

REGION FOCUS: WORLDWIDE

The Business Value of SAP Business Technology Platform



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Executive Summary

IDC spoke with organizations about the impact of running the SAP Business Technology Platform (SAP BTP) with SAP environments that include SAP S/4HANA, SAP ECC, or other SAP ERP solutions. Study participants reported leveraging SAP BTP to make their use of SAP more impactful, innovative, and beneficial by better using data, delivering higher quality and timely functionality, and leveraging automation across their business processes. The outcomes for interviewed SAP customers are significant. According to one customer: *“In terms of the end-to-end process of reporting around programs on finance operations or carbon, we’ve seen about an 80% reduction in the process steps with SAP BTP.”*

IDC calculates that interviewed SAP customers will realize value from their use of SAP BTP worth an average of \$195,100 per 100 users per year (\$1.62 million per organization) by:

- **Empowering teams responsible for creating value through use of data**, including analytics and DBA teams, by ensuring higher quality of data, faster access to data, and richer reporting
- **Ensuring effective and impactful development efforts and faster completion of projects** by leveraging deeper integration and more efficient approaches that include low-code development functionality
- **Capturing cross-organizational efficiencies through automation** of business processes including with embedded artificial intelligence (AI) capabilities
- **Realizing cost savings and staff efficiencies** by moving to a unified, cloud-based platform to run their SAP ecosystems

Situation Overview

The past two years have been an unprecedented time for digital technologies, which have been at the forefront of enabling business transformation. As a result, **overall digital maturity has accelerated.**

If digital technologies were seen as an enabler of business transformation, now they have become imperative to thrive amid the uncertainty and keep up with the increased speed of change. We are now living in what IDC defines as a **digital-first world, in which digital is**

Business Value Highlights

Click each highlight below to navigate to related content within this document.

- ↑ **495%**
three-year return on investment (ROI)
- **6 months**
to payback
- **\$195,100**
average annual benefits per 100 users
- ↓ **47%**
fewer reports with poor data quality
- ↑ **17%**
more efficient DBAs
- ↑ **31%**
faster completion of projects
- ↓ **63%**
fewer business processes with error
- ↑ **21 hours**
saved per SAP user per year with automation

the primary lever that CEOs and C-suites use to solve business challenges, manage risks, and deliver on organizations' key missions and priorities. A digital-first strategy happens when capabilities are recognized as strategic differentiators and underpin everything an organization wants to achieve. According to IDC's *WW Future Enterprise Resilience and Spending Survey Wave 3, April 2022*, 96% of organizations recognize the need to have a digital-first strategy. Only 40% of organizations, however, are just getting started when it comes to executing this strategy and are looking for guidance on their digital road maps.

We are at the start of a new digital era — the digital business era — where **the focus will be less on digital transformation (DX) and more on running a digital business, not on technology as just an enabler but on digital outcomes.**

In the DX era, the focus was mostly on transforming the business and experimenting with technology, which resulted in gaps that organizations needed to fill. In the digital business era, the **focus will be on running a digital business with all eyes on innovation and growth.** A digital business is one where value creation depends on the use of digital technologies, from the internal processes powered by technological tools, to the products, services, and experiences that the organization provides to its customers.

One key aspect of running a digital business is the critical focus on achieving business outcomes that translate into business value. Stakeholders from different departments and decision makers from business units have a key role in driving and influencing technology decisions, and this is increasing, as is the strategic relevance of digital investments. IT department leads are increasingly being pushed to partner with business unit leads on innovative projects in a “tug of value” (versus “tug of war”) to unlock business value and organizational efficiencies. This is **swinging the balance of power in favor of the business outcomes that can be achieved over the pure technical functionalities.** Despite that, companies are still struggling with digital value realization. Only 38% of organizations have seen bottom-line improvement thanks to their digital initiatives and only 27% have seen improvements in their top line, according to IDC's *WW Future Enterprise Resilience and Spending Survey, Wave 9, October 2021*.

The key challenges hampering digital value realization include **leadership and organizational challenges such as silos, lack of metrics, and digital skills gaps, and more technological challenges such as lack of integration** between tech components and data silos.

The second set of challenges points to **the need to have a flexible, extensible, and open digital business platform.** The digital platform has a critical role in accelerating organizations' digital-first journey. This platform is a flexible application infrastructure architecture, where IT is aggressively modernized into an intelligent core fed by data pipelines from internal and external sources. This enables a continuous flow of data and ecosystem feedback loops, the orchestration and automation of end-to-end business processes, and the enablement of digital innovation capabilities. Only by having a platform backbone can organizations properly connect internal and external threads to unlock value at speed and thrive as a digital business.

The digital business platform developed by SAP for its clients is the SAP Business Technology Platform (BTP). The characteristics of the BTP platform and a full description of it can be found in [Appendix 1](#).

The Business Value of SAP Business Technology Platform

Business Value and Quantified Benefits of SAP BTP

Organizations said they achieved significant value by using the SAP Business Technology Platform with their SAP ecosystems. They have not only established more cost-effective and efficient SAP environments, but they also capture more value through automation, integration, and increased functionality.

Organizations provided examples of how they have benefited from SAP BTP, including relying on it to serve as a platform that drives innovation and business growth (for details about interviewed organizations, see [Appendix 2](#)):

Capacity-specific platform that drives business growth:

“SAP BTP enables our SAP strategy. SAP BTP is the most capable technology that we’ve identified to deliver what is required for our clients. Strategically, SAP BTP is driving a high growth area for us and our technology partner — it’s very much the leading edge of that.”

Enable more efficient use of customizations and deliver across-the-board employee value:

“The biggest benefit for us is the type of integrations that are possible with SAP BTP. The key point is that for the future, it’s this instrument where you can do all your customer-specific customizing, so that you can consume for any business. So far we have saved thousands of euros per employee per year because we don’t have this tremendous amount of waste anymore.”

Automated access to the newest features and reduced infrastructure burden:

“We get a more frequent deployment and update process with SAP BTP, so we automatically get the newest release and can use it. This means we don’t have an upgrade process anymore that we have to implement for a new release, we don’t have to build up infrastructure, and we’re not in charge of keeping the infrastructure up to date. That’s delivered as a service with SAP BTP.”

Fast delivery of functionality to day-to-day SAP users:

“One of the most significant benefits of SAP BTP is the fast delivery of solutions when it comes to SAP ecosystem and building applications. When it comes to our real users, like service technicians, then SAP BTP helps to get the most out of our ECC system for our end users.”

Based on interviews with SAP customers, IDC calculates that they will achieve benefits worth an annual average of \$195,100 per 100 SAP users (\$1.62 million per organization) by

better using data, improving integration and development, automating business processes, and establishing a more efficient and cost-effective SAP environment.

IDC classifies these benefits in the following broad areas of value (for more on the value achieved by interviewed SAP BTP customers and definitions of value, see [Appendix 4](#)):

Business productivity benefits:

Study participants cited organizationwide efficiencies related to automating business processes, as well as LOB-specific productivity gains and higher revenue tied to improving business operations. IDC puts the value of net productivity and revenue gains at an annual average of \$88,800 per 100 users (\$739,100 per organization).

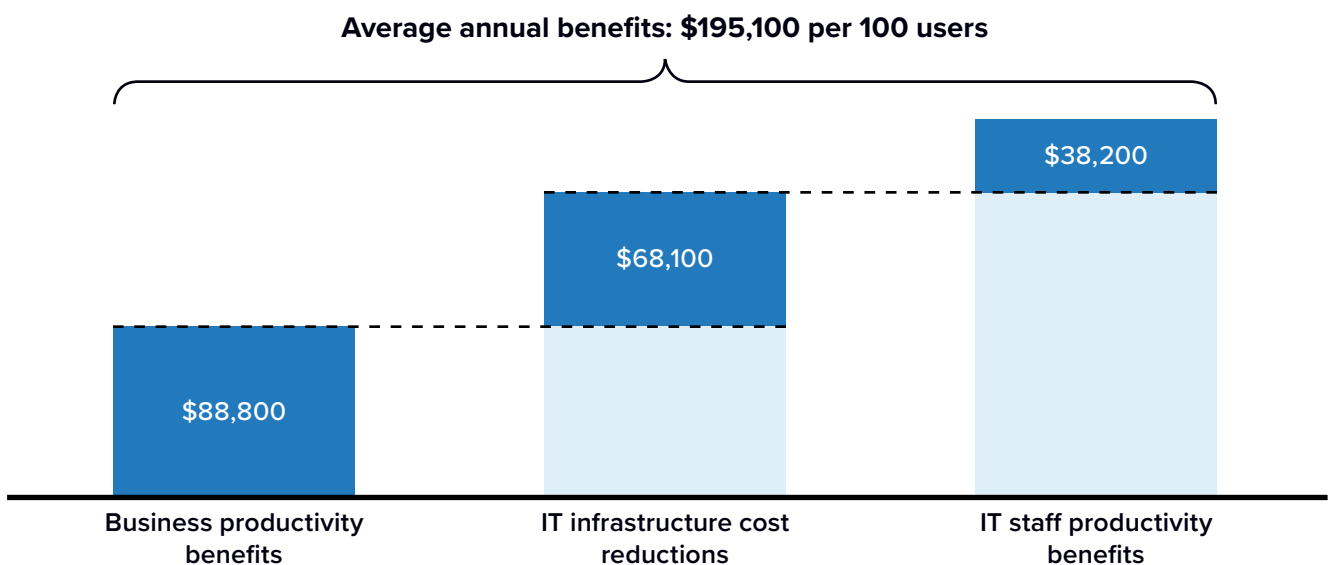
IT infrastructure cost reductions:

Study participants reduced their need for on-premises hardware and leveraged the capabilities of SAP BTP to avoid significant expenditures on building out capabilities such as data warehousing. IDC estimates that they will save and avoid costs worth an average of \$68,100 per 100 users per year (\$566,600 per organization).

IT staff productivity benefits:

Study participants enabled their development teams to work more effectively with greater integration and functionality on the SAP platform. Also, their database administrator and IT infrastructure teams spend less time on maintenance and upkeep on a day-to-day basis. IDC calculates that they will realize productivity gains and efficiencies worth an average of \$38,200 per 100 users per year (\$317,900 per organization).

FIGURE 1
Average Annual Benefits per 100 Users
(\$ per 100 users)



n = 9; Source: IDC in-depth interviews, June 2022

Analytics and Data Benefits

Study participants rely on the timely and robust flow of data to make business decisions, serve customers, and embed real-time functionality into applications and services. They have entire teams devoted to creating value through the use and management of data, and their SAP systems are often core to data use, which makes it essential that their SAP environments take in, maintain, and distribute data as fluidly as possible. When organizations fail to optimize their data environments, they face consequences such as not having access to data when needed, having incomplete data, or even trying to use data with errors. When this happens, it becomes more challenging to use data in a proactive, positive way to support their business activities.

Organizations reported that SAP BTP has enabled them to move data with greater fluidity while also improving the quality of data. One study participant described how having a central single source of truth with SAP BTP supports not only higher data quality but also the teams relying on the data: *“SAP BTP allows us to bring together data from digital meters. This is a very important key functionality because it’s our one source of truth for all the data in there. Also, the R&D people are getting more done because of this.”* Another SAP customer said access to higher-quality and more relevant data through a core mobile application running on SAP BTP enables its operational teams: *“Our logistics workers now have at their fingertips information through SAP BTP whereas they would otherwise have had to go back to their workstation, scan in spreadsheets, and even manually enter information in the system. Now with SAP BTP, they know at their fingertips exactly what to do with information and where it needs to go.”*

Figure 2 shows the impact on metrics related to the impact of SAP BTP on data quality and accessibility. SAP customers linked their use of SAP BTP to delivery of far fewer reports with poor data quality (47% fewer on average) and a 29% overall increase in data accuracy. These gains correlate to a greater ability to use data on a day-to-day basis. For example, study participants said they have reduced the time required to complete a data audit by an average of 28% as they have more timely access to higher-quality data.

FIGURE 2

Data-Related KPIs

(Percent benefit with SAP BTP)



n = 9; Source: IDC in-depth interviews, June 2022

Teams responsible for turning data into insights and driving business activities such as analytics teams benefit from access to better data with SAP BTP. Although the depth of analytics team activities directly linked to SAP BTP varied by study participant, those that are already leveraging the platform for analytics activities highlighted the value of automated access to higher-quality and more meaningful data. One SAP customer said, *“Our analytics team is 7% more efficient with SAP BTP because they don’t have to gather information manually. It’s not even ‘easy’ with SAP BTP — it’s gathered for them because it’s automated.”* As analytics teams work more efficiently on SAP BTP, they can deliver meaningful and timely insights to drive business activities and decisions.

On average, study participants using SAP BTP to support analytics activities reported an average productivity gain of 8%, providing them with the bandwidth and capabilities of nearly another full-time equivalent on their analytics teams (see **Table 1**). This reflects the enabling impact of SAP BTP on analytics team members, enabling the same teams to create and deliver more value to their organizations through the use and application of data. Likewise, database administrators (DBAs), who also rely on fluid movement and high-quality data to work efficiently, are 17% more efficient on average with SAP BTP (see [Appendix 4](#), Table 8 for details).

TABLE 1
Impact on Productivity of Analytics Teams

	Before/ Without SAP BTP	With SAP BTP	Difference	Percentage Benefit
Equivalent productivity level in FTEs per organization	11.0	11.8	0.8	8%
Value of productive time per organization per year	\$1.10M	\$1.18M	\$82,800	8%

n = 9; Source: IDC in-depth interviews, June 2022

Study participants made clear that they do not view staff productivity gains or time savings as the most significant data-related benefits of using SAP BTP. Instead, they perceive the ability to apply data in a more meaningful and proactive way with SAP BTP as offering much broader and more significant business gains, including operational efficiencies and revenue gains.

SAP customers provided examples of these types of outcomes based on their use so far:

Automation leads to substantial reporting and analytics efficiencies:

“In terms of the end-to-end process of reporting around programs on finance operations or carbon, we’ve seen about an 80% reduction in the process steps with SAP BTP, which is a big number. Imagine going from a place where you have someone pulling the data into

a database, then sifting through that data, doing manual manipulation, and then surfacing that into a business intelligence dashboard.”

Foundation for digital and efficient workforce:

“Our staff can now work with their mobile phones and not with pen and paper anymore with SAP BTP. Integration through SAP BTP allows sensor data to be read and brought directly into our system. Even digital PDF formulas are just easily managed by our Fiori applications. We’re saving thousands of dollars per year per person because of all these efficiencies.”

For study participants, these types of data-driven benefits are both the current reality with SAP BTP as well as the future objective.

Integration and Development Benefits

Study participants rely on the ability to leverage the functionality of their SAP environments through delivery of business projects and new software functionality. However, friction created by siloed solutions and teams as well as less than optimal development approaches can markedly slow these processes. When this happens, organizations may be unable to take advantage of business opportunities and fail to provide the user experience their employees and customers require.

Organizations said SAP BTP enables them to provide richer and timelier functionality to their businesses through deep integration, automation, and the ability to leverage new and more efficient approaches. For example, one study participant highlighted how real-time insights and improved platform stability with SAP BTP work to its benefit: *“With SAP BTP, we have new possibilities that were not possible by uploading data and getting a more real-time approach. It’s even made our environment more stable.”* Another customer said it has established SAP BTP as its preferred platform for innovative activities: *“We use SAP BTP as a platform for innovation and services and to enhance our core processes. If we have a functional need that might be complex to enhance in our existing on-premises environment, then we use SAP BTP services to build up the service and integrate into our landscape.”*

Study participants described using SAP BTP to deliver different types of products, services, and experiences to employees and customers, but a common finding was that it significantly reduced the time to market/delivery.

Study participants provided examples of how SAP BTP has enabled them to significantly reduce the amount of time it takes to deliver important applications and functionalities:

Much faster to deliver and use new technologies and functionalities:

“With SAP BTP, it has taken us two months to mobilize a full carbon reporting platform in terms of development across many different systems with numerous data sources. That’s not a lot of time because it was meant to take 12 months. It’s speed to value, it’s how quickly can the business that we’re working with realize the value of the data in their processes.”

Faster delivery of core business applications:

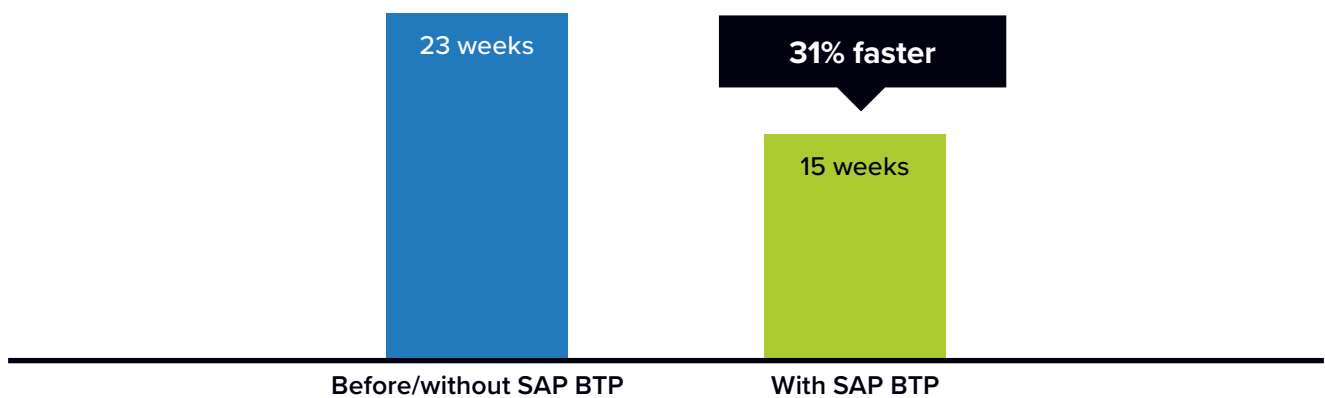
“We used SAP BTP to develop our mobile application that is used across our business operations. It took us six months to deploy this with SAP BTP, but would have taken probably twice as long without SAP BTP.”

Innovation platform that enables timely delivery of use cases and functionality:

“SAP BTP is our innovation platform. It is where we put all our new use cases. It helps to move applications or use cases to the cloud and it helps us speed up new use cases, which is something we are doing now.”

As shown in **Figure 3**, IDC calculates that study participants complete major projects 31% faster with SAP BTP, saving an average of around eight weeks per project. While the nature of these projects varies, the ability to deliver them in weeks, months, or even years sooner than previously is a major advantage of using SAP BTP.

FIGURE 3
Impact on Time to Complete per Project
 (Number of weeks)

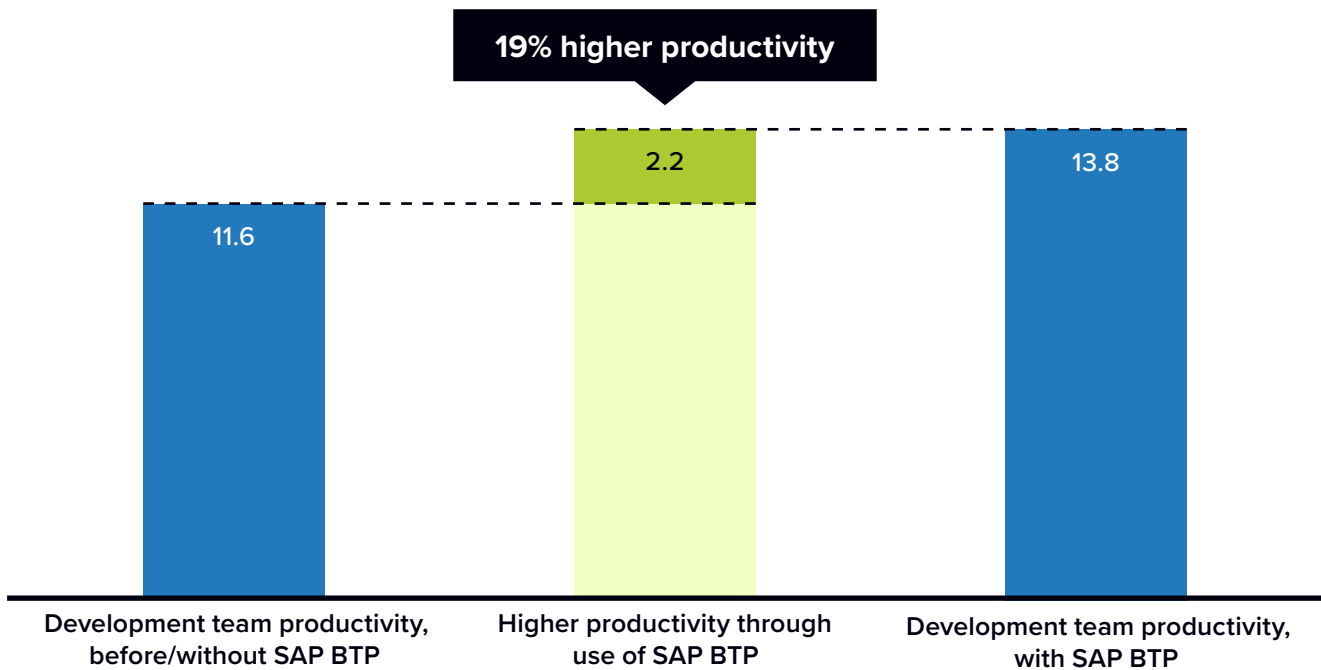


n = 9; Source: IDC in-depth interviews, June 2022

Organizations commonly cited higher productivity and effectiveness for their development teams as an important benefit of SAP BTP. Study participants rely on their software development teams to provide their businesses with differentiated functionality, and see the most value when these teams can deliver new functionality in a consistent and timely manner. One study participant described the impact on its development team: *“SAP BTP provides platform as a service capabilities and makes available the framework and out-of-the-box functionalities needed to connect across our SAP environment. The less each of the developers needs to attend to or try to figure out themselves, the better. That’s the whole purpose of SAP BTP and why it’s a given that we would choose it because it saves a lot of development time.”*

Figure 4 (next page) shows IDC’s analysis of the impact of using SAP BTP on interviewed organizations’ development teams. On average, they said their development teams have gained 19% in productivity, reflecting their ability to provide their businesses with higher quality and more timely functionality across their SAP and broader business environments.

FIGURE 4
Impact on Development Team Productivity
 (Equivalent productivity, FTEs per organization)



For an accessible version of the data in this figure, see [Data for Figure 4](#) in Appendix 5.
 n = 9; Source: IDC in-depth interviews, June 2022

Intelligent Process Benefits and Automation

Study participants looked to the ability to automate business processes with SAP BTP to streamline their operations and save time for teams responsible for day-to-day business activities. Enhanced automation capabilities with SAP BTP, including the use of AI-driven automation, offer study participants the chance to automate more processes that previously consumed significant amounts of staff time or created potential business risk through manual errors. For example, one SAP customer said: *“We are taking some repetitive tasks from our employees to give them the chance to work on higher-value tasks with SAP BTP. For the user, they’re getting efficiencies with SAP BTP. All the applications we implement will lead to efficiency increases in the user department. For example, automating processes by providing new functionality and supporting them and their decisions, or just through automation.”* For SAP customers, these automation-related benefits result not only in higher-quality data but also time savings that accumulate quickly across hundreds or thousands of employees who rely on business processes to do their jobs.

As study participants make greater use of SAP BTP, they achieve better business process outcomes. Instead of relying on manual intervention that hard is to monitor and inherently prone to error, they take advantage of automation that not only means faster completion, but fewer problems requiring intervention. They reported seeing 63% fewer business process errors and 39% fewer defects with SAP BTP, and needing 42% less time to address errors (see **Figure 5**, next page).

FIGURE 5
Process and Data Automation Benefits
 (Percentage benefit with SAP BTP)



n = 9; Source: IDC in-depth interviews, June 2022

Table 2 quantifies direct time savings for study participants achieved through SAP BTP process automation. One study participant provided details about how automation has freed up time and resulted in better outcomes for its procurement and accounting activities: *“We have improved the user experience quite a lot with SAP BTP. We are saving time in all of our procurement and accounting processes because top managers are not sitting all day long in front of their computers. For them, it’s easy to make a click on their mobile phones to approve, and it goes faster by at least 20% to 30%.”*

As shown in **Table 2**, these automation-driven benefits accumulate across teams responsible for running their businesses. On average, study participants reported saving almost 21 hours per SAP user per year, which equates to higher productivity worth 9.2 FTEs per organization or 21 hours of additional time per impacted employee. Among customers interviewed for this study, these direct automation-linked efficiencies represented the most significant single area of value achieved (see [Appendix 4](#), Table 8).

TABLE 2
Impact on Business Processes

Business-Process-Related Efficiencies	Per Organization	Per 100 Users
Efficiencies realized (time savings, FTEs)	9.2	1.1
Value of time savings	\$642,400	\$77,214
Number of hours saved per year	17,253	2,074

n = 9; Source: IDC in-depth interviews, June 2022

In addition to direct time savings through automation, study participants also connected higher productivity for LOB teams, including finance, marketing, and sales teams, to use of SAP BTP. They said these teams benefit from faster delivery of new features as well as higher-performing SAP environments. One study participant detailed how SAP BTP has enabled its marketing team: *“Our marketing team saves time with SAP BTP, and they are one of the teams that benefit the most. Our two marketing team members save around 30% because there is now quite a lot of automation and they have access to data from all of the different vendors.”* So far, study participants reported that around 30 members of their LOB teams have benefited from use of SAP BTP with an average productivity gain of 6% (see **Table 3**), again reflecting teams’ ability to do more and deliver more value to their organization with SAP BTP.

TABLE 3
Impact on Line-of-Business Productivity Gains

	Before/ Without SAP BTP	With SAP BTP	Difference	Percentage Benefit
Equivalent productivity level in FTEs per organization, impacted LOB teams	29.6	31.3	1.8	6%
Value of productive time per organization per year	\$2.07M	\$2.19M	\$124,300	6%
Number of productive hours per impacted user per year	1,880	1,993	113	6%

n = 9; Source: IDC in-depth interviews, June 2022

Study participants ultimately linked efficiencies and streamlined operations from automation with SAP BTP to better operations and provided specific examples of what they have accomplished so far:

Operational efficiencies create more business capacity:

“One of the things we’re doing alongside our use of SAP BTP is replacing all of our older meters. We have thousands of meter readings coming in each month that need to be handled, so by saving time handling those meters with SAP BTP, our team can process more volume.”

Better understanding of operations enables substantial carbon footprint reductions and auditing efficiencies:

“SAP BTP has improved our management of assets in terms of understanding the efficiency of assets from a carbon point of view, from a cost and program point of view, and a productivity point of view. We’ve also seen a massive reduction in audit costs by having the information to answer questions at our fingertips. We’ve managed to reduce the carbon contribution of our sites by 30% and reduce our audit costs by 57%.”

As shown in **Table 4**, SAP customers linked their use of SAP BTP to higher revenue and operational cost savings of \$231,000 and \$15,700 per organization per year respectively.

TABLE 4
Business Productivity Benefits, Higher Revenue

	Average per Organization	Average per 100 Users
Higher revenue per year	\$231,100	\$27,800
Assumed operating margin (%)	15%	15%
Higher net revenue per year	\$34,700	\$4,200
Operational cost savings	\$15,700	\$1,900

n = 9; Source: IDC in-depth interviews, June 2022

Cost and Infrastructure Benefits

Study participants also said they established more cost-effective and efficient SAP ecosystems with SAP BTP. They said moving to the cloud with SAP BTP has enabled them to avoid hardware and related costs associated with running on-premises environments and take advantage of SAP management and updates of BTP services.

Some organizations said they are taking advantage of much-enhanced functionality with SAP BTP to avoid potentially significant investment in data warehousing and other solutions they otherwise would have required:

Establishing a more cost-effective and efficient platform:

“Before SAP BTP, we had a gateway and portal system that cost hundreds of thousands of euros, and we’ve saved most of that with SAP BTP. Then you can add to that the reduction of five FTEs, so it’s really almost €1 million when you think about that.”

Avoid the cost of another Big Data platform and other tools:

“With SAP BTP, we don’t have to have another Big Data platform and we can do everything on SAP BTP. Also, the integration capabilities of SAP BTP makes the effort and cost of implementing use cases a lot lower. If we didn’t have SAP BTP and had other tools, we would have extra work for integrations and related work. For the use cases we’ve implemented with SAP BTP, we definitely would have needed two people.”

Cost-effective infrastructure:

“SAP BTP brings cost efficiency in our infrastructure applications because we have just one cost block and we don’t have any separate cost of infrastructure anymore.”

Importance of mobile services:

“Our ability to use mobile services with SAP BTP is an advantage. It may be expensive to try and do that on premises. We’d have to hire for it and it would take 10–20 people, although we would probably look externally to find a solution. That by itself may pay for SAP BTP. Mobile services are the biggest use case for us.”

For study participants, these direct cost savings and efficiencies can have significant value. Specifically, they reported the following benefits:

Saving an average of \$394,600 per year on infrastructure, licensing, and other direct costs associated with running their SAP environments

Enabling IT infrastructure teams to work more efficiently, which IDC calculates as an average of 36% efficiency, thereby saving the equivalent of 1.1 FTEs

ROI Summary

Table 5 presents IDC’s summary of the financial benefits and costs associated with study participants’ use of SAP BTP. IDC calculates that these organizations will achieve average discounted benefits over three years of \$3.85 million per organization (\$463,300 per 100 SAP users) in cost savings, staff efficiencies and productivity gains, and higher net revenue. These benefits compare with three-year discounted investment costs of an average of \$0.65 million per organization (\$77,800 per 100 users), which would result in an average three-year ROI of 495% and breakeven on investment in SAP BTP in an average of six months.

TABLE 5
Return on Investment (ROI) Analysis

	Average per Organization	Average per 100 Employees
Benefit (discounted)	\$3.85M	\$463,300
Investment (discounted)	\$0.65M	\$77,800
Net present value	\$3.20M	\$385,100
ROI (NPV/investment)	495%	495%
Payback period	6 months	6 months
Discount rate (%)	12%	12%

n = 9; Source: IDC in-depth interviews, June 2022

Challenges / Opportunities

Deployment of technology innovations is evolving all the time, and at the same time new digital decision makers (beyond the traditional IT department) are rapidly emerging and have a laser focus on delivering digitally enabled business outcomes. To support this, technology architectures need to become more flexible, extensible, open, and directly linked to concrete business challenges and outcomes. As a result, platform architectures linked to horizontal and industry-specific digital use cases are taking center stage. It is critical that buyers look for a technology partner that enables digital business value creation, while providing solution flexibility and interoperability.

Before making purchasing decisions on their digital business platform, organizations should consider the following:

Put business outcomes first:

There is a greater focus on business outcome realization and there are new value drivers including company purpose and contribution to the broader economy and society. Digital technologies are leveraged not only to reduce the bottom line but also as a topline accelerator to deliver new revenue streams from digital products and services. Organizations need to prioritize business outcomes realization — via a digital use cases road map by horizon — over the pure technical functionalities in their technology choice, setting concrete business targets to achieve with their digital road maps and then tracking those along the journey with regularly assessed metrics and KPIs.

Orchestrate the digital dream team:

With business unit leads taking central stage in the deployment and support of multiple digital use cases, organizations need buy-in across the full CXO suite. This calls for the creation of a collaborative “digital dream team” across the company. It is therefore crucial for organizations to bring C-suite leaders into digital business platform choice discussions and decision making.

Assess the skills gap:

Lack of specific skills and talent is one of the main reasons behind the existing digital gap. More and more technology providers are aware of this and are working hard to support tech end-users’ digital skill enablement programs (e.g., via dedicated training or developing skill-oriented capabilities such as no/low-code functions). Organizations need to assess the skill-related implications of new digital business platform implementation in advance, while prioritizing those vendors that can more easily meet skill-related needs.

Secure full integration:

Digital business platforms can only work when they can connect the dots among the different technology elements in place in an organization, both in terms of legacy infrastructure and new emerging technologies. Platforms that offer multisolutions integration and solid interoperability will be broadly adopted, while delivering concrete outcomes in the shortest timeframe possible.

Look for data analytics and automation:

In such an uncertain market, the focus is on maintaining and protecting IT projects within the constraints of existing budgets, with all eyes on short-term operational benefits. The ability to drive into the data and derive disruptive insights, while automating day-to-day processes, is key to piloting a successful strategy through the uncertainty. Organizations should look closely at vendors that show strong analytics and automation capabilities in their solutions portfolio.

Conclusion

Enterprises must increasingly operate and compete in a digital-first world. Among other things, this means that their success depends on moving from digital transformation to running a digital business that can achieve the desired digital outcomes. This means they need a technology architecture that is flexible, extensible, and open, and can meet specific business challenges and realize targeted outcomes. SAP BTP enables digital businesses to do this. It is cloud native and customers can use it as a comprehensive and interoperable platform to enable application development, data and analytics activities, integration, and AI. Its inherent flexibility means that customers can use it in any infrastructure environment to innovate and run their business operations.

IDC's research, based on in-depth interviews with SAP BTP customers, demonstrates the platform's ability to generate significant value. Study participants described making their SAP environments more cost-effective and efficient while also achieving significant value through efficiencies, productivity gains, and higher revenue through automation, integration, and increased functionality. Overall, they viewed SAP BTP as a fundamental component of their efforts to innovate and succeed as digital businesses. Based on interviews with these SAP BTP customers, IDC puts the value they will achieve by better using data, improving integration and development, automating business processes, efficiencies, and cost savings at an annual average of \$195,100 per 100 SAP users (\$1.62 million per organization). These levels of benefits and investment costs would result in an average three-year ROI of 495% and breakeven on investment in an average of six months.

Appendix 1: SAP Business Technology Platform

The SAP Business Technology Platform is a cloud-native platform with all the necessary applications, tools, and services to build and orchestrate cloud data management platforms, going beyond the isolated data management platform. It is a comprehensive and interoperable platform that enables **app development, data and analytics, integration, and AI capabilities**. It operates in any infrastructure environment, from cloud to on premises, hybrid, and edge. Its main differential as a cloud platform is its readiness for all business innovation initiatives and requirements.

SAP BTP's capabilities can be grouped into five main categories:

Integration and application development: flexible stack to manage extensive databases from diverse sources, both from SAP and external, through thousands of pre-built integrations (which includes APIs, events, and iflows); modernization of integration with scalability and a holistic approach to data; agile application development environment with the possibility to extend applications and the use of low-code and no-code

Data and analytics: decision-making-oriented analytics suite (including SAP Data Analytics cloud) including pre-built SAP business content

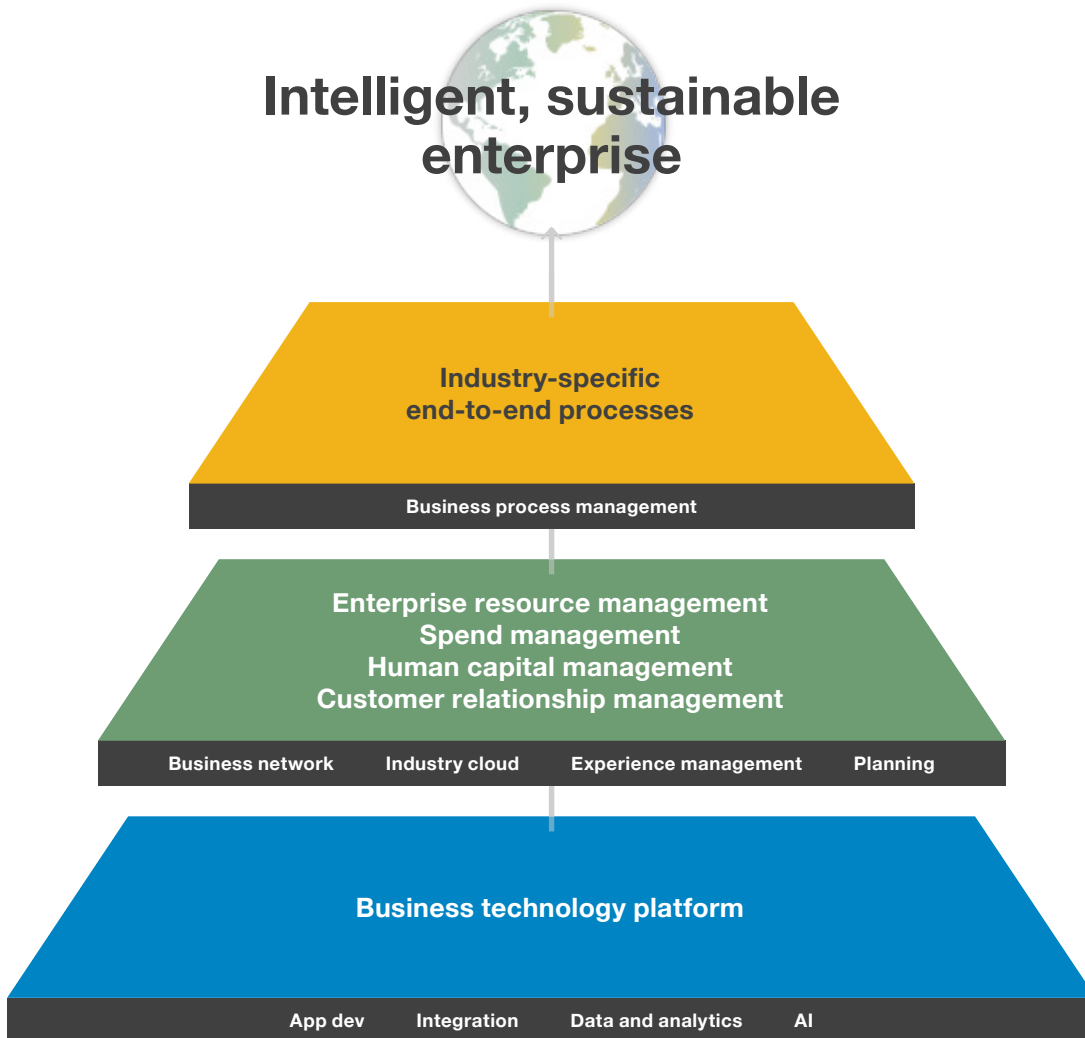
Extended planning and analysis: planning and analysis can be combined to drive more effective decision making, and planning can be enhanced using trusted data

Intelligent processes and automation: intelligent process-oriented applications that include pre-built workflows of RPA bots to automate business processes

Artificial intelligence: readiness to work with artificial intelligence (AI), with pre-trained AI models that are industry specific; chatbots can be built with a conversational AI service and be run transparently

From a technology integration standpoint, it enables organizations to integrate, connect, improve, govern, and provide their data from any source to any consumer in one place for consumption. The platform enables organizations to share resources that need to be shared across several tenants. SAP BTP does it in a unified environment optimized for SAP applications. Organizations already using SAP applications can benefit from the pre-built SAP enhanced compatibility.

FIGURE 6
SAP Business Technology Platform



Source: SAP

SAP BTP has a stable multicloud, multi-runtime technology foundation. One of its unique characteristics is that the platform is embedded with the connection capabilities of any data sources. From a data management perspective, the platform is also oriented to data quality services (cleansing, enriching, partner screening). There is also support for integrated analytics capabilities and AI, which gives more actionable value to the data.

SAP BTP is business centric, with its connectivity and interconnectedness features based on business cases. Customers can develop public cloud SaaS solutions for industry cloud on BTP (pre-built use cases and industry content). A major advantage for some industry players is that they can rely on the industry-specific knowledge from the analytics functionalities and the low-code capabilities that lower the bar for its adoption.

Appendix 2: Study Demographics and Use of SAP BTP

IDC spoke with nine SAP customers about their experiences with SAP BTP. Interviews were in-depth and designed to understand the impact of using SAP BTP on the organizations' ability to use data, development efforts, business processes, costs and staff time requirements, and business outcomes.

Organizations use SAP BTP alongside other SAP solutions that commonly include SAP S/4HANA and SAP ECC. As shown in Table 6, the study participants were enterprise-level organizations, with a mean average of 11,726 employees and \$4.86 billion in annual revenue (medians of 5,000 employees and \$1.50 billion in revenue). The organizations interviewed by IDC are based in a wide range of locations, including Germany, Belgium, Denmark, Switzerland, the U.K., Australia, Canada, and Brazil, and represent a range of industry verticals with experience with SAP BTP, including utilities, construction, consumer products, entertainment, government, manufacturing, and professional services (see Table 6 for more details).

TABLE 6
Demographics of Interviewed Organizations

	Mean Average	Median
Number of employees	11,726	5,000
Number of IT staff	448	400
Number of business applications	223	110
Revenue per year	\$4.86B	\$1.50B
Countries	Germany (2), Belgium, Denmark, Switzerland, U.K., Australia, Canada, Brazil	
Industries	Utilities (4), construction, consumer products, entertainment, government, professional services/finance	

n = 9; Source: IDC in-depth interviews, June 2022

Choice and Use of SAP Business Technology Platform

Study participants decided to use SAP BTP for a common reason but with individual objectives. They unanimously chose SAP BTP because they viewed it as a solution to enable them to make their SAP environments more innovative and integrated, and ultimately more impactful and efficient. They needed to drive modernization, integration, and innovation across their SAP ecosystems to facilitate their ability to run their business activities based on SAP more efficiently and purposefully.

Study participants described choosing SAP BTP after concluding that it would offer integration, development, and automation capabilities that would markedly affect their ability to use data across their business operations, meet business demand through development activities, and capture business operational efficiencies through automation:

Improved user experience with SAP applications:

“With services available on SAP BTP, we are able modernize our custom developments that we’ve done over the years in SAP and bring them more into a more modern and user-friendly interface.”

Integration and connectors enable insights across application and service portfolio:

“There was a huge advantage for us in implementing SAP BTP because it makes a lot of connectors available, which we saw as a definite way to grow our services and have specific applications available to support Big Data and integration processes that run through SAP BTP.”

Platform for integrating main business activities and functions:

“We use SAP BTP to integrate our S/4HANA environment with marketing, commerce, and our marketing cloud. So it really was an obvious solution for us.”

Right platform for development and extension optimized for SAP and its ecosystem:

“We want to build some nice applications and some solutions on top of them, and SAP BTP comes as the obvious choice because it’s the de facto solution when it comes to building ERP solutions and SAP systems.”

Study participants reported using SAP BTP for many of their most important applications and business activities, including:

- Supporting process departments that are integral to business operations
- Connecting SAP Fiori to other systems and applications to ensure the flow of data across operations
- Providing strong data visualization capabilities to business decision makers
- Accessing data from smart meters in real time
- Delivering a mobile application key to day-to-day operations to a significant number of employees

Table 7 provides details about study participants’ use of SAP BTP at the time of the interviews. On average (mean), they were using SAP BTP for 12 business applications with 832 day-to-day users on teams that include finance, marketing, auditing, development, and field service. Study participants said they continue to evaluate ways of expanding their use of SAP BTP for additional applications and LOB user groups.

TABLE 7
Use of SAP BTP by Interviewed Organizations

	Mean Average	Median
Total data size, TBs	2	2
Number of adopted applications	12	4
Number of internal users of applications	832	138
Percentage of revenue supported	36%	7%
Number of sites/branches	23	8

n = 9; Source: IDC in-depth interviews, June 2022

Appendix 3: Methodology

This project used IDC’s standard business value/ROI methodology. This methodology is based on gathering data from organizations currently using SAP BTP as the foundation for the model.

Based on interviews with organizations using SAP BTP, IDC performed a three-step process to calculate the ROI and payback period:

- 1. Gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of using SAP BTP.** In this study, the benefits included IT infrastructure cost savings, IT staff and development team efficiencies and productivity gains, reduced costs associated with risk, and higher revenue.
- 2. Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using SAP BTP and can include additional costs related to migrations, planning, consulting, and staff or user training.

3. **Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations' use of SAP BTP over a three-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For this analysis, based on the geographic locations of the interviewed organizations, IDC has used assumptions of an average fully loaded salary of \$100,000 per year for IT staff members and an average fully loaded salary of \$70,000 per year for non-IT staff members. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).
- The net present value of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.
- IDC applies a net margin assumption (15%) for revenue gains and certain user productivity benefits attributed to interviewed organizations' use of SAP BTP resulting in the net revenue and net productivity calculations applied to IDC's model.
- Because use of SAP BTP requires a deployment period, its full benefits are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

For this study, IDC applies the following definitions of areas of value:

- Higher total revenue: increased revenue related to study participants' use of SAP BTP
- Higher net revenue: value of higher total revenue after applying an assumed 15% margin; this is the value of higher revenue applied for IDC's return on investment model
- Higher productivity: reflects the relative increase in effectiveness and capabilities of employees through their use of SAP BTP
- Higher net productivity: value of higher productivity after applying an assumed 15% margin; this is the value of higher productivity applied for IDC's return on investment model

Appendix 4:

Quantified Benefits of Use of SAP BTP

Table 8 provides an overview of the financial benefits that study participants reported achieving with SAP BTP. On average, IDC calculates that they will realize benefits worth \$1.62 million per organization per year (\$195,100 per 100 SAP users) in the areas of value shown in **Table 8**.

TABLE 8
Annual Quantified Financial Benefits

Category of Value	Average Quantitative Benefit	Calculated Average Annual Value*
Infrastructure cost reductions	Five servers reduced or avoided, annual savings of \$436,300	\$394,600
Other solution/tool cost savings	Annual savings of \$190,200	\$172,000
IT infrastructure team efficiencies	36% more efficient, efficiencies of 1.1 FTEs, \$100,000 salary	\$97,200
DBA team efficiencies	17% more efficient, efficiencies of 0.2 FTEs, \$100,000 salary	\$17,800
Development team productivity gains	19% more productive, gaining 2.2 FTEs in productivity, \$100,000 salary	\$202,900
Business process team efficiencies	Saving time worth 9.2 FTEs, saving 21 hours per user per year, \$70,000 salary	\$581,100
Higher LOB team productivity	6% higher productivity, gaining 1.8 FTEs in productivity, \$70,000 salary	\$112,400
Operational cost savings	Saving \$15,700 per year	\$14,200
Higher net revenue	\$231,100 higher revenue, 15% margin assumption applied	\$31,300
Total average annual benefits per organization	\$1.62 million	

n = 9; Source: IDC in-depth interviews, June 2022

*IDC's analysis includes an average deployment time for SAP BTP of 3.4 months. During this time, interviewed organizations were assumed not to be realizing benefits with SAP BTP, which is why the "average quantitative benefit" differs from the "calculated average annual value"

Note: All numbers in this document may not be exact due to rounding.

Appendix 5: Supplemental Data

The tables in this appendix provide an accessible version of the data for the complex figures included in this White Paper. By clicking “Return to original figure” below each table, you can quickly get back to the corresponding data figure.

DATA FROM FIGURE 4

Impact on Development Team Productivity

	Development team productivity, before/without SAP BTP	Higher productivity through use of SAP BTP	Development team productivity, with SAP BTP
Base productivity	11.6	2.2	13.8
Enhanced productivity	19% higher productivity		

[Return to original figure](#)

n = 9; Source: IDC in-depth interviews, June 2022

About the IDC Analysts



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Philip Carter is group vice president, European chief analyst, and WW C-suite tech research lead. His global responsibilities focus on creating research that assesses tech spending and buyer preferences across the C-suite, with a focus on business leadership as it relates to technology objectives, priorities, programs, and investments. This research covers the emerging trends around the C-suite technology objectives as they relate to use cases and line-of-business KPIs. It also focused on the shift toward modular apps, platform-based portfolios, rapid development methodologies, and more open architectures.

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Andrea Siviero leads IDC's European Vertical Markets and Digital Business Research group. The group focuses on analyzing cross-industry digital trends and on how European organizations' business value is created based on the use of digital technologies. Siviero advises IT players on building a forward-looking vertical and digital strategy, while providing an in-depth view on cross-industry technology adoption, key digital use cases, macroeconomic digital impact, and digital regulations and emerging technology, via qualitative subscriptions and custom consulting projects. He has extensive experience with large strategy and go-to-market projects with IT providers. He is a member of IDC's global Tech Storytellers taskforce and he is passionate about public speaking and customer engagement opportunities.

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Giulia Carosella leads IDC's European Digital Transformation (DX) Practice. In her role she advises ICT players and European end-users' C-suite leads on European DX strategies and roadmaps, looking at C-suite dynamics and priorities, business models and ecosystems, use cases, key metrics, and changing organizational structures. In her role, she also focuses on evolving technology architecture and the shift towards open, flexible, and data-driven platform architectures.

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