Business Applications and related Services I Germany I 2021

The Status Quo of SAP S/4HANA Migration: Room for Improvement in Cloudification

SITSI I Market Analysis I InBrief Analysis

TABLE OF CONTENTS

LIST OF FIGURES

DOCUMENT INFORMATION

MANAGEMENT SUMMARY

There is no doubt that users' SAP landscapes are – once again – in a state of upheaval. SAP S/4HANA, Business Transformation Platform, Rise with SAP, cloud computing, IoT, automation, and digitization are examples of technologies and offerings that have a fundamental impact on SAP installations and business processes.

How are users dealing with these offerings and challenges? How far have they progressed on their journey towards cloud computing, SAP S/4HANA, digitalization, etc.? Or rather – do they even want to go down this path?

For more transparency on these and other questions, PAC, in conjunction with E-3 Magazin, conducted a survey among German SAP user companies. The evaluation of more than 100 responses produced some surprising, but also many anticipated results.

The survey confirms our impressions gained from personal conversations with SAP users and the findings from previous surveys: The vast majority of German SAP users will migrate to SAP S/4HANA sooner or later, and for many the cloud option is the first choice – be it a public or private cloud environment. Nevertheless, there are a considerable number of skeptics, as is reflected by the response to the question: "Cloud benefits: What are the business benefits of SAP in the cloud?". 34% of participants said they were not able to identify any business benefits.

The reasons for this are manifold and cannot be fully covered by this study. The skepticism has to do with the fact that the switch to SAP S/4HANA is very complex and the cloud is the preferred operating model for SAP. Companies are thus faced with an extensive realignment of their business application landscapes, including a new database, a new operating environment, a new ERP core, a new application architecture, and, in many cases, new operational processes, as many companies are thinking about revamping their process landscape while doing the migration. SAP itself encourages its customers to take this step with the help of tools from business process mining specialist Signavio, which was acquired by SAP at the beginning of 2021. The latest survey shows that almost one quarter of the companies rely on SAP tools for process integration, while 30% use solutions from providers other than SAP.

Surprisingly, companies still have some weaknesses when it comes to their data strategies. Analytics tools are in use (presumably mainly for BI purposes), but when it comes to putting data at the center of the strategy, many companies still have gaps.

All in all, according to the survey, companies are well on their way toward SAP S/4HANA. However, in order to fully leverage the potential of digital transformation, further efforts are required, for example in the area of process design, in the cloudification of the IT environment, and in the exploitation of big data and analytics.
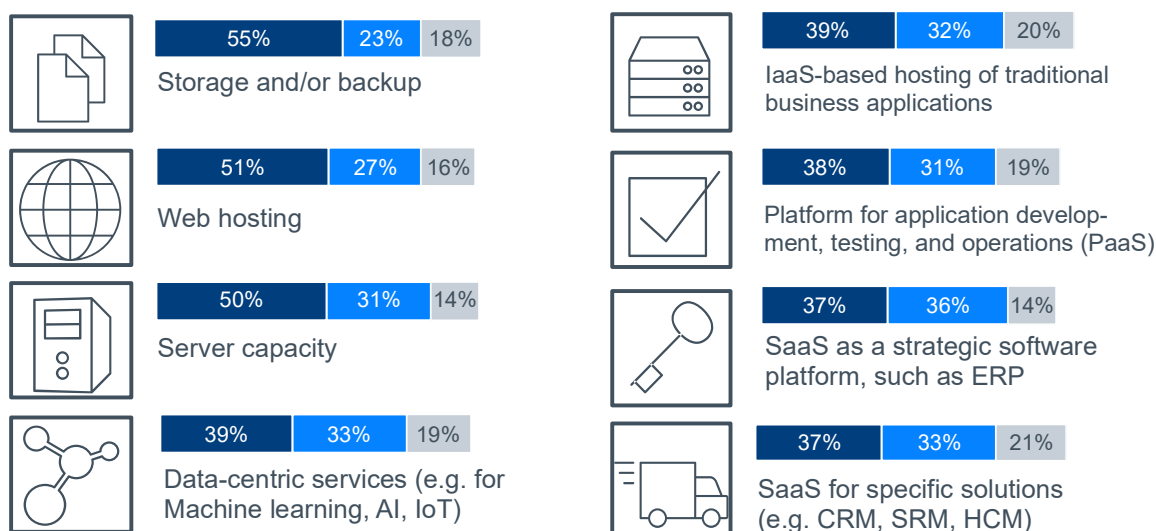
FOCUS TOPIC – SAP ON CLOUD

Setting the scene: cloud concerns are generally decreasing

Overall, the use of public and private cloud has become well-established in German companies, as was confirmed by our latest CxO Survey (see graph below). More than half already run functions such as web hosting, storage/backup, and server capacity in the cloud. Almost three-quarters of respondents even operate business-critical applications on public IaaS platforms or are planning to do so in the coming years. This shows that overall there is a very good climate for cloud computing in Germany. Companies are open to cloud operations. The CxO Survey covers around 350 organizations in Germany from all sectors and of all sizes.

In which area of your company/organization is the cloud already in use, planned for the next two years, or at least conceivable?

■ Already realized ■ Planned ■ Neither in use nor planned, but conceivable

	Already realized	Planned	Neither in use nor planned, but conceivable
Storage and/or backup	55%	23%	18%
Web hosting	51%	27%	16%
Server capacity	50%	31%	14%
Data-centric services (e.g. for Machine learning, AI, IoT)	39%	33%	19%
IaaS-based hosting of traditional business applications	39%	32%	20%
Platform for application development, testing, and operations (PaaS)	38%	31%	19%
SaaS as a strategic software platform, such as ERP	37%	36%	14%
SaaS for specific solutions (e.g. CRM, SRM, HCM)	37%	33%	21%

("Not in use, nor planned or conceivable" not shown)

Breakdown of responses from organizations in Germany, in % (n=145)

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PAC CxO Survey – cloud adoption for selected use cases among German companies

Two main factors have dissipated earlier concerns among German user companies. First, the availability of local public data center capabilities from major hyperscalers such as AWS, Microsoft Azure, and Google Cloud Platform (GCP), as well as IBM and Oracle Cloud Infrastructure. This was important to alleviate concerns about data protection. Second, the lockdowns due to the coronavirus pandemic have boosted demand for speed, agility, and flexibility. As a consequence, many companies have moved applications and data to cloud-based infrastructures.

Deep dive into the SAP community: SAP-related cloud adoption is weaker

To complement the above-mentioned CxO Survey, we conducted a survey among 110 German SAP users together with German E-3 Magazin in mid-2021. However, it is important to note that the two surveys are not directly comparable because they were based on different survey settings.

According to our latest survey, the cloud operating model does not yet appear to be as widespread among SAP users as it is among German companies in general. A total of 37% have already opted for a cloud-based SAP S/4HANA solution or are going to migrate to one (15% prefer the public cloud model, 22% prefer the private cloud model; see graph below).

Cloud:
Are you going to move from your current SAP version to S/4HANA?

Total

No, we're considering a different solution from SAP S/4HANA	13%
We are already on/will move to S/4HANA on-premises	50%
We are already on/will move to SAP S/4HANA public cloud	15%
We are already on/will move to SAP S/4HANA private cloud	22%
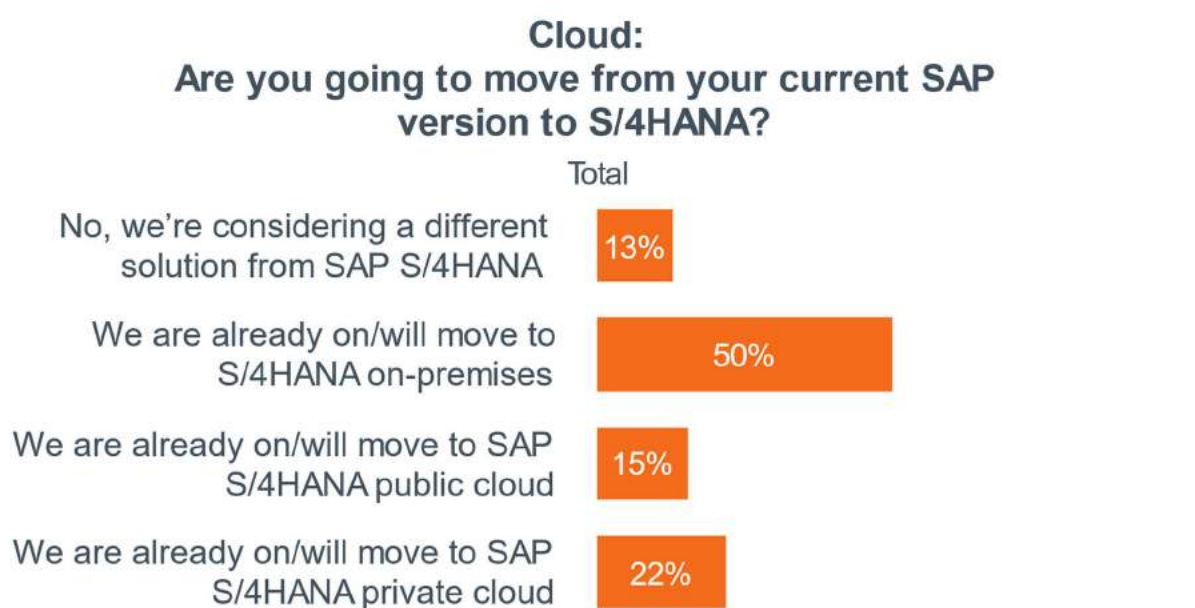
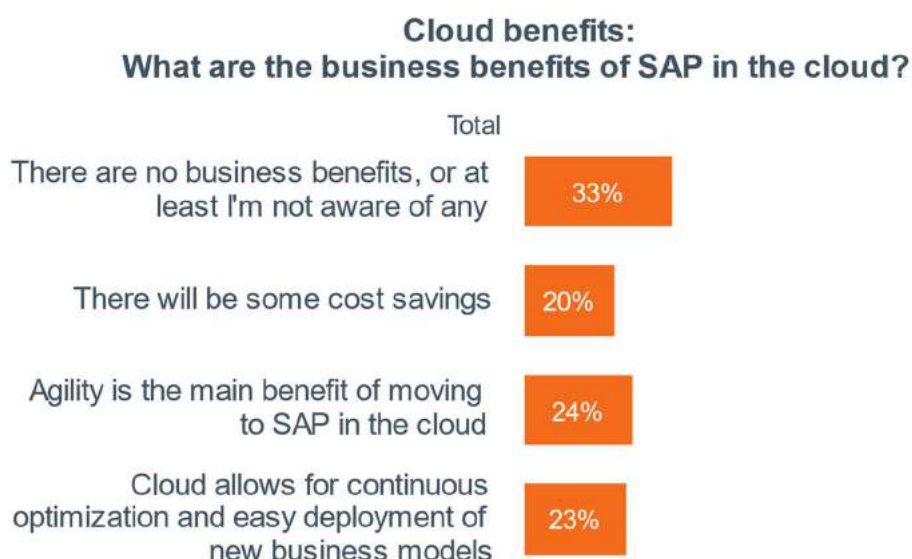SAP Cloud Maturity Survey – status quo of cloud migration

The result reflects the challenges that SAP is currently facing with its community in general, not only in Germany, but all around the world. For many years, actually since the introduction of S/4HANA, SAP has been struggling to move its client base to cloud-based deployment models, especially to the SaaS option of SAP S/4HANA, due to user complaints about limited functionality. "Rise with SAP" is the company's latest attempt to fix this issue. There are some signs that more companies are willing to start their journey towards cloud-based S/4HANA environments. However, it is still too early to assess the impact of SAP's Rise program on cloud adoption by German clients.

SAP should be concerned about the fact that 13% of participants say they are considering deploying a different solution from SAP S/4HANA. This does not mean that they will actually switch to another ERP environment, but considering a different solution clearly suggests some dissatisfaction with SAP's S/4HANA migration path.

However, this dissatisfaction may also be due to the fact that SAP imposed S/4HANA migration; after all, the announced end of maintenance is in fact forcing many companies into a schedule of application modernization that is not necessarily in line with their own needs and time frame.

Nevertheless, most participants expect benefits from moving to a cloud-based SAP environment. Almost one in four participants hope for more agility (24%) or continuous optimization and better deployment of future business models (23%) – both being factors that SAP promises its clients will achieve through cloud migration. A further 20% expects cost savings, presumably in the long run as cloud delivery allows for cost savings, e.g. in terms of operational efficiency.

According to our SAP Cloud Maturity Survey, one third of respondents question the business benefits of using SAP services from the cloud, which is quite a large share and should thus be of concern to SAP. SAP S/4HANA is promoted as a foundation for digital transformation, providing companies with direct access to cutting-edge capabilities such as AI, machine learning, and enhanced analytics, as well as enabling companies to integrate processes and quickly adopt new business models.

Cloud benefits:
What are the business benefits of SAP in the cloud?

Total

There are no business benefits, or at least I'm not aware of any	33%
There will be some cost savings	20%
Agility is the main benefit of moving to SAP in the cloud	24%
Cloud allows for continuous optimization and easy deployment of new business models	23%

SAP Cloud Maturity Survey – expected business benefits

It is no secret that migrating to SAP S/4HANA is an expensive undertaking for client companies as SAP forces them to move to a fundamentally new ERP environment whose technological foundation, application architecture, and data layer are completely different from SAP ECC or SAP R/3 implementations. Against this background, it is no surprise that 43% of the participants of our latest SAP Cloud Maturity Survey expect significant costs and risks associated with migrating to S/4HANA Cloud. However, another 20% of respondents expect cost reductions when using SAP S/4HANA compared to former SAP solutions, which is in line with the results regarding expected cost savings as shown in the graph above.

Particularly noteworthy is the fact that 27% of the surveyed companies say they are unable to determine the costs and risks involved in a migration to SAP S/4HANA Cloud. Usually, this would lead to the dismissal of a project that impacts business processes and may therefore lead to a situation that threatens the entire business operation. For this reason, SAP clients should definitely involve an experienced SAP services partner in order to assess the costs and risks associated with migration. Such a partner will be able to offer proven migration methods or alternatives to a migration to SAP S/4HANA.

Costs and risks:
Do you expect any costs and risks when migrating to S/4HANA Cloud?

Total

We can't determine the costs and risks of moving to S/4HANA Cloud	27%
There are significant costs and risks associated with migrating to S/4HANA Cloud	43%
Costs and risks will be contained by using the 'Rise with SAP' program	10%
SAP S/4HANA Cloud will be less costly and risky than older versions	20%

SAP Cloud Maturity Survey – costs and risks of cloud migration

FOCUS TOPIC – PROCESS MODERNIZATION

In our discussions with SAP customers, we often learn that many companies are seizing the migration to SAP S/4HANA as an opportunity for business process redesign. In doing so, they go beyond a purely technical migration, aiming to make workflows faster, more efficient, more resilient, and more agile. The experience of lockdown due to the coronavirus pandemic has taught them that they need to set up their processes in a way that enables them to react quickly and adequately in order to keep the business up and running even in unexpected events.

However, process integration has always been a major challenge for companies, even without migrating to SAP S/4HANA, because in most industries, SAP's ERP environment only covers support processes (finance, controlling, procurement, HR, SCM, etc.) but not the core processes, as is the case in manufacturing, banking, and retail, for example. Process integration is considered as a significant investment by 38% of respondents. Less than one in ten respondents expects SAP process integration to have a negative impact on the company's cloud adoption.

SAP responded to customer needs by acquiring process mining and process design expert Signavio in early 2021. Signavio's capabilities are being integrated into SAP's portfolio; for example, access to Signavio capabilities is part of the Rise with SAP program. Nearly a quarter of respondents are satisfied with SAP's process integration capabilities in general, which do not rely on the toolset from Signavio ("SAP process integration is solid and has significant benefits"). Nevertheless, 30% of survey participants currently use an integration tool that does not come from SAP.

Integration:
What is the impact of SAP process integration?

Total

We use a process integration tool that is not from SAP	30%
SAP process integration requires significant investments	38%
SAP process integration is hampering our cloud adoption	9%
SAP process integration is solid and has significant benefits	24%

SAP Cloud Maturity Survey – status quo of process integration
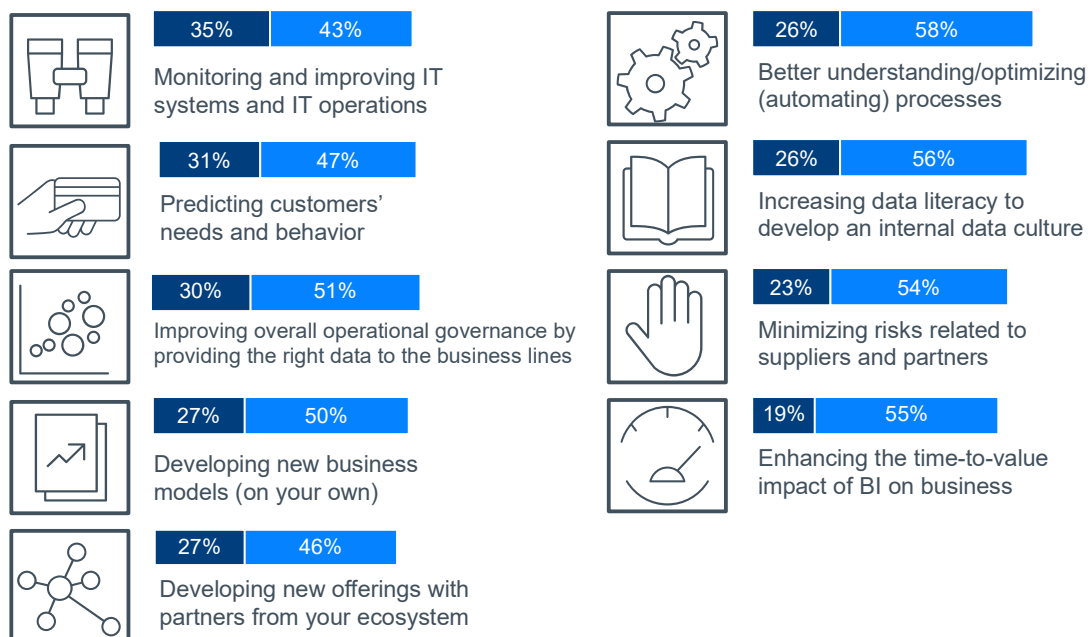
FOCUS TOPIC – DATA & ANALYTICS

Setting the scene: analytics has gained in attraction among German companies

Our annual CxO Survey shows that the vast majority of companies use analytics with the aim of monitoring and improving IT systems and IT operations, or even to improve the operational governance of business processes. On a different note, many companies are looking to introduce new business models and new services based on data analytics. This also includes being able to predict customers' needs and behavior, as new targeted services and products should obviously be based on better predictions. All in all, big data and analytics has made it to the top of many companies' future digital agenda.

When it comes to data and analytics in your company/organization, what are your goals?

■ Central goal   ■ Important goal

	Central goal	Important goal	
Monitoring and improving IT systems and IT operations	35%	43%	
Predicting customers' needs and behavior	31%	47%	
Improving overall operational governance by providing the right data to the business lines	30%	51%	
Developing new business models (on your own)	27%	50%	
Developing new offerings with partners from your ecosystem	27%	46%	
Better understanding/optimizing (automating) processes	26%	58%	
Increasing data literacy to develop an internal data culture	26%	56%	
Minimizing risks related to suppliers and partners	23%	54%	
Enhancing the time-to-value impact of BI on business	19%	55%	

("Less important goal", "no goal at all" not shown)
Breakdown of responses from organizations in Germany, in % (n=123)
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PAC CxO Survey – the goals of data and analytics usage

Deep dive into the SAP community: no lack of analytics tools, but of data strategies

The findings from the SAP Cloud Maturity Survey regarding the adoption of analytics in German companies show that there is no lack of tools, but a lack of strategies.

Diving deeper into the use of analytics tools, our latest survey reveals that most participants use multiple tools for analytics purposes. This is no surprise as the use of analytics spans the entire organization and all business units, as well as different use cases, e.g. business planning and controlling, reporting, etc. This is why the use of different tools for different analytics purposes is common.

All in all, a large majority of respondents use tools from SAP and other providers, which is not surprising as the survey was conducted among SAP users. However, more than one in five companies does not even use a single solution from SAP, which seems to be a remarkably large share given the above-mentioned structure of the sample.

This may be due to the fact that there are strong competitors such as Microsoft, Oracle, Qlik, Tableau, and Tibco, e.g. in the BI environment, which is still one of the most important application areas for analytics. The competitors mentioned have a distinct profile in the BI environment. This is not the case for SAP. Users of SAP analytics are usually SAP customers anyway, for example because they have implemented an SAP ERP landscape.

Analytics:
What analytics tools do you use for business insights?

Total

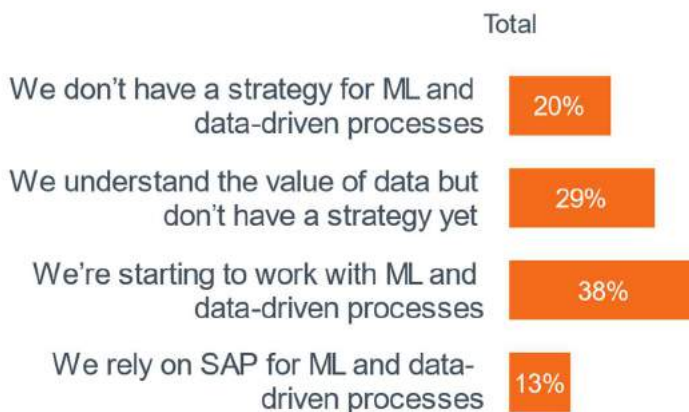|	
We do use analytics tools, but not from SAP	21%
We use multiple analytics tools, including from SAP	52%
We use SAP analytics tools, but not in the cloud	16%
We use SAP Analytics Cloud	11%
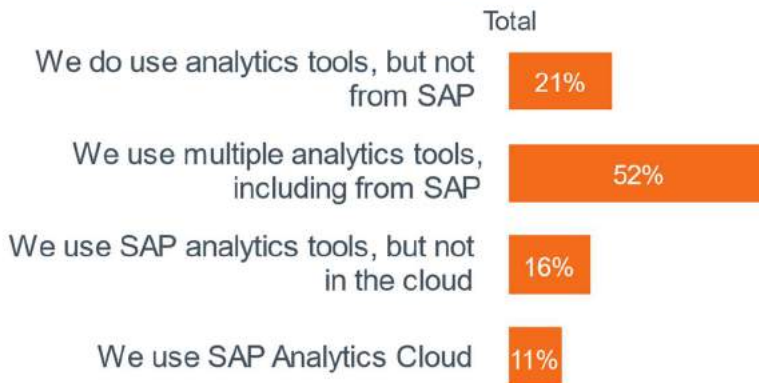
SAP Cloud Maturity Survey – use of analytics

The survey provides interesting insights into the data strategy of German companies. The respondents are aware of the value of data for their own company (29%), but one in five companies surveyed admits that they do not have a strategy for the use of machine learning and data-driven processes. Nevertheless, a majority of the companies surveyed have already started their journey towards data-driven processes and integration of machine learning capabilities.

The results of the survey show the weaknesses of companies' strategies when it comes to becoming a data-based company. In many companies – as shown by these surveys, but also by our regular discussions with project stakeholders – data-based projects are driven on a case-by-case basis by individual business units, but there is no company-wide strategy. Such a strategy would be crucial, however, to avoid creating silos of data, analytics tools, and methods that then have to be merged into a uniform implementation at great expense.

Data:
What is your data strategy?

Total

We don't have a strategy for ML and data-driven processes	20%
We understand the value of data but don't have a strategy yet	29%
We're starting to work with ML and data-driven processes	38%
We rely on SAP for ML and data-driven processes	13%

SAP Cloud Maturity Survey – data strategy of companies surveyed

PAC'S SAP CLOUD MATURITY MODEL

The results of the survey served as the basis for an SAP Cloud Maturity Model. Each question in each topic category was weighted with a value between one and four and multiplied by the number of participants who selected the respective answer option. 1.0 means a high level of cloud maturity (for example, participants saying that they already use cloud solutions), 5.0 indicates a low level of cloud maturity.

PAC's SAP Cloud Maturity Model is a benchmark tool for user companies. Based on our set of predefined criteria, user companies can run this self-assessment and compare their SAP Cloud Maturity with their peers'.
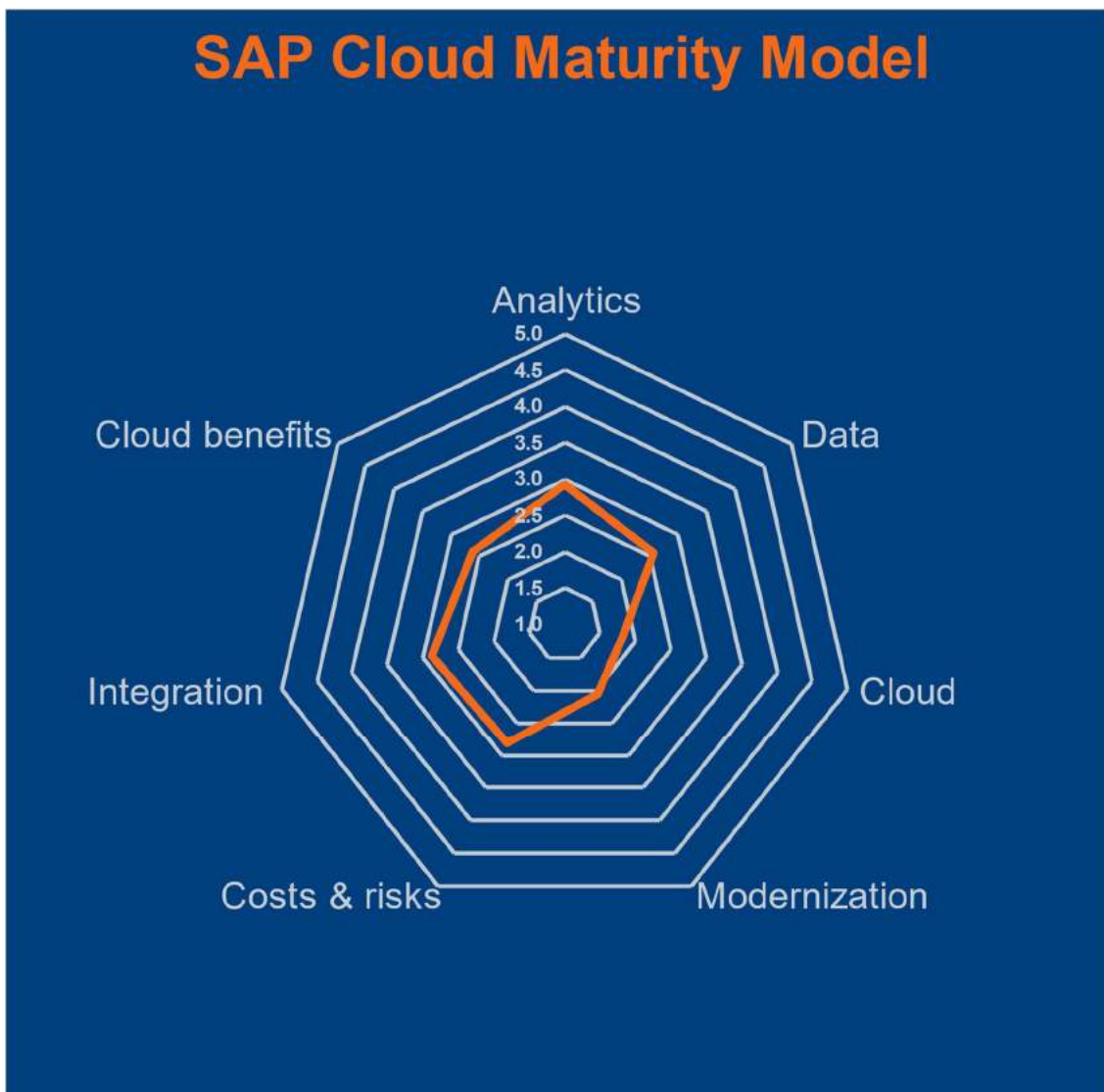
THE SAP CLOUD MATURITY SURVEY

Background of the survey

The survey was conducted as an online-only survey in cooperation with E-3 Magazin from Germany during the period from April 2021 to October 2021. The target group was IT users (6% of participants), business leaders (16%), IT managers (56%), and C-level management (22%) from German SAP user companies. Just under a quarter (24%) of respondents each work in the manufacturing and IT industries, 10% come from the professional services segment, and 7% each from financial services and healthcare. In terms of company size, there is a relatively even distribution across all size categories. A total of 110 companies took part in the survey.

Breakdown by Industry

- Information Technology
- Manufacturing
- Professional Services
- Financial Services
- Retail
- Healthcare
- Utilities
- Media and Telecommunications
- Other
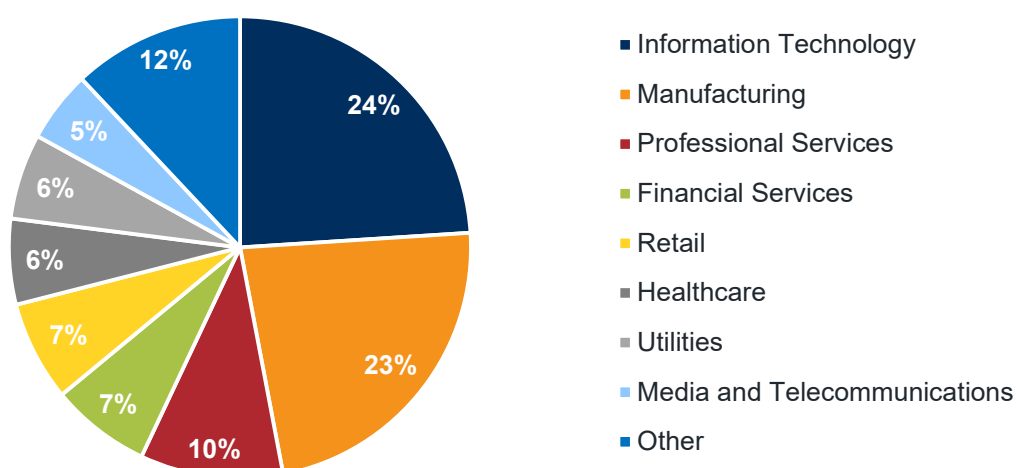
Breakdown by Company Size

- 0-100 employees
- 101-500 employees
- 2001-5000 employees
- 5001-20,000 employees
- 501-2000 employees
- more than 20,000 employees
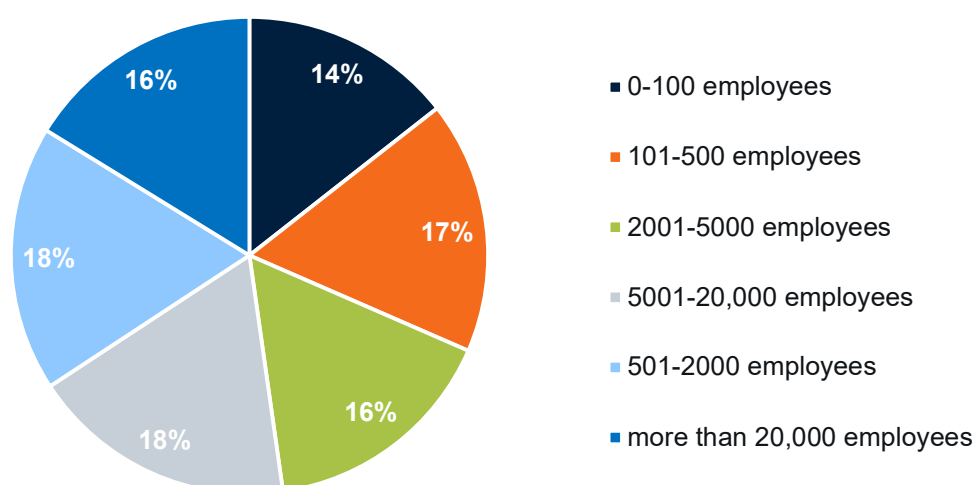
PAC'S RECOMMENDATIONS

Recommendations for IT providers

- Among German SAP users, the willingness to go ahead with S/4HANA migration is very high, but there are some concerns about migrating to a cloud-based SAP environment. Service providers should support customers in the decision-making process by jointly weighing the pros of cloud-based environments (such as faster access to innovations, better upgradeability, etc.) against the concerns (potential vendor lock-in, legal framework conditions). In PAC's view, cloud computing is crucial for the digital transformation of companies as it provides customers with access to the latest developments in areas such as AI, data analytics, machine learning, NLP, etc.

- Quite a few companies question the business benefits of an SAP S/4HANA migration. If there is uncertainty about the benefits, the underlying conditions should be assessed and evaluated in detail. If it turns out that there actually is no added value from a business perspective, a purely technical migration or even a switch to another platform should be considered.

- Many companies worry about the business risks of an SAP S/4HANA cloud migration. Service providers can help here with proven migration tools and methods, for example, to facilitate the migration process.

- It is a cause for concern that many companies do not currently have a data strategy in place. Service providers should show them ways to make better use of data based on best practices from comparable companies and industries. Only if there is an idea of the value and use of data can a meaningful digital transformation be launched and implemented.

Recommendations for IT users

- One of the most important criteria when choosing an ERP system is its future potential. The new application environment should be cloud-enabled, open for extensions, and easily adaptable. In addition, the decision in favor of an ERP system is usually a decision about a group-wide integration platform that incorporates further functions, applications, tools, and data processing solutions, and which binds a company to a provider for many years. Therefore, the decision to migrate to SAP S/4HANA should be preceded by a detailed evaluation process that also considers possible alternatives.

- SAP S/4HANA migration is not a simple release upgrade. It means the implementation of a completely different application landscape and should therefore be carefully considered and planned. All options should be put on the table and should be carefully evaluated, from a switch to a SaaS-native environment to an on-premises solution, with various managed services and hosted services, including public and private cloud options. In addition, companies should also consider moving to a completely different ERP landscape.

- It is crucial to fully understand the financial and business costs and risks of an SAP S/4HANA migration. A project of such scope should also be transparent from a business point of view. If organizations are unable to achieve this understanding on their own, they should engage a skilled consultant or service provider to identify threats and opportunities.

- As an SAP S/4HANA cloud migration or a switch to another ERP platform is a costly undertaking anyway, companies should consider revising their business processes in the course of the migration. In many companies, the business processes in the back-office area are very closely linked to the existing ERP installation and have therefore also aged. As a result, they do not meet the requirements for agility, flexibility, and resilience. It is therefore important to implement new processes based on a modern, cloud-based ERP landscape.

- Data is the most important asset for digital transformation – analytics tools can unlock the value of data. Therefore, when choosing their analytics solutions, companies should thoroughly analyze what data they have, what evaluations they need, and how the data is processed. It is important to keep an open mind and avoid vendor lock-in, because the requirements for a data-driven business will change over the next few years, in directions that may not be foreseeable today.

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