SAPinsider

A Wellesley Information Services Company

SAPinsider Benchmark Report

# SAP S/4HANA: State of the Market

**Rizal Ahmed**

April 2019

Research Partner

SAP

SUSE

SAPinsider
A Wellesley Information Services Company

## Research Partner

The best-run businesses make the world run better. With courage, perseverance, and breakthrough technology, SAP customers tackle some of the world's biggest challenges. Find out how they work with SAP to make a lasting difference — and learn about the technology solutions that fuel their innovation.

For more information, visit https://www.sap.com.



SUSE

# Contents

Executive Summary ..... 1
A Look at the Survey Sample ..... 1
Competitive Maturity Assessment ..... 2
Required Actions ..... 3
Chapter One: Where Are Customers Now with Their SAP S/4HANA Journey? ..... 4
What Is Driving Customers' ERP Strategies? ..... 6
How Are Leaders Planning to Use SAP S/4HANA? ..... 8
How Are Industry Average Respondents and Laggards Planning to Move Forward? ..... 9
What Is Holding Back Laggards? ..... 10
Key Takeaways ..... 11
Chapter Two: How Are Customers Approaching the Move to SAP S/4HANA? ..... 13
Top Requirements for Implementing SAP S/4HANA ..... 13
How the Source Release Affects Migration ..... 15
Leaders Are Choosing a Greenfield Implementation Approach ..... 16
A Majority Are Embracing Cloud Deployments ..... 18
Key Takeaways ..... 21
Chapter Three: What Outcomes Are Customers Reporting? ..... 23
What to Expect Post-Implementation ..... 23
Factors That Affect the Length of the Project ..... 24
Business Areas Seeing the Biggest Benefits ..... 24
Leaders Are Building on Their SAP S/4HANA Investment ..... 25
Key Takeaways ..... 26
Chapter Four: Required Actions ..... 28
Leader Steps to Success ..... 28
Industry Average Steps to Success ..... 29
Laggard Steps to Success ..... 30
Key Takeaways ..... 31
Methodology ..... 32
Appendix A: The DART™ Methodology ..... 34

# Executive Summary

SAP S/4HANA is one of the most significant releases in SAP's history. It represents an enormous shift, bringing traditional ERP processes and functionality together with a high-performance data analytics engine embodied in SAP HANA. The opportunities for improving business operations presented by this solution, combined with the looming end of support for traditional SAP systems based on SAP ERP Central Component (SAP ECC), due to expire in 2025, is driving an acceleration of customer activity when it comes to the evaluation and implementation of this next-generation release. Implementing SAP S/4HANA is not like typical SAP ECC upgrades, however — it requires a deep understanding of the business and technical impacts of the solution as well as updated skillsets and business strategies.

SAPinsider surveyed our audience to understand where SAP customers are with SAP S/4HANA and found that a majority (70%) of respondents are moving in some way toward the solution. This report takes an in-depth look into the data behind this finding, including how customers are approaching the move, the outcomes that customers are reporting, and the actions you can take to ensure a successful project.

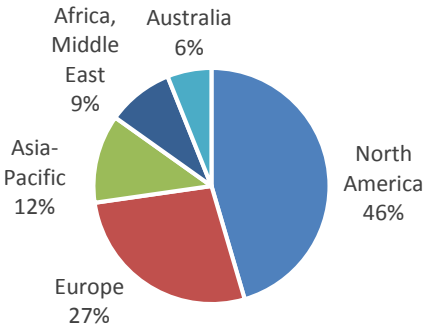
### Research Methodology

SAPinsider applies a research methodology that evaluates the drivers, actions, requirements, and technologies (DART) that dictate corporate behavior as it relates to specific processes and projects to provide actionable insights. Appendix A of this report provides a detailed explanation of the methodology.

## A Look at the Survey Sample

Between February and March 2019, SAPinsider's survey on SAP S/4HANA generated more than 400 responses from 196 customer companies. The demographics of the respondents included the following:

- **Job titles:** CXO (4%), VPs and Directors (16%), Managers (34%), Architects (13%), Analysts (18%), Developers and Administrators (9%), and Project Managers (6%)
- **Industries:** Consumer goods (18%), industrial manufacturing (10%), healthcare (9%), government (8%), energy (7%), chemicals (6%), and biopharmaceutical (6%)
- **Company size:** Over $10 billion (17%), $1-$10 billion (33%), $500 million - $1 billion (12%), $200-$500 million (9%), and less than $200 million (11%) — 18% did not know
- **Geography:** North America (67%), Europe (15%), Asia-Pacific (9%), Central and South America (4%), Africa and the Middle East (3%), and Austraila (2%)



Based on the answers of these survey respondents and our in-depth conversations with them, SAPinsider identified three categories of SAP customers when it comes to the SAP S/4HANA journey:

- Leaders: These are early adopters who have implemented or are at some stage of the process of implementing SAP S/4HANA. This group represents 19% of the survey respondents.

- Industry average: These are companies in various stages of evaluating SAP S/4HANA, from early information gathering to piloting. This group represents 52% of the survey respondents.

- Laggards: These are companies not yet making any plans to move to SAP S/4HANA. This group represents 29% of the survey respondents.

## Competitive Maturity Assessment

Survey results show that leaders in the SAP S/4HANA journey share several common characteristics:

- Leaders are driven to move to SAP S/4HANA by business transformation: 53% of leaders say that business transformation is a top driver of their ERP strategy versus 36% of laggards.

- Leaders are more likely to perform a completely new implementation of SAP S/4HANA rather than a more gradual conversion: 39% of leaders are choosing a greenfield approach while 16% of overall respondents are choosing this method.

- A majority (69%) of leaders are deploying SAP S/4HANA in the cloud, with 42% choosing private cloud to ensure control over the application layer.

- Leaders are seeing wider-reaching business benefits from ERP in more areas than the other groups — for example, 67% of leaders highlighted analytics as receiving significant benefit from ERP (compared to 46% of overall respondents) and 56% of leaders pointed to supply chain as a top beneficiary (compared to 46% of overall respondents).

- A significant majority (85%) of leaders report that their move to SAP S/4HANA met or exceeded their expectations, with performance and simplicity among the top benefits cited.

## Required Actions

In addition to the actions outlined in detail in Chapter Four of this report, to ensure a successful SAP S/4HANA project, customers must:

- Understand that the time to move to SAP S/4HANA is now — end of support for SAP ECC is coming and the majority of leaders are reporting an average implementation time of 7-12 months.
- Build the business case around finance and analytics — leaders are prioritizing these areas, which are receiving among the most significant benefits from SAP S/4HANA.
- Prepare for the technical ramifications of SAP S/4HANA, particularly when it comes to custom code and data migration, and work to purge custom code and older technologies.
- Explore whether a greenfield implementation or cloud-based deployment is a good fit for your technology roadmap, compliance initiatives, and existing skillsets.
- Expand your organizational skillsets to support SAP HANA data models, core data services, embedded analytics, SAP Fiori, and new types of integration requirements — especially when it comes to the cloud.
- Understand that moving to SAP S/4HANA is more than a technical upgrade — work with the business to evaluate functionality deltas and the potential effects on performance.

# Chapter One: Where Are Customers Now with Their SAP S/4HANA Journey?

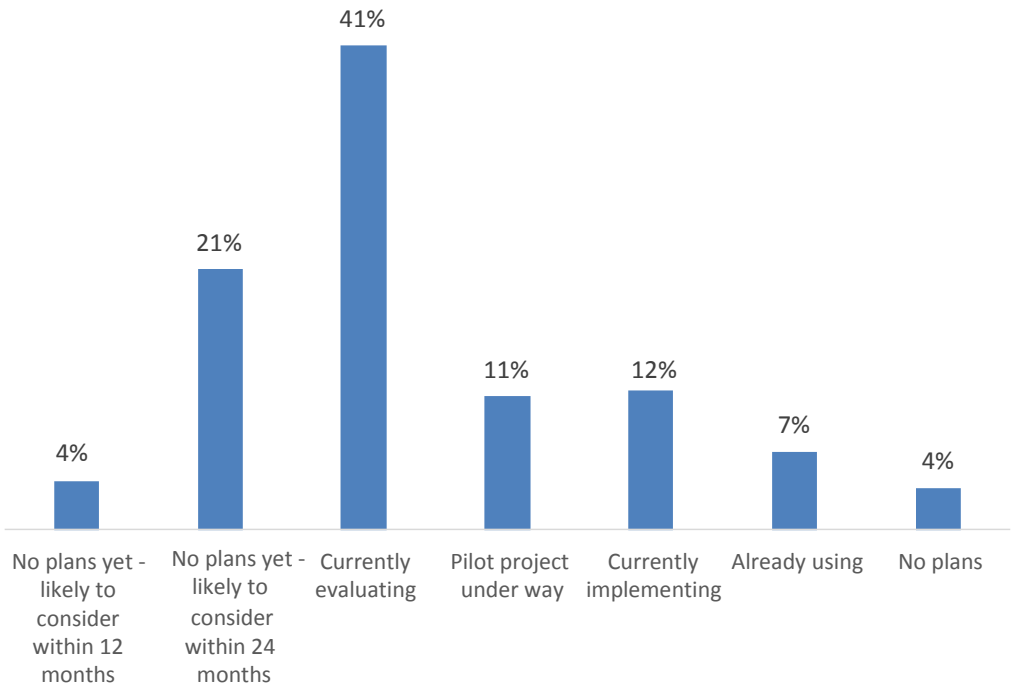
SAP customers are actively evaluating and implementing SAP S/4HANA. Four years after its initial release, customers are now starting to understand what SAP S/4HANA is, how it can affect the business, and the compelling reasons to move forward now or at least strongly consider moving forward in the near future.

These conclusions are supported by our survey results, with a majority (71%) of respondents reporting that they are exploring SAP S/4HANA at some level (see **Figure 1**). Of this 71%, 19% are early adopters we have categorized as leaders who have already implemented the solution or are in the process of implementing it.

"We have legacy processes and really want to set up the system based on our new business goals. We know support is ending and that we have to do something, and we are trying to figure out our next steps."

– IT Manager, Large Energy Company

**Figure 1: Organizations' current SAP S/4HANA adoption strategy**




Source: SAPinsider, April 2019

Over half (52%) of respondents are currently performing some kind of evaluation — which covers a wide range of activities, including early

information gathering, building a business case, and running small pilots — which we've identified as the industry average group. Of those who do not yet have plans, which is the group we have labeled as laggards, 25% indicate that they may consider it in 12 or 24 months, and just 4% have not yet set a timeline for evaluation or action.

The survey results and our interviews with respondents revealed clear trends within each of these three groups — leaders, industry average, and laggards — which are summarized in **Figure 2** and which we will examine over the course of the rest of the report.

### Figure 2: DART model framework for SAP S/4HANA projects

| Category | Drivers | Actions | Requirements | Technologies |
|---|---|---|---|---|
| Laggard | Deadline | • Technical and IT driven<br>• Use technical measures to dictate success<br>• History of technical upgrades<br>• Large focus on immediate priorities, not SAP S/4HANA | • Continued focus on technical support and effects of ERP change, including custom code, security, data prep, and migration | • Currently invested in core infrastructure and management technologies such as SAP Solution Manager<br>• Will stay put for a year and then start moving toward foundational technologies for SAP S/4HANA |
| Industry Average | Deadline and process efficiency | • More focused than any other group on intelligent automation of business processes<br>• In evaluation and preparation mode for SAP S/4HANA | • Significant focus on analysis and preparation of business case and both functional and technical effects | • After evaluation, plan to invest in SAP S/4HANA enabling technologies such as in-memory database, advanced analytics, and modern conversational user interface technology |
| Leader | Digital transformation and competition | • Prioritizing analytics and data-driven strategies to build on current use of SAP S/4HANA<br>• Want to improve decision making and support digital transformation<br>• History of delivering value to wide range of lines of business | • Place high importance on data management and data cleansing<br>• Also focused on assessing cost and ROI of cloud models | • Building on initial investment in SAP S/4HANA by focusing on private cloud, high-end hardware, and cognitive solutions<br>• Will continue to make data management and integration a priority |

Source: SAPinsider, April 2019

In this chapter, we look at where customers are now with SAP S/4HANA based on our research, including what is driving customers' ERP strategies, how leaders are planning to use SAP S/4HANA, how the industry average group and laggards are planning to move forward, and what is holding back laggards.

## What Is Driving Customers' ERP Strategies?

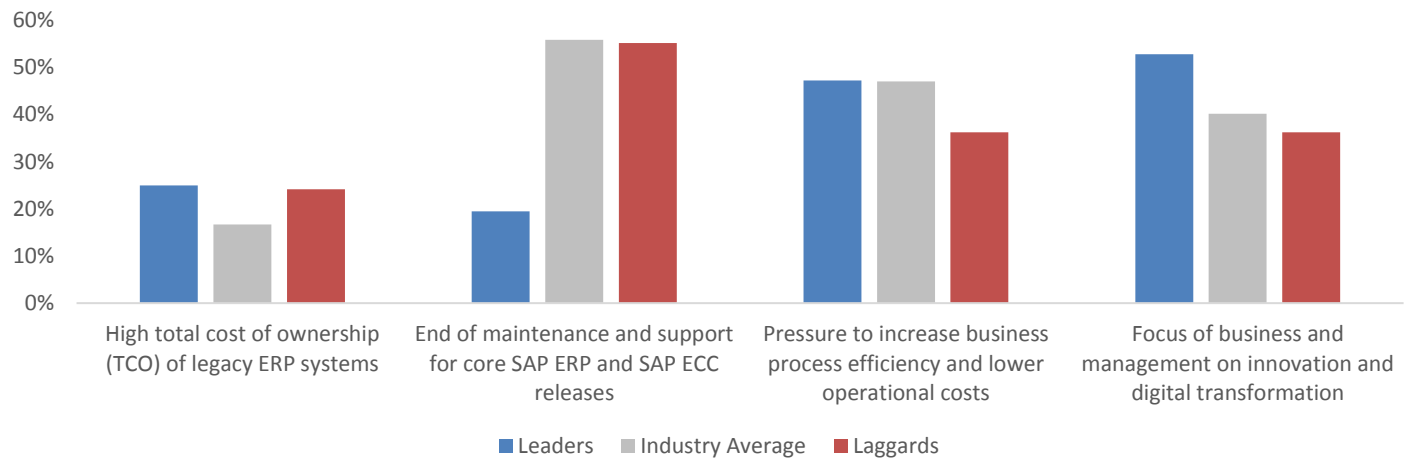
The decision to move to an enterprise solution such as SAP S/4HANA is largely determined by an organization's ERP strategy and what drives that strategy. Respondents to our survey identified three main drivers for their ERP strategies: the 2025 end-of-support deadline for SAP ECC (selected by 49% of respondents overall); pressure to improve business process efficiency (cited by 43% of respondents overall); and an organizational focus on innovation and digital transformation (chosen by 41% of respondents).

A closer look at the top drivers by respondent group revealed marked differences in how customers approach their ERP strategies (see **Figure 3**). The top driver for leaders is digital transformation (56%). This finding is consistent with our research, which shows that leaders operate more proactively and view ERP software as a foundation for differentiating their business. In contrast, the end-of-support deadline for SAP ECC was identified as the top driver by 55% of laggards and 56% of the industry average group, indicating a more reactive approach.

"We're migrating to SAP S/4HANA because we feel it will make us faster, more nimble, and put us in a position to compete with anyone. We want to set the benchmark of what virtual banking should look like."

– Head of Financial Architecture, Global Banking Company

**Figure 3: Business drivers for ERP strategies by respondent group**

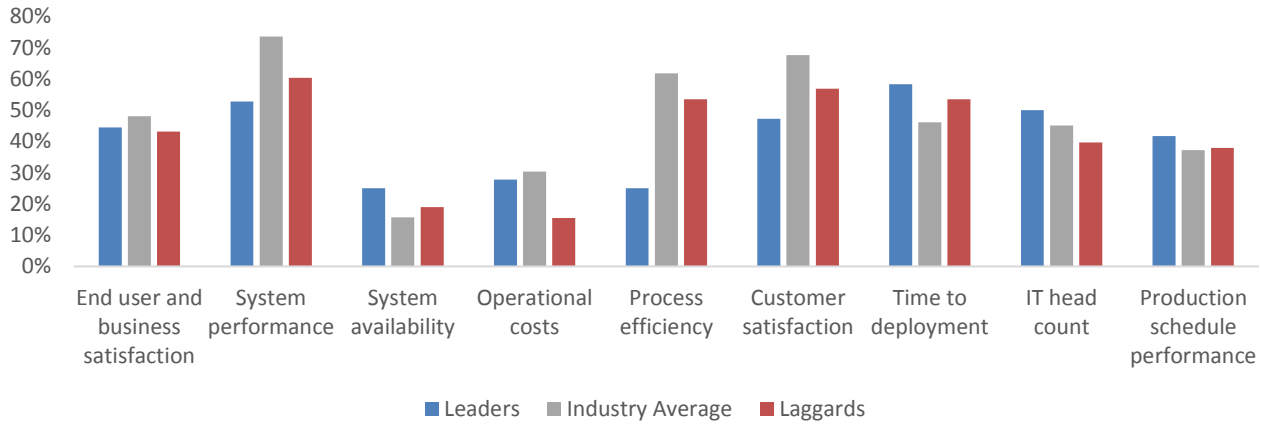



Source: SAPinsider, April 2019

The top driver for the industry average group — chosen by 47% in this group — was business process efficiency, which was the second-most-cited driver overall. This finding is consistent for the industry average respondents, who gravitated toward technologies and strategies that support process efficiency throughout the survey. Process efficiency was the second-most-important driver for leaders, and laggards were split evenly between process efficiency and digital transformation (36% each) as their second-most-important driver.

When asked how they measure the success of their ERP strategy, end user and business satisfaction was most frequently cited as the bellwether of success, with 66% overall selecting this option (see **Figure 4**). Leaders focused on overall business efficiency and cost reduction as measures of success, with 58% identifying operational costs and 50% citing process efficiency. Industry average respondents pointed to end user and business satisfaction as the top measure (74%), with system performance (68%) and system availability (62%) rounding out their top three. Laggards were similarly IT-focused, with end user and business satisfaction as the top measure (60%), system performance (57%), and system availability (53%) the top measures of success for this group.

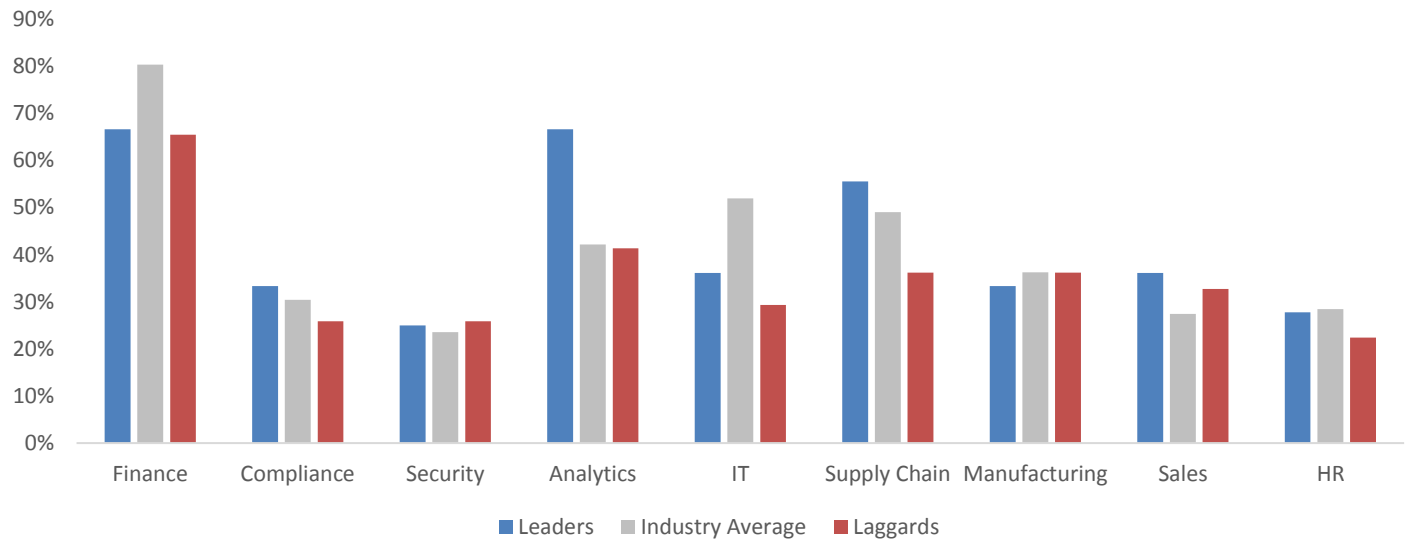
**Figure 4: Metrics used to measure the success of ERP strategies**




Source: SAPinsider, April 2019

Another determining factor for ERP strategies is which areas of the business benefit from an ERP implementation. Some common themes emerged in the responses to this question (see **Figure 5**). Finance led the way, with 74% overall citing this area as the chief beneficiary, followed by analytics (46%), supply chain (46%), and IT (43%). Leaders were more likely to report benefits to analytics, with 67% citing the greatest rewards in this area. Leaders were also more likely to see significant benefits in other lines of business, such as supply chain, with 56% of leaders reporting benefits in this area.

**Figure 5: Areas of the business that significantly benefit from ERP**




Source: SAPinsider, April 2019

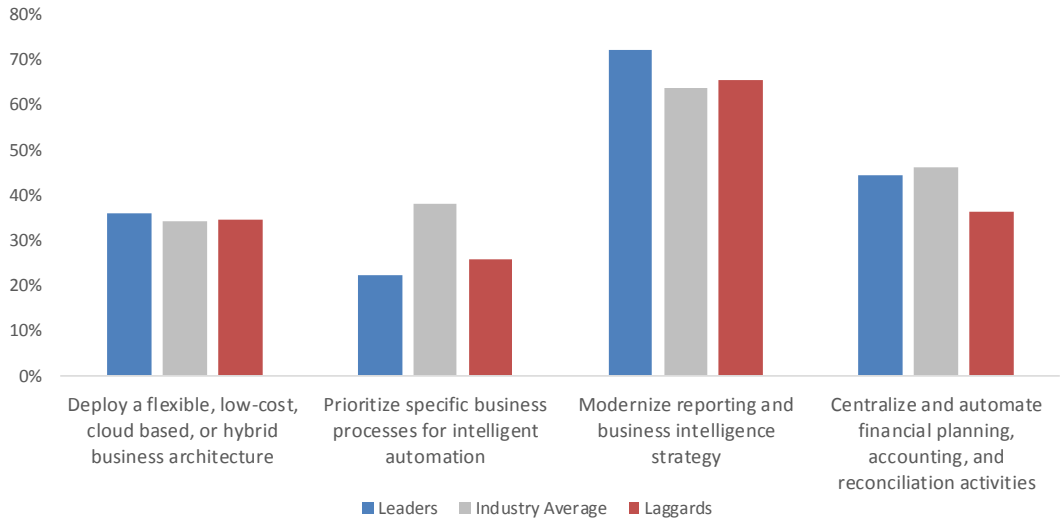
## How Are Leaders Planning to Use SAP S/4HANA?

Leaders are prioritizing analytics modernization more than laggards and industry average respondents (see **Figure 6**): 72% of leaders — versus 64% of industry average and 66% of laggards — indicate that modernizing reporting and analytics is their top strategy and number one business driver. Many leaders are looking to SAP S/4HANA to help them make sense of data and quickly deliver insights to the business. Embedded analytics and the performance capabilities of SAP S/4HANA are key components to this strategy.

"We're a good fit for analytics and predictive analytics. We have a 40-50-year history of data marking everything that has happened here. We should be able to get some good value here. We want to see what worked, what didn't work, and the impact in real time of changes in our factories and operations."

– IT Director, Large Food Processing Company

**Figure 6: Top strategies prioritized to address the top drivers of change**




Source: SAPinsider, April 2019

Leaders are also using SAP S/4HANA for finance and accounting transformation. Leaders reported that they are using the SAP S/4HANA project as an opportunity to correct the poor configuration and setup of their previous systems. They are also seeking to centralize and more tightly integrate disparate finance and accounting centers so that their company is better ready to support organizational change.

The ability of leaders to link ERP to business benefits has enabled them to garner continued support from the business when it comes to ongoing ERP investment. Conversely, laggards' historical focus on technical upgrades and measures for ERP has limited their ability to maximize business value from their ERP investment and see consistent support and engagement from the business on ERP strategy.

"Finance played a large role In our business case. Our finance structure wasn't correctly set up in SAP ECC. It caused us problems when it came to reporting. We saw this project as an opportunity to improve our business and purge our legacy system from an extreme amount of customization."

– Technical Solutions Architect, Large Oil and Gas Company

## How Are Industry Average Respondents and Laggards Planning to Move Forward?

According to our research, over the next year, members of the industry standard group will start to bridge the gap between their current focus on core technologies and investing in SAP S/4HANA. Currently, their large technology investments settle on traditional ERP on premise (72%), centralized finance and accounting (46%), and virtualization (42%).

Next year, nearly a third of this group will start dipping their toes into the in-memory waters, with 28% of industry average respondents indicating that they will be using some sort of in-memory database, such as SAP HANA, within the year. In addition, 28% will deploy advanced and embedded analytics solutions within the next 12 months, and 26% say they will start using a more modern conversational user interface within the next year.

Laggards will continue to stabilize on their current core technology and finance and accounting systems before making a gradual move to in-memory technology. Over three quarters (76%) of laggards are running their SAP systems on premise, over half (53%) have invested in enterprise systems management technology such as SAP Solution Manager, and half (50%) are running a centralized finance and accounting solution.

While most laggards in our survey indicate that they won't make significant investments in new technology over the next 12 months, that picture changes dramatically over a 24-month period. For example, less than 2% of laggards will run high-end hardware that supports in-memory technology next year — that number jumps to almost 40% of laggards in a 24-month window.

Similarly, investment in in-memory databases such as SAP HANA leaps from 5% of laggards within a year to 28% over two years. Similarly, plans for advanced analytics go from 16% to 33% and plans for a conversational user interface almost double from 15% to 29%. This is a good indication that close to a third of laggards intend to accelerate their adoption of SAP HANA technologies over a two-year time frame.

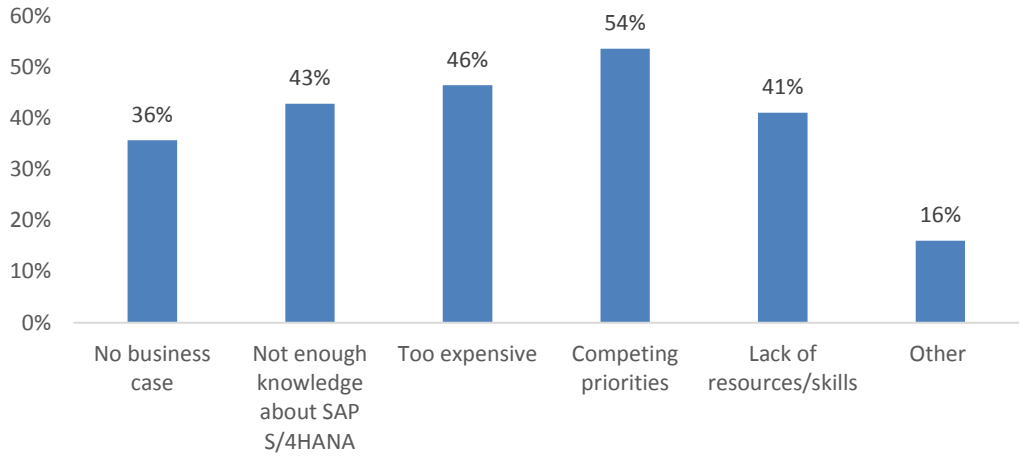
## What Is Holding Back Laggards?

Expense and competing priorities represent the two biggest reasons laggards are delaying their plans to move to SAP S/4HANA (see **Figure 7**). As we looked further into the data, we found that laggards are currently focusing on stabilizing core ERP technology and maintaining various projects that support a wide range of lines of business.

"We have been using SAP since 1998. Most upgrades have been technical. However, we have taken advantage of SAP Fiori, Personas, Employee Self-Service, and Manager Self-Service capabilities to bring efficiencies into processes. We are trying to stay current and prepare for the transition to SAP S/4HANA."

– Director of IT Projects, Large Healthcare Company

**Figure 7: Reasons for SAP S/4HANA adoption hesitation**




Source: SAPinsider, April 2019

Lack of resources and knowledge are other major obstacles for laggards. Since SAP S/4HANA is not a current priority, most laggards are spending little time getting up to speed on its value and the potential impact it could have. Many laggards are also feeling strapped for resources and can't find the time to take an in-depth look at the solution. As a result, many respondents in this group plan to put off this project and use the 2025 deadline as a motivator to get started when the time comes.

## Key Takeaways

Based on our research, when it comes to where customers are on their SAP S/4HANA journey, the following takeways are clear:

- **If you have not yet started planning for SAP S/4HANA, you are behind the curve.** This means that you will have less time to get up to speed than those already moving, and you will face more intense competition for required skillsets and resources. A majority of SAPinsiders are already on the move, with 71% of survey respondents either already up and running or in evaluation mode.
- **Linking your ERP project to digital transformation will help secure attention and support for adopting SAP S/4HANA.** Of our survey respondents, 56% of leaders cited digital transformation as the top driver for their ERP strategy, while laggards and industry average respondents reported the 2025 deadline as their top driver. By focusing

"We tend to have more of a history of technical upgrades and not fully taking advantage of the business capabilities that the new release provides. The business hasn't really had to participate in any upgrades, so they think the SAP system is doing just fine. I'm concerned about our ability to absorb all of this change at once and convince the business that there's a reason to do a significant change."

– Project Director, Large Biopharmaceutical Organization

on business strategy and executive priorities, leaders were able to justify making the move ahead of the pack.

- **Look at building your business case and ERP strategy around finance.** Finance was cited by 74% of respondents as the top beneficiary of their ERP software. Leaders are taking advantage of their SAP S/4HANA implementation to reset their financial strategies and correct poor configuration and inefficiencies. They are also using Central Finance deployments to provider tighter integration between disparate business units and streamline closing and reporting processes.

- **Understand how SAP S/4HANA will affect your analytics strategy.** Reporting and analytics modernization was cited as the most important business strategy for 65% of respondents overall, with 72% of leaders identifying this as a top strategy. Early adopters of SAP S/4HANA are reporting significant benefits related to reporting performance and access to embedded analytics.

- **Expand your perspective on SAP S/4HANA — it is more than just a technical upgrade.** This view will help you circumvent the key obstraces to getting started. Of those with no current plans to move to SAP S/4HANA, 52% cited expense and 47% mentioned competing priorties as the most significant roadblocks. Leaders in our study were able to move the conversation beyond these challenges by linking the move to transformation and business process efficiency.

# Chapter Two: How Are Customers Approaching the Move to SAP S/4HANA?

Making the move to SAP S/4HANA involves a range of technical and strategic considerations. You must not only understand the high-level impact on business processes and feature functionality, but also how the new data model and table structures included with SAP S/4HANA will affect your data transformation and custom code migration activities. In addition, greenfield and cloud-based options for implementation bring with them new and important factors to consider.

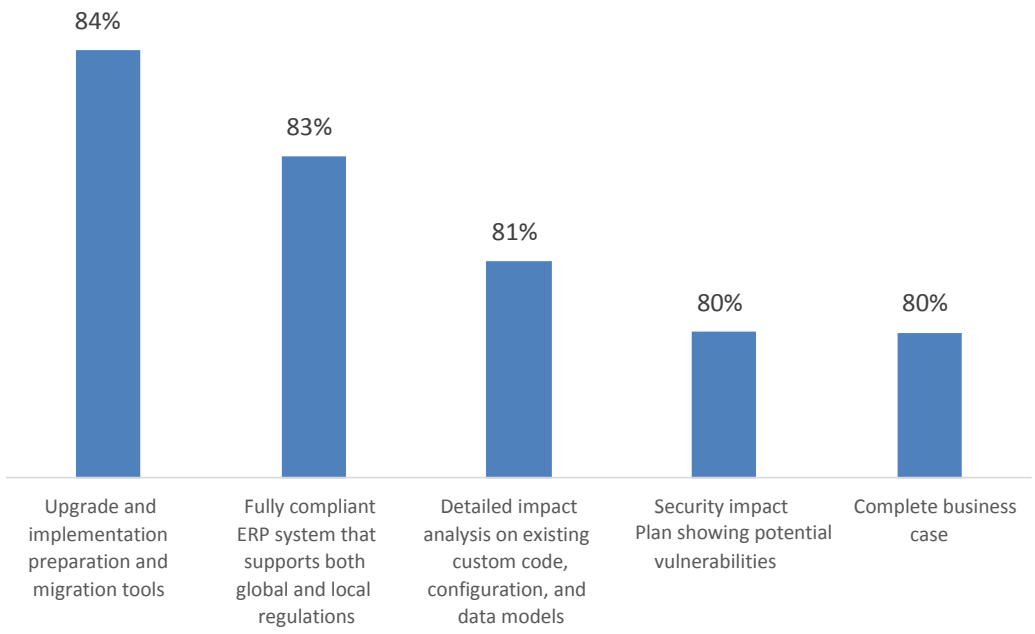
Here, we look at how survey respondents are approaching these considerations, including the top requirements identified for implementing SAP S/4HANA, how your source release affects your migration options, and the deployment approaches that SAP customers are pursuing.

## Top Requirements for Implementing SAP S/4HANA

Survey respondents identified a number of requirements for implementing SAP S/4HANA, with a few emerging as top priorities.

Due to the complex nature of moving to a new ERP solution such as SAP S/4HANA, respondents chose access to upgrade preparation and migration tools as the most important requirement for implementations, with 84% overall saying this is an important or very important requirement for an ERP migration project (see **Figure 8**).

**Figure 8: Key capabilities required for SAP S/4HANA and ERP projects**




Source: SAPinsider, April 2019

With global regulations governing data protection and accounting standards increasing and changing at a rapid rate, organizations want a core business system that already supports most requirements. For this reason, 83% of respondents overall identified a globally and locally compliant ERP system as a key requirement, making this the second-most-important requirement.

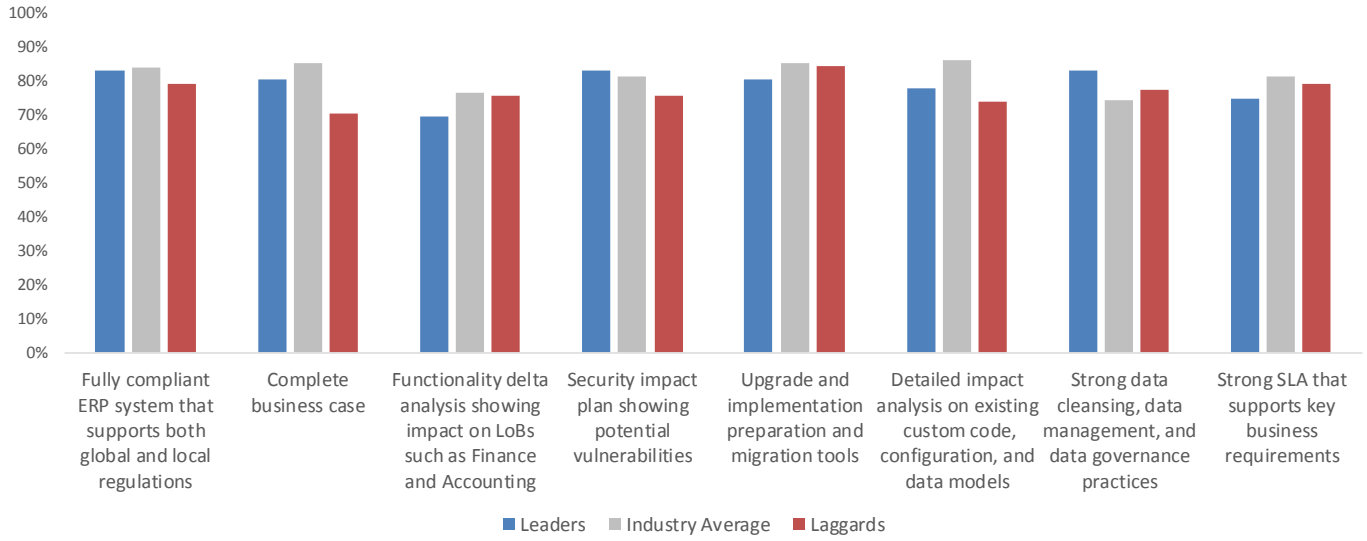
Understanding how custom code affects SAP S/4HANA migrations was the third-most-important requirement identified by respondents — 81% mentioned it as important or very important.

A closer look at the data by respondent group revealed a few notable differences among the groups (see **Figure 9**). Leaders varied from the rest of the pack by placing a very high priority on data management and data cleansing, with 83% of leaders rating strong data cleansing, management, and governance practices as an important or very important requirement. Leaders warned that the new table structures included in SAP S/4HANA could have a significant impact on data transformation and migration processes in particular, and that understanding this is key for the implementation.

"We have over 600 custom programs that must be migrated. Your ability to do enhancements to all of this is limited and you definitely don't want to take all of this customization forward to the next release."

– Director of Technical Enablement, Large Utility

**Figure 9: Key capabilities required for SAP S/4HANA and ERP projects prioritized by respondent group**




Source: SAPinsider, April 2019

The industry average group is focused on the evaluation and analysis of business functionality and custom code. Of the respondents in this group, 86% rated the impact of custom code as important or very important, and 85% indicated that upgrade and implementation tools and building a business case were important or very important.

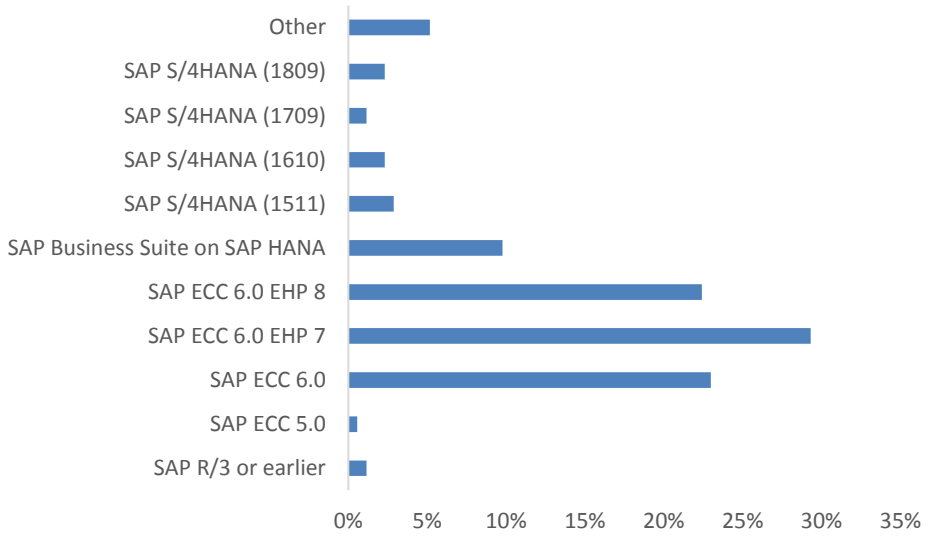
Laggards also prioritized implementation and migration tools: 84% of those in this group rated tools as important or very important. Service level agreements (SLAs) were a priority for laggards as well, with a strong SLA of high importance to 79% of these respondents. As laggards diversify their vendor base, start to explore the cloud, and offload some core IT management processes, SLAs have become critical to maintaining customer satisfaction and service levels.

## How the Source Release Affects Migration

Depending on how you plan to move to SAP S/4HANA, your source release may affect your project scope and prerequisites. If you are planning on a traditional system conversion, SAP recommends that you start from at least the SAP ECC 6.0 release. The more you have kept up to date with enhancement packages, the shorter the deltas in functionality and the easier the migration will be. SAP Business Suite on SAP HANA customers will have the shortest path to SAP S/4HANA, since the work related to the database, custom code, and operating system migrations will be minimized.

The majority (75%) of survey respondents are currently running a release of SAP ECC: 51% are on SAP ECC 6.0, enhancement package 7 or 8; 10% have implemented SAP Business Suite on SAP HANA and gained some experience with in-memory technology; and only 1% are on an older, unsupported release (see **Figure 10**).

**Figure 10: Customers' current source release**



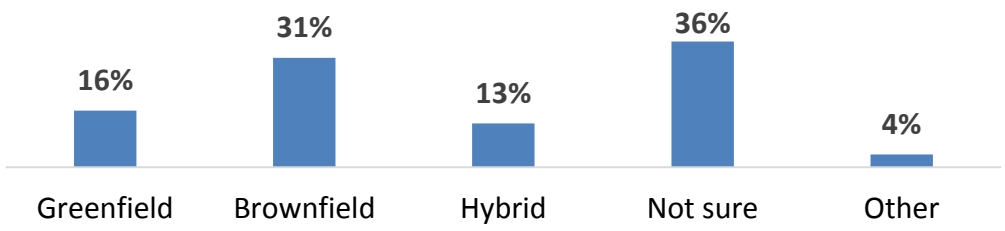

Source: SAPinsider, April 2019

Customers report that, as with any migration, you must carefully consider the interdependencies between components and how the move to SAP S/4HANA will affect not only the applications and components you currently use, but also those you plan to use in the future. In particular, survey respondents advise that you make sure to understand the effects of SAP Fiori.

## Leaders Are Choosing a Greenfield Implementation Approach

When it comes to the implementation approach customers are considering for SAP S/4HANA, the data revealed the 31% of companies overall are planning a "lift and shift" — or brownfield — approach (see **Figure 11**). Those planning a pure brownfield approach or system conversion tended to be the most resistant to change. These companies want to preserve their existing investment and the customization of their business processes and are looking for the easiest, least disruptive path forward.

### Figure 11: SAP S/4HANA implementation approaches




Source: SAPinsider, April 2019

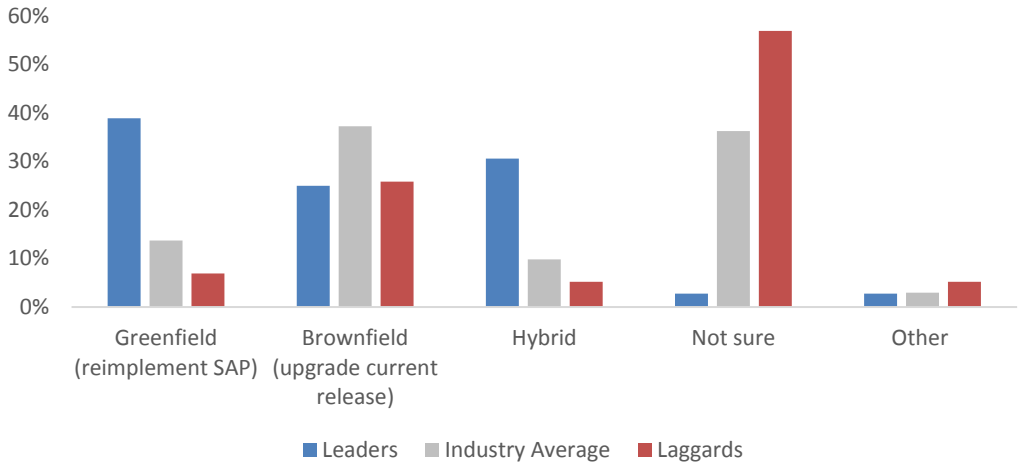
"Brownfield is our preferred option because we want to bring our business processes to the new platform and adopt new innovations at our own speed," says an IT program manager at a large chemicals company. "This way, configurations, data, and enhancements developed during a long period will not be (completely) lost."

While 16% of overall respondents are choosing a greenfield approach, the picture changes significantly when we break down the data via respondent group (see **Figure 12**). Leaders are opting for reimplementation — or a greenfield approach — at a much higher rate, with 39% reporting that they have used this approach for their SAP S/4HANA project to reimplement and standardize their systems. Another 31% of leaders reported that they will follow a hybrid approach and use reimplementation for some portion of their project. This means that 70% of leaders are using greenfield in some way for their SAP S/4HANA implementation.

"Our data models are inconsistent, and our legacy applications are either unsupported or not well documented. We had to make this decision because we wanted to completely digitize our business."

– IT Manager, Large Biotech and Pharmaceuticals Company

### Figure 12: SAP S/4HANA implementation approaches by respondent group



Source: SAPinsider, April 2019

Over a third (36%) of respondents overall are still uncertain about whether they will choose a greenfield or brownfield approach, and have yet to conduct a thorough enough evaluation to understand the right course for their company.

### *Why Leaders Are Going Greenfield*

The data from our research and interviews shows that leaders are choosing a greenfield approach for their SAP S/4HANA implemenation projects to:

- **Correct the mistakes of the past.** Many customers we interviewed spoke of poor configuration and older technology that no longer supports the current business direction. These companies see greenfield as a quicker and lower-cost way to build for the future.
- **Limit customization going forward.** Many of our survey respondents are beginning to tire of the maintenance headaches and resources required to support customization. They are looking at greenfield as an opportunity to embrace industry standards.
- **Reinvent and reengineer processes and technology.** Customers are looking at greenfield as a fresh start — an opportunity to rethink and improve processes and technology. "There are many configuration choices that were made during our initial implementation that are not optimal for our business today," says a senior business analyst at a large healthcare organization.
- **Consolidate the landscape.** Several customers we spoke to are consolidating instances as part of their move to SAP S/4HANA. They believe that building a new unified platform from scratch is an easier way to approach this project. "We needed to harmonize multiple regional processes into one global template, and this was the best path," said a director of enterprise systems at a large biotech and pharmaceuticals company.

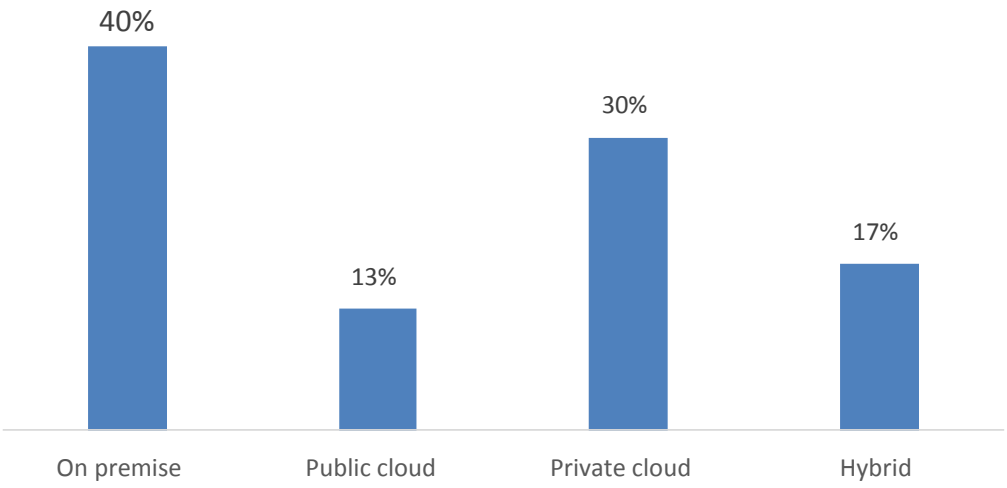
"We have 20 years of customization and redevelopment of an existing SAP ERP system that we would have to reconcile if we didn't take a different approach."

IT Manager, International Retail Organization

## A Majority Are Embracing Cloud Deployments

As far as the infrastructure customers are choosing to support their SAP S/4HANA implementations, a majority (60%) of our survey respondents are choosing a cloud deployment, using either a public, private, or hybrid model (see **Figure 13**). Executives at these organizations are pushing to migrate processes and technologies to the cloud to lower costs, simplify the IT organization, and provide the most current technology at a faster pace.

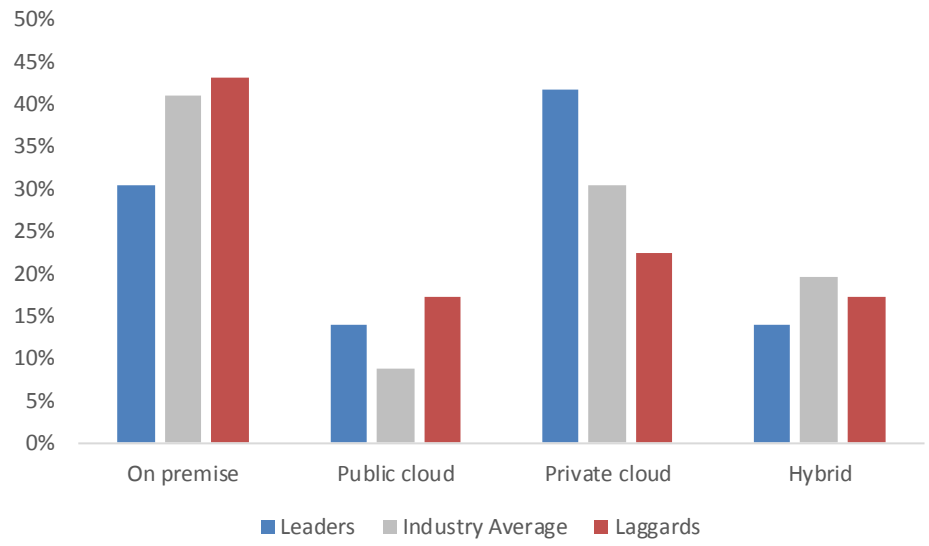
**Figure 13: Cloud deployment models overall**




Source: SAPinsider, April 2019

Leaders are choosing cloud deployments at a high rate: 69% are using the cloud to support their SAP S/4HANA initiative, with 42% selecting a private cloud model (see **Figure 14**). These organizations report that this approach allows them to retain control of the application layer, so they can still customize their ERP system as needed and ensure its security.

**Figure 14: Cloud deployment models by leader, industry average, and laggard**




Source: SAPinsider, April 2019

When we dug deeper into the different groups' responses on their plans for public cloud, we found an interesting change between their current plans and their plans over the next two years: 20% of overall respondents expect to be running a public cloud instance within that time frame, and 26% of those in the industry average group are planning for a public cloud deployment within 24 months.

"Over time, the economies of scale of public cloud will create a cost advantage that you cannot duplicate with on premise," said a director of enterprise systems with a major auto supplier. "This is one of our biggest challenges. How do you make sure that when the economics work, you're ready to go there?"

## *Lessons and Insights for Moving to the Cloud*

Our survey data and conversations with customers point to the following lessons and insights for deploying SAP S/4HANA in the cloud:

- **Rethink your customization strategy.** Part of the benefit of cloud deployments — particularly public cloud — is that the maintenance and updates for the system are offloaded to the provider. This approach requires organizations to embrace industry standards, which can be a significant change management exercise.

"We decided to go with private cloud because it offered significant savings when it came to the cost of maintenance, after we compared it side by side with an on-premise approach. We're going with SAP HANA Enterprise Cloud because SAP will provide seamless management of our system up through the OS level. We don't have to worry about upgrades and patching and we can have the latest release."

– IT Director, Large Transportation Company

- **Understand the impact of regulatory or compliance requirements.** Based on your industry and in which countries you do business, there may be regulations that govern where and how you store your data and who has access to your systems. You will need to investigate these factors thoroughly.
- **Learn how updates will work and the nuances of your SLAs.** You need to know when and how updates to your application or infrastructure environment will be carried out. There may be testing scenarios and effects for which you have to be prepared.
- **Invest in cloud platform training and experts.** Many of these cloud applications and platforms have a host of embedded services that you can use to extend and build cloud-based applications.
- **You may have to rethink and update your integration strategy.** Customers we interviewed described cases in which their current integration and middleware solutions and strategies no longer supported efficient integration to the cloud, requiring them to explore other solutions, such as SAP Cloud Platform.

"We will look at the cloud, but we are in a strongly regulated industry, so we'll have to go through some approvals, especially on the data side."

– IT Delivery Manager, Large Energy Company

## Key Takeaways

Our findings reveal the following key takeaways when it comes to how to approach an SAP S/4HANA migration:

- **Leverage tools to help you assess the impact of the SAP S/4HANA migration.** There are several areas of your implementation that require thorough analysis — 84% of our survey respondents are using migration tools to help them assess custom code, security, and deltas in the functionality.
- **Consider a greenfield implementation of SAP S/4HANA.** This approach is especially compelling if you have a large amount of little-used custom code, outdated technology, or plans for a significant consolidation project. While only 16% of overall respondents are planning a greenfield implementation, 39% of leaders chose this option for their already-completed projects to simplify deployment and migration activities.
- **Evaluate public and private cloud deployment options.** More customers are gaining experience with the cloud and choosing a cloud-based deployment for SAP S/4HANA to lower costs and simplify overall support and infrastructure requirements. A cloud-based approach also provides companies with faster time to deployment and access to innovation. Of our overall survey respondents, 60% are planning to

deploy SAP S/4HANA on the cloud, with 42% of leaders choosing to deploy on a private cloud of some sort.

- **Understand how your source release will affect your migration path.** The 10% of customers who have already upgraded to SAP Business Suite on SAP HANA will have the shortest and easiest path to SAP S/4HANA, while those on earlier, pre-SAP ECC 6.0 will have more steps ahead of them. You will also need to understand the interdependencies between different components, such as SAP Enterprise Portal and SAP Fiori, to ensure you have the necessary prerequisites in place.

# Chapter Three:
# What Outcomes Are Customers Reporting?

Our research and conversations with leaders revealed a number of lessons learned when it comes to preparing for an SAP S/4HANA implementation. These insights include what to expect post-implementation, the critical factors that can affect the length of your project, the areas in which leaders are reporting the most significant benefits, and how SAP S/4HANA is supporting leaders' continued technology investments.

"We had one settlement procedure that used to take eight hours to run, and now we do it in less than an hour. It's so fast that our users thought something was wrong."

– IT Director, Large Food and Beverage Company

## What to Expect Post-Implementation

Customers who have completed the SAP S/4HANA implementation shared the following results:

- **SAP S/4HANA meets a majority of customer expectations.** Of the survey respondents who had completed their SAP S/4HANA project, 85% said that the solution met or exceeded their expectations. Following a common theme in our findings, the increased performance of applications and analytics is one of the major benefits.

- **The SAP S/4HANA project enabled companies to rethink and improve business processes.** In addition to enhanced performance, survey respondents cited the project as a catalyst for rethinking their existing business processes and improving their overall architecture. "I don't think one specific business area felt that SAP S/4HANA was substantially better than SAP ECC," reported an IT architect at a large oil and gas organization. "It was the newly defined business processes that we created as part of the project that provided the true advantages and benefits."

- **The SAP S/4HANA project is taking leaders months, not years, to complete.** The move to SAP S/4HANA will take some time from planning through execution and testing, but unlike previous solution implementations and major upgrades, many reported that the move took months, not years, with most completing the move in less than a year: 69% reported that it took them 7-12 months, and 23% were done in six months or less. Only 8% of those who completed the project said it took them more than a year.

## Factors That Affect the Length of the Project

Customers reported several common factors as having a significant effect on the duration of the project:

- **Amount of custom code targeted for migration:** Companies that adopted more standardized functionality — or after analysis are opting to leave behind many custom programs — are able to reduce their conversion workloads.
- **Size and scope of the project:** Leaders are able to get pilots and smaller implementations up and running faster than those targeting major consolidations of instances. These larger types of projects require more planning, testing, and architectural redesign.
- **Status and knowledge of data:** Data transformation and harmonization with the new table structures are tasks that must not be taken lightly. Data objects that comprise a data structure — such as "customer" — in SAP ECC might be under a new object in SAP S/4HANA with a hierarchy of sub-definitions below it. This can have implications for any transformation initiative.
- **In-house skillsets and training:** A number of educational requirements are tied to an SAP S/4HANA migration. The more you understand about how the SAP HANA database and the new table structures work, the impact of key deltas in functionality, and how the new SAP Fiori user interface is enabled, the easier it will be to prepare for and execute the migration. If you decide on a cloud deployment, you will need to add cloud management, integration, and development skills to the mix.

"You really have to understand your data conversions and what is and is not possible with SAP S/4HANA. The effort that it took to migrate our data was huge and not done well. It took us a month to balance this and make up for some of our mistakes."

– Deputy General Manager, Major Technology Company

## Business Areas Seeing the Biggest Benefits

Our research shows that SAP S/4HANA is creating significant value for the finance and accounting organizations within the companies we surveyed. Customers report that they are using the solution to:

- **Centralize and simplify their finance and accounting architecture.** For many companies, this means being prepared for organizational change as a result of mergers, acquisitions, and divestitures. "Central Finance is one of the key things driving our look at SAP S/4HANA," commented a director of technical enablement at a large utility. "We may be doing a lot of M&A activity and we need to be able to integrate organizations and their finance teams quickly. We can't be reliant on manual processes."

- **Correct suboptimal configurations.** Customers are reexamining how they have set up and organized their financial systems and are leveraging the changes within SAP S/4HANA to streamline their processes and infrastructure. "Our financial folks are looking to SAP S/4HANA and Central Finance to reconcile the sins of the past, where our company codes were not set up in the right way and it takes us more time than needed to close our books," reports a data management manager at a large technology company.

- **Speed processes.** The speed of SAP S/4HANA alone has had a significant impact on financial and accounting processes. Companies are reinvesting in areas and applications that they had written off. They are also able to generate insights and close their books much faster.

Building on these themes, we gleaned the following three takeaways when it comes to using SAP S/4HANA for finance and accounting:

- **Understand how SAP S/4HANA affects your current tables and data.** Many of the tables that you are used to seeing in the SAP ECC finance component no longer exist in SAP S/4HANA and are instead mapped to a central universal data table known as the Universal Journal (table ACDOCA). Other tables are replaced by SAP HANA views. You need to understand what is migrated where so you know the data flows and any effects on reporting and update capabilities.

- **Become familiar with the Universal Journal and the Central Finance deployment option.** The Universal Journal enables you to integrate your financial system more easily with other disparate finance and accounting systems, and the Central Finance (CFIN) deployment option allows you to take a more gradual approach to implementing SAP S/4HANA.

- **Prepare for important timing considerations and prerequisites.** As with upgrades of previous ERP solutions, you will want to perform the migration to SAP S/4HANA at the end of the month, after the books are closed. You will also need to activate specific components within SAP S/4HANA, such as the Universal Journal and Material Ledger.

"We are now flying through our financial reporting processes and other areas. We used to allocate four days for financial reporting and now we are doing it in just over two days. There were areas of our finance and accounting systems that were so slow, such as CO-PA — now our CO-PA reports are 120 times faster. There are parts of the system we stopped using because of performance that we are now looking at again."

– Lead Infrastructure Manager, Large Chemicals Company

## Leaders Are Building on Their SAP S/4HANA Investment

According to our research, leaders view analytics as a strategic imperative, which is a key driver of SAP S/4HANA adoption in this group. This prioritization of analytics elevates the importance of data management and data cleansing for this group, which differs drastically from laggards: leaders are 47% more likely than laggards to be running a master data management solution.

We also found that the analytics and data-driven environment of SAP S/4HANA is serving as a foundation for leaders to continue building on their investment, with leaders significantly outpacing laggards in several key areas. A quarter (25%) of leaders are taking the next step and have started implementing cognitive solutions such as artificial intelligence and machine learning versus 12% of laggards that continue to run their existing ERP solution. Half (50%) of leaders are using conversational user interface technology such as SAP Fiori compared to only 19% of laggards.

According to our research, over the next year, leaders will continue to expand their focus on analytics: 42% say they plan to use more advanced, embedded, and predictive analytics capabilities within the next 12 months. This is the only technology investment our survey data shows as increasing in leader adoption rate year over year — it jumps from 11% of leaders using these solutions today to 31% of leaders planning to use these solutions over the next 12 months.

"We had a directive to migrate our data centers, and that's been driving a lot of our conversation and activity. We have a two-year plan to get out of our current data center. It's such a big move, and we saw an opportunity to make SAP S/4HANA and cloud part of this conversation. In the end, this move helped to justify our upgrade."

– IT Director, Major Transportation Company

## Key Takeaways

Based on the outcomes customers are reporting, the following takeaways will help you ensure a successful SAP S/4HANA project:

- **Use the SAP S/4HANA project to rethink your approach to customization as well as your overall business processes.** Of our survey respondents, 31% of leaders cited custom code as the top challenge and as having a significant impact on project length and complexity. Many leaders are trying to minimize the burden of custom code by customizing less of their new system. Others are rethinking or reengineering their business processes altogether.

- **Understand where performance can drive the largest business benefits.** Performance was one of the biggest benefits cited by leaders, with many reporting significant increases in speed and response times when it came to generating report results and streamlining processes in general.

- **Secure skills and training in critical areas.** Leaders report that there are several skills that are important not only for the migration project, but also for the ongoing maintenance and health of the organization's ERP strategy. These critical skills include understanding the new table structures within SAP S/4HANA, SAP Fiori, the Universal Journal, core data services, embedded analytics, and cloud integration.

- **Prioritize data cleanliness and data transformation in your overall project preparation and maintenance activities.** The new table structures within SAP S/4HANA have posed challenges for leaders

during data migration and transformation activities, and leaders cited this as the second largest challenge of the project next to custom code migration. For this reason, along with the importance of clean data in analysis and reporting, 83% of leaders in our study have made data management a priority.

# Chapter Four: Required Actions

To help ensure a successful move to SAP S/4HANA with minimal challenges, companies need to start the process now, and critical to this process is performing a proper impact assessment and making the appropriate preparations. The following actions will help leaders, the industry average group, and laggards navigate the SAP S/4HANA journey and get the most out of their investment.

## Leader Steps to Success

Our research revealed that leaders should follow several key steps to ensure a successful SAP S/4HANA project:

- **Expand your in-house skillsets.** Implementing SAP S/4HANA is just the first step — there are many technologies and interfaces that you will need to continue to master. Leaders should continue to invest in integration, analytic, and cognitive technologies, and update their knowledge in the areas of core data services, the cloud, and SAP Fiori.
- **Continue to purge customization wherever possible.** Many leaders have already taken steps toward standardization, but some continue to support customization. While that makes sense for core differentiating processes, move toward standards for commoditized processes.
- **Get up to speed on how SAP S/4HANA affects areas beyond finance and analytics.** For most companies, finance and analytics are natural starting points for moving to SAP S/4HANA. Going forward, explore functionality and performance implications for other areas of the business — particularly in the areas of planning, supply chain, marketing, and sales.
- **Explore the ecosystem of supporting technologies and stay up to date on patches and updates.** Once your company is up and running with SAP S/4HANA, pressure to customize, extend, and integrate your application environment will intensify. As innovations from SAP and partners continue to rapidly evolve, you need to keep up with these changes and how they will affect your environment.
- **Delve into embedded analytics options.** One of the benefits of SAP S/4HANA is that it merges analytical and operational capabilities into one system. Embedded analytics may not meet all your needs, but you

need to understand the extent to which it can reduce your reliance on separate, and more latent, business intelligence systems.

## Industry Average Steps to Success

Based on what we've learned from leaders, the following guidelines can help those in the industry average group take their SAP S/4HANA plans to the next level:

- **Ensure that you have strong master data management services in place.** Leaders make this a priority for a reason. Before you take the plunge with SAP S/4HANA, make sure that you have consistent data cleansing and data management practices in place so that you can optimize the return on your investment.
- **Start to pilot technical use cases of SAP Fiori, core data services, data transformation, and SAP Cloud Platform.** Leaders report that understanding these supporting technologies is critical to a successful SAP S/4HANA project. There are technical nuances involved in making your user interfaces work, transforming your existing data structures, and migrating and maintaining your custom code. SAP Cloud Platform skills are essential for those exploring a cloud deployment, particularly when it comes to the development, extension, and integration of existing and new applications.
- **Explore where speed and performance can drive the largest benefits to the business.** Most leaders saw significant performance improvements in the areas of analytics and process optimization. Understand your key pain points around response times and performance so that you can target initial pilots.
- **Build a solid hybrid middleware strategy.** Leaders report that, particularly in the cloud, current integration technologies and strategies may require redesign for efficiency and maintenance. Many are exploring SAP Cloud Platform and other modern integration platforms that can support hybrid cloud deployments.
- **Seriously consider cloud and greenfield options where it makes sense.** Many leaders are reducing their legacy of customization, simplifying their support requirements, and facilitating consolidation activities by embracing cloud and greenfield deployment approaches. Keep in mind that these types of deployments have implications for change management and flexibility and skillset requirements you need to consider.

## Laggard Steps to Success

Laggards can set themselves on a path toward success by following the example of those who have already moved forward:

- **Focus your business case on analytics or finance, and don't try to impact every business area right away.** Leaders have been able to reap a host of rewards within finance and analytics, so consider following their lead as a starting point.
- **Work with the business to start evaluating potential SAP S/4HANA benefits.** Laggards in our study tend to focus on technical upgrades — to drive SAP S/4HANA evaluation and action forward, they need to reconnect with the business. In most cases, a technical upgrade scope will not build the business case necessary to justify an SAP S/4HANA project. Survey respondents used a variety of techniques to bind technical and business teams more closely together, including attending events together, bringing in speakers and third-party consultants, building evaluation and innovation committees, and holding lunch and learns.
- **Familiarize yourself with early adopter industry use cases.** With a growing number of early adopters telling their stories, find the case studies that reflect your industry and demographic and learn from their experiences. Both SAP and SAPinsider make these stories publicly available through their websites and events.
- **Leverage tools and resources to start evaluating your existing customized code, configurations, and any out-of-date technologies.** An SAP S/4HANA project presents an opportunity to hit reset, correct mistakes, and eliminate out-of-date technologies. Start using some of the free analysis tools and services available from SAP and partners to generate initial assessments of how this implementation will affect your environment.
- **Leverage the cloud and trial versions of SAP S/4HANA to get some early experience with little investment.** Trial editions of SAP S/4HANA can be deployed via SAP and third-party cloud platforms. These are low-cost ways to test out the solution and start to familiarize yourself with the environment, the interface, and its potential impact.

## Key Takeaways

Going forward, leaders, industry average organizations, and laggards, should keep the following in mind:

- **Leaders need to leverage their early implementation experience.** Using the early lessons and benefits gained from implementing SAP S/4HANA, leaders can streamline their maintenance activities and work toward delivering value to other areas of the business. As your technical and business teams become more proficient and comfortable with the various elements of SAP S/4HANA — such as SAP Fiori, the Universal Journal, and embedded analytics — you need to share this knowledge across the organization.
- **Industry average organizations need to focus on analysis and evaluation activities in three key areas.** These areas include: the business impact on existing functionality and strategy; the technical impact on custom code, configuration, and security; and the available deployment options, including cloud and greenfield scenarios.
- **Laggards need to start the journey, even if only in small ways.** Start gathering information on SAP S/4HANA and how customers within your industry are approaching assessment and migration. Build some basic knowledge on how the move to SAP S/4HANA can affect core finance and analytics processes and how speed and simplicity can bring value to your organization.

# Methodology

In February and March of 2019, SAPinsider examined the issues, intentions, and experiences of business and technology professionals related to their plans for SAP S/4HANA. Our survey generated over 400 responses and included 196 customer companies.

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

- Where they were with regard to evaluation and implementation of SAP S/4HANA
- The main business and technology drivers that influenced their plans for SAP S/4HANA
- How they planned to deploy SAP S/4HANA
- The reasons they are leaning toward cloud versus on-premise deployments
- The lessons and experiences of early adopters
- The business or functional areas driving their general ERP strategy and satisfaction
- The skillsets and technologies in which they are currently investing and why

SAPinsider supplemented the online survey responses with in-depth telephone and in-person conversations so that we could better understand the context and reasoning behind the responses, trends, and patterns within the survey data.

Demographic information on the respondents included the following:

- **Job title:** The job titles of the survey respondents included CXO (4%), VPs and Directors (16%), Managers (34%), Architects (13%), Analysts (18%), Developers and Administrators (9%), and Project Managers (6%).
- **Industry:** The survey respondents represented a range of industries, with manufacturing representing the highest percentage of respondents. The top industries represented were consumer goods (18%), industrial manufacturing (10%), healthcare (9%), government (8%), energy (7%), chemicals (6%), and biopharmaceutical (6%).

- **Company size:** A majority of responding companies were larger organizations, with 17% reporting revenue of over $10 billion, 33% stating revenue of $1-$10 billion, 12% indicating revenue between $500 million and $1 billion, 9% reporting revenue of $200-$500 million, and 11% stating revenue less than $200 million. The remaining 18% did not know the previous year's revenue.
- **Geography:** Of our survey respondents, 67% were from North America, 15% hailed from Europe, 9% were from the Asia-Pacific region, 4% came from Central and South America, 3% were from Africa and the Middle East, and 2% were from Australia.

# 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.

SAPinsider comprises the largest and fastest-growing SAP membership group worldwide. It provides SAP professionals with invaluable information, strategic guidance, and road-tested advice through events, magazine articles, blogs, podcasts, interactive Q&As, white papers, and webinars. SAPinsider is committed to delivering the latest and most useful content to help SAP users maximize their investment and leading the global discussion on optimizing technology.

For more information, visit SAPinsiderOnline.

© 2019 SAPinsider All Rights Reserved.