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SAPinsider Benchmark Report

## Enterprise Cloud Migration: State of the Market

**Rizal Ahmed**

July 2019

Research Partner



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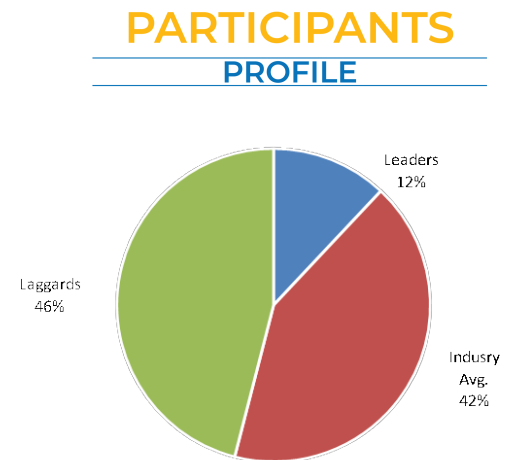
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## Executive Summary

The proliferation of cloud computing technologies has created a wide range of new possibilities for businesses. The ability to deploy flexible, scalable computing environments that can expand and contract on demand has redefined IT landscapes and the way organizations think about applications and technology.

In June of 2019, SAPinsider surveyed 391 members of our audience from 181 customer companies to understand where they are when it comes to the adoption of enterprise cloud-based services and technology, and we found that while a vast majority (92%) of respondents have deployed some sort of cloud solution, business results have been mixed as many are still early in their journey and facing learning curves. This report takes an in-depth look at the data behind these findings along with the opportunities, challenges, and implications associated with migrating enterprise business applications and processes to the cloud.



## Competitive Maturity Assessment

Based on the answers to the survey questions and our in-depth conversations with respondents, SAPinsider identified three distinct categories when it comes to the adoption of enterprise cloud solutions:

- **Leaders:** These respondents report that as a result of their cloud-based initiatives, they have been able to achieve better than expected results. This group represents 12% of our sample.
- **Industry average:** These respondents report that their investments in the cloud are meeting their expectations. This group represents 42% of our sample.
- **Laggards:** These respondents say that their cloud-based initiatives have not met their expectations, or

that it is too early in the project to understand the impact. This group represents 46% of our sample.

The survey results show that many are still early in their cloud journey and most have yet to see the true impact of their cloud investments. Leaders in particular tend to be in the early stages of the journey — only a small percentage of leaders are reporting business results from their migration.

The data also shows the following characteristics of leaders:

- Leaders are more likely to be exploring and prioritizing cloud-based innovation strategies today — nearly half (48%) of leaders say that this is a top priority for their organization.
- Leaders are more heavily invested in moving key business processes to the cloud, such as finance and analytics — their average adoption rate for cloud applications is 32% compared to 26% for industry average respondents and 21% for laggards.
- Leaders recognize the importance of creating strong relationships with cloud partners and vendors — 78% rated this as an important or very important requirement for their cloud strategy.
- Leaders prioritize building in-house training and skillsets for the cloud — 71% of leaders rated in-house cloud skills and training plans as important or very important versus 47% of industry average respondents and 62% of laggards.
- Leaders are more likely to put the business at the forefront of how they measure cloud success — over half (52%) of leaders named faster access to business and IT functionality and better user experience and satisfaction as core key performance indicators (KPIs) for their cloud project.
- Compared to industry average respondents and laggards, leaders are more aggressively exploring

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The flexibility of the cloud is going to make us more agile and potentially erases the technical barriers to starting projects. Hyperscale cloud enables you to dream it and then do it. You don't have long quotation cycles, and the provisioning cycle that you traditionally had to go through is erased. We could build an SAP-ready system in the course of this interview.



~ **Jon Friesen, SAP Expert and Practice Director, Technical Managed Services, NIMBL Techedge Group**

specific cloud services related to audio and video streaming and storage (29%), data lakes (24%), and blockchain services (19%).

## Required Actions

In addition to the actions outlined in detail in Chapter Three of this report, to ensure a successful transition to the cloud, SAP customers must:

- **Understand that the cloud does not free you from management and training responsibilities.** You still need to manage your cloud vendor and learn about the cloud services, deployment models, and related technologies that are critical to managing and deploying applications in the cloud.
- **Know that while many are moving to the cloud in some way, most are not yet seeing results.** While a majority of customers have moved some processes or applications to the cloud, most admit that they are not yet achieving results or are not yet strong enough in their cloud knowledge. The key is to move forward and learn as much as possible along the way. Experimenting in the cloud can be less costly and quicker to execute than experimenting on premise.
- **Expand the scope of your cloud ROI model.** Cost, efficiency, and ease of management are certainly benefits of cloud adoption, but to get attention and backing from the business, you must also consider — and communicate — how the cloud can support innovation and increased user satisfaction.
- **Develop strong discipline and management capabilities around cloud cost and expense.** If mismanaged and configured poorly, cloud resources could create a runaway train of expense. You must clearly understand how your cloud vendor packages its services and any variable costs that can potentially create problems for your budget.

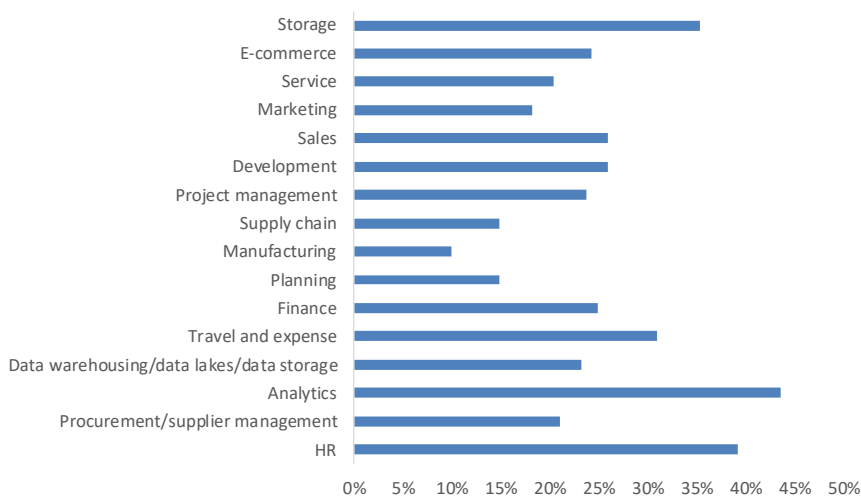
## Chapter One: Where Are SAP Customers in Their Journey to the Cloud?

The cloud has become mainstream in enterprises as software companies such as SAP embrace an increasingly cloud-focused product strategy and hyperscalers such as Amazon, Google, and Microsoft have made cloud infrastructure and services affordable and accessible to all types of organizations, regardless of their location.

The survey data supports this with respondents indicating an increasing interest in leveraging the cloud to support business and IT processes and applications — an overwhelming majority (92%) have started moving workloads to the cloud and are currently using some sort of cloud deployment model.

The data also shows that companies are still in the early stages of cloud adoption and are not yet running a wide variety of business processes and solutions in the cloud (see **Figure 1**).

**Figure 1: What workloads are you running in the cloud?**



Source: SAPinsider, July 2019

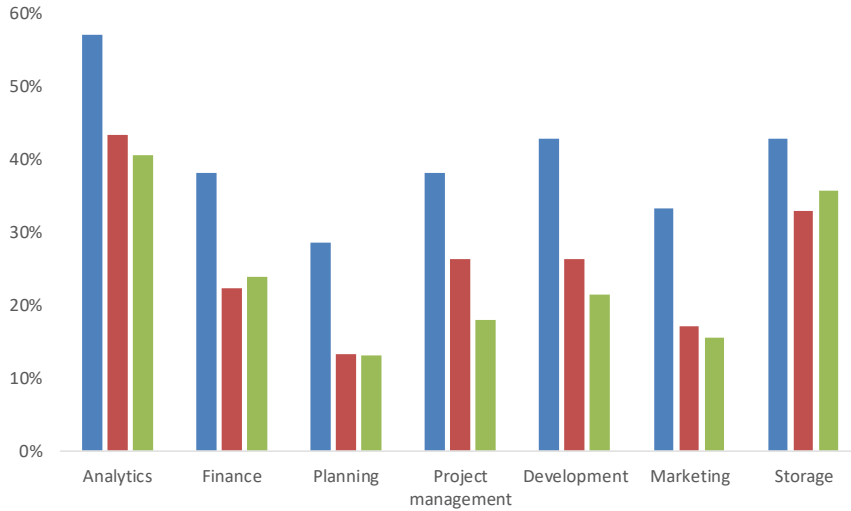
According to the survey results, analytics (44%), HR (39%), and storage (35%) are the top applications that customers are currently running in the cloud, followed closely by travel and expense (31%), development (26%), sales (26%), and finance (25%). The maturity and stability of these offerings make them prime candidates for migration as companies begin their cloud journey.

Overall, however, the migration of key business and IT processes and applications to the cloud is still in its early stages — the average adoption rate of cloud-based solutions by the survey respondents is 25% overall. Leaders are more broadly invested in cloud-based solutions today than industry average or laggard respondents, with the average adoption rate at 32% for leaders compared to 26% for the industry average group and 21% for laggards.

Over half (57%) of leaders are running some kind of analytics solution in the cloud (see **Figure 2**). Leaders are also ahead of the other respondent groups when it comes to migrating business processes related to finance (38%), planning (29%), and marketing (33%). In addition, leaders have accelerated the move of key IT functions to the cloud, such as development (43%), storage (43%), and project management (38%).



**Figure 2: What workloads are you running in the cloud?**



Source: SAPinsider, July 2019

The survey data behind the growth in cloud deployments and interviews with survey respondents revealed certain patterns within the three cloud maturity categories. These are summarized in **Figure 3** and will be examined throughout the rest of this report.

**Figure 3: DART model framework for enterprise cloud migration**

Category	Drivers	Actions	Requirements	Technologies
Leader	<ul style="list-style-type: none"> <li>• Pressure to modernize infrastructure to lower costs and simplify IT</li> <li>• SAP S/4HANA migration</li> <li>• Leaders also place the business and user experience at the forefront of ROI measures</li> </ul>	<ul style="list-style-type: none"> <li>• Redesigning IT platforms and architectures to lower costs and increase flexibility</li> <li>• Building a set of cloud-based innovation services</li> <li>• Measuring ROI and managing risks of cloud projects</li> </ul>	<ul style="list-style-type: none"> <li>• Cloud-based innovation services (more than the other groups)</li> <li>• Data harmonization and data cleansing</li> <li>• Strong partner and service level agreements</li> <li>• In-house cloud skills and training</li> </ul>	<ul style="list-style-type: none"> <li>• Leaders are primarily invested in software-as-a-service (SaaS) and cloud-based databases and data management services</li> <li>• This group is actively exploring cloud-based audio and video streaming, data lakes, and blockchain services</li> <li>• Moving forward, this group will delve into more platform-as-a-service (PaaS) solutions, virtualization, and application development</li> </ul>
Industry Average	<ul style="list-style-type: none"> <li>• Pressure to modernize infrastructure to lower costs and simplify IT</li> <li>• Faster pace of business and technological change</li> </ul>	<ul style="list-style-type: none"> <li>• Similar to leaders, focused on redesigning IT platforms and architectures and building a set of innovation services</li> <li>• Identifying and prioritizing IT and business workloads that should be migrated to the cloud</li> </ul>	<ul style="list-style-type: none"> <li>• Cloud security</li> <li>• Data protection</li> <li>• Data storage</li> <li>• Cloud integration</li> </ul>	<ul style="list-style-type: none"> <li>• The industry average group has investments in a variety of cloud technologies and deployment models, including SaaS, PaaS, and infrastructure-as-a-service (IaaS) solutions</li> <li>• In the next year, this group will further explore cloud-based artificial intelligence (AI) and machine learning services</li> <li>• In 24 months, this group will start looking at cloud-based blockchain services and development tools</li> </ul>
Laggard	<ul style="list-style-type: none"> <li>• Laggard drivers resemble other groups</li> <li>• Pressure to modernize infrastructure to lower costs and simplify IT</li> <li>• Demand for more flexible resources</li> <li>• Upcoming SAP S/4HANA project</li> </ul>	<ul style="list-style-type: none"> <li>• Much more focused on redesigning IT platforms and architectures than the other groups</li> <li>• Other strategies are split between a variety of priorities, such as creating an ROI and cost model for the cloud and working with a set of core solution and service providers</li> </ul>	<ul style="list-style-type: none"> <li>• Cloud security</li> <li>• Data protection</li> <li>• Fully hybrid cloud capabilities (ability to transition workloads between public cloud and on-premise environments)</li> <li>• Cloud integration</li> </ul>	<ul style="list-style-type: none"> <li>• Laggards resemble the industry average group in that many have invested in SaaS, PaaS, and IaaS services</li> <li>• Moving into the next year, many in this group will continue to invest in core cloud management and development technologies</li> </ul>

Source: SAPinsider, July 2019

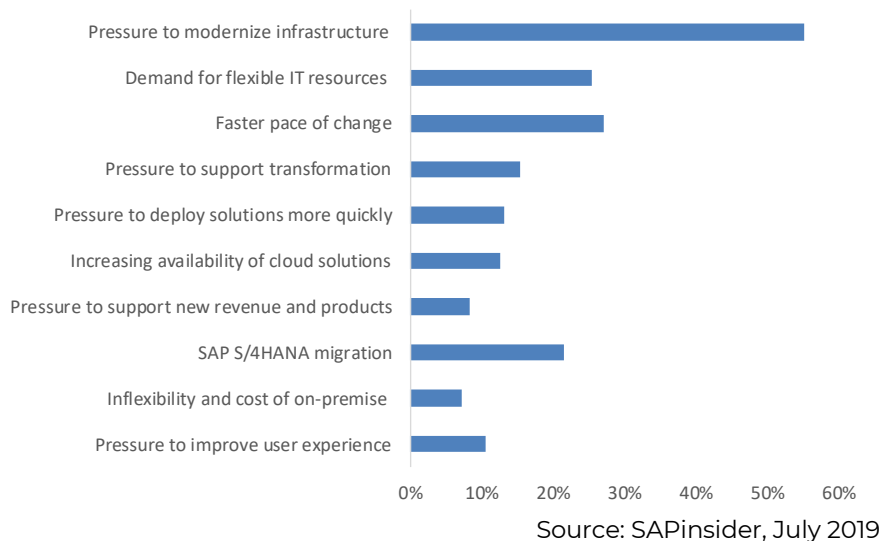
In this chapter, we will look at what is driving organizations' enterprise cloud migration projects, and how customers are balancing the pressure to migrate with the reality of supporting and optimizing their cloud deployments to meet the needs of the business.

## What Is Driving Enterprises to the Cloud?

The potential of the cloud to simplify overall IT operations, lower costs, and speed the time to deployment is compelling many companies to move forward with a cloud migration, our research finds. Modernization, cost containment, and the demand for flexibility are all driving action within the survey sample.

The pressure to modernize infrastructure to lower costs and simplify IT was by far the top driver identified by survey respondents (see **Figure 4**). Over half (56%) of the respondents chose this option as their top driver — this was close to double the percentage of the next most popular answers, which included the faster pace of business and technological change (27%) and the pressure to provide more flexible IT resources that can scale and contract on demand (25%).

**Figure 4: Top drivers for cloud migration**



Many organizations in the survey sample are also weighing the move to SAP S/4HANA, which is becoming a catalyst for rethinking their overall IT infrastructure and deployment. SAP S/4HANA was the fourth most cited driver overall — identified by 22% of respondents — and, according to the



We are moving most of our business-critical processes to the cloud. We don't own our data center and we could not ensure that our upgrades and other maintenance could be done in a timely fashion. We were using a managed service and experienced too many days of downtime, so we have moved much of our ERP processes to a hyperscale environment.

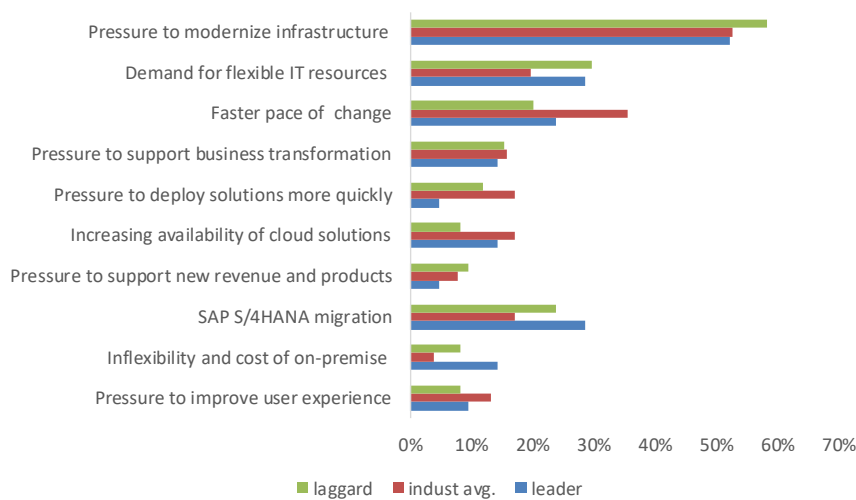


~ Enterprise Systems Administrator, Large Agricultural Company

findings in the SAPinsider report [SAP S/4HANA Migration: State of the Market](#), the cloud factors heavily into organizations’ plans for SAP S/4HANA. According to the survey results detailed in that report, 60% of respondents overall plan to run SAP S/4HANA in a cloud-based environment, with early adopters even more cloud-focused — 70% of leaders in that study had implemented or were in the process of implementing SAP S/4HANA in the cloud.

Leaders in the enterprise cloud migration survey followed the trend established by the overall respondents when it came to drivers (see **Figure 5**), with 58% of leaders identifying the pressure to modernize infrastructure to lower costs and simplify IT as their top driver. Unlike the other respondent groups, the SAP S/4HANA project came in at number two with 29% of leaders selecting this as a top driver compared to 17% of the industry average group and 24% of laggards.

**Figure 5: Top drivers by respondent group**



Source: SAPinsider, July 2019

The industry average group also chose pressure to modernize infrastructure to lower costs and simplify IT as its top driver at 53%. This group also cited the faster pace of business and technological change at a higher rate than the



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IT as a whole is moving toward infrastructure-as-a-service. This trend started 10-12 years ago with major infrastructure companies such as Amazon and later Google. There’s a massive shift occurring in which IT departments are moving away from managing and owning their own IT landscape and instead farming that out as a cloud service. Companies want to focus more and more on Innovation and business transformation and less on managing IT landscapes. This has led them to adopt Infrastructure-as-a-service as an Incremental part of their IT landscape strategy



~ Chintan Mota,  
Manager, Innovation Services  
and Solutions, SAP

other groups, with 36% identifying it as a top driver compared to 24% of leaders and 20% of laggards.

The drivers for laggards resembled the top three identified by leaders. Pressure to modernize infrastructure to lower costs and simplify IT was the top driver for laggards at 58%, followed by the pressure to provide more flexible IT resources at 30% and SAP S/4HANA migration at 24%. The data shows that laggards are contemplating the imminent upending of their core ERP landscape with the 2025 end of support for traditional SAP systems.

### Key Takeaways

When it comes to where SAP customers are on their enterprise cloud technology journey, our research reveals the following key takeaways:

- **While many customers are moving to the cloud in some way, most are still in the early stages of adoption.** Even leaders have only a 32% adoption rate among the various cloud solutions included in the survey. Companies should continue to move forward experimenting with different solutions and models.
- **Look beyond your organization's immediate needs.** The top drivers for cloud adoption continue to be lowering costs and delivering simplicity to the business and IT organizations. Expanding your focus to critical upcoming initiatives such as an SAP S/4HANA migration and other transformative projects could help unlock further cloud value.
- **Do not underestimate the benefits of speed to deployment and speed to experimentation.** Many experts and survey respondents shared how quick and easy it is to deploy and provision resources to the cloud. While large, complex applications can take a significant amount of time, you can deploy smaller applications and test environments much more easily.

## Chapter Two: How Are SAP Customers Approaching Their Journey to the Cloud?

Migrating ERP functionality and core business processes to the cloud is a complex decision with many different considerations and implications for both business and IT. Here we look at key strategies, cloud service options, deployment models, and technologies that SAP customers are considering as they solidify and move forward with their cloud migration plans.

### Leaders Focus on Balancing Cost and Innovation

Cost, simplicity, flexibility, and speed of deployment were recurring themes in the survey responses about business and IT strategies for the cloud. Our research shows that leaders are balancing a focus on cost and flexibility with using the cloud to further their innovation agenda.

The top strategies cited by leaders (see **Figure 6**) are equally split between redesigning IT platform and architectures to lower costs and increase flexibility (48%) and building a set of cloud-based innovation services that can be utilized by different parts of the organization (48%). Leaders selected building a set of cloud-based innovation services as a top strategy at a higher rate (48%) than industry average (39%) and laggard (29%) respondents.

The data also shows that leaders prioritize measuring the return on their investment in the cloud and managing the risks of their cloud-based initiatives, with 38% reporting that creating an ROI, cost, and risk model to help manage cloud priorities, opportunities, and challenges is a top strategy.

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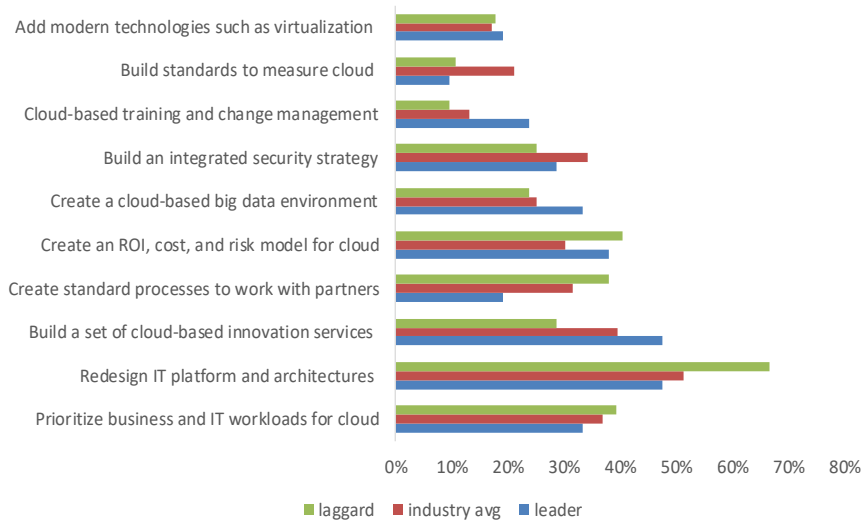
“

We are constantly developing and building on our cloud strategy to be competitive in the market, and the pace of change we're seeing right now is dramatic.

”

~ Chief Architect,  
Midsize Financial  
Services Company

**Figure 6: Top strategies for the cloud by respondent group**

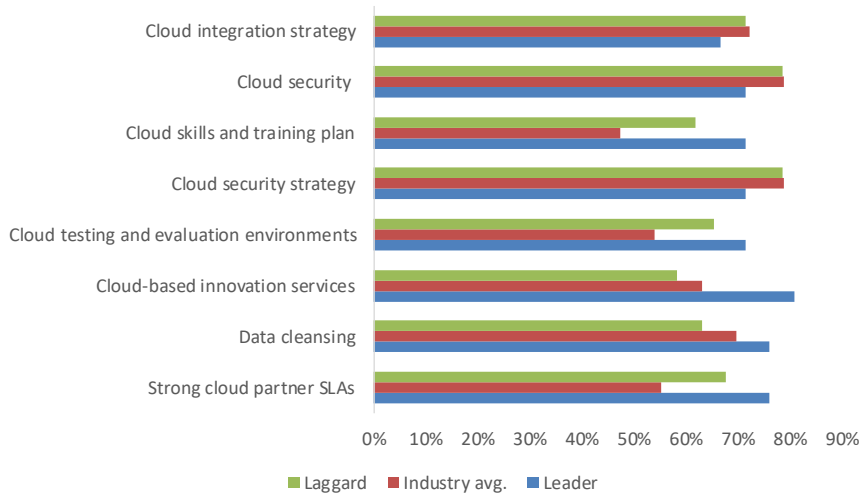


Source: SAPinsider, July 2019

When it comes to prioritizing requirements for the cloud, the survey results show a continued focus on innovation for leaders (see **Figure 7**) — 81% reported that understanding and planning for cloud-based innovation services was an important or very important requirement compared to 63% of industry average respondents and 58% of laggards.

Leaders also prioritize data harmonization and cleansing activities, with 76% identifying this as important or very important. This focus on the importance of data and data management is consistent with how leaders prepare for other critical initiatives, such as the move to SAP S/4HANA. In addition, leaders cited establishing strong relationships and service level agreements (SLAs) with cloud partners as a key requirement, with 76% categorizing this as important or very important.

**Figure 7: Top requirements for the cloud by respondent group**



Source: SAPinsider, July 2019

## Respondents Are Using a Blend of Solutions and Services

According to our research, no single cloud solution or service is seeing dominant adoption by SAP customers. Most of the survey respondents are using a blend of software-as-a-service (SaaS), platform-as-a-service (PaaS), and infrastructure-as-a-service (IaaS) offerings, each of which has its own unique benefits and management requirements (see **Figure 8**).



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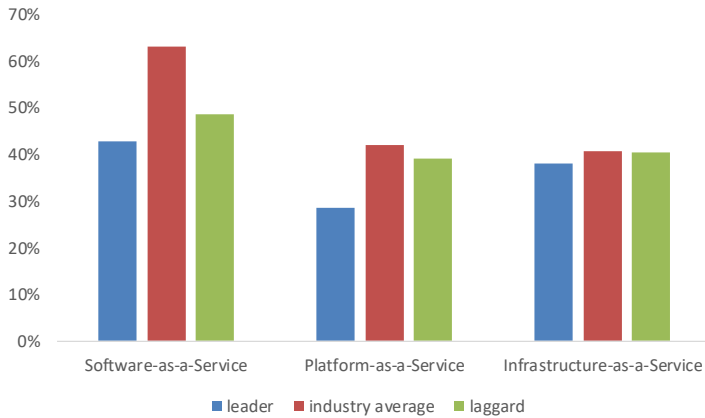
We need to improve our cloud security and invest more time and resources on training our end users, providing them with high-quality documentation, and we need to prioritize and dedicate more time to testing new cloud applications.



~ Manager, Large Consumer Goods Company



**Figure 8: Cloud services adoption by respondent group**

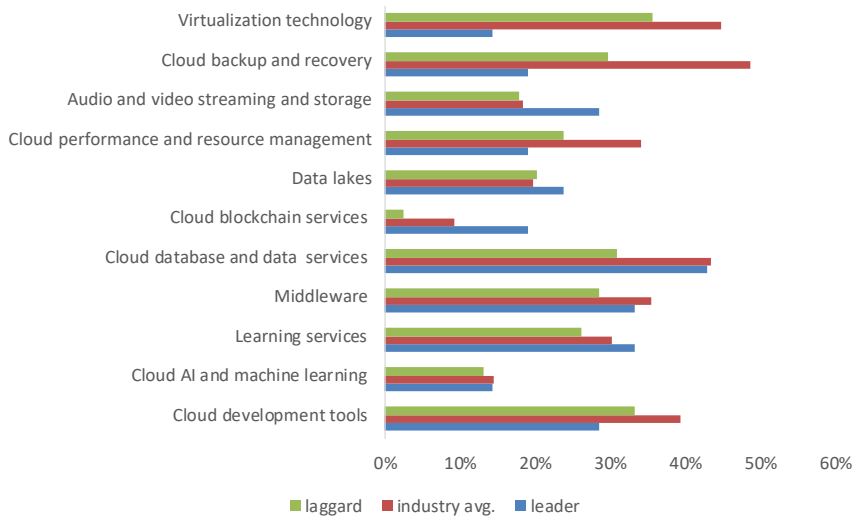


Source: SAPinsider, July 2019

SaaS-based multi-tenant solutions such as SAP SuccessFactors, SAP Ariba, and Salesforce solutions are currently the most widely adopted among the overall survey respondents, with over half (54%) using some type of SaaS solution. Based on our findings, many are running sales force automation, HR, analytics, and procurement solutions because of their maturity and wide use. Adoption of PaaS and IaaS offerings is growing, however — 40% of overall respondents reported they are using IaaS offerings and 39% reported they are using PaaS offerings.

The data shows that leaders are currently much more focused than the other respondent groups in their evaluation and use of cloud services and technologies. Leaders are primarily focusing their investments on SaaS offerings and cloud-based data management, with 43% using SaaS solutions and, as shown in **Figure 9**, 43% using cloud databases and data management services. In addition, compared to the other respondent groups, leaders are more aggressively exploring specific cloud services related to audio and video streaming and storage (29%), data lakes (24%), and blockchain services (19%), although they are still in the early stages of using these services.

**Figure 9: Top cloud technologies in use today**



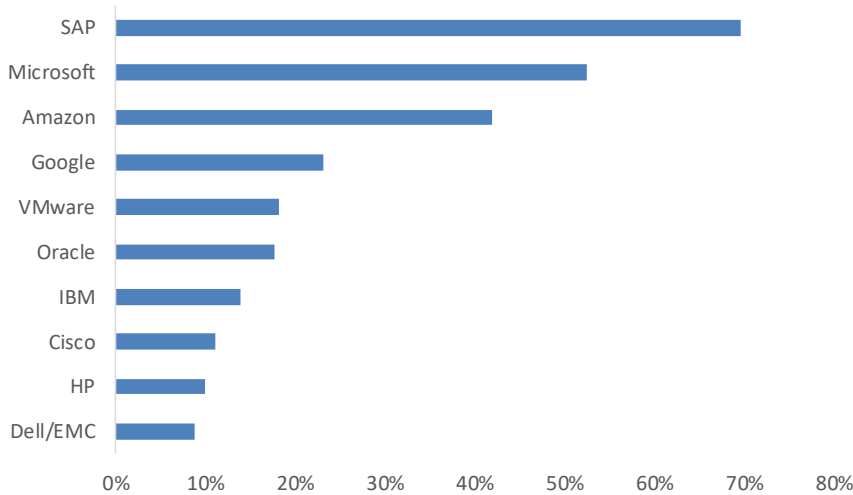
Source: SAPinsider, July 2019

These findings indicate that leaders are using these initial investments to hone their skills and learn from their early experiences before taking on more significant and complex PaaS and IaaS solution deployments, for example. For leaders, the current adoption rate is 29% for PaaS offerings and 38% for IaaS offerings, which is lower than the adoption rates reported by both the industry average group and laggards for these offerings.

## Well-Known Brands Dominate the Cloud Vendor Landscape

When asked to identify the cloud vendors they currently work with, not surprisingly, the top choices within the survey sample were SAP and hyperscalers such as Microsoft, Google, and Amazon (see **Figure 10**). These brands represent some of the foundational investments survey respondents are making in the cloud.

**Figure 10: Top cloud vendors**



Source: SAPinsider, July 2019

The selection of these cloud vendors by the respondents can be partly explained by the criteria used to choose a vendor. As shown in **Figure 11**, price (54%) and security (45%) were the top criteria identified for selecting a cloud vendor, and many respondents reported that well-known vendors such as SAP, Microsoft, Google, and Amazon were able to meet these two key requirements.

**Figure 11: Top criteria for selecting a cloud vendor**



Source: SAPinsider, July 2019



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When you work with multiple vendors and things change, you have to consider issues like the ease of migration between vendors, the ease of service refactoring, and ease of license transfer between cloud vendors and third-party software vendors. This can be challenging.

”

~ CTO, Midsize Food and Beverage Company

## Key Takeaways

Our findings reveal the following key takeaways when it comes to how to approach the cloud journey:

- **Learn first from less complex cloud applications and environments.** Focus on simple SaaS applications or very focused deployments of solutions on a private or hyperscale infrastructure. These initial projects will allow you to gain business benefits while learning from experience before moving on to more complex projects, such as PaaS and IaaS solution deployments.
- **Create in-house expertise on cloud services.** A host of cloud-based services are available from cloud vendors. Make sure you have an in-house expert that constantly experiments with these services, stays informed about updates, and understands how the use of these services will affect your environment.
- **Understand that the cloud changes the nature of innovation.** The cloud helps you innovate not only through capabilities such as rapid deployment and testing, but also by giving you access to ready-made services, data, and applications, so that you no longer need to build them on your own. Use these features to your advantage to fully benefit from the innovation opportunities offered by the cloud.

## SAP EXPERTS PERSPECTIVE

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You need to build a unique set of skills to make the cloud work for your SAP landscape. SAP Basis is a very specific corner of the system administration world with its own idiosyncrasies. Meanwhile the hyperscale clouds have their own innovations in terms of performance and availability, which don't follow the same laws of physics as traditional infrastructure. Building a team or finding a service provider who lives at the intersection of these two worlds is the key to running SAP brilliantly in the cloud.

”

~ Jon Friesen, SAP Expert and  
Practice Director, Technical  
Managed Services, NIMBL  
Techedge Group

## Chapter Three: Lessons Learned and Required Actions

The analysis of the different groups of respondents uncovered that business results from cloud initiatives have been mixed. For many companies, the move to the cloud is still too new, and expectations, skillsets, and ROI calculations are still being analyzed — and in some cases, they have yet to be defined.

While 92% of survey respondents indicate they are using some sort of enterprise cloud business technology, application, or service, just over half (54%) of the total respondents have generated results that have met or exceeded expectations (this represents the leader and industry average groups). The remaining 46% of respondents have generated results either below expectations, or they have not yet had enough experience to understand the impact (these are the laggards).

So why isn't success with the cloud more pronounced and defined? The relative maturity of these cloud projects is certainly a reason, but a closer examination of the data revealed other critical issues and factors. The next section looks at the skills and factors required for a successful cloud project.

### Respondents Grapple with Building Cloud Skills

Because cloud technology is still maturing, it requires unique skillsets and for companies to manage and deploy the technology and business processes through a third party. In some cases, both IT and business teams need to learn new interfaces and management concepts. For many companies, this represents a significant change from what they currently use.

## **SAP**insider PERSPECTIVE

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We are still learning how to be a cloud organization, so many of our early mistakes are happening because of a lack of knowledge.

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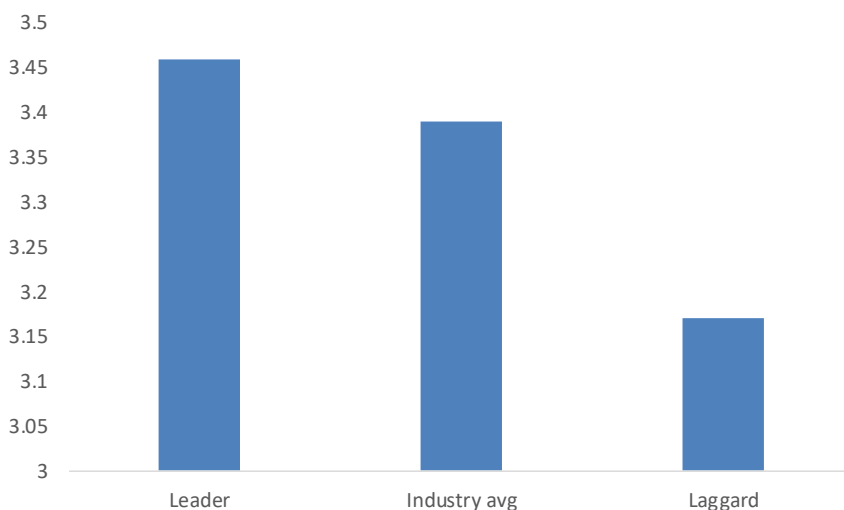
~ Business Analyst,  
Large Energy  
Company

Our research found that most companies have not yet reached a level of experience and proficiency across a broad level of skills and competencies needed for the cloud. Respondents were asked to rate their organizational strength across 13 different skillsets or competencies using five strength levels, ranging from very weak (level one) to very strong (level five).

Typically, respondents rated themselves only a bit higher than neutral — with an average score of 3.29. Upon analyzing the survey data and interview comments, it became clear that most companies are still in the early stages of learning about the cloud and its impact. Some have started to build organizational strength in certain areas, but the majority indicated a need for significant training and knowledge in several disciplines.

Leaders that cited results above expectations, unsurprisingly, had the highest average strength score (3.46) versus 3.39 for industry average respondents and 3.17 for laggards (see **Figure 12**).

**Figure 12: Rating of overall organizational strength in cloud skills (by respondent)**



Source: SAPinsider, July 2019



Many SAP customers continue to be ABAP shops staffed by IT personnel who have years of experience coding in ABAP. However, with the emergence of newer technologies (cloud UX, Dev ops, etc.), there has been a need to update and transition these ABAP skillsets to these newer technologies. At the same time, SAP recognizes the value and power of ABAP and thus we are incorporating ABAP into some of our newer technologies such as ABAP in the Cloud and SAP S/4HANA Cloud. This approach helps to bridge the gap between SAP of the past and SAP of the present by leveraging previously valuable ABAP skillsets into our newer focuses such as SAP Cloud Platform, Fiori, Dev Ops, SAP UI5, etc.



~ Chintan Mota,  
Manager, Innovation  
Services and Solutions, SAP

As a whole, respondents indicated they were most confident in the areas of security (3.58), compliance (3.49), and cloud vendor management and selection (3.35). These findings show that companies investigate and research these core areas thoroughly at the beginning of most projects.

Leaders appeared to be more confident across the board in their organizational strength related to the cloud, but still their average ratings were not significantly higher than the other groups. Leaders' top strengths were cloud security (3.62), change management (3.52), cloud vendor management (3.52), testing (3.52), and leveraging the cloud for innovation (3.52).

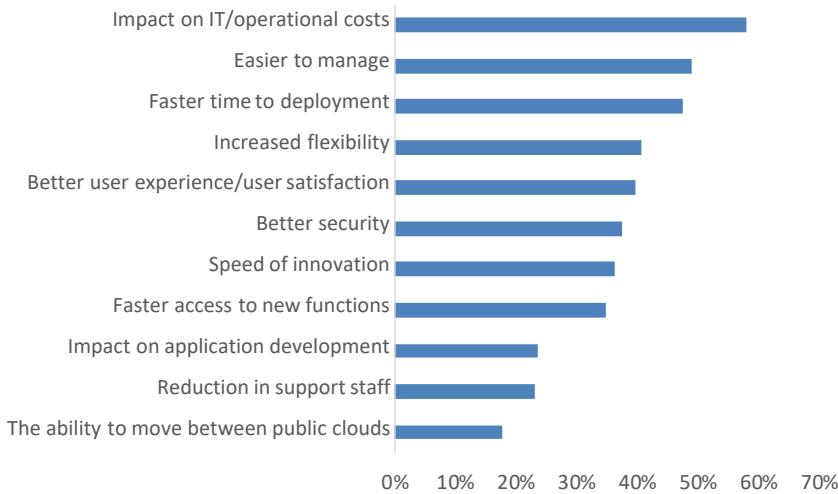
Now that we know how respondents rated their strengths related to cloud skills, let's look at how they measure the overall success of their cloud initiatives.

### How Do Companies Measure the Success of Their Cloud Projects?

One way to understand how companies are succeeding with their cloud initiatives is to look at how they are measuring success. The survey data shows that companies are using a wide variety of metrics to judge their projects, but a few themes emerged in our analysis.

When respondents were asked how they measure the results of their cloud projects, the top responses centered on the overall impact on costs, the ease of management and deployment, and the flexibility of landscapes (see **Figure 13**).

**Figure 13: How respondents measure the success of their cloud initiatives**



Source: SAPinsider, July 2019

The most mentioned indicator of project success was the impact on IT and operational costs, cited by 58% of respondents overall. This selection was followed by easier to manage (49%), faster time to deployment (48%), and increased flexibility (41%).

When analyzed by respondent group, leaders were far more likely to use faster access to business and IT functionality as a measure for success than the industry average respondents and laggards. Over half (52%) of leaders cited this as a top measure compared to 34% of industry average respondents and 31% of laggards.

Leaders were also much more likely to select a better user experience and increased user satisfaction as a measure of success, with 52% of leaders selecting this compared to 34% of the industry average respondents and 42% of laggards.

The next section looks at some lessons learned from leaders that have already begun undertaking cloud projects.



“

Our cost metrics are not there yet. We didn't get our workload tuning quite right yet, and this has had a huge impact on the ROI of the project.

”

~ Head of Hosting,  
Large Retail Company



## Lessons Learned from Early Cloud Projects

Conversations with early adopters of cloud technology revealed a common set of lessons learned from early cloud projects. In addition to the training and education areas previously mentioned, survey respondents collectively described best practices in these key categories:

- **Cloud technology does not free you from management.** Many companies are under the impression that when they move to the cloud, they will offload all their IT management issues. You still need to manage your vendor for the services you contracted.
- **Reliability needs to remain a focus.** Another misconception that respondents described consistently is that even when dealing with a very reliable hyperscaler or cloud vendor, you still need to manage your resources and build in reliability in how you provision resources and set up your system. Resources can still go down in the cloud, so you must be prepared.
- **Do not ignore change management.** The move to the cloud can create a waterfall of change and impact among technology, user interface and acceptance, management expectations, and other areas. You need to prepare for a wide variety of impacts on both the business and IT.
- **Properly account for the full range of potential costs.** Respondents shared that they encountered hidden costs within their cloud projects, ranging from unanticipated licensing fees to underestimating resource and training needs to misunderstanding how they would be charged for using specific cloud resources. Cost management and containment must be a priority for any cloud project.

**SAP**insider

PERSPECTIVE

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There needs to be an openness to the constantly changing environment that cloud presents, and at the same time you need to try to set expectations properly. Sometimes new cloud tools or systems will be advertised as a simple cure-all by management, which hurts user engagement when there is an unexpected learning curve. If proper context is given, people will be more open and ready to put in the work for the payoff.

”

~ Engineer, Large Biotech and  
Pharmaceuticals Company

- **Build a thorough understanding of how your security and compliance requirements map to the cloud.** Particularly for the General Data Protection Regulation (GDPR) and other data privacy regulations, you need to understand how and where your cloud vendor stores data. Survey respondents advise being aware of the ways that sign-on and other security processes are handled in the cloud.
- **Approach your cloud project as you would any other first time, complex, IT or business project.** Respondents stress the importance of long planning cycles, stringent testing, well-thought-out change management preparation, and detailed and frequent communication as key aspects for cloud success.
- **Using a SaaS partner or hyperscaler does not eliminate the need for consulting or third-party support.** Deploying enterprise applications on a hyperscaler platform requires, in many cases, a certified expert. Most companies do not have that type of in-house expertise and will have to rely on a partner that has both platform and vendor-specific knowledge as well as deep knowledge of SAP software.

The following sections include tips to help ensure satisfactory cloud project results for leaders that have already begun adopting cloud technology, as well as industry average respondents and laggards.

### Leaders: Steps to Success

Our research revealed several lessons and trends that will help guide leaders to continued success:

- **Continue to expand skillsets.** While leaders have the strongest skillsets among survey respondents, they still do not rate themselves as strong or very strong in most areas. Leaders should develop strong in-house cloud training programs and identify partners that

can help them both execute projects and educate themselves.

- **Build on your innovation lead.** Leaders need to continue with the initiatives they have begun exploring related to innovation services within the cloud and then establish measures for user experience, satisfaction, and time to deployment. They should also continue to look at cloud-based services for machine learning and artificial intelligence technologies.
- **Experiment with and explore new cloud technologies and deployment models.** In many ways, leaders have been more conservative in their adoption of different cloud models. While this strategy has allowed them to focus more narrowly and generate quick wins, in the long run, leaders need to widen their perspective and experience in areas such as PaaS, IaaS, and hybrid deployments.
- **Institutionalize and templatize your cloud deployment approach.** With the cloud, you have an opportunity to leverage single platforms or services across multiple projects and applications. Be stringent in the way you learn from mistakes and document successes. Build templates, programs, and reusable best practices methodologies that reflect your unique requirements and landscape. The cloud enables you to go faster, but you need to be able to do it right.

## Industry Average: Steps to Success

Industry average respondents are meeting their expectations, but to take their ROI to the next level, they must continue to learn and bring a more business- and innovation-focused agenda into their cloud plans. Here are some tips for this group:



PERSPECTIVE

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Training is the key. Understanding the environment you are planning to use prior to beginning your project is essential. It will save a great deal of time and prevent you from frustration and other issues.

”

~ Director of IT,  
Small High-Tech  
Company

- **Expand your mindset toward a business and innovation impact.** Cost, simplicity, and speed to deployment have been your drivers as well as the way you have measured success. To ramp up the ROI on the cloud, you must take your focus to the next level and make the link between the cloud and innovation much more prominent. Follow the example of leaders.
- **Leverage your SAP S/4HANA project as a catalyst to evaluate the cloud.** Many early adopters of SAP S/4HANA are exploring a private or public cloud as a core deployment option. Use this major project as an impetus to perform a deeper evaluation of the cloud and the potential benefits it could bring to your ERP landscape.
- **Continue to build strong partnerships and SLAs with your core partners.** When you implement and utilize cloud solutions, your partners can be your greatest resource or largest impediment. Do not shortcut the process of vendor selection and SLA negotiation.
- **Refine your cloud expense management skills and resources.** Early adopters have reported on the many ways that cloud spending can spin out of control. You need to build a solid understanding of how your vendors charge for resources and exceptions.

### Laggards: Steps to Success

Laggards are struggling to meet expectations with their initial cloud projects or they have not yet gained enough experience to understand the full impact of the cloud on their business. Our data and interviews reveal some key strategies that will help laggards plan for this journey:

- **Invest in training.** This is one of the core weaknesses within our survey sample and a major obstacle to

success. Laggards need to understand the necessary skills to succeed in the cloud.

- **Broaden KPIs and measures for success.** Be sure to include areas such as user satisfaction and the time to deploy business functionality. This step will help you link your cloud projects to true business impact.
- **Simplify your first few projects.** One of the big reasons early cloud projects did not meet expectations was that the scope of the project was too broad. Pick a few key tasks you want to accomplish and use simple deployment models (such as SaaS) to complete them.
- **Do not underestimate the change management implications of your cloud project.** This was one of the most commonly shared lessons learned by early cloud adopters. Cloud solutions can be very different from on-premise solutions when it comes to the user interface, process flows, integration, and analytics. Make sure that both your IT team and the business are aware of the implications and value of a cloud migration so that you can secure buy-in and support during this transition.

## Key Takeaways

Here are some final considerations to keep in mind as you move forward in your cloud journey:

- **Leaders need to continue to evolve their cloud strategy and skillsets.** This group of respondents needs to strategically build on their investment by expanding their knowledge and experience with cloud security, integration, and user interface technology. Most cloud customers are also exploring data and analytics solutions as they prepare to move their core ERP systems to SAP S/4HANA.

- **The industry average group needs to explore the innovation advantages of the cloud.** One of the key differentiators between leaders and the industry average group is how leaders leverage the cloud for innovation. This is a development opportunity for the industry average group as there are plenty of data and emerging technology services that can be quickly deployed via a cloud environment.
- **Laggards need to start moving, but must build confidence in that first project.** Select a pilot or proof of concept that solves a key pain point or improves a process. However, be sure to set moderate expectations with business users and executive stakeholders and fully examine the technical and change management impact.

## Methodology

Between June and July of 2019, SAPinsider surveyed our membership on their plans for moving their enterprise processes and data to the cloud. Our survey generated 391 responses from 181 customer organizations.

Responding professionals completed online surveys that questioned them on topics such as the following:

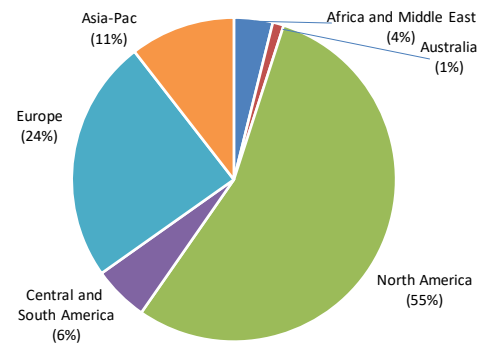
- The workloads and processes they are moving to the cloud
- The top challenges of getting the full ROI from their cloud projects

SAPinsider supplemented the online survey responses with in-depth telephone and in-person conversations.

Demographic information on the respondents included the following:

- **Job title:** The job titles of the survey respondents included CXO (4%), VPs and Directors (12%), Managers (23%), Architects (16%), Analysts (13%), Developers and Administrators (13%), Project Managers (7%), and Other (12%).
- **Company size:** A majority of responding companies were larger organizations, with 14% reporting revenue of over \$10 billion, 22% stating revenue of \$1-\$10 billion, 8% indicating revenue between \$500 million and \$1 billion, 7% reporting revenue of \$200-\$500 million, and 26% stating revenue less than \$200 million. The remaining 23% did not know the previous year's revenue.
- **Geography:** Of our survey respondents, 55% were from North America, 24% hailed from Europe, 11% were from the Asia-Pacific region, 6% came from Central and South America, 4% were from Africa and the Middle East, and 1% were from Australia.

## PARTICIPANTS PROFILE



## Appendix A: The DART™ Methodology

SAPinsider has rewritten the rules of research to provide actionable deliverables from its fact-based approach. The DART methodology serves as the very foundation on which SAPinsider educates end users to act, creates market awareness, drives demand, empowers sales forces, and validates return on investments. It's no wonder that organizations worldwide turn to SAPinsider for research with results.

The DART methodology provides practical insights including:

- **Drivers:** These are macro-level events that are affecting an organization. They can be both external and internal and require the implementation of strategic plans, people, processes, and systems.
- **Actions:** These are strategies that companies can implement to address the effects of drivers on the business. These are the integration of people, processes, and technology. These should be business-based actions first, but they should fully leverage technology-enabled solutions to be relevant for our focus.
- **Requirements:** These are business and process-level requirements that support the strategies. These tend to be end-to-end for a business process.
- **Technology:** These are technology and systems-related requirements that enable the business requirements and support the company's overall strategies. The requirements must consider the current technology architecture and provide for the adoption of new and innovative technology-enabled capabilities.



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