segment.

Many have opted for one of the following capability build strategies: depth in key vertical markets, depth in common horizontal processes, or depth in platform.

Through 2022, downstream vendor success factors will include correctness of marketplace vision, speed to market share, breadth of capability, and ecosystem reach.

Outlook

Over the next few years:

- Primary drivers for blockchain will remain operational transparency, acceleration of business cycle times, and information security
- However, drivers for blockchain deployment will have transitioned away from intra-organizational or vertical applications within the supply chain toward engaging with 'networks of networks'
- Deployments by industry will broaden to include more significant presence in energy, telecom, logistics, and public sector, although BFSI will continue to dominate the landscape
- The United States, EU and Asia/Pacific will continue to be the principal demand geographies for blockchain solutions.
- Platform selection ambiguity in the architecture process will give way to 'the right platform for the job' as the platform picture clarifies through competitive attrition and corporate development activity
- Interconnection will become the priority as more organizations mature in their ability to present a unified, digital presence to supply chain participants, business partners, and customers The focus is on ensuring that different blockchain platform architectures can interchange data seamlessly.
- Acquisition activity will accelerate, with acquiring firms prioritizing throughput acceleration, quantum computing-proofing, and AI capabilities in target organizations.

NEAT Methodology for Blockchain in Business Process Transformation

NelsonHall's (vendor) Evaluation & Assessment Tool (NEAT) is a method by which strategic sourcing managers can evaluate outsourcing vendors and is part of NelsonHall's *Speed-to-Source* initiative. The NEAT tool sits at the front-end of the vendor screening process and consists of a two-axis model: assessing vendors against their 'ability to deliver immediate benefit' to buy-side organizations and their 'ability to meet client future requirements'. The latter axis is a pragmatic assessment of the vendor's ability to take clients on an innovation journey over the lifetime of their next contract.

The 'ability to deliver immediate benefit' assessment is based on the criteria shown in Exhibit 1, typically reflecting the current maturity of the vendor's offerings, delivery capability, benefits achievement on behalf of clients, and customer presence.

The 'ability to meet client future requirements' assessment is based on the criteria shown in Exhibit 2, and provides a measure of the extent to which the supplier is well-positioned to support the customer journey over the life of a contract. This includes criteria such as the level of partnership established with clients, the mechanisms in place to drive innovation, the level of investment in the service, and the financial stability of the vendor.

The vendors covered in NelsonHall NEAT projects are typically the leaders in their fields. However, within this context, the categorization of vendors within NelsonHall NEAT projects is as follows:

- **Leaders**: vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements
- **High Achievers**: vendors that exhibit a high ability relative to their peers to deliver immediate benefit but have scope to enhance their ability to meet client future requirements
- **Innovators**: vendors that exhibit a high capability relative to their peers to meet client future requirements but have scope to enhance their ability to deliver immediate benefit
- **Major Players**: other significant vendors for this service type.

The scoring of the vendors is based on a combination of analyst assessment, principally around measurements of the ability to deliver immediate benefit; and feedback from interviewing of vendor clients, principally in support of measurements of levels of partnership and ability to meet future client requirements.

Exhibit 1

'Ability to deliver immediate benefit': Assessment criteria

Assessment Category	Assessment Criteria
Offerings	Breadth of application of blockchain
	Breadth of blockchain platforms
	Maturity of capability - Hyperledger
	Maturity of capability - Ethereum
	Maturity of capability - Quorum
	Maturity of capability - R3 Corda
	Maturity of capability - specialized platforms
	Application of blockchain to supply chain processes
	Application of blockchain to retail banking processes
	Application of blockchain to capital markets processes
	Application of blockchain to health insurance processes
	Application of blockchain to healthcare and life sciences processes
	Application of blockchain to telecoms processes
	Application of blockchain to government processes
	Application of blockchain to manufacturing processes
	Application of blockchain to retail processes
	Application of blockchain to travel, transportation & logistics
	Application of blockchain to energy & utility processes
	Application of blockchain to drive new digital process models
	Blockchain consulting capability
	Ability to combine blockchain with BPS services
Delivery	Scale of blockchain delivery capability
	Maturity of IP overall
	Maturity of delivery framework overall
	Maturity of accelerators overall
	Maturity of accelerators - supply chain
	Maturity of accelerators - retail banking
	Maturity of accelerators - capital markets
	Maturity of accelerators - health insurance
	Maturity of accelerators - healthcare and life sciences
	Maturity of accelerators - telecoms
	Maturity of accelerators - government
	Maturity of accelerators - manufacturing
	Maturity of accelerators - retail
	Maturity of accelerators - travel, transportation & logistics
	Maturity of accelerators - energy & utilities
	Extent of major blockchain partnerships
	Extent of blockchain technology partnerships
Presence	Overall blockchain presence

Exhibit 2

'Ability to meet client future requirements': Assessment criteria

Assessment Category	Assessment Criteria
Level of Investment	Level of investment in proprietary blockchain tools
	Ability to introduce new digital business models
Sector Emphasis	Supply chain process emphasis
	Retail banking process emphasis
	Capital markets process emphasis
	Health insurance process emphasis
	Healthcare and life sciences process emphasis
	Telecoms process emphasis
	Government process emphasis
	Manufacturing process emphasis
	Retail process emphasis
	Travel, transportation & logistics process emphasis
	Energy & utilities process emphasis

For more information on other NelsonHall NEAT evaluations, please contact the NelsonHall relationship manager listed below.

research.nelson-hall.com

Sales Enquiries

NelsonHall will be pleased to discuss how we can bring benefit to your organization. You can contact us via the following relationship manager:

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