

Trends and Outlook: Cloud Adoption for SAP S/4HANA

ISG surveyed 152 IT leaders to understand their perspectives on SAP S/4HANA adoption and their intent to run their core systems in the cloud. This thought leadership paper examines where companies stand in their journey to upgrade their ERP to SAP S/4HANA, what benefits they expect and what concerns they have when adopting SAP S/4HANA in the cloud.



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About ISG Research™

ISG Research™ provides proprietary research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Research™ gives business and technology leaders the insight and guidance they need to accelerate growth and create more value.

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Summary and Key Takeaway

In July 2021, SAP announced it had passed 17,000 S/4HANA licensed clients in Q2 2021, and more than 10,000 were running in production. Compared to the same quarter three years before, the number of licensed users has grown nearly 2.5 times, an extraordinary compound annual growth rate (CAGR) of 35 percent.

Because SAP has been an ERP market leader for more than 20 years, S/4HANA has not replaced all legacy versions the company has sold. Many loyal SAP clients run their businesses on legacy SAP ERP. ISG surveyed 152 IT leaders in the Americas, Europe, and Asia Pacific to understand their acceptance of SAP S/4HANA and their plans for the next five years.

This survey found 30 percent of the total respondents were satisfied with running SAP S/4HANA and another 47 percent are planning to run it. These 77 percent of respondents showed positive expectations by recognizing SAP S/4HANA benefits. The remaining 23 percent indicated that they have no intention to adopt the new ERP (or may not be using ERPs).

Most of the respondents (67 percent) will be running on SAP S/4HANA by 2024, more than double of today's 30 percent. Considering respondents' project timeframes and the positive responses regarding SAP S/4HANA in the cloud, IT leaders are invited to explore how they can avoid pitfalls and accelerate the modernization of their ERP systems.

Market Overview

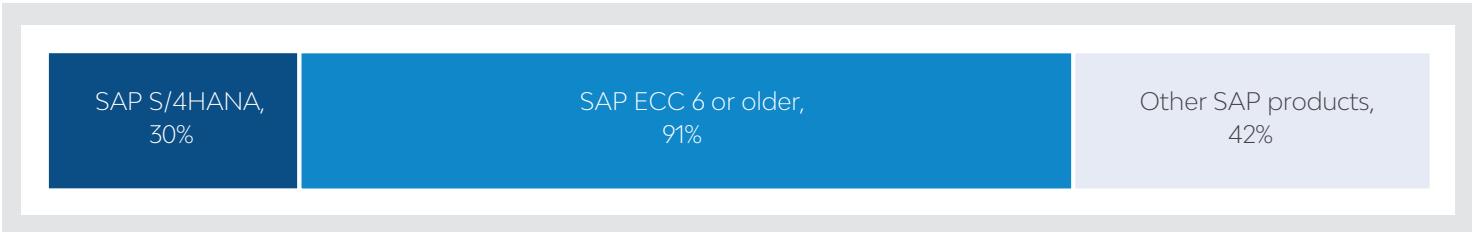
The survey is a good representation of typical SAP enterprise clients, spanning responses from the banking, financial services and insurance (BFSI), manufacturing, media, oil and gas, engineering and construction, and utilities, power, and energy industry verticals. Respondents were top IT leaders, primarily concentrated in the Americas and Europe (80 percent). Large enterprises, with more than US\$ 1 billion in annual revenue, represented 31 percent of the responses.

Based on our advisory experience, we note that SAP S/4HANA and SAP ECC are pervasive, covering many industry verticals. However, the way clients use the ERP functionality varies significantly. For the banking industry, it is more effective for back office support functions rather than customer interfacing functions. For the manufacturing industry, supply chain, invoicing, and forecasting are the more common functionalities, touching front line, business to business functions. SAP has been offering vertical specific functionalities that are usually supplemented by system integrators with customized or pre configured applications that integrate with SAP core functions.

Enterprises are loyal clients that have long been using SAP ERP systems. Only 27 percent of the respondents have been using it for less than five years. A typical SAP enterprise client uses several SAP products. Figure 1 shows that 42 percent of SAP clients use other SAP products such as SAP Business Warehouse (BW), SAP SuccessFactors, and others.



Figure1: Current SAP products in use (multiple choices)



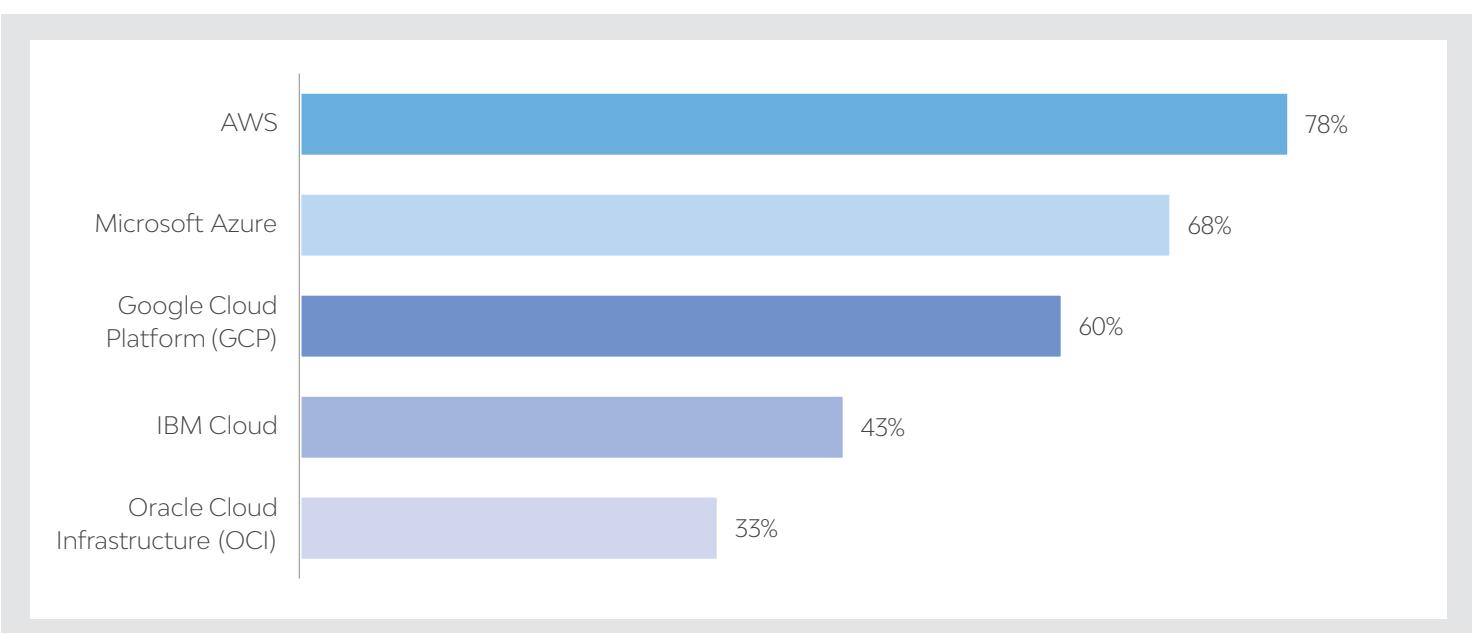
Surprisingly, the old coexists with the new. When enterprise leaders were given a choice to select all the products in use, 91 percent said they are running legacy SAP ERPs (ECC 6 and previous versions). Figure 1 shows that 30 percent of the respondents are using SAP S/4HANA, implying that many are running multiple instances of SAP ERPs, simultaneously.

SAP expects clients to increasingly avail the benefits of the cloud. Cloud hyperscalers have been offering SAP since 2008, when AWS first offered virtual machines to run ERPs. In response to the cloud adoption trend, in 2010, SAP started certifying hyperscalers to run the HANA in memory database. In 2021, SAP has launched RISE with SAP, offering more incentives for clients to move their S/4HANA to the cloud.

The public cloud offers customers access to large infrastructures with network connectivity and virtual servers on a pay per hour commercial model known as infrastructure as a service (IaaS). It also offers platform as a service (PaaS) with pre configured solutions such as databases, software tools, automation (serverless computing, infrastructure as code, and others), and artificial intelligence (cognitive computing, chatbots, and others). Public cloud providers are often called hyperscalers because of their capacity to serve millions of customers. The pay per use model and the hyperconnectivity within clouds enable clients to run on many clouds simultaneously.

Figure 2 shows that multicloud engagements are a reality. Percentages add up to more than 100 percent because respondents were allowed to name all the clouds they currently use.

Figure2: Current cloud infrastructure provider (multiple choices, most respondents use more than one cloud)



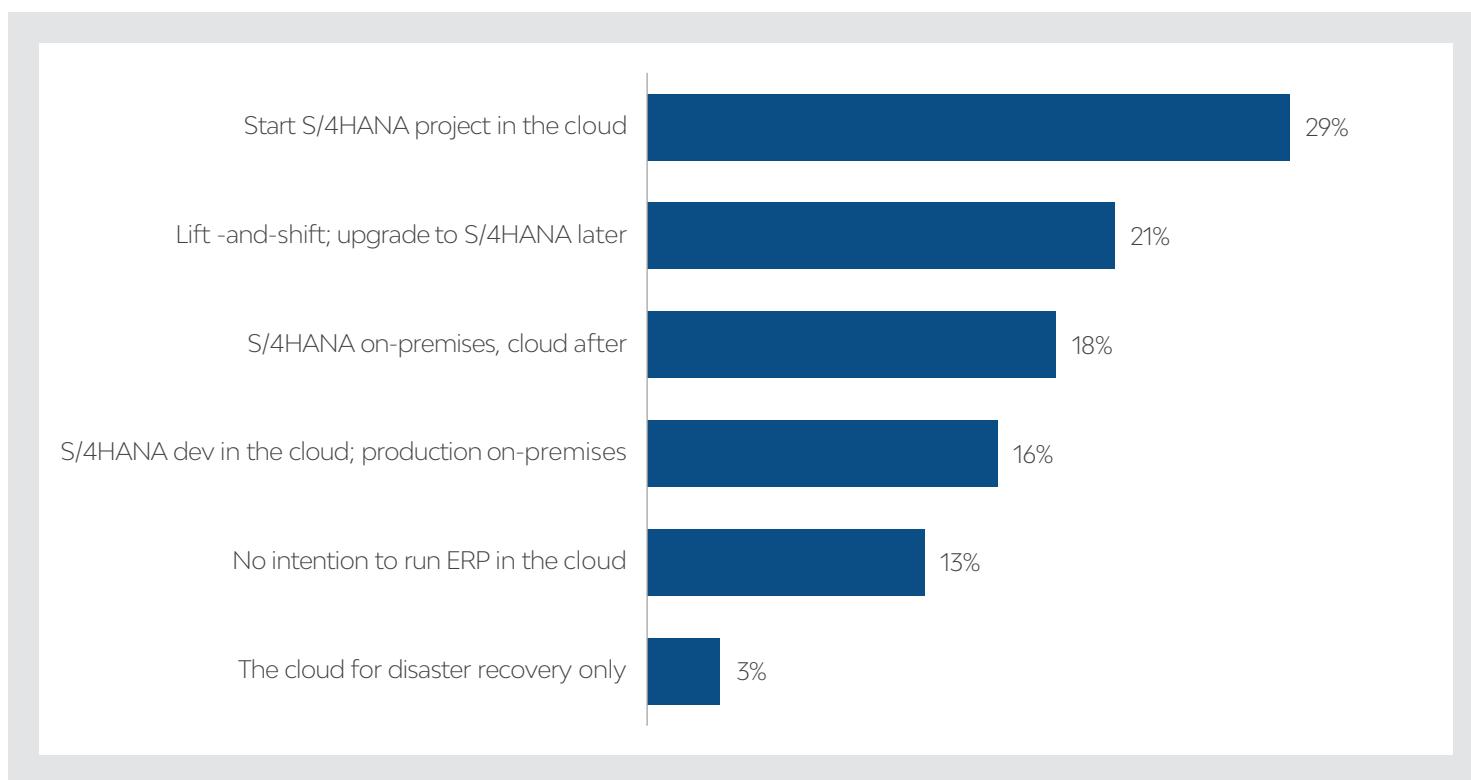
The 2021 ISG Provider Lens™ SAP HANA Ecosystem study highlights the impact that RISE with SAP has had on the market. Many system integrators have rapidly joined this SAP initiative. RISE with SAP simplifies the licensing model, enabling pay per use for single tenant SAP S/4HANA running in any public cloud.

ISG asked LTIMindtree what its customers like about RISE with SAP. LTIMindtree explained it is a good choice for customers that prefer to consume software as a service rather than owning perpetual licenses. RISE with SAP allows customers to hold SAP responsible for the entire operations stack in a single per user commercial model, including software and cloud hosting. The clients that want to preserve their autonomy while running in the cloud can use their perpetual license on SAP authorized partners such as AWS.

Figure 3 shows that only 13 percent of respondents have no intention to run their ERP in the cloud, while the remaining 87 percent plan to utilize cloud for SAP services in some shape or form. Other survey responses suggest that these IT leaders may need more information about the benefits of running ERP in the cloud to extract more value from their investments in SAP S/4HANA.

LTIMindtree can help clients understand such benefits. As an SAP Co Innovation Partner, the company is deeply engaged to complement the RISE with SAP service offering. LTIMindtree's Mosaic SAP Transformation Platform leverages automation and intelligent technologies to assess clients' SAP environments and design an upgrade and cloud migration plan for business value maximization, cost efficiency, and higher productivity across the entire SAP application lifecycle.

Figure3: What is your cloud strategy for SAP ERP? (Single choice)



The market is moving in the direction of running S/4HANA in the cloud. As shown, 30 percent are already running SAP S/4HANA and 87 percent plan to use it in the cloud.

The State of SAP S/4HANA Adoption

When asked if they would recommend adopting SAP S/4HANA, 76 percent of the total responses were positive and provided us with some valuable insights. Most of the responses spoke about the value of data management, including easy access to high volume data and intelligent analytics. Other common responses mentioned better financial visibility; planning and forecasting; improved functionality; easier integration; system performance and improved user experience with SAP S/4HANA. These responses indicate that most IT leaders recognize the benefits of adoption. Quoting some of the respondents, ["Most stable ERP, offering high end user experiences to address complex business problems,"](#) and, ["The sooner we migrate to SAP S/4HANA, the sooner we can use it to drive our business forward."](#)

As an aside, we also asked IT leaders to indicate the cloud services they see of most value in integrating with SAP. The results confirm what ISG had found in previous research studies: enabling innovation is a key benefit in the adoption of SAP S/4HANA, especially when it is related to IoT, data lakes, and AI/ML analytics.

Figure4: Most valuable integrations with SAP (multiple choices)

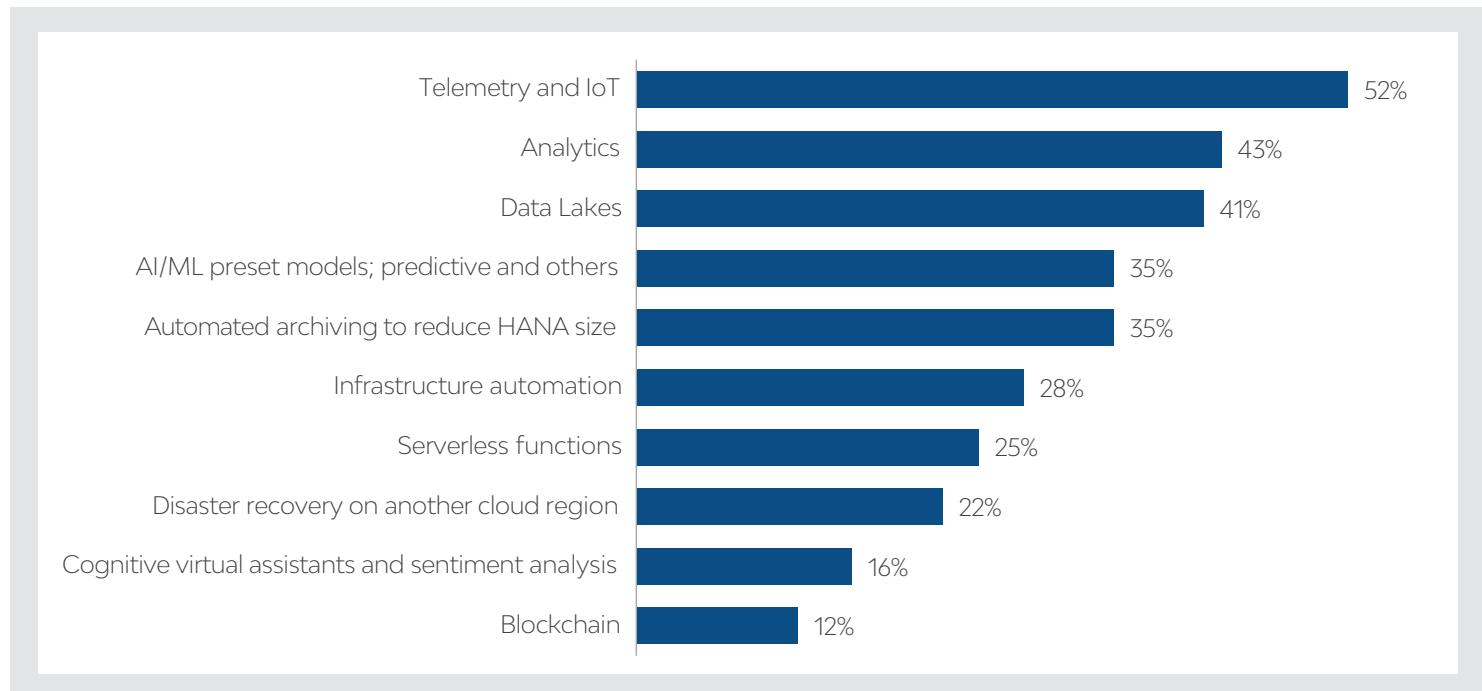
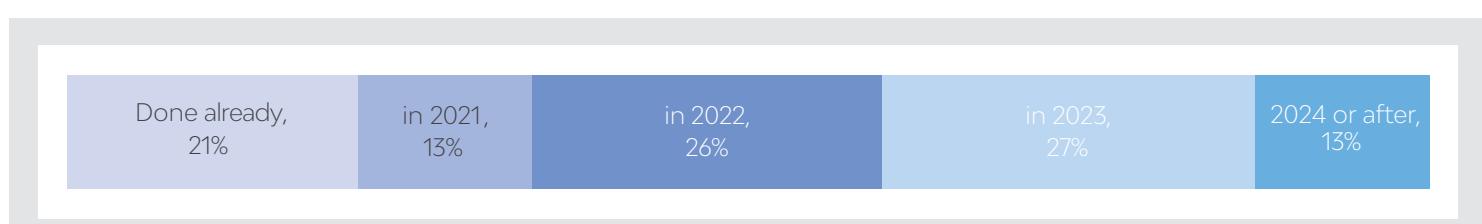


Figure 5 shows that 34 percent will be running on the new ERP by the end of 2021, and 50 percent before the end of 2022. This indicates that the notion that SAP customers would wait until the end of support for legacy SAP ERP is not true, based on this survey sample. The adoption of SAP S/4HANA is ahead of expectations. Only 13 percent plan to upgrade after 2024, which is indeed much earlier than 2027, when the support of legacy SAP ERP would end.

Figure5: When do you plan to implement SAP S/4HANA? (n=117 or 77 percent of respondents)



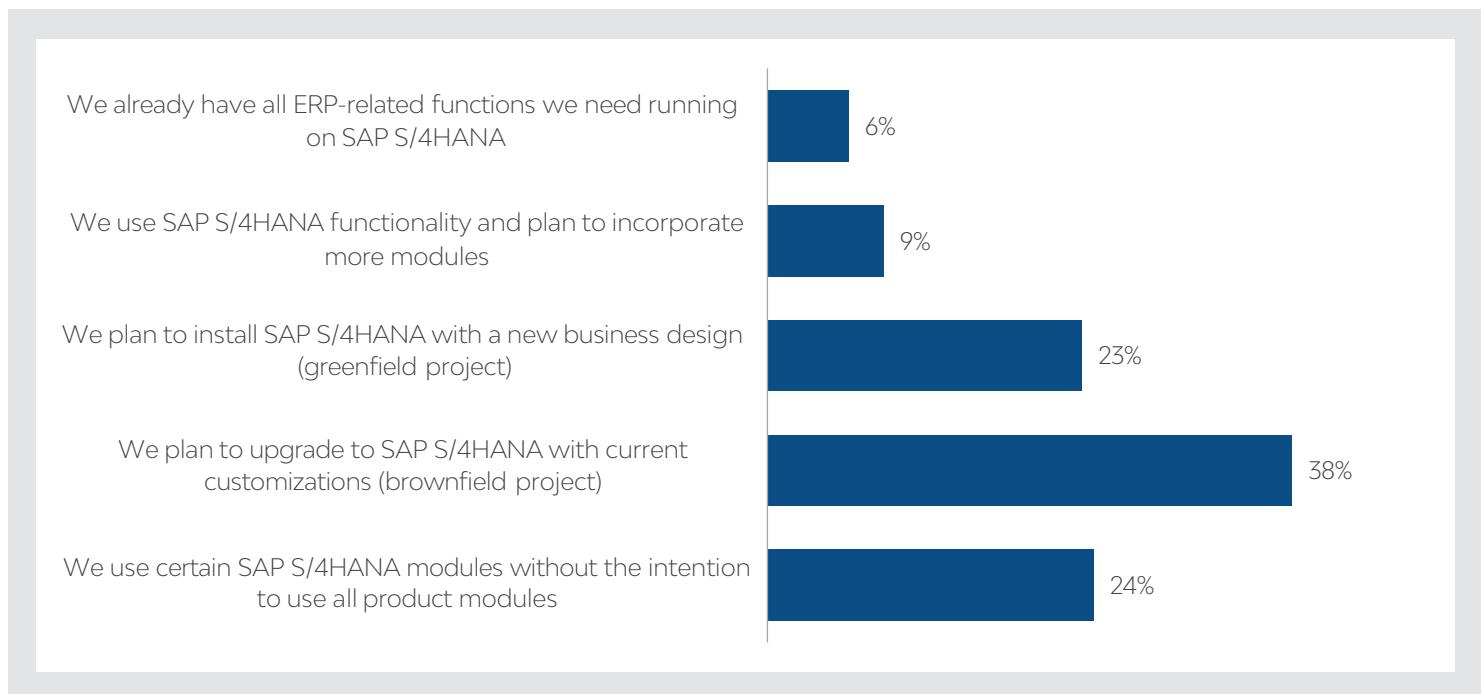
We asked those that are using SAP S/4HANA about the experience and duration of their projects. All insights were positive, and we quote, "All was smooth and taken care of by trained professionals," and, "There were some old SAP tools being used, so integration and upgrades were easy."

The responses were somewhat different when we asked IT leaders in the middle of a project. Good projects can have tight schedules, hard work, surprises, and limited budgets. It is natural that good projects cause stress that influence perception. However, clients that use better qualified SAP partners are able to overcome these challenges more effectively through tooling and frameworks that simplify SAP S/4HANA adoption and reduce the cost and time required for an upgrade or new implementation.

ISG observes that complex projects see challenges and changes, reinforcing the need to hire experienced system integrators to help with planning and, most importantly, with the capability to react quickly when problems occur.

At the current pace of adoption, most companies will be running SAP S/4HANA by 2024, where it will co-exist with legacy systems in some enterprises as indicated in Figure 1. As shown in Figure 6, 24 percent prefer to use part of S/4HANA functionality, leaving room for best of breed solutions. These are good candidates to explore the new integration capabilities of the SAP Business Technology Platform (BTP).

Figure 6: What is the scope of SAP S/4HANA that you believe is ideal for your company?



The durability and robustness of SAP software enable it to run for years, without disruption. ISG advisors have observed that enterprises integrate custom applications with SAP ERP, primarily because they can rely on these qualities. Consequently, when facing an upgrade, clients expect to move their custom code to the new ERP system, extending the value of the investment made when building the custom code.

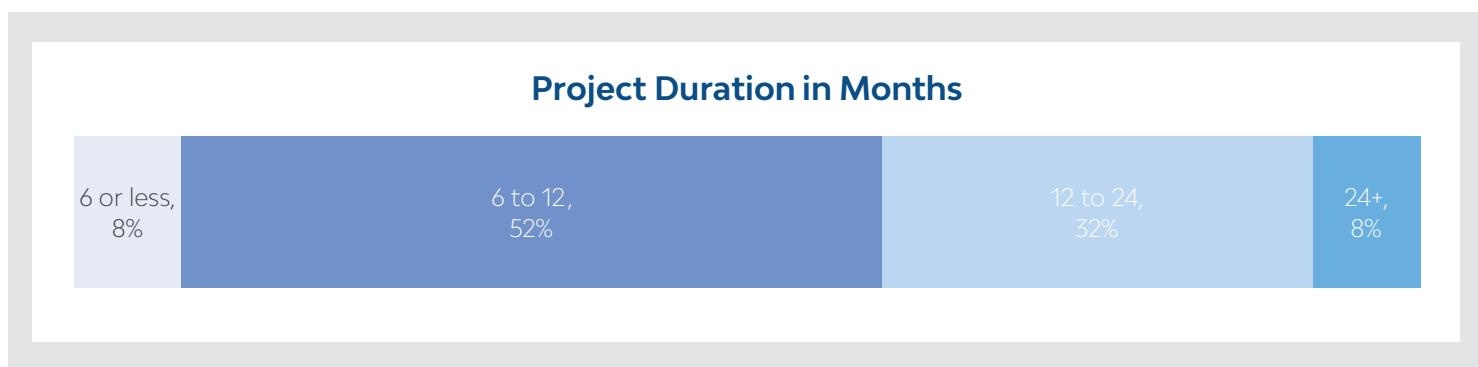
Legacy ERP can be converted to SAP S/4HANA, preserving essential customizations, instead of designing a new solution. Conversion and upgrades are called brownfield projects that can leverage automation for assessments, data conversion, and migration. Greenfield projects are more transformational because they start with a new business process design. Brownfield is the preferred method for 38 percent of the respondents that intend to use SAP S/4HANA.

Pay per use is the preferred licensing model for 86 percent of the respondents. In response to market preference, SAP offers RISE with SAP, allowing clients to convert their perpetual license to a subscription based model when running their SAP S/4HANA instances in the cloud, without any loss of customizations and instance control.

Overall, 77 percent of the IT leaders in the survey are using or considering the use of SAP S/4HANA, with 87 percent indicating that they will be running SAP S/4HANA before 2024 (making up 67 percent of all respondents). Frequently cited benefits mentioned above support that, in general, respondents would recommend SAP S/4HANA.

The companies that are running on SAP S/4HANA provided their perspectives on the duration of the projects when implementing SAP S/4HANA on premises or in the cloud. Although 60 percent could complete this within a year, 40 percent of them required more time, as shown in Figure 7.

Figure 7: If completed, what was the SAP S/4HANA project duration? (n=25)



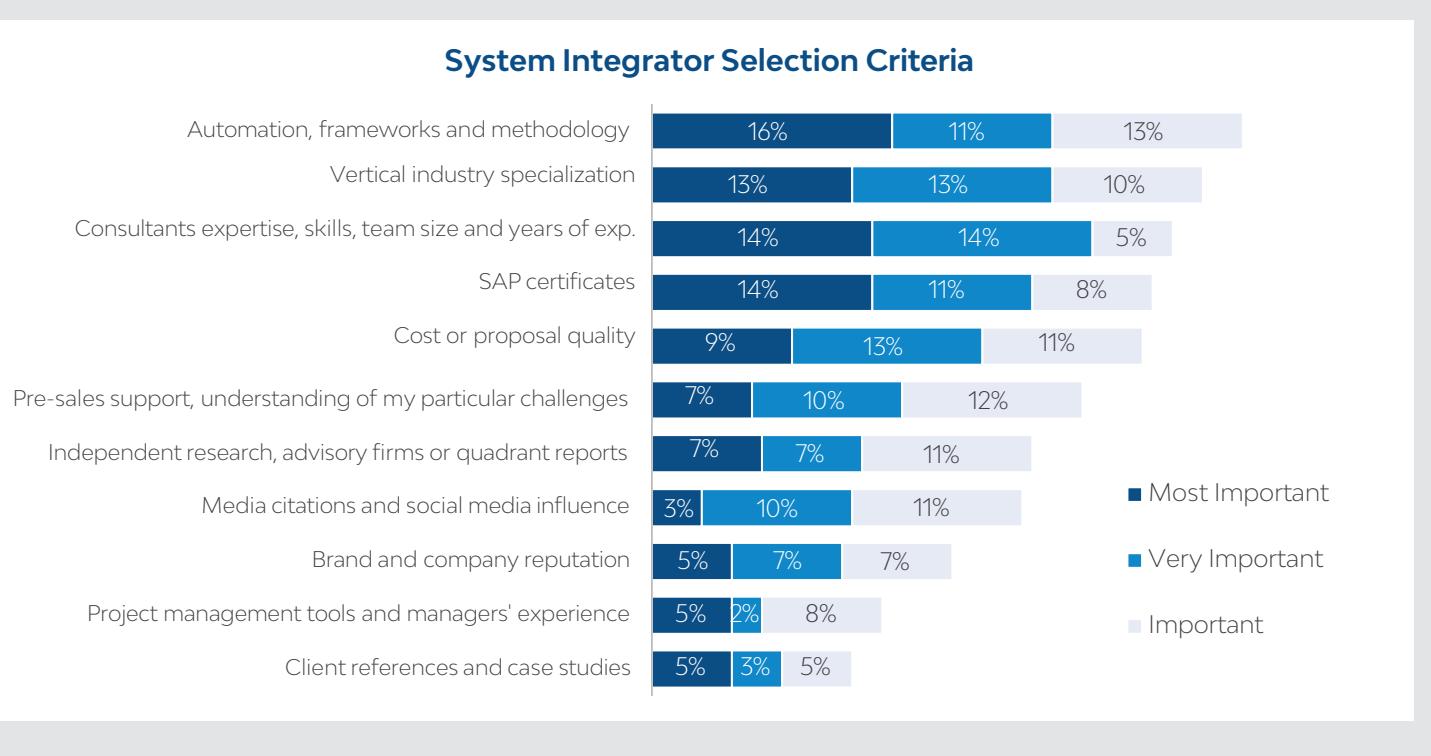
The preference for brownfield projects, as indicated by IT leaders, is in keeping with ISG's findings in the 2021 ISG Provider Lens™ SAP HANA Ecosystem study. However, the case studies presented by service providers that participated in the study show that record time for achieving the shift can be as short as 18 weeks for a straight conversion of legacy ERP to SAP S/4HANA. The short duration is primarily because of the use of automated data conversion tools and automated custom code conversion, meaning no change in functionality of the custom code. Few companies can target such aggressive timeframes, but it serves as a provocative thought to improve a company's plan, emphasizing the fact that heavy testing in the cloud can mitigate the risks associated with aggressive conversion plans.

Considerations for SAP S/4HANA in the Cloud

ISG research suggests that the best approach is to automate the conversion from legacy ERP on premises to SAP S/4HANA in the cloud, and work on functionality improvements once the system is running in the cloud. This differs from lift and shift because the legacy database is converted to a HANA database, archiving data that does not need to run on HANA, thus reducing costs and simplifying further upgrades.

The duration of a project to shift to S/4HANA in the cloud is a reflection of business process complexity, number of ERP modules, and project implementation strategy. For better planning and integration, companies should select the right partner. In the survey, the participants were asked what criteria they considered for selecting their SAP S/4HANA implementation partner.

Figure8: What criteria are important when choosing an SAP partner (system integrator) for an ERP project?



As shown in Figure 8, most respondents find automation, frameworks, and methodology as the most important criteria. Leading system integrators can automate configurations, infrastructure provisioning, and data extraction, data transformation, and data load into the HANA database. Automation reduces project risks.

Data preparation and data load are tedious tasks that impact any ERP implementation. SAP S/4HANA data conversion is easier than it was in the past because SAP now provides automation means and has supported system integrators in developing additional tools to reduce project risks and time and improve quality.

LTIMindtree complements SAP's tools and assessment services with its SAP Intelligent Enterprise Transformation Platform and its Accelerated Migration Platform for SAP (LAMPS). Both are specifically designed to help customers in their transformation of SAP landscapes to S/4HANA and the cloud. These platforms accelerate and de-risk SAP transformations.

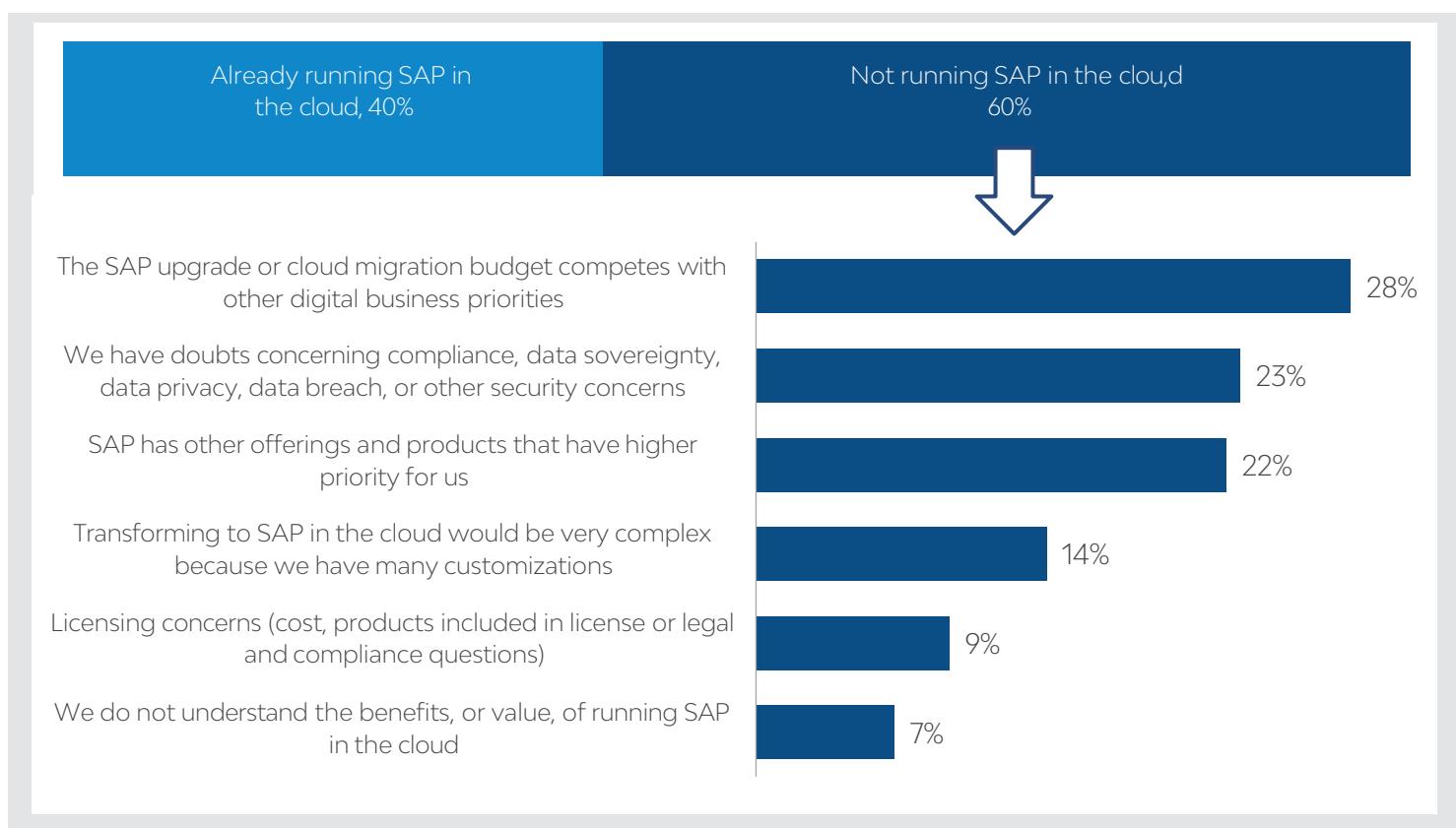
It is worth noting that companies expect system integrators to have vertical specialization. To enable global adoption, SAP S/4HANA was designed to accommodate all verticals and countries, requiring SAP partners to support clients with their particular needs. System integrator partners leverage their industry vertical expertise to help clients comply with country level regulations, as well as provide pre configured solutions and ready to use applications that integrate with SAP with minor customizations, thus reducing the time required to implement SAP S/4HANA.

An interesting revelation from the survey is that cost is not a top criterion for many of the respondents. It may be a reflection of market maturity, indicating that project quality is more important. At the same time, cost is more important than brand or company reputation, where a typical client can choose a lesser known brand, as a system integrator, as long as it can offer consulting experience, skills, vertical specialization, methodology, and automation with the required cost considerations.

For the IT leaders that do not plan to upgrade to SAP S/4HANA in the short term, most of their responses are related to project complexity, the learning curve for both IT support and users, and to the fact that the project is not a short term priority. In all these cases, system integrators can help IT leaders find solutions to simplify such projects, while highlighting the business benefits of adopting SAP S/4HANA.

The survey asked IT leaders their opinion on migrating SAP S/4HANA to the cloud. For a small part 36 percent of the respondents their concerns include reduced flexibility and control, customization and integration requirements, security and costs. The other 64 percent are enthusiasts of cost savings and digital transformation that comes with the cloud, citing benefits such as analytics, automation, and integration improvements as the reasons explaining their willingness to embrace the cloud.

Figure9: What is preventing you to anticipate using SAP ERP in the cloud? (multiple choices)



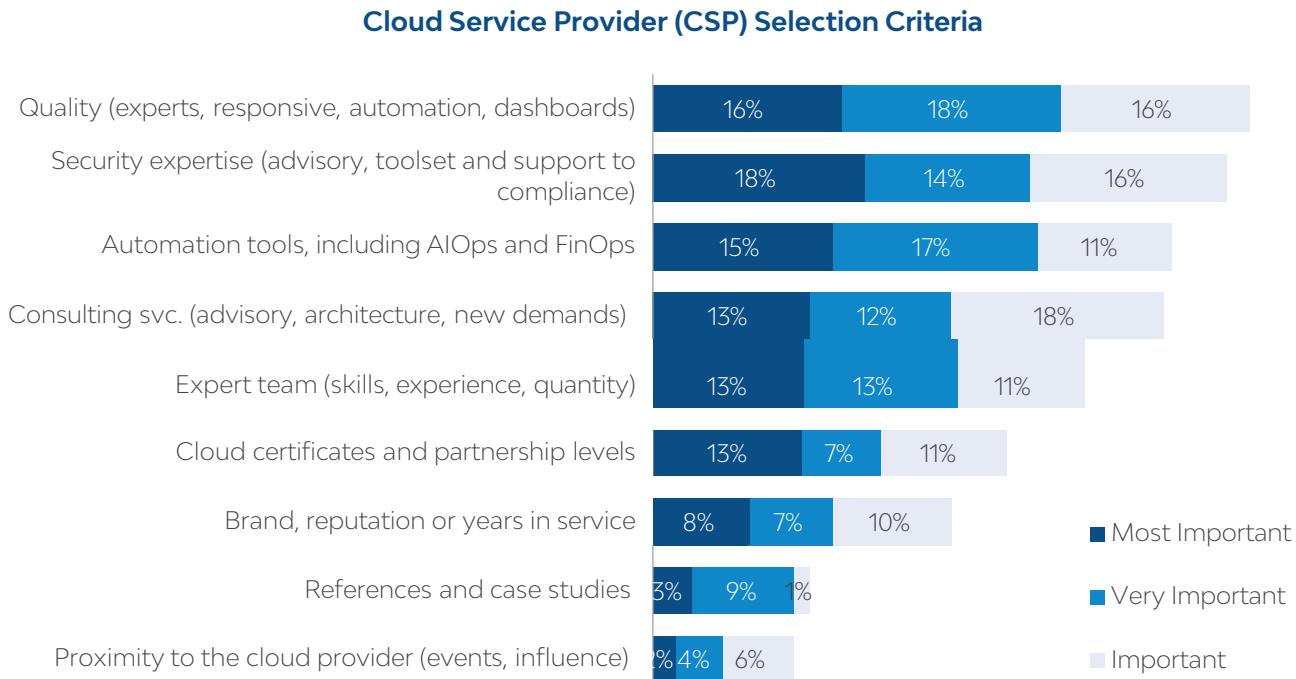
In all cases, IT leaders should weigh their apprehensions and the potential benefits of using SAP ERP in the cloud. Figure 9 indicates that many IT leaders need more clarity on the exact benefits of running SAP in the cloud. The top 28 percent of responses indicated that they expected upgrades to not be in conflict with other digital business priorities, because SAP S/4HANA should be a part of a digital transformation program.

Based on our experience as IT advisors, we have noted that companies usually segregate their SAP experts from the “non SAP technology” groups. Breaking this virtual wall is perhaps the top priority in such cases. The non SAP experts are dealing with customer experience, innovation, AI, and analytics, typical themes of a digital transformation. However, as seen in Figure 4, cloud native tools are valuable integrations for SAP S/4HANA. To avoid duplication of effort and to optimize value, companies should not treat their ERP separate from their digital business initiatives.

ISG research shows that cloud AI services can extract data from documents, contracts, images, and videos. Mastering data processing tools is fundamental for every digital business. The new data centric model changes how companies use ERP data. In the past, SAP ERP data was put at the core of a data warehouse, integrating with other data sources through the SAP master data management (MDM) tool. At present, customers have multiple choices to choose from from SAP's Analytics Cloud that leverages the power of native HANA and integration to best of breed data lake solutions that combine SAP and non SAP data.

System integrators can help clients address their concerns around data, compliance, and security, as well as licensing options, simplifying the SAP S/4HANA migration to the cloud. In short, system integrators and advisory firms can help clients overcome their concerns, listed in Figure 9, for an accelerated and fruitful ERP modernization.

Figure10: What criteria are important when choosing a CSP to migrate and manage the cloud?



IT leaders select cloud service providers (CSPs) based on their expertise in automation, security, and architecture. For SAP S/4HANA operations, it is imperative that a CSP understands its clients' SAP operations requirements.

A capable CSP can help IT leaders resolve most of the concerns by applying best practices gathered through other client engagements. Selecting the right CSP is not a minor task and requires detailed inspection of its SAP and cloud capabilities.

LTIMindtree has capabilities across a range of technologies including SAP, public cloud, data, and analytics to assist customers in their transformation journeys.

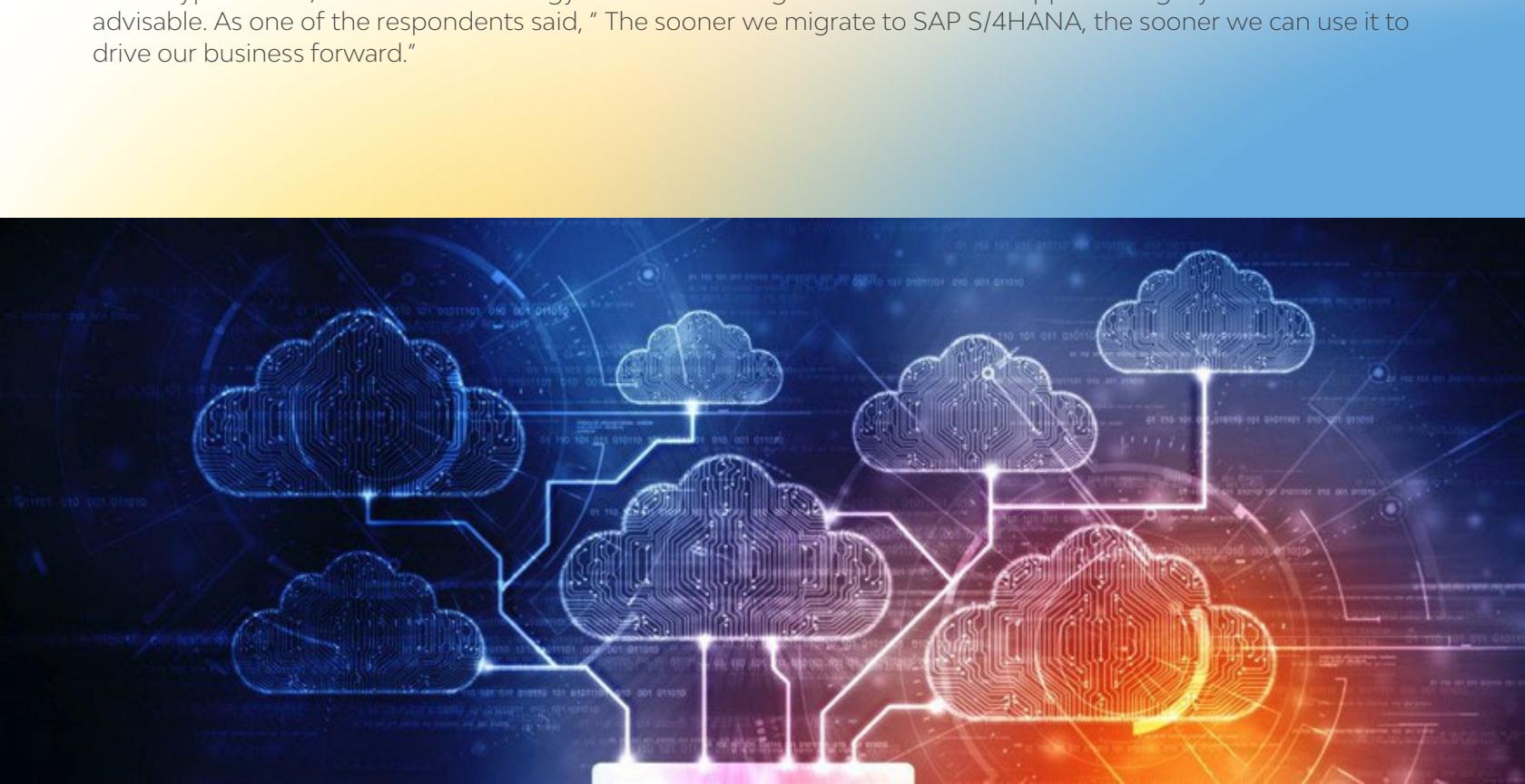
Net Impact

To stay apace with cloud transformation and ERP modernization, it is time for IT leaders to consolidate their SAP S/4HANA in the cloud. SAP has been very clear that cloud is at the center of all its investments, and thereby its offerings. It expects all its clients to embrace the cloud. The RISE with SAP program, launched in 2021, reaffirms the company's focus on helping customers accelerate their cloud adoption.

The survey, completed in June 2021, captures the most recent perspectives of IT leaders, aligned with market trends around multicloud. The benefits of running SAP S/4HANA in the cloud are clear to most enterprises.

For most IT leaders, adopting SAP S/4HANA in the cloud is a question of when rather than why. ISG recommends enterprises detail their upgrade and migration plans. This survey suggests that starting a new ERP project in the cloud can save time and money, with definitive business benefits.

Most of the benefits come from integration, innovation, and data processing with analytics. Customers can take their businesses forward and gain competitive advantage through the innovations provided by SAP S/4HANA, cloud hyperscalers, and other technology enablers. Waiting for the end of the support of legacy ERPs is not advisable. As one of the respondents said, "The sooner we migrate to SAP S/4HANA, the sooner we can use it to drive our business forward."



About LTIMindtree SAP Offerings

The rise of disruptive technologies has paved way for new business opportunities, creating a compelling environment for the digital to thrive and grow. Digitizing the core can help enhance business process efficiency, boost customer satisfaction, and reduce costs, ultimately leading to an establishment of an intelligent enterprise, which can deliver path breaking experiences.

At LTIMindtree, we believe S/4HANA brings the capabilities to transform an enterprise by enabling the business that is elastic, connected, and intelligent. Being the pioneer of the first SAP implementation in India, LTIMindtree has deep expertise coupled with an engineering DNA, which enables our clients to build a robust digital ecosystem. Our focus is to drive digital transformation and innovation to encourage faster decision making, transform experiences and bring greater visibility across the enterprise. Further, our Operate to Transform Model helps our clients with execution excellence and deliver amplified outcomes.

LTIMindtree has a long term relationship with SAP, which spans over 20 years. We are Global Strategic Services Partners (GSSP) among the only 16 partners worldwide. This partnership has enabled us to co innovate industry/LOB specific preconfigured solutions and deliver ERP transformations in collaboration. LTIMindtree is also an AWS SAP Competency partner.

Our service offerings are powered by our Infinity Platform, leveraging intelligent technologies like automation, AI/ML and enabling business value maximization, cost efficiency and higher productivity across the entire SAP on the cloud lifecycle.

Associated Research

ISG Provider Lens™ AWS -Ecosystem Partners -U.S. 2020 -SAP Workload

ISG Provider Lens™ Public Cloud -Solutions & Services -U.S. 2020 -SAP HANA Infrastructure Services

ISG Provider Lens™ Next-Gen Private/Hybrid Cloud -Data Center Services & Solutions -U.S. 2021

ISG Placements and Recognition

LTIMindtree was evaluated in 19 ISG Provider Lens™ quadrant reports published from January 2020 to June 2021 in the U.K., U.S., Australia, DACH, France, and the Nordic countries. LTIMindtree was included in 151 quadrants, of which it was named Leader in 25 and a Rising Star in 22 quadrants.

Summary Facts



Company HQ

Mumbai, India.



Revenue

US **\$1.67** Billion in FY 2021



Core Portfolio

SAP services, cloud and infrastructure management, cybersecurity and consulting, analytics, AI & cognitive, digital engineering, application management, quality assurance, and engineering



Markets

LTIMindtree operates in **31** countries in North America, Europe, and Asia Pacific.



Industry groups

Banking, financial services, insurance, manufacturing, energy and utilities, high tech, media and entertainment, consumer packaged goods, retail, and pharmaceuticals.

About the Author



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Distinguished analyst and author, Pedro brings extensive experience in research in the Americas and Southern Europe Middle East and Africa (SEMEA) markets. With more than 30 years of experience in sourcing, he has developed vendor assessments plus contract restructuring, services scope and IT benchmarking programs for diverse vertical markets in the Americas and APAC. Before joining ISG, Pedro was a partner of TGT Consult and managing vice president at Gartner Inc., responsible for the consulting business in APAC and Latin America.

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For more information, visit www.isg one.com.

About LTIMindtree

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 81,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit <https://www.ltimindtree.com/>.