

IDC MarketScape

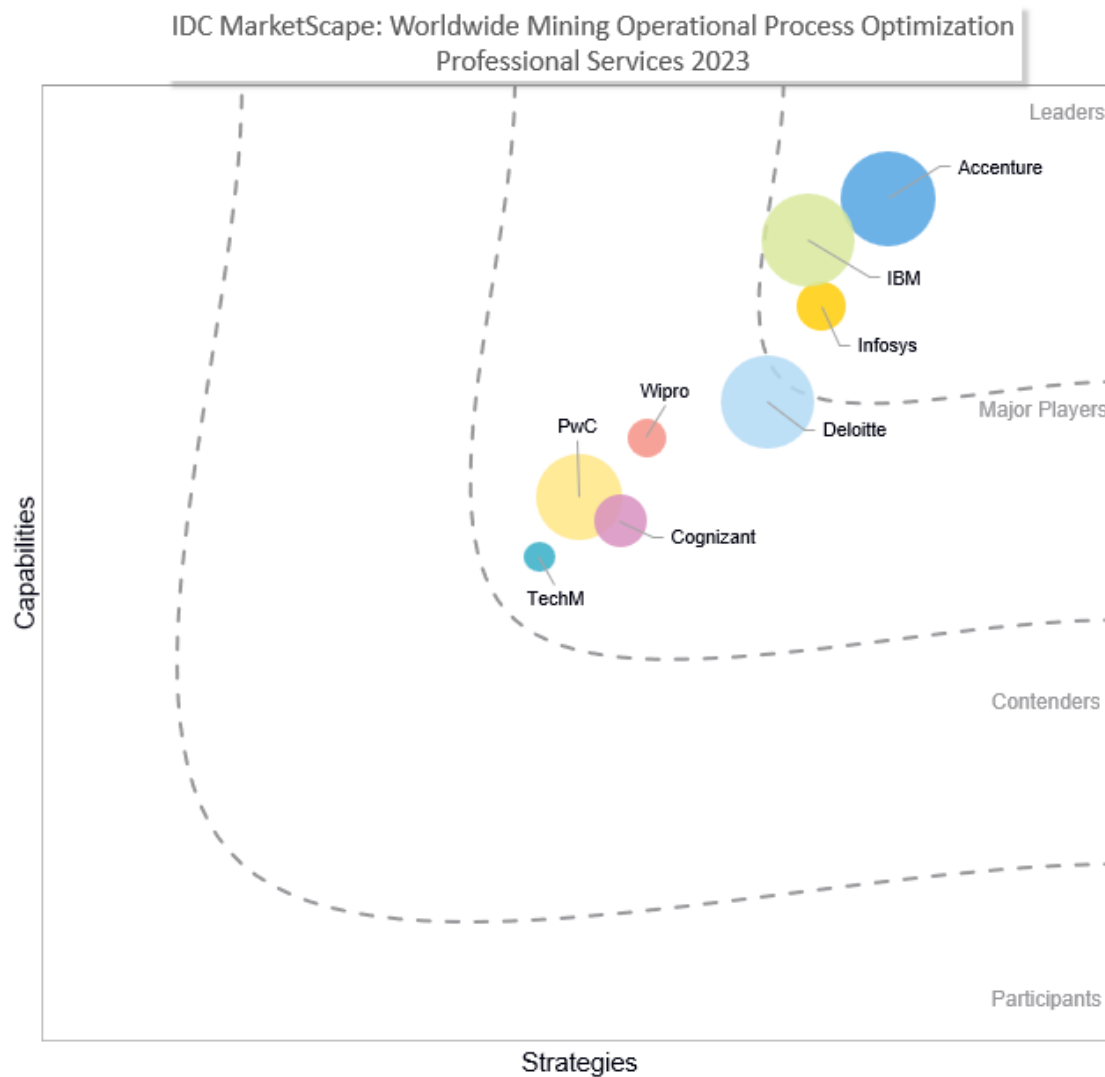
# IDC MarketScape: Worldwide Professional Services Firms for Mining Operational Process Optimization 2023 Vendor Assessment

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## IDC MARKETSCAPE FIGURE

FIGURE 1

### IDC MarketScape: Worldwide Mining Operational Process Optimization Professional Services, 2023



Source: IDC, 2023

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

## IDC OPINION

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This IDC study evaluates the capabilities and strategies of IT and professional services firms providing services to mining companies across their worldwide operations. The assessment includes information collected during interviews with services provider and customer reference calls conducted in 2022. This research comprises a quantitative and qualitative assessment of 8 service providers based on a comprehensive framework that considers parameters that offer insight into the probability of success of delivering value to mining organizations in the short and long term. The mining industry is undergoing a wide-reaching transition that requires mining companies to improve the visibility, efficiency, sustainability, security, and safety of their operations by adopting digital transformation (DX) strategies and capabilities. The study *IDC FutureScape: Worldwide Mining 2023 Predictions* (IDC #US48632722, October 2022) predicts that by 2027, 75% of organizations will have retrofitted critical major equipment with smart sensors to improve the capture and analysis of asset performance, thereby increasing asset availability. Although the implementation of Industrial Internet of Things (IIoT) sensors has the potential to improve operational visibility and efficiency, it also creates security concerns in which the wider attack surface offers greater opportunities to hackers. However, this has not deterred mining organizations from investing in and attempting to extract value from digital technologies. A natural consequence of this has been a progressive integration of operational technology (OT) and IT and the implementation of transformative use cases across the mining value chain. As part of this assessment, the insights of buyers of these digital solutions that offer operational optimization, including their key characteristics and capabilities, were included.

Organizations that have performed strongly in this market are those that create the greatest value for their mining customers, by offering the following:

- Engaging with the C-suite, IT, and line-of-business (LOB) executives to drive transformation strategies with a digital core
- Enabling innovation across the mining value chain for their client's businesses
- Implementing industry-leading technology capabilities to high-value use cases within operations that address key challenges faced by their customers
- Demonstrating a partnership and collaborative mindset with their mining clients with a view to deliver value, beyond point solutions, in a larger digitally integrated value chain
- Delivering a breadth and depth of mining capabilities and support in multiple locations globally
- Actively engaging with a diverse and industry-specific partner ecosystem

This IDC MarketScape provides insight and guidance into the current and future capabilities and strategies of professional services and IT services providers to operational optimizations in the mining industry. Key findings from this assessment include:

- The top performing vendors have achieved positions through their ability to deliver successful solutions, coupled with the implementation of change management programs that improve their clients' internal capabilities through training and upskilling of the workforce.
- Dominant vendors deliver comprehensive solutions, which go beyond point solutions and address the entire value chain. They have a strong focus on providing holistic offerings that improve operational efficiency, safety, sustainability, and security.

- Interviews with the clients found that most vendors exceeded expectations and delivered beyond the original project scope and were praised for the successful implementation of various projects and their ability to build a strong strategic partnership.
- The service providers in the Leaders category are those that offer their clients a well-defined strategy, expanding the expected solution of their customers, and that can deliver industry-leading technology solutions. They have the skills and capabilities to integrate themselves into their clients' organizational structure and effectively deliver services as part of the team, maximizing value creation and removing operational siloes.

## IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

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For this IDC MarketScape, IDC Energy Insights included firms that have a well-established reputation in providing professional services and IT services to support their clients to optimize their operations. To participate in this study, vendors were short-listed based on the following criteria:

**Market share.** A minimum market share is not required. However, the service provider must have an established reputation in working with the mining industry, specifically in providing technology-led process optimization services to various operational activities across the mining ecosystem.

**Revenue.** A minimum revenue threshold is not mandatory, but the company must have a presence in the market and can demonstrate revenue in at least two regions globally.

**Range of services.** The service provider must offer mining companies with at least three of the following key services: business consulting, IT consulting, systems integration (SI), application development, IT outsourcing, business process outsourcing (BPO) (including horizontal and industry-specific BPO services and industry-specific managed services), and other services, such as IT deployment support, and IT education and training.

**Industry and operational specific.** The vendor must demonstrate a range of unique and vertical-specific offerings that are designed to support core mining business processes.

Deloitte, IBM, PricewaterhouseCoopers (PwC), and Wipro did not actively participate. In the case of these four vendors, their assessments were undertaken based on IDC's knowledge, previous engagement, and understanding of their capability to the mining sector.

## ADVICE FOR TECHNOLOGY BUYERS

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The mining industry is in the midst of change as companies look to improve operational performance through investment in digital technologies. This change is happening across the backdrop of wider challenges regarding safety, security, and sustainability and the need to address environmental, social, and governance (ESG) regulatory compliances as well as appease internal and external stakeholders. Mining companies looking to make strides in addressing these issues need to select highly capable service providers and integrate themselves into an ecosystem of partners. This IDC MarketScape is a starting point and a valuable tool to aid mining companies in identifying, vetting, and selecting the service providers to collaborate with to undergo impactful DX and bring value to them across the value chain. A prerequisite for mining companies in the process of selecting a partner is to develop a clear digital strategy, a well-defined technology road map, and identify the use cases they want to undertake. Most of the service providers covered in this research can assist in defining these prerequisites for mining organizations, especially those early in their DX journey, as they have both strategy consulting and deep domain knowledge. This is essential as there are wide variances in the digital maturity levels of mining companies, even at

individual mine sites owned by the same organization, throughout the industry. To ensure effective engagements, both the mining company and the vendors must have a granular understanding of the strategy and transformation road map required for each site to address the differing digital maturity levels.

This IDC MarketScape examines the capabilities and strategies of service providers. In terms of capabilities, vendors must first define their operational objectives, whether it be performance improvement, increased efficiency, or safer operations and then assess where and how the value chain must be transformed, from the optimization of processes, creation of data management and analytics excellence, introduction of innovation, to BPO or upskilling of talent. Through careful assessment and consultation, mining companies will be able to hone in on the services providers that have the greatest likelihood of achieving a successful implementation. Mining companies' operational objectives usually focus on reducing production cost per unit but also include better safety performance, increased tonnage production, better product grade, as well as more sustainable operations that deliver better water, waste, and energy management. The most successful vendors demonstrate the ability to streamline operations across the value chain, breaking down data and information siloes and delivering transformative digital innovation. To achieve this, they establish core and strategic partnerships with technology vendors that can offer know-how and long-term support, enabling service providers to implement complex and advanced use cases that provide a deep integration to processes, technology, operations, and the supply chain.

Often, as these projects are long term, complex engagements with a mix of stakeholders identifying the operational issues being faced and selecting the technology/digital solutions to address them can be a tedious and difficult process. When selecting professional services and IT services providers to support operational optimization, mining companies should consider the following:

- Develop a target of core business objectives and define a clear strategy and road map. With clearly mapped out goals for operational optimization, vendor selection will be more effective and easier. Professional services firms have different strengths and need to be mapped to the miner's current and future DX requirements.
- Evaluate each vendor based on their integration capabilities. Key vendor capabilities that need to be vetted are their skill, experience, and know-how in developing and deploying solutions and more importantly integrating them with the mining companies' existing systems — ensuring the vendor can execute this is essential to a successful project delivery.
- Assess the vendor's research and development (R&D) record. Many of the popular service providers are organizations that consistently invest in R&D over time. They have a long-term view of developing new and innovative solutions and a road map for introducing them into their offerings. As they develop new innovations, they have the confidence and foresight to disrupt their own offerings, for the benefit of their clients and help them to leverage their latest products.
- Select vendors with an agile mindset, especially for complex, long-term engagements. Mine sites evolve as they age, and the ore grade can change as the mine matures and this means that the operational requirements will undoubtedly change. Mine operators must be adaptable and choose partners that can adapt to changing circumstances and have the agility to modify their solution's road map. Miners should select a partner that can demonstrate flexibility and a high degree of responsiveness to changing circumstances to ensure that long-term engagements can optimize operations over time.
- Confirm that there is a strong geographic support footprint with 24 x 7 support. Many service providers claim to have a global presence, but there can be wide variances in their

capabilities at a country or regional level. A proper assessment should be made that examines both the local support as well as the outsourced offshore support, and a clear understanding of where the ultimate responsibility lies for project delivery and implementation. Ideally, the vendors selected will have a geographic coverage that is a close match to the miner's requirements.

- Study existing customer satisfaction and success stories. As part of the due diligence that is conducted during the vendor selection process, a careful study should be made of the current or recent engagements a vendor has completed with other customers to understand their satisfaction levels and if the clients achieved the desired value creation.
- Conduct regular progress checks, measured against specific key performance indicators (KPIs) to determine the effectiveness of the relationship. Strategic partnerships in the mining industry are likely to be in place for many years and vendors should be assessed and selected on how skillfully they manage and participate with the numerous stakeholders across the entire business. Ensuring that the vendor is engaged with all the aspects and people in the business and their progress is measured and checked against clearly defined performance indicators will be critical to ensure long-term success.

## VENDOR SUMMARY PROFILES

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This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and opportunities.

### Accenture

Accenture is positioned in the Leaders category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

Accenture works with its mining clients across five main services: strategy and consulting, technology, operations, Industry X, and Accenture Song (formerly known as Interactive) and has several thousand employees dedicated to its mining practice. These teams are further supported by their innovation centers and hubs, some of which are in their primary markets for the mining industry. Accenture currently works with the majority of the top miners globally by total revenue, with over 80 active customers in its mining sector portfolio.

Accenture offers mining-specific tools and solutions, such as its mine value tuner and connected mine solution. Its mining business offerings are built around a core of cloud-based capabilities with value and scale offered through its partnerships with firms, such as SAP, Microsoft, Dassault Systèmes, AVEVA, Rockwell Automation, and Amazon Web Services (AWS). Accenture's solutions are based on building digital foundations; sustainable and responsible value chains; connected and optimized operations; and delivering value to customers through strong strategic partnerships and building a skilled and talented workforce.

Accenture focuses on delivering holistic solutions and Industry X technologies — supported by its experience in IT/OT integration — to modernize, digitalize, and optimize its clients' operational processes. Through investment in its mining hub in Perth, Australia, and asset-intensive industry-focused hubs elsewhere, it can offer the continued development and delivery of services to its customers.

With regard to its technology capabilities, Accenture has a platform strategy for mining process optimization that includes cloud, mobility, analytics, artificial intelligence (AI)/machine learning (ML), security, and digital twins. It has made key engineering acquisitions that have extended its service capabilities, particularly T.A. Cook, AlphaBeta, Electro 80, Umlaut, and Pollux.

## Strengths

Accenture is considered a trusted and preferred partner for many of its customers due to its ability to create multidisciplinary teams combining its capabilities in strategy, digital skills, project management, BPO, and partnerships. The implementation and delivery of projects have been successful and have met clients' expectations in terms of on-time completion, costs, quality of work, and overall management. Accenture has consistently invested in R&D to foster digital and business innovation and to nurture new solutions and ways of working that solve operational problems for its mining clients. One of Accenture's strengths is its scale in the mining sector and its strong ecosystem of strategy, technology, and academic partners that can serve the mining value chain for its clients and deliver transformative operational and business outcomes.

## Challenges

One aspect that clients highlighted as a challenge was pricing. However, customers recognize that this high pricing comes with several benefits and greater potential for successful delivery of projects and value creation through Accenture's breadth and depth of experience and focus on excellence. IDC believes that Accenture would improve its position in the industry with the ongoing development of thought leadership in terms of its customer engagement and further increase its participation in mining-specific events, seminars, and conferences.

## Cognizant

Cognizant is positioned in the Major Players category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

Cognizant is a global professional and IT services company with over 290 offices around the world. It has over 349,400 employees of which approximately 1,000 are dedicated mining industry associates. Cognizant has gradually enhanced its strategy and capabilities for the mining sector based on its 5S Strategy that describes the core foundations of its offering, including (1) structured mining (in which clients can leverage enterprise software suites for mining operations and asset maintenance and management), (2) smart mining operations (building intelligent, automated, and optimized mining operations), (3) safety of workforce and workplace (building a safe environment for people and developing remote operations with automation), (4) sustainable mining (helping customers attain their net-zero targets, improve their energy management, and develop responsible mining practices), and (5) supply chain (delivering efficient logistics and transportation solutions and optimization of supply chain systems).

Over the past few years, Cognizant has made efforts to improve its offering for clients by ensuring they have strong coverage across their geographic footprint and have made several acquisitions in companies, such as Contino, BrightWolf, ESG Mobility, Utegration, AustinCSI, and Mobic, to improve their IoT and AI/ML capabilities. Cognizant provides digital leadership through its platform approach and technology offerings in cloud, IoT, data management and analytics, and a robust testing methodology.

Cognizant offers mining-specific solutions, such as Zero Waste Engineering, APex or Asset Performance Excellence, and Tailings+, which are all designed to help mining companies improve operational efficiency and performance. It also offers an automation ecosystem for clients that require advisory and assistance in process automation. These solutions help support their zero mining framework, which includes zero harm (safety of the workforce), zero emissions (driving toward sustainable operations, and a net-zero carbon footprint); and zero entry (building autonomous operations — using robotics and autonomous vehicles — and removing people from harm's way). Cognizant has built strong partnerships with industry-specific networks, technology vendors, and academia to enhance and enrich its offerings.

## **Strengths**

Customers offered positive feedback on the onsite support and ability to solve business and commercial issues quickly with high energy and integrity. Buyers also noted the breadth and depth of Cognizant's analytics capabilities as being very strong, particularly its problem-solving capability. According to IDC, its key strengths also include its willingness to understand mining operational problems with depth and insight, tools and methodologies, and analytics capabilities.

## **Challenges**

Although Cognizant is recognized for its overall strategic ideation, innovation, and professional services and testing methodology, mining companies need to be better informed of this, so they have better visibility and understanding of getting projects to scale and delivering intelligent, smart mining operations.

## **Deloitte**

Deloitte is positioned in the Major Players category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

Deloitte is a large, well-established provider of professional and IT consulting and advisory services to clients engaged in the precious metals, nonmetallic minerals, bulk commodities, and other nonferrous metals ores industries. Deloitte creates value for its mining clients by providing a set of integrated capabilities from its five business groups consisting of tax and legal service, risk advisory, financial advisory, business consulting, and audit and assurance services. It combines these offerings with its technology strategy capabilities to enhance business performance and digitally transform mine processes and operations. It has dedicated mining teams with a wide breadth and depth of skills and experience in the industry, which it leverages to deliver intelligent mining solutions.

Deloitte helps its clients in the digitization of operations and data analytics, and to leverage new innovations while mitigating risks through cyberthreat management. Another important lever to drive value is stakeholder engagement, assisting miners in managing their suppliers, customers, employees, and the wider community, creating shared value that goes beyond compliance. Deloitte also provides services across the mining value chain and helps its clients attain their net-zero goals through decarbonization strategies. Through its consulting and advisory practices, it helps mining organizations assess their digital maturity and offers risk-based analytics, improving ore hauling and building an innovation strategy to optimize mining processes. Additionally, Deloitte is focused on building an ecosystem of strategic partners that are required to deliver a holistic set of technologies, solutions, and skills addressing short-term and long-term use cases in its clients' road map.

## **Strengths**

According to IDC, Deloitte's key strength is its ability to offer a holistic and integrated solutions to mining clients from the wealth of knowledge and experience in its five core business units. It has a strong focus on delivering DX use cases and supports these projects through delivering innovation as a process and creating shared value for its clients' stakeholders based on its mining charter. Deloitte also has globally distributed teams with mining domain-specific know-how and provides consistent 24 x 7 local and offshore support to its clients.

## **Challenges**

The leaders identified in this IDC MarketScape invest heavily in their technical capabilities and, despite Deloitte being well positioned in the Major Players category in this study and despite its investments in these areas, the mining industry lacks awareness of its proficiency. Coupled with its

ongoing investments in popular digital technology solutions and addressing complex challenges for its clients, Deloitte should further enhance its R&D efforts and improve its messaging to the mining industry with respect to its available services.

## **IBM**

IBM is positioned in the Leaders category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

IBM has a comprehensive offering for mining companies that encompasses security, health and safety, supply chain management, mining operations, maintenance, and asset management. IBM supports mining businesses to help them realize sustainable performance and helps its clients navigate and understand the complex and developing challenges facing the industry. IBM's core offerings are based on its enterprise asset management platform Maximo, its MRO inventory optimization offerings, and its partnership with SAP that helps deliver agile operations. Its Maximo Asset Management solutions team works with mining companies to deliver production design and scheduling to improve capacity utilization; this is done by applying optimization techniques.

IBM has a platform-based strategy, which includes the company's core technological capabilities across cloud, IoT, AI, and analytics — that support transformative use cases across the mining value chain. IBM's platform approach transforms its client's operations by deploying edge computing, hybrid multicloud solution, and IBM Garage, a proprietary model to accelerate DX, innovation ideation, and a step change in the time to value. An essential ingredient and core part of its strategy is that organizations need to deploy leading technologies powered with AI/ML models and drive improvement by using an iterative process in which product development is aligned with business goals and measured. IBM's client engagement strategy is highly collaborative and focuses on the development of an ecosystem of vendor partners, mining industry-specific partners, other partners from adjacent industries, and mining companies.

### **Strengths**

Buyers highlighted IBM's deep expertise in asset management and critical technologies, such as cloud and AI, and recognized the breadth and depth of the mining team's knowledge and quality, data science capabilities, and R&D investments in innovation capabilities. IBM's strength is combining its technology know-how together with DX programs that are uniquely suited to solve their customer's business priorities by employing the right technologies, industry-specific tools, and use case-related digital platforms and its 24 x 7 client support.

### **Challenges**

One of the challenges that IBM faces is that its position in the market is not representative of the strength of its capabilities and offerings for the mining industry and its ability to support the optimization of mining operations. IBM will benefit from enhancing its messaging and demonstrating how its solutions can create value for its mining clients across their operational processes. It should highlight its strong partnerships and comprehensive ecosystem of vendors and portfolio of solutions.

## **Infosys**

Infosys is positioned in the Leaders category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

Infosys serves mining clients across the globe and is present in all major geographies, with over 30 active mining customers and has mining practice over 5,000 personnel strong. The company is one of the world's major IT and professional services providers with over 330,000 employees worldwide and has a presence in 54 countries.



Infosys has innovative offerings under its theme of Navigate Your Next, which encompasses a wide range of digital technologies and capabilities, including AI, ML, and Agile at Scale. It has mining-specific solutions, such as mining operations decision support, integrated remote operations centers, next-gen connected safety and sustainability solutions, digitally connected assets, IT/OT integration, and automation. Infosys has a depth of mining experience and capabilities, which allow it to offer solutions across the mining value chain, encompassing software engineering services, integrated environment, health, and safety (EHS) platforms, mining operations (including electrification), waste and water management, and field service management.

Infosys partners with mining clients to streamline operations across the value chain — from exploration and drilling to ore extraction and processing. It employs the Live Enterprise Framework, which forms the core of its services, helping customers react, adapt, and learn from changing situations and scenarios in their operations. It also assists clients in their journey to migrate to the cloud through its Cobalt offering.

In terms of its technology capabilities, clients can benefit from its expertise in data acquisition, management and analytics services, IoT, data platforms, mobility, cloud, cybersecurity, and AI. These offerings are delivered through its consulting and advisory, implementation, and managed services. Infosys has made concerted efforts to grow and retain talent for its mining practice and upskill existing employees.

Infosys has built a strong partner ecosystem that includes both horizontal and mining industry-specific partners, such as Microsoft, SAP, ESRI, and Enablon, covering a wide spectrum of technologies and services. It engages in continuous improvement through its own R&D investments — Infosys Living Labs and the Infosys Innovation network — as well as its work with industry forums and academia, such as the Indian Institute of Technology (Indian School of Mines) (IIT), Curtin University, and the University of Western Australia. The company has also set up new mining centers of excellence (COEs) in Phoenix AZ, Raleigh NC, Santiago Chile, and Calgary AB.

## **Strengths**

Customers highlighted Infosys' strength in terms of the depth of its mining industry expertise and its technology capabilities, specifically on data platforms, analytics, and data management as well as its cloud offerings. It has a strong partnership ecosystem with some of the leading technology vendors and works with customers to help them digitize operations across the value chain.

## **Challenges**

Although Infosys has a global presence and is present in all major mining geographies, there are geographies where Infosys is investing to strengthen local presence by increasing head count with mining expertise, so that both delivery and support are more evenly distributed across its markets.

## **PwC**

PwC is positioned in the Major Players category in the 2023 IDC MarketScope for Worldwide Professional Services Firms for Mining Operational Process Optimization.

PwC is a global professional services firm that has operations in over 150 countries and over 300,000 employees. PwC has a global mining practice that serves and supports the DX of its clients' operations and operational processes. The company supports its clients with their ESG strategy and goals and offers consulting services for business strategy, operations strategy, and technology strategy. The firm creates value for its clients by helping them design strategies through to the implementation and completion of complex transformation projects. For this, the company draws on a vast pool of talent covering audit, risk, regulatory and compliance, tax, and finance. It

also has a wide range of functional skills within the organization, from customer experience, design, analytics, project management, to digital and next-generation technology. It offers digital operations solutions using advanced analytics, AI, IoT, robotics, cloud, and other Industry 4.0 technologies to design, plan, and transform operations.

PwC has teamed up with Carnegie Mellon University to establish the Digital Transformation and Innovation Center with a view to solving society's most pressing problems and driving innovation to tackle the major issues by using advanced technology. PwC has also developed a solid ecosystem of technology partners, including Adobe, AWS, Google Cloud, Microsoft, UiPath, and SAP.

### **Strengths**

PwC's strength is derived from its vast global presence and deep reservoir of talent and skills found in its workforce. This gives the company capacity to offer its numerous capabilities to its clients with local delivery and support. It has the breadth and depth of knowledge to give clients a comprehensive strategy and road map across tax and regulatory advisory, business strategy, and technology and operations strategy. PwC works with both the C-suite and IT and business unit heads, as a true partner, to help its clients achieve and deliver significant transformation use cases across the business.

### **Challenges**

PwC is a major player in the mining industry but, as a professional services firm, it is viewed as more of a strategic and consultative partner. It would benefit from stronger communication in its ability to be fully engaged in the operational aspects and delivery relevant to the IT and technology stakeholders within its customers. For mining companies undergoing DX programs, the ability to implement and deliver effective technology implementation is valued highly and is seen as a critical part of the requirement in the process of vendor selection.

### **Tech Mahindra**

IDC positioned Tech Mahindra (TechM) in the Major Players category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

Tech Mahindra is an India multinational IT services and consulting company and subsidiary of the Mahindra Group. Mining is part of its wider manufacturing business, employing several hundred specialized mining professionals, covering process manufacturing experts, metals and mining consultants, engineers, Industry 4.0 experts, and experienced design consultants. TechM mining business is global with operations on every continent and spans all aspects of its client's business, including minerals processing, mining operations, logistics, transportation and supply chain, asset management/maintenance, sustainability, and health and safety. The company has a suite of products, including an advanced analytics offering that delivers predictive insights through its Prism platform, IoT solutions for digital twins, worker safety monitoring, defect detection and quality prediction, and enterprise resource planning (ERP) transformation solutions. TechM's clients have several pricing options available to them, such as time and material pricing, full-time employee (FTE based), fixed price, unit based, or transaction based.

TechM has over 50 mining customers around the world, including some of the largest global mining organizations, which are supported by 24 x 7 dedicated delivery centers or COEs. The company has nine R&D labs (Makers Lab), AI and data and smart automation COEs, 5G, product design, usability testing, and factory of the future labs. These labs work collaboratively with research institutes, academia, start-ups, customers, and partners to build and deliver solutions utilizing next-generation technologies, including cloud, AI/ML, advanced analytics, augmented reality (AR)/virtual reality (VR), IoT, digital twins, and autonomous vehicles and robotics.

TechM has built an extensive partner ecosystem and enjoys strong relationships with the world's leading technology vendors and infrastructure providers. It has several strategic partnerships in the areas of integration, technology, and consulting, which give TechM the ability to offer comprehensive solutions across the mining value chain. Its major partners include Microsoft, AWS, Honeywell, ABB, SAP, Oracle, Salesforce, IBM, and Google.

### **Strengths**

TechM is in the fortunate position of being part of a bigger conglomerate, the Mahindra Group, which encompasses companies in several industries, including automotive, defense, energy, agriculture, and real estate. TechM leverages the expertise from these respective industries to serve its clientele better and "import" innovation from these group companies.

TechM also continues to focus on innovation and invest in R&D through its Makers Lab and other COEs. Its ongoing research and investment in design studios, such as Pininfarina, and other acquisitions in the areas of hybrid cloud and digital platforms ensure the company is firmly placed for the future.

### **Challenges**

Tech Mahindra's footprint in certain geographies is somewhat limited; however, the company's continued efforts and investments in the mining sector have given it the ability to foster innovation and meet the changing requirements of its global customers. The company should make stronger efforts to communicate the value it creates for its clients through its wide range of managed services, technological capabilities, and focus on platform solutions, automation, and digital engineering.

### **Wipro**

Wipro is positioned in the Major Players category in the 2023 IDC MarketScape for Worldwide Professional Services Firms for Mining Operational Process Optimization.

Wipro offers operational process optimization for mining clients across several key focus areas, including health and safety, sustainability, mining operational and production efficiency, and cost reduction through BPO. Wipro has wide domain knowledge and supports its clients in setting strategies for the DX of mining operations and the required services. Wipro offers a variety of solutions and frameworks, such as the Wipro Agile Mining ERP implementation, to help its mining customers design and build the ideal architecture and deploy data models required for data-driven operations. Wipro's approach brings together technology vendors and partners to offer holistic solutions and capabilities to its clients to help them solve their critical operational challenges. This is achieved by helping them plan and implement DX programs that utilize and build digital engineering teams and capabilities, cloud platforms, advanced data analytics, enterprise systems delivery, edge computing and devices, and network infrastructure; and leveraging AI to transform mining operations.

Wipro engages with a wide ecosystem of partners and works with global academic institutions, start-ups, and researchers to collaborate on R&D in next-generation technologies, such as quantum computing, AI, robotics, autonomous vehicles and systems, and 5G. Through these partnerships, Wipro designs and develops innovative solutions for its clients. Wipro has developed a strong partner ecosystem by assembling mining industry-specific know-how and domain expertise in OT and IT systems, cloud and digital platforms, safety and sustainability best practices, participation in mining forums, and other activities that are critical to the development of the mining industry.

## Strengths

Wipro is known for the quality of its mining industry expertise and specialists, particularly those with mining business process knowledge. Wipro's breadth and depth of experience ensures it can deliver optimized and efficient mining operations procedures and best practices. Wipro has the ability to support its clients around the globe with 24 x 7 support and has local delivery centers in many regions, resulting in faster time to market and successful project delivery. Wipro works proactively with its clients to identify the strategic priorities and DX use cases that will deliver a strong ROI.

## Challenges

There are specific areas in which Wipro could improve its positioning — with a relatively low spend on R&D, a greater focus on research and developing innovative solutions across the mining value chain would position Wipro more favorably in the market. Wipro would also benefit from more focused and comprehensive strategic partnerships in its ecosystem and a communication strategy that reflects its know-how and ability to deliver effective DX projects in the mining industry.

## APPENDIX

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### Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is with customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis or strategies axis indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

### IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

### Market Definition

For this IDC MarketScape, IDC Energy Insights has reviewed professional services firms that provide the following services to mining companies to optimize their operational processes:

The processes that are included within this assessment are:

- Mining operations
- Health and safety
- Asset management and maintenance
- Logistics, transportation, and supply chain
- Energy management

The services provided by the vendors reviewed in this IDC MarketScape include:

- **Business consulting.** Business consulting includes four main areas: strategy consulting, operational improvement consulting, internal audit consulting, and change and organization consulting. This involves helping clients define their strategy and designing and implementing the processes to reach their goals.
- **IT consulting.** IT consulting are professional services activities centered on creating the strategy and capabilities to improve the informational technology function of the organization. IT consulting consists of two focus areas: IT strategy consulting and IT operations consulting. Service providers help clients manage their IT organization, IT infrastructure and security, and all related processes to improve their IT performance.
- **Domain knowledge combined with technical capabilities.** Most of the mining companies now expect a breadth and depth of knowledge from suppliers, not only from an IT capabilities perspective but also in terms of the deep domain knowledge they expect from vendors in the future. They should have a combination of strategy consulting and mining operations knowledge. For example, efficient production management is an area in which both domain expertise and technical know-how and skills are required to optimize production and reporting.
- **SI.** SI projects are designed to better integrate different platforms and technologies and SI services include the planning, designing, implementation, and project management of technical solutions that address a mining company's technical or business requirements. The solutions involve varying types of infrastructure from on-premises to hybrid or multicloud environments and may require investment in various types of hardware or software. They are designed to meet the demands and performance levels needed for both technical and business goals.
- **BPO and IT outsourcing.** BPO is the transfer of business activities and business processes from a customer to an external services provider. BPO contracts can vary from 1 to 10 years and long-term contracts usually include the transfer of personnel, and even fixed or other assets, from the customer to the services provider. IT outsourcing services are specialized and specifically involve the IT infrastructure and processes of a client in which there is contractual arrangement for the services provider to take responsibility and manage all or part of the client's IT systems. These IT outsourcing engagements are tied to service-level agreements, for metrics such as systems uptime or response or resolution time in case of issues, to ensure performance and systems integrity is maintained consistently over time.

## Strategies and Capabilities Criteria

**TABLE 1**

### Key Strategy Measures for Success: Worldwide Mining Professional Services Firms for Mining Operational Process Optimization

Criteria	Definition	Weighting (%)
Functionality or offering strategy	Looks at how the vendor developed its range of services that it offers mining companies for optimizing their operational processes	40.0
	How the vendor incorporates changes in the road map	
	How the vendor plans to develop its range of services that it is offering for optimizing their operational processes	
Growth	Vendor can demonstrate significant revenue growth over last five years	20.0
	Ability to demonstrate continuous growth trend in customer acquisitions	
Financial/Funding	Financial (profitability) performance over the last three years	15.0
	Revenue	
R&D pace/productivity	Investment in R&D/innovation as a percentage of revenue	25.0
	Assess the capacity of the vendor to prioritize R&D to deliver new services and products ahead of customer demand	
	Plans in place for experience centers and design thinking approaches to innovation; how prepared are they to disrupt their own offerings	
Total		100.0

Source: IDC, 2023

**TABLE 2**

### Key Capabilities Measures for Success: Worldwide Mining Professional Services Firms for Mining Operational Process Optimization

Criteria	Definition	Weighting (%)
Functionality or offering	Assesses the coverage of processes by the vendor across the breadth of mining operations within its current capabilities and its ability to integrate across the value chain	35.0
	Assesses the vendor's ability to deliver services that address a wide breadth	

**TABLE 2**

**Key Capabilities Measures for Success: Worldwide Mining Professional Services Firms for Mining Operational Process Optimization**

Criteria	Definition	Weighting (%)
	of use cases associated with transformed mining	
	Assesses the vendor's ability to deliver a platform-based strategy and services that address the architecture required in transform mining	
Customer satisfaction	Assesses the customer satisfaction as reported by the customer in interviews	30.0
	Assesses the ability of the vendor to sell to different stakeholders across IT and LOBs	
	Proportion of projects that deliver expected value	
Portfolio benefits	Assess the quality of partner ecosystem that the vendor brings to customers (Do they work jointly and are mining operations-specific partners part of the ecosystem?)	15.0
Customer service delivery	Assesses the geographical coverage in which vendor has operations and local staff presence (Geographies are Oceania, Asia, Europe and Middle East, Africa, North America, and South America.)	10.0
Range of services	Assess the level of mining-specific domain specialists available to support customers	10.0
Total		100.0

Source: IDC, 2023

**LEARN MORE**

**Related Research**

- *IDC MaturityScope: Data-Driven Mining 1.0* (IDC #US48633022, October 2022)
- *IDC FutureScape: Worldwide Mining 2023 Predictions* (IDC #US48632722, October 2022)
- *The Mining Industry's ESG Credentials: A Sustainability Investigation* (IDC #AP49570022, August 2022)

- *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2022: Mining* (IDC #US47065622, July 2022)
- *Wearable Tools in Mining* (IDC Energy Insights #US48632622, April 2022)
- *IDC PeerScope: Developing Clear Digital Transformation Strategies for Mining Organisations* (IDC Energy Insights #US48633122, April 2022)

## Synopsis

This IDC study evaluates the capabilities and strategies of IT and professional services firms providing services to mining companies across their worldwide operations. The assessment includes information collected during interviews with services provider and customer reference calls conducted in 2022. This research comprises a quantitative and qualitative assessment of 8 services providers based on a comprehensive framework that considers parameters that offer insight into the probability of success of delivering value to mining organizations in the short and long term.

"Mining companies are keen to invest in and leverage digital technologies, IT, and data-related services to optimize the operational value chain and mining processes. Mining companies have prioritized safety, sustainability, and security as part of their core business strategy, and these require new technologies and digital transformation programs so they can transition to intelligent mining operations. To deliver on these priorities, they need to seek partnerships with experienced service providers that can help them on the journey, selecting the right use cases and implementing the technology strategy and road map that will deliver the greatest value creation and return on investment. Through these partnerships, mining companies can improve their operational efficiency, support the continued integration of IT and operational technology (OT) systems, and transform their operational processes to create digitally enabled, integrated, and automated value chains," says Rakesh Patni, associate research director, IDC Energy Insights.



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