Introduction

An IDC survey of C-suite priorities from 2021 showed that the modernization of core business applications was the number 1 technology priority for executives. SAP ERP customers have endured a pandemic that has exposed inadequate financial and operation planning, disrupted supply chains, and pivoted sales from stores to online; at the same time they have faced end-of-service deadlines for the SAP ERP solutions from SAP alongside pressure to reduce ERP-related costs and datacenter dependencies.

This IDC White Paper explores how SAP ERP customers across Europe, Asia, and North America are tackling these challenges. It provides a comprehensive "state of the union" of the SAP ERP customer case based on a survey of 700 SAP ERP customers completed in January 2022. It also references a similar study of 700 SAP ERP customers from March 2020.

IDC concludes the following:

- Most SAP ERP customers are moving to S/4HANA at a steady pace and will continue to do so in the coming years toward the 2027 standard support deadline. The migration rate is likely to be steady as opposed to a big wave of concurrent migrations.
- Almost a third of SAP ERP customers remain skeptical and are either deferring migration decisions for the time being or actively looking for alternatives to SAP.
- Migrating SAP ERP to S/4HANA is hard to budget for and has significant uncertainties due to the high complexity and mission criticality of the SAP ERP systems. Migration knowledge from SAP and SAP system integrators is much needed.
- Building the migration business case is difficult for many organizations and ideally involves a range of stakeholders across the organization. IDC's ERP modernization value driver framework is a good starting point and offers a top-down view of the business case as well as breakdowns into specific subcomponents.
- RISE with SAP is currently being used by 10% of respondents and is likely to get more traction. Most respondents believe RISE with SAP fits their needs, but they are also concerned about the cost-effectiveness of the program.
- Many SAP ERP customers are taking a multistaged migration approach to bring down perceived risk and uncertainty and to get buy-in from top management. These middle steps include getting the licensing for S/4HANA in place first, upgrading SAP ERP, lifting-and-shifting it to a hyperscaler, optimizing the existing set-up, and then migrating to S/4HANA.
• Organizations with SAP ERP systems should consider IDC's decision framework (see Figure 9) to understand the choices, decision points, and journeys involved in moving to S/4HANA.

• External service providers will play an increasing role in the resource mix for SAP customers in the future. Customers are betting on external services to lower overall costs (poor utilization and high costs of attrition of internal SAP resources) and to increase the pace of innovation due to faster and more flexible access to scarce SAP resources.

SAP "State of the Union"

The Pandemic Stress Test

In 2020 and 2021, businesses were focused on their response to the pandemic, sustaining operations and managing their finances through a time of intense uncertainty. ERP systems were put through an unprecedented stress test that exacerbated known weaknesses and exposed new deficiencies that businesses would need to resolve before the next crisis or disruption. ERP weaknesses that have particularly hurt businesses during the pandemic are often related to delays in accessing businesswide insights, such as the organization’s cash position, employee status, and inventory levels. Extracting and consolidating this data has become a problem due to the greater frequency with which this has had to happen during times of crisis. On the bright side, cloud technologies have proved to be an effective approach to IT infrastructure and business solutions during the same period. Cloud technologies have been found to be reliable and accessible and meet the needs of organizations that had quickly moved to remote working.

FIGURE 1
Corporate ERP Fit to Current Business Needs

Q. To what degree does your main corporate ERP system meet your current business needs?
Source: IDC, SAP S/4HANA Survey, December 2021 (n = 700)

While most SAP ERP customers have identified deficiencies in their current ERP system, they are not panicking. Only 6% of survey respondents say their SAP ERP system is completely inadequate (see Figure 1). The majority SAP ERP users say their system needs improvement in some areas or in critical areas. In other words, they are getting by for now, but know they must resolve their ERP shortcomings.
Customers Migrating to S/4HANA and Cloud

Between March 2020 and December 2021, many businesses made the move to SAP S/4HANA, with the number of businesses migrating tripling to 30% of survey respondents (see Figure 2). The majority (70%) are still to migrate, however, and nearly half of those do not yet have plans to do so.

The number of organizations without plans to migrate has fallen from 35% to 31% of those surveyed, so while attitudes are shifting there is a group of organizations that remain hesitant. In this paper we will explain what it is that drives this hesitation and how these organizations can begin the move to their future ERP.

FIGURE 2
SAP S/4HANA Migration Status

A key decision for businesses moving to SAP S/4HANA is which deployment model to select. The deployment model has implications for all aspects of the future ERP, from the migration journey to the business case to the capabilities of the future ERP. The increasing attractiveness of cloud technology seen over the past 24 months comes through in the deployment models now being selected. The winner has been SaaS — S/4HANA Cloud — which has seen a swing from zero to 16% of respondents. S/4HANA Cloud is a way for organizations to get an “evergreen,” software-as-a-service ERP solution, which is updated at regular intervals and is extensible via APIs. However, S/4HANA Cloud does require a migration from SAP ERP and does not have the same extensive functional and industry footprint as SAP ERP.
The growth in the number of organizations planning to use S/4HANA Cloud comes from supporters of all the other cloud deployment options, such as SAP HANA Enterprise Cloud (SAP's managed, private cloud service for S/4HANA), private hosting, hyperscalers (i.e., Amazon Web Services, Microsoft Azure, and Google Cloud Platform), and hybrid cloud options. A significant proportion of the large share of SAP customers that were prepared to lift-and-shift SAP systems to the cloud are now prepared to make the leap to SaaS and thus a full migration to S/4HANA Cloud.

The share of SAP ERP customers planning to use SAP HANA Enterprise Cloud is down from 29% (March 2020) to 22% (December 2021). As SAP has decided to no longer actively sell HANA Enterprise Cloud and instead propose the SAP RISE program with the embedded cloud platform partnerships with hyperscalers, IDC believes that a significant share of the 22% that aimed for HANA Enterprise Cloud will instead deploy on a hyperscaler cloud platform.

Meanwhile, the number of businesses that will run SAP S/4HANA on premises is up from 2% to 6%. The turbulence of 2021 and 2022 has caused some organizations to make more decisive decisions on the cloud versus on-premises question.

FIGURE 3  
SAP S/4HANA Deployment Plans

Q. Which usage-location model does your organization use/plan to use for your SAP S/4HANA?
Source: IDC, SAP S/4HANA Survey, December 2021 (n = 700); IDC, SAP S/4HANA Survey, March 2020 (n = 700)
Deep Diving into the Status of SAP ERP Customers

Seven years after the launch of SAP S/4HANA (see Figure 5), SAP ERP customers find themselves with a wide range of migration scenarios. The majority (40%) are in the process of planning or executing their migration, with many in this group struggling with what they see as risks and uncertainties. Meanwhile, 31% of organizations have not yet decided to migrate to SAP S/4HANA. This is for many reasons, from sticking with SAP ERP, to not having worked out a definitive SAP modernization strategy, or even considering or choosing other ERP solutions. As described later in this paper, this lack of consensus is a key reason for organizations not having plans to move to SAP S/4HANA. Of the surveyed group of organizations, 16% have completed their migration at or below their cost estimate and 14% have made the migration at the higher end of or over the expected costs (see Figure 4).

FIGURE 4
Detailed View of SAP S/4HANA Status

Q. Multiple questions
Note: Figures present proportions of the total sample of respondents (%).
Source: IDC, SAP S/4HANA Survey, December 2021 (n = 700)

IDC’s survey findings align with disclosures made by SAP in January 2022, when it said that 18,000 of 50,000 SAP ERP customers have chosen SAP S/4HANA. Not all of these 18,000 customers may yet be live on S/4HANA, however. SAP employs a number of strategies to encourage customers to make the leap to S/4HANA, with the RISE program the most important.

RISE with SAP is a mix of subscriptions and professional services. It typically includes S/4HANA Cloud ERP as well as SAP or partner-provided migration and implementation services, access to the SAP Business Network, including Ariba, and intelligent business process reengineering
supported by SAP's Signavio process-mining capabilities. RISE with SAP is offered on SAP's cloud platform, or it can be hosted by a hyperscaler such as Amazon Web Service, Microsoft Azure, or Google Cloud Platform.

A key point with RISE with SAP is that it offers a "single contract," which SAP presents as a one-stop shop that includes software, services (including from partner service providers), and infrastructure (including from hyperscalers).

**FIGURE 5**

**SAP S/4HANA Timeline**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>SAP launches S/4HANA soon after setting 2025 deadline for SAP ERP 6.0 support</td>
</tr>
<tr>
<td>2017</td>
<td>March 2020: SAP extends the 2025 support deadline for SAP ERP 6.0 to 2027</td>
</tr>
<tr>
<td>2019</td>
<td>January 2021: SAP announces RISE with SAP</td>
</tr>
<tr>
<td>2020</td>
<td>Dec 2021/Jan 2022: Second survey of 700 SAP ERP customers, sponsored by Fujitsu</td>
</tr>
<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>October 2019: Christian Klein and Jennifer Morgan replace Bill McDermott as CEO</td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>Feb/Mar 2020: First survey of 700 SAP ERP customers, sponsored by Fujitsu</td>
</tr>
<tr>
<td>2020</td>
<td>January 2022: SAP announces 18,800 S/4HANA and 1,300 RISE customers by end of 2021</td>
</tr>
<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
</tr>
</tbody>
</table>

Source: IDC, 2022

**Drivers of Change**

Many factors influence the rate at which organizations are choosing to migrate to SAP S/4HANA. In many cases, business or macroeconomic factors are a double-edged sword, both increasing the need for change and making the change more difficult to execute (see Figure 6).

While there have been some headwinds hindering change, overall, the drivers of change outweigh the detracting forces. So, many of those that planned to migrate in 2020 have now done so. Over time the balance of forces is shifting ever more toward the need to migrate as pressure increases and barriers are reduced.

From a business perspective the "cost of doing nothing" has increased. The risks and disadvantages of outdated ERP systems are now greater, for example, due to difficulties in managing what are now persistent supply insecurities, most recently exacerbated by the Russia-Ukraine War. COVID-19 exposed many of these risks to most decision makers in organizations — risks that were once considered unmanageable "black swan" events are now seen as probable future events that should be expected and managed.

From a technical perspective the barriers to change are gradually reducing. SAP, its ecosystem, and most notably the SAP professional service providers are gaining experience fast. This is seen
in the growing SAP S/4HANA migration knowledge and in specific migration tools to accelerate and automate the migration process.

In 2022, there is a high and increasing business impetus for change. As the world gradually comes to terms with the pandemic, it has entered a "new normal" characterized by geopolitical instability, new ways of working, supply chain disruptions, and inflationary concerns, while an uptick in general economic activity has made big ticket ERP investments a possibility. The 2027 mainstream SAP ERP support deadline has also moved closer.

SAP’s own S/4HANA product, including S/4HANA Cloud, is also maturing and broadening its functional and industry-specific footprint.

**FIGURE 6**
Opposing Pressures on Migration to S/4HANA Modernization

![Diagram](image)

Source: IDC, 2022

**Expectations for Future ERP**

While organizations vary greatly in their current ERP estate, future deployment preferences, and migration strategies, there is a consensus on what organizations want from their future ERP. They want an ERP that will enable them to improve customer experience, adapt to changing business conditions, and capitalize on data.

**From Wall to Wall to Multivendor**

During the last major wave of ERP implementations, around 2000, many businesses chose to adopt ERP suites, with the majority if not all of the ERP applications being provided by a single vendor. This "wall-to-wall" choice was influenced by guarantees of application interoperability, data integration, and the commercial benefits of procuring a large amount of software at once. The tightly integrated ERP suite provided a firm foundation for the business and continues to do so in many businesses.
Next-generation ERP systems such as SAP S/4HANA play a differing role in the business to the systems that went before. While ERP systems of the past were business critical, their role in innovation and customer experience was much more limited. Today, organizations are looking to use their ERP systems to support competitive advantage and innovation. This innovation could involve changing the way the organization operates or leveraging S/4HANA to deliver new products or customer experiences. This broader role for ERP and the pursuit of competitive advantage are leading many SAP customers to pursue a multivendor strategy and involve other application platforms that can help achieve future business goals faster. Our research found that 58% of organizations will seek to incorporate solutions from multiple vendors. In addition to the need for a differentiated ERP solution, 22% of respondents say they do not want to depend on a single vendor for commercial reasons.

Organizations with a preference for multiple application vendors still expect pre-built integration without complex technical maintenance and with high flexibility. To balance the need for strong functionality with the need to avoid overly complex integration, they will carefully select a limited number of application platforms and ecosystems that facilitate this.

**Transition to the Cloud**

The most popular hosting option for SAP S/4HANA is at a hyperscaler, with 27% of survey respondents saying this is their preference. Organizations are attracted to hyperscalers for both commercial and technical reasons. They see hyperscalers as being able to support SAP S/4HANA and their supplementary applications, while being able to offer a cost-effective cloud platform. Customers see hosting at a hyperscaler as providing the optimum balance of cost and control. SAP S/4HANA Cloud — the SaaS option — is for many SAP ERP customers too limited functionally and industry-wise and not mature enough to warrant an immediate migration.

The CIO of a U.S.-based manufacturer explained: "We selected Microsoft Azure as a hyperscaler partner for the SAP workloads with a broader strategy of getting out of the datacenter business. Microsoft is already our primary datacenter platform, we already have the skill sets, and we’re primarily a Microsoft shop. So, SAP ERP will be run on a separate tenant as managed service on Azure."

SAP HANA Enterprise Cloud (HEC) is the second most popular option, with 22% of respondents selecting this option. As SAP slowly exits the hosting business, IDC believes that respondents will likely opt for hyperscaler deployments instead, possibly in combination with SAP's RISE program. Also, 16% of organizations will pursue the SAP S/4HANA Cloud — the SaaS version of S/4HANA — and this is expected to grow.

One example of such a customer is a major European manufacturer. The CIO explained to IDC: "We are looking at a staged migration to S/4HANA. That means that we first moved SAP ERP to the SAP HANA database. We then moved our SAP ERP environment from on premises to Microsoft Azure. We have now converted on SAP licenses into subscriptions. The next step is to move everything onto S/4HANA Cloud. We will do so with a lean template to get a lean, modification-free, core SaaS ERP platform, which is handled by SAP, upgraded regularly and thus 'evergreen'."
The Paths to Your Future ERP

Building Business Cases and Journeys

The Business Case for Modernization

Migrating to SAP S/4HANA is a major undertaking, and most organizations will require a sound business case, whichever migration paths are being considered. The benefits of a next-generation ERP are diverse, coming from many sources and from many parts of the business. IDC has identified the seven main categories of benefits (see Figure 7):

1. **Operational risk**: the benefits of removing the operational risk of ERP failure, for those utilizing older ERPs that have become unsupported or unreliable
2. **Extended support**: the benefit of not having to pay for extended support, for those running ERPs no longer covered by standard support
3. **Cost of fragmentations and silos**: the benefits to the business of breaking down organizational silos created by poorly integrated legacy systems or complex ERP set-ups
4. **Cost improvement**: the direct cost improvements delivered by a next-generation ERP, in terms of the cost of operating the ERP itself and efficiencies in other parts of the business
5. **Resilience**: the benefits associated with greater business resilience, for example where a next-generation ERP enables better handling of market disruptions and events
6. **Revenue generation**: the greater profits that could be achieved with an ERP that enables revenue growth through, for example, improved customer experience, new sales channels, or new digital products
7. **Transformational value**: benefits related to the ability of a next-generation ERP to support faster innovation or enable greater business agility or new ecosystem configurations

**FIGURE 7**

IDC’s ERP Modernization Value Driver Framework

Source: IDC, 2022


Buying Centers and Stakeholders

The whole C-suite will have an opinion and influence on any change of ERP system, due to its cost and criticality. Most ERP vendors and their services partners continue to primarily interact with the IT function, but vendors must be prepared to pitch to other personas in the C-suite. This requires vendors to express the concrete value drivers in a language and context that will resonate with each type of executive. 55% of survey respondents say the CEO is the business case owner; when it is not the CEO it is most often the CIO or COO. Supporting the business case are several personas generally in favor of ERP modernization, such as the chief data officer and head of information security.

These personas have a lot to gain from a modern ERP, but they must be encouraged to quantify the benefits, rather than simply support the motion. Another group of personas identified by survey respondents can be classified as "swing voters." They could be supporters, but also have the potential to be skeptical influencers. This group includes the CHRO, the CPO, and occasionally the CMO. One reason this group may not be supportive is that they may see more disruption than benefits within their timeframe of concern. They might prefer best-of-breed application choices over ERP suites, or they may be working to different timeframes to other decision makers for personal or functional reasons.

The move to a next-generation ERP platform is a significant undertaking that can be matched by significant benefits. Twenty years ago, it was mainly the CIO, CFO, and COO who drove the business case and decision making, but this time around the whole C-suite must buy in to the benefits of SAP S/4HANA. To achieve this, each executive must understand the risk and benefits of adopting SAP S/4HANA, compared to other options and to doing nothing. This requires a certain level of orchestration and collaboration between business case owners, and each must chip into a coherent and consistent business case. The business case is likely to include detailed information provided by SAP and its service partners.

Role of RISE with SAP

RISE with SAP is a way for SAP to take a high level of responsibility for the ERP migration and be accountable for the performance of partner firms involved in the process.

The survey showed that most SAP ERP customers (77%) are familiar with RISE and nearly 10% of survey respondents are using RISE. When probing into why the SAP ERP customers familiar with RISE have not signed up, the survey showed that the respondents are concerned with the total cost implications of enrolling into the program, compared with a migration without RISE. A clear majority (76%) found that RISE with SAP was "good" or "very good" at eliminating or reducing concerns related to migration risks.

More concretely, respondents valued elements of all key propositions of RISE with SAP, including the business process intelligence outcomes, solutions and tools bundled with RISE, the increase in implementation speed, the single accountable party for software, services, and infrastructure, specialized assistance and expertise for migration, and the contractual and commercial flexibility.
How to Build a S/4HANA Business Case

ERP systems sit at the core of an organization’s operations, enabling a wide array of processes, capabilities, and outcomes. The broad influence of ERP systems must be matched with a broad-based business case for change. The ingredients of a business case may include the removal of legacy costs, cost reductions through efficiency, the ability to grow revenues, and the transformational value that a modern system can contribute, such as improved ability to innovate.

Building the case for change requires the business case owner to incorporate all of these benefits to build the strongest case for change. Especially considering the risks and unknowns related to a complex ERP modernization project, a breakeven scenario years out might not be enough for go-ahead. The business case must be strong enough to stand even when worst-case cost estimates and operational risks are considered.

FIGURE 8
Key Business Case Drivers for SAP S/4HANA Migration

Respondents say that in building their business case they are incorporating a wide array of benefit types (see Figure 8). The key three benefit drivers are operation cost reduction, improved customer experience, and greater business agility.

The most common element of the business case was reducing the cost of integration, customization, and training — reducing the operating costs of SAP ERP. As these operating costs are typically ever increasing and sometimes pile up as datacenter hardware must be refreshed, SAP ERP customers are keen to reduce these costs, which can be a major business case driver.

The second most common element is improved customer experience — linked to future revenue growth. Customers have told IDC how complex ERP set-ups have held back ecommerce and other customer-facing initiatives. What is clear is that there is a high cost of doing nothing in terms of money spent maintaining aging systems and opportunities missed.
Discussions with large SAP ERP customers have shed more light onto the difficulties of building a business case. The CIO of large European manufacturer said: "In the end, we are looking to have a cost-neutral transformation to S/4HANA. We have moved our SAP ERP assets to the cloud with AWS and an external service provider. At the moment, we are doing optimization work on SAP ERP with regards to design, databases, and data structures, and testing S/4HANA in parallel. Finally, we have converted our existing SAP ERP licenses to S/4HANA subscriptions to get the most out of existing licenses. At the end, our goal is cost neutrality."

IDC believes the key to building a strong business case is to involve a broad range of stakeholders and functional areas. ERP is commonly referred to as "the spine of the enterprise" and a business must reflect that broad influence that an ERP system has on business processes. Involving a broader range of departments that can quantify these benefits, with their specific knowledge of their business unit or function, will also bolster support and understanding of the ERP modernization effort in the top management team.

Making the Migration Happen

Choosing a Migration Path

Every business is in a different position when it embarks on its S/4HANA migration. There are many potential starting points and several technical destinations. The change will be driven by differing business priorities and the economic constraints will vary.

The IDC "decision tree" in Figure 9 illustrates the fundamental decisions at various points in the ERP modernization journey.
Managing Uncertainty and Technical Risks

ERP migration is a daunting effort and industry insiders have long compared it to spine surgery. With useful lives of ERP platforms often exceeding 20 years, organizations don't typically have ERP migration expertise. Furthermore, the destination ERP solution is an unknown as well, and these are unknowns to mission-critical business processes, such as invoicing, order management, and procurement. Firm mitigation and management of these risks is a prerequisite to ERP modernization efforts, which might otherwise be halted at an early stage.

Risk mitigation measures typically involve communication and change management, procuring external expertise, and contractual measures. There are also tools that can help businesses reduce uncertainty, such as process mining tools. These can help businesses map and understand their processes before any migration or modernization activity takes place. This can reduce uncertainty and boost the business case for change. 36% of survey respondents yet to migrate said they had so far been unable to build a robust assessment of the costs and risks of migration. Of those who already migrated to SAP S/4HANA only 12% said the migration cost had gone beyond their upper estimates. This confirms that care needs to be taken when assessing
The Paths to Your Future ERP

migration costs. With the right support, however, most business that have migrated to SAP S/4HANA have done so within their original budgetary limits.

Many SAP customers seek to overcome the uncertainty by dividing the S/4HANA migration into multiple defined stages. One CIO from a European manufacturer explained: "As a first step, we are simply moving what we have. We are lifting and shifting our current environment to Microsoft Azure and at the same time converting our SAP ERP licenses to S/4HANA licenses. The second step will be to convert the database from the existing database to SAP HANA, and then we will take the third step and do S/4HANA. A three-step process to get the full transformation."

The Role of External Services

The survey revealed that almost all respondents (697 of the 700) indicated they needed professional services help in at least one area of ERP modernization. The most popular area for external services is related to custom SAP developments (55%), and for every area of professional services, approximately half of the respondents indicated a need for external services, from business consulting to technical migration. The need for external ERP modernization services is tightly linked with the uncertainties related to ERP modernization, as shown in Figure 4, with over half of those about to migrate to S/4HANA feeling very uncertain about the risks. As mentioned, ERP migrations typically happen every 15–20 years, which makes it virtually impossible for the individual organization to amass expertise in the area. Figure 10 illustrates how SAP ERP customers are increasingly looking to a variety of professional services across custom SAP development, migration of customizations, training services, etc., as they look to upgrade.

FIGURE 10
Areas of Required External Expertise

Q22. In which areas related to ERP modernization do you see a need to use external expertise?
Source: IDC, SAP S/4HANA Survey, December 2021 (n = 700)
IDC also asked the 700 SAP ERP customers to what degree they relied on internal resources versus external services for ongoing SAP operations. The responses showed that for both SAP development and support, almost half rely on external services — either managed services or full outsourcing. Only about one in every five to six customers primarily relies on internal resources for SAP development and support (17% and 16% respectively).

The takeaway here is that SAP development and support is a relatively mature and well understood area with a high degree of involvement of external services firms.

FIGURE 11
SAP Development and Support by Type of Management

Q26. Which of the following best describes how your organization currently manages the support of your SAP applications today?
Q29. Which of the following best describes how your organization currently manages the development of your SAP applications today?

Source: IDC, SAP S/4HANA Survey, December 2021 (n = 700)

The majority of surveyed SAP ERP customers expressed intentions to increase reliance on external services over the next two years for SAP development and support (54% and 56% respectively). However, there was also a relatively large proportion of customers expressing intentions to increase internal SAP development and support capabilities of SAP applications (38% for both development and support). This simply shows that the relatively highly priced and difficult-to-come-by SAP skills are a fairly dynamic area for most SAP customers. Some seek to strengthen ties with external suppliers, while others aim to bolster internal SAP expertise.

IDC also asked the respondents about the reasons behind the decision to rely more on either internal resources or external services. The two main drivers were the desire to lower operating costs (58% and 52% for SAP development and support respectively) and the need to increase innovation in SAP areas of strategic importance (26% and 33% for SAP development and support respectively).

When comparing SAP customers and their increased preference for either in-house resources or external services with their motivation for doing so, some revealing patterns emerged. Firstly, the majority (55%) of those increasingly relying on external SAP development services did so for cost
reasons. In other words, they considered external services less costly than in-house resources, possibly because of difficulties in managing utilization of internal SAP developers and the costs related to attrition of in-house staff. Furthermore, among those SAP customers saying that “innovating with SAP and associated technology is becoming increasingly core to our business,” the clear majority (83%) increase their reliance on external service providers. In other words, SAP customers turned to external service providers to speed up ERP-related innovation.

**Post-Migration SAP Skill Strategies**

IDC asked SAP ERP customers to detail which types of SAP skills they have in-house and which of these skills areas they were planning to phase out.

The responses align to responses from earlier questions related to the use of internal resources versus external services for SAP development and support, meaning that roughly half the customers maintain in-house SAP skills, while the other half use managed services or outsourcing services. The most popular areas of internal SAP skills pools are SAP Enterprise Portal, SAP Mobile Infrastructure, and SAP Master Data Management. The areas where the largest proportion of organizations plan to abandon internal SAP expertise centers are SAP Enterprise Portal, SAP Master Data Management, and SAP Basis.

**FIGURE 12**

SAP Skills Today and Planned to Phase Out

Q23. What type of SAP skills does your organization have?
Q24. What type of SAP skills does your organization plan to phase out?
Source: IDC, SAP S/4HANA Survey, December 2021 (n = 700)

There is a consensus among the surveyed organizations that SAP skills will not be needed in-house in future to the same degree as before. For each skill around 20% of respondents say they will be phasing out these capabilities internally. IDC sees this as a rebalancing of resourcing to reflect current business thinking on resourcing. The long-term trend has been to minimize internal resource levels and utilize external resources for projects that require fluctuating resource demand. Over time, most organizations prefer to reduce in-house resources to a level where full utilization is achieved, whereas skill types with fluctuating demand patterns are
supplied by external service providers. Organizations are taking this approach in many areas, including where the activities in question are core to the business. For non-core activities, internal resources may be removed altogether and replaced by outsourcing or managed services.

Over time, the acquisition, development, and retention of scarce SAP skills has proven to be costly. Early in this paper we discussed how the number 1 migration business case driver was the desire to reduce operating costs related to SAP ERP. Given the desire to reduce SAP operating costs and the difficulties in securing scarce SAP skills, this decline in in-house SAP skills is expected. The outcome is that most SAP customers will strengthen existing ties to service providers and possibly establish ties to new providers to cover all needed SAP expertise.

SAP Business Technology Platform (BTP) is among the new SAP areas for customers to adopt and build skills in to get more out of their SAP applications. Some SAP customers are evaluating BTP, although it is early days. As the CIO of a U.S.-based manufacturer explains: "We need to evaluate what SAP BTP is going to do for us. I see some value if I can remove some of the legacy stuff and other antique SAP integrations that we have. We need to evaluate. Is it going to remove technical debt in the SAP landscape? Is it going to streamline my integration or is it just going to add on more SAP footprint to what I already have?"

SAP customers must revise their resourcing strategies as they engage in SAP modernization efforts. Future SAP resourcing strategies are likely to involve both internal and external resources, but the mix will vary between customers depending on specific conditions. Among the factors that will be key to the resourcing mix are whether requirements are continuous or periodic, whether an area is critical to competitive differentiation, and risk management considerations.

**Conclusion**

Based on a survey of 700 SAP ERP customers carried out in December 2021 and January 2022, IDC concludes the following:

- Most SAP ERP customers are moving to S/4HANA at a steady pace and will continue to do so in the coming years toward the 2027 standard support deadline. The migration rate is likely to be steady as opposed to a big wave of concurrent migrations.
- Almost a third of SAP ERP customers remain skeptical and are either deferring migration decisions for the time being or actively looking for SAP alternatives.
- Migrating SAP ERP to S/4HANA is difficult to budget for and has significant uncertainties due to the high complexity and mission criticality of the SAP ERP systems. Migration knowledge from SAP and SAP system integrators is much needed.
- Building the migration business case is difficult for many organizations and ideally involves a range of stakeholders across the organization. IDC's ERP modernization value driver framework is a good starting point and offers a top-down view of the business case and breakdowns into specific subcomponents.
• RISE with SAP is currently used by 10% of the respondents and is likely to get more traction. Most respondents believe RISE with SAP fits their needs, but they are also concerned about the cost-effectiveness of the program.

• Many SAP ERP customers are taking a multistaged migration approach to bring down perceived risk and uncertainty and to get buy-in from top management. These middle steps include getting the licensing for S/4HANA in place first, upgrading SAP ERP, lifting-and-shifting it to a hyperscaler, optimizing the existing set-up, and then migrating to S/4HANA.

• Organizations with SAP ERP systems should consider IDC’s decision framework (see Figure 9) to understand the choices, decision points, and journeys involved in moving to S/4HANA.

• External service providers will play an increasing role in the resource mix for SAP customers in the future. Customers are betting on external services to lower overall costs (poor utilization and high costs of attrition of internal SAP resources) and increase the pace of innovation due to faster and more flexible access to scarce SAP resources.
About the Analysts

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Bo Lykkegaard is associate vice president for the enterprise-software-related expertise centers in Europe. His team focuses on the $172 billion European software market, specifically on business applications, customer experience, business analytics, and artificial intelligence. He is based in Copenhagen and joined IDC's European Software Group as a senior research analyst in November 2002. Before joining IDC, he worked in software sales at IBM in Denmark and as an ERP consultant at Capgemini. Lykkegaard has an MSc in business administration and technology management at Copenhagen Business School, Denmark, which included a semester at Brandeis University, Boston.

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