

IDC MarketScape

IDC MarketScape: Worldwide Consulting and Digital Services Providers for the Upstream Oil and Gas Industry 2024 Vendor Assessment

Gaurav Verma

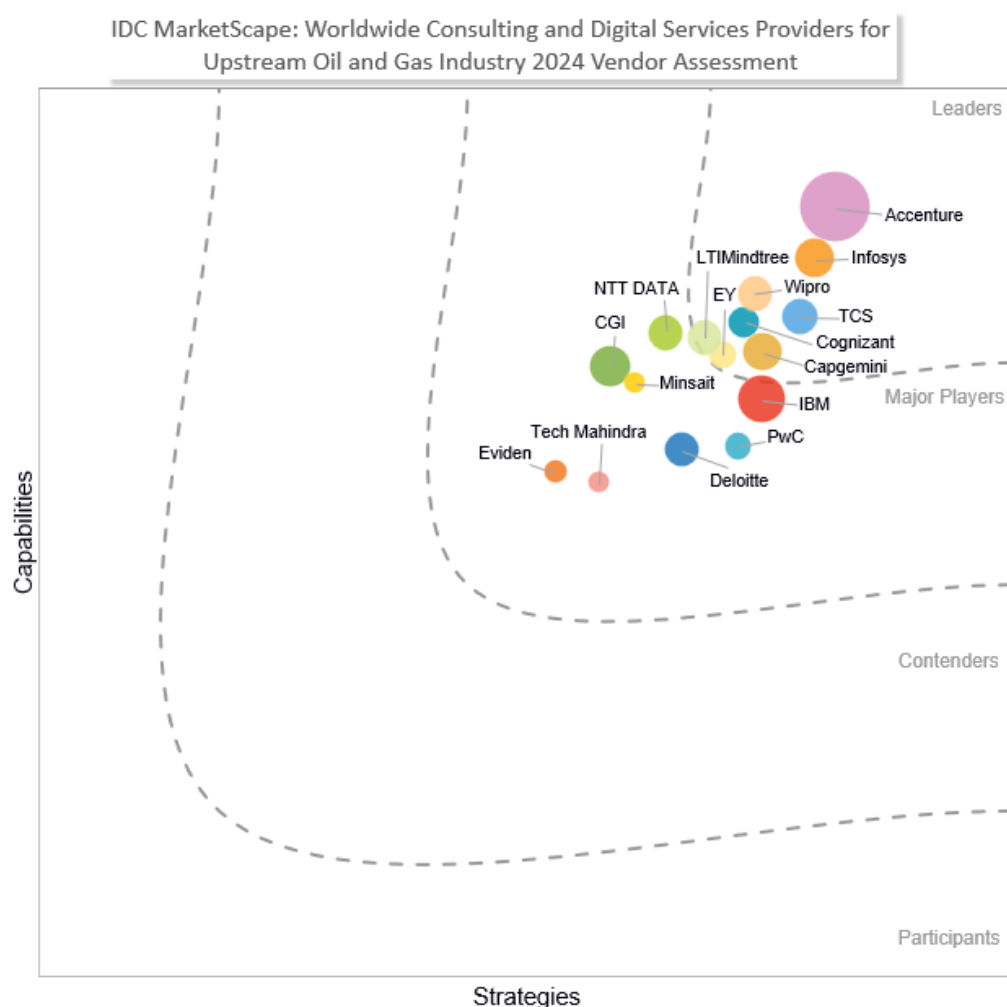
Gaia Gallotti

THIS IDC MARKETSCAPE EXCERPT FEATURES INFOSYS

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Consulting and Digital Services Providers for the Upstream Oil and Gas Industry 2024 Vendor Assessment



Source: IDC, 2024

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

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Consulting and Digital Services Providers for the Upstream Oil and Gas Industry 2024 Vendor Assessment (Doc #US51004123). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Featured Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

With pivoting business directions mandated by top management, worldwide oil and gas (O&G) companies are aligning their high-level strategic approaches to address two major corporate missions: energy security and energy transition. All companies are inevitably embarking on their own transformation journeys as the business landscape evolves. Conducting business traditionally is universally deemed as no longer viable.

Striking a balance between energy security and energy transition is a goal of upstream organizations globally. In addition to expanding the energy mix with dedicated green initiatives (such as renewables, hydrogen, and biomass), worldwide upstream players are tasked with ensuring a reliable supply of energy on which the world still relies heavily. This constantly drives O&G business leaders to enrich high-performing upstream assets. Upstream O&G companies need to constantly work to strengthen their portfolios and maintain a reliable pipeline of high-quality hydrocarbon production – this comes with significant costs and technical uncertainties.

As some institutional investors reallocate their upstream investments to new green initiatives, budget constraints will drive upstream organizations' increasing need for exploration and production (E&P) studies and related field processes to be operated optimally, efficiently, and more importantly, sustainably. Facing the moment of truth, worldwide upstream organizations are on their toes defining new strategies with digitally enabled opportunities at their core. They are tasking their services partners with innovation challenges as legacy IT services are not meeting current expectations.

Upstream leaders are eagerly embracing digital operating models in all aspects, from enterprise business processes to field operations, and are willing to further adopt advanced technologies to address functional challenges through digital solutions. Day-in-day-out functional challenges span from lack of E&P data democratization, limited geology and geophysics (G&G) data sharing, limited capabilities of remote assistance, and reactive approaches to maintenance.

This IDC MarketScape provides O&G companies globally with insights into the current capabilities and future strategies of IT services vendors in the space of domain consulting and digital services for the upstream segment of the O&G value chain. It evaluates service providers' ability to combine their consulting capabilities (including creativity, strategy, design, experiential design, and people-centric product development), their expertise and leadership in Innovation Accelerator technologies, and IT services (such as IT consulting, systems integration, application development, business outsourcing, and IT outsourcing) to provide complex consulting-led digital transformation (DX) services. These service providers' offerings enable upstream end users to bring innovative digital use cases to life for executing E&P processes even more effectively and efficiently. This report focuses on digital use cases as they relate to improving upstream O&G business processes along the macro areas of smart exploration, G&G data operationalization, real-time and integrated hydrocarbon production management, connected oilfield asset management, and intelligent workflow optimization. This IDC MarketScape evaluates the following digital use cases:

- Predictive lease management
- Automated field tickets

- G&G data management
- Subsurface data platform (data intelligence)
- AI-enabled data analysis (G&G applications)
- Downhole intelligence
- Digital collaboration (geoscientists & engineers)
- Well planning and drilling
- Real-time drilling optimization
- Production allocations
- Real-time hydrocarbon production management
- Integrated production operations
- Hydrocarbon accounting
- Design and engineering for oilfield development
- Oilfield asset digital twin
- Sustainability and risk management
- Safety and security

IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

The playing field for digital services in the upstream O&G industry is very broad since many firms offer these services. However, only those firms that have established a good reputation in the O&G industry have been considered for this IDC MarketScape assessment. To be considered in this report, IDC Energy Insights analysts stipulated that vendors should meet the following minimum criteria:

- A minimum market share is not required. Nevertheless, the vendor must have an established reputation in working with the upstream O&G companies, specifically addressing the domains of analysis.
- A minimum revenue threshold is not mandatory. However, vendors should have above \$30 million of estimated total revenue in the worldwide upstream market for calendar year 2022.
- The vendor needs to offer a variety of services that specifically support O&G companies' digital enablement needs, as defined in the scope of this report under the following relevant areas as a part of a technology implementation: organization (i.e., workforce), omni-experience (i.e., customer), operating model (i.e., business model/process changes), information, and/or leadership.
- The vendor needs to support a variety of O&G upstream business and operational processes. Vendors with limited offerings that only cater to specific business processes (for instance, data analytics services for selective upstream operations data) and do not serve other upstream processes (production optimization, smart exploration, field development) will be excluded.
- The vendor must be delivering services to upstream O&G companies in a minimum of two regions from different continents (North America, Latin America, Europe, Middle East, Africa, Asia/Pacific).

ADVICE FOR TECHNOLOGY BUYERS

In this IDC MarketScape on consulting and digital services for upstream O&G, IDC Energy Insights assessed various offerings from global services providers. Upstream organizations should use it to

support their evaluation processes as it relates to digital services providers with strong consulting and innovation capabilities.

To maximize the ROI on the time, money, and efforts invested working closely with the service partner, IDC Energy Insights recommends upstream O&G companies to:

- **Align your IT sourcing with corporate vision.** Buck the trend of a traditional procurement approach that has a major focus on finding the lowest-cost service providers. Consider strategic sourcing that aims to build long-term relationships with service providers that have a proven track record of quality and innovations in the upstream O&D domain.
- **Identify the functional needs.** Narrow down criteria by answering questions such as:
 - Where do you require the most support for improving your upstream business processes?
 - What kind of service partner can provide the most value for the depth and breadth of the requirements identified: a firm with cost leadership, premium pricing but tech leadership, domain expertise, creative thinking, or a one-stop shop?
- **Task your service providers with data innovation.** The vast repository of domain data and existing ineffective legacy applications, encompassing structured and unstructured subsurface data, necessitates the development of intelligent digital applications. Merely digitalizing subsurface information and legacy data is not sufficient to drive efficiency and productivity improvements. Service providers must innovate to facilitate data accessibility across various upstream teams and leverage domain-specific knowledge graphs to unlock the potential of disruptive technologies such as AI and generative AI (GenAI).
- **Leverage ecosystem innovation.** A major innovation opportunity for E&P companies is the Open Subsurface Data Universe (OSDU) data platform. Ensure that the domain service provider has invested in technology – as well as in its technology partners' solutions – to develop the end-to-end capabilities and expertise that enable E&P customers to benefit from OSDU offerings in terms of related subsurface data preparation and migration as well as development of custom solutions.
- **Value proactiveness for long-term success.** Proactiveness is highly rewarding. Service providers that are proactive in enhancing service delivery capabilities and proposing innovative working models that leverage agile approaches or automation – and that require minimal direction to understand problem statements effectively – are invaluable. Service providers that can challenge norms with best practices rather than merely taking orders, and offer suggestions supported by thorough assessments add significant value. Although such services may come at a premium, they prove to be more cost-effective in the long run.
- **Revise your pricing model.** Revise your pricing strategy to achieve dual objectives:
 - Focus on long-term cost efficiency by mandating incremental cost improvements as a part of SLAs for maintenance managed and other long-term services.
 - Encourage service providers to innovate by offering incentives and an equal stake in revenue sharing or outcome-based pricing for co-creation and co-development of innovative solutions.

This approach aligns interests and fosters a collaborative environment, driving continuous improvement and innovation while ensuring cost-effectiveness over the long term.

- **Support your evaluation process with this document.** Finally, like some of your peer O&G companies, you can use this report to support vendor selection evaluation process and:
 - Acquire an independent first assessment of vendors' domain consulting and digital services capabilities for upstream O&G segment.
 - Leverage criteria used in this report and individual vendor's strength to shape your own individual selection evaluation processes.

FEATURED VENDOR SUMMARY PROFILE

This section explains IDC's key observations resulting in Infosys' position in the IDC MarketScape. The description here provides a summary of the vendor's strengths and opportunities.

Infosys

Infosys is positioned in the Leaders category in the 2024 IDC MarketScape for worldwide consulting and digital services providers for upstream oil and gas.

Infosys is a global technology services and consulting company headquartered in India. With end-to-end services spanning application development management, infrastructure, business process outsourcing, and engineering services, it caters to the current and evolving needs of the upstream business. The company has been actively building up advanced services, including energy cloud solutions tailored to technical needs of O&G processes, AI/ML applications for upstream specific use cases, and OSDU and Open Footprint-based solutions. The company complements its service capabilities with its innovation service offering – Infosys Living Labs, which specialized in emerging technologies, domain, and innovation themes. With a significant shift toward sustainable upstream operations in its upstream customer base, the service provider has developed a portfolio of partnership-led and advisory-led decarbonization solutions, including flare management, carbon management and CCUS optimization.

Quick Facts

- **Vertical practice:** O&G is a major vertical focus for Infosys with dedicated leadership and SMEs.
- **Number of employees:** Infosys has over 6,700 employees dedicated to serving O&G companies globally.
- **Geographic footprint:** Infosys has a global footprint, with a significant presence across Western Europe and North America.
- **Consulting SMEs:** Infosys works with 1,100 upstream SMEs.
- **Consulting frameworks and blueprints:** Infosys' Agile Digital Services Architecture (ADSA) is an O&G-focused target operating model designed for end users to become increasingly agile with business and technology shift. The efficacy of ADSA framework is augmented by several other Infosys frameworks, methodologies, and solutions such as Value Realization Method (VRM) and Business Process Transformation as-a-service (BP-TaaS).
- **R&D:** Besides 3% of group revenue to R&D, the company also invests an additional \$500 million in its Infosys Innovation Network (IIN) Investment Fund.
- **Innovation centers:** Infosys has three digital studios dedicated to the O&G industry, located in London, Houston, and Düsseldorf. All these are focused on developing O&G services capabilities (Digital Engagement COE, Blockchain COE, Cybersecurity, Data for Digital, IoT, Robotics, Advanced Engineering, DevOps, etc.). The company has set up over 21 innovation centers and studios across the globe covering multiple verticals and a wide range of technologies such as AI/ML, blockchain, metaverse, quantum computing, IoT, 5G, robotics, AR, and VR.
- **Partner ecosystem:** Infosys has an extensive network of partners. Major partners include SAP, Microsoft, IBM, PTC, SoftwareAG, Blue Prism, UiPath, Automation Anywhere, Schneider Electric, Honeywell, Siemens, Rockwell, Weatherford, OSIsoft, and Rockwell Automation.
- **Recent acquisitions or joint ventures:** Recent acquisitions strengthening Infosys' experience design-led consulting capabilities include Kaleidoscope, a full-service product development firm, and Oddity, a company specializing in creative, branding, and experience design.

Digital Upstream Distinctive Services

- **Comprehensive data services for G&G domain:** Drawing on extensive experience in building data platforms for upstream organizations and E&P information management providers, the vendor has adeptly designed and developed plug-ins and tools that ensure seamless data transfer and integration among various G&G interpretation software applications. Its expertise extends to developing subsurface data mining solutions for an oil major, enabling the extraction of domain-specific content from legacy unstructured data and facilitating the oil major's migration to the cloud for intelligent analytics. Infosys has also successfully implemented end-to-end data management services for multiple oil and gas clients, which include devising bespoke data strategies, implementing data management tools, streamlining processes, conducting quality control and data fixes, and instituting industry-standard data management training programs.
- **Real-time drilling optimization:** Infosys' real-time drilling data and process management services help well operators with value scan analysis to assess the current state of well construction and identify opportunities to continuously improve processes, well data governance, and drilling data management. Other related IT solutions and services include real-time data analytics, data modelling, visualization, and real-time reporting. Key benefits of the services are the reduction of non-productive time (NPT), improvement in cost and operational efficiency, and improved safety and operations reliability.

Strengths

- Infosys excels in providing services assessed by IDC for this upstream O&G MarketScape as well as in cultivating strong ties with most of its O&G clients. Its consistent ability to secure repeat customers highlights the firm's capabilities and dedication to delivering high-quality services and ensuring client satisfaction.
- Infosys strategic direction, digital investment focus, and leadership strategies are well-aligned with the current needs and future transformation of upstream O&G companies. To support its upstream clients' transformative pathways, the company invests its resources in actively developing new offerings, including as-a-service models. Examples of these models include business process transformation as a service, energy as a service, and ESG as a service.

Challenges

- Infosys' energy practice has a strong presence in North America and Europe, accounting for over 80% of the total revenue from the upstream segment. Much of its market potential is still untapped and it can capitalize on this, specifically in the Middle East and Latin American O&G industries.
- While focusing on delivering services to major accounts and leveraging those successes to foster relationships, the Infosys Energy sales organization has been less proactive in seizing opportunities from small to medium-sized O&G upstream organizations – an opportunity the company has begun to address for further growth.

APPENDIX

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 to 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 vendor markers in this IDC MarketScape represent IDC Energy Insights' best estimates of the vendor's worldwide O&G revenue, within the specific market segment being assessed (consulting and digital services for the upstream O&G industry).

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 to provide an accurate and consistent assessment of each vendor's characteristics, behavior and capability.

Market Definition

This IDC Energy Insights IDC MarketScape assesses the capabilities and strategies of popular service vendors in enabling and supporting upstream O&G companies in their digital journey to digital first organization by doubling down on their digital efforts. The report will have a perspective of worldwide.

For the purpose of this study, IDC defines *digital services* as the continuous process by which enterprises adapt to or drive disruptive changes in their businesses and markets (external ecosystem). In this process, enterprises leverage consulting and digital competencies to innovate new business models, products, and services that seamlessly blend digital and physical, and business and customer experiences while improving operational efficiencies and organizational performance. Digital services involve enterprisewide change requiring innovation in the following areas aspart of a technology implementation: organization (i.e., enterprise functions, workforce); operating model (i.e., business model) and business processes (process changes for G&G studies, exploration, production, and development); information; or leadership.

This report will specifically look at the following vendor service offerings to upstream O&G organizations: business services (including business consulting, BPO, and process services) and IT services. As consulting-led innovative services serve as the foundation for transformative digital services, this report also closely analyzes the consulting and innovation capabilities of service providers.

LEARN MORE

Related Research

- *Decoding Digital Twins and Analyzing Their Value for Oil & Gas Companies* (IDC #EUR151991024, April 2024)
- *Fueling the Future: AI & Generative AI in Digital Oil & Gas Enterprises* (IDC #EUR151918524, March 2024)
- *Worldwide O&G Industry Quarterly Update: October-December 2023* (IDC #US51559524, February 2024)
- *Future of Operations: An O&G Perspective* (IDC #US51559924, January 2024)

- *IDC MarketScape: Worldwide Field Service Management Solutions for Oil and Gas 2023-2024 Vendor Assessment* (IDC #US50040023, November 2023)
- *IDC FutureScape: Worldwide Oil and Gas 2024 Predictions* (IDC #US50209123, October 2023)

Synopsis

This IDC MarketScape evaluates leading consulting and digital services providers by qualitatively and quantitatively assessing their capabilities and strategies regarding their offerings for upstream O&G businesses. From a worldwide perspective, it aims to support O&G organizations in choosing partners in their upstream business transformational journeys. It provides context for O&G companies evaluating vendors in this area, examines vendors' comparative success in the marketplace, and looks at how vendor offerings are evolving. The evaluation is based on a comprehensive and rigorous framework that assesses vendors relative to the criteria and highlights the most influential factors for success in this market, both in the short and long term.

"The shift toward sustainability in upstream investments and the increasing demand for optimized G&G studies and E&P field processes will have a significant impact on service providers as upstream operators push their boundaries. Service providers may experience heightened demand for innovative solutions that address sustainability concerns, optimize efficiency, and enable digital transformation in the upstream O&G sector," said Gaurav Verma, research director, IDC Energy Insights. "Service providers that can offer intelligent innovative solutions tailored to these evolving needs stand to benefit from increased business opportunities and market growth. Conversely, those unable to adapt to these changing dynamics in the sector may face challenges in maintaining competitiveness and relevance in the industry."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

IDC U.K.

IDC UK
5th Floor, Ealing Cross,
85 Uxbridge Road
London
W5 5TH, United Kingdom
44.208.987.7100
Twitter: @IDC
blogs.idc.com
www.idc.com

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